12/23/2012 8:00	3.395522	296.5524	13.43652	-20.1296	227.6101	-197.7703	34.2297	83.62032	0	968.8678
12/23/2012 9:00	3.277813	294.082	13.50029	-20.15289	227.7564	-198.7471	33.2529	82.43443	0.254	968.629
12/23/2012 10:00	3.520575	296.6474	13.9231	-20.96021	228.1732	-197.7245	34.2755	81.14931	0	968.8563
12/23/2012 11:00	3.629518	295.3478	14.17528	-21.00056	228.2092	-197.8542	34.1458	79.13619	0	968.9562
12/23/2012 12:00	3.700601	300.1896	12.91516	-20.37953	228.4352	-199.3271	32.6729	78.94235	0	968.4455
12/23/2012 13:00	3.260046	302.3445	14.12018	-19.71988	228.1788	-198.6784	33.3216	79.07514	0	967.9422
12/23/2012 14:00	2.889496	294.486	18.12322	-18.98152	228.8848	-198.4418	33.5582	79.24609	0	967.9019
12/23/2012 15:00	3.270833	292.3693	16.32162	-19.20419	228.6619	-198.2511	33.7489	80.26867	0	968.1058
12/23/2012 16:00	3.501523	293.7892	15.71232	-19.84908	228.2589	-198.1671	33.8329	81.3279	0	968.6179
12/23/2012 17:00	2.748845	292.7104	16.94839	-20.19188	228.2741	-198.1976	33.8024	81.8056	0	968.8868
12/23/2012 18:00	3.18832	295.2867	14.08527	-20.35746	228.1247	-196.6561	35.3439	83.19756	0	968.9073
12/23/2012 19:00	3.160351	295.9837	15.48263	-20.44692	227.2362	-197.3048	34.6952	82.75188	0.254	968.9612
12/23/2012 20:00	2.945786	297.0549	13.83286	-20.58952	226.9607	-196.5417	35.4583	83.21435	0	968.8031
12/23/2012 21:00	3.832838	301.1203	12.62899	-20.72276	226.6066	-196.6866	35.3134	83.4158	0	968.1513
12/23/2012 22:00	3.204811	298.5	12.83499	-20.78976	226.2766	-196.328	35.672	83.38986	0	967.7986
12/23/2012 23:00	3.193544	297.4582	13.01114	-20.68596	226.2159	-196.1143	35.8857	83.67832	0	967.6054
12/24/2012 0:00	3.531719	298.5547	12.32109	-20.86949	226.0088	-195.9769	36.0231	83.30133	0	967.389
12/24/2012 1:00	3.327244	298.0013	13.22403	-21.13404	225.8895	-196.0303	35.9697	83.48144	0	967.3162
12/24/2012 2:00	3.0268	293.7525	13.93319	-21.21841	225.8706	-196.2135	35.7865	83.17923	0	967.3159
12/24/2012 3:00	2.941346	293.9184	15.21843	-21.44752	225.7974	-195.5572	36.4428	82.58705	0	967.4453
12/24/2012 4:00	2.272294	285.3023	18.48156	-21.7579	225.573	-195.8091	36.1909	82.40694	0	967.6196
12/24/2012 5:00	2.559912	291.2116	16.69401	-21.78832	225.495	-195.1222	36.8778	81.98266	0	967.2891
12/24/2012 6:00	3.036714	293.2865	15.07206	-21.53899	225.6024	-195.2215	36.7785	81.75524	0	967.1757
12/24/2012 7:00	2.988407	293.8761	13.82569	-22.11635	225.6	-195.7327	36.2673	80.66702	0	967.4998
12/24/2012 8:00	3.093677	297.5842	13.83755	-23.40048	225.3368	-195.2596	36.7404	80.02294	0	967.7333
12/24/2012 9:00	3.092663	299.1512	12.11587	-24.4641	225.2418	-195.1451	36.8549	78.81873	0	967.9357
12/24/2012 10:00	3.044677	294.0161	13.54673	-24.90211	225.2525	-195.7785	36.2215	78.23876	0	968.2405
12/24/2012 11:00	2.473693	293.7051	16.5575	-24.41403	225.5528	-197.5261	34.4739	76.85902	0	968.58
12/24/2012 12:00	2.663893	289.732	20.49222	-23.09926	227.3553	-197.2132	34.7868	76.77355	0	968.444
12/24/2012 13:00	2.92899	292.5168	17.76284	-21.79658	225.7219	-195.8548	36.1452	76.49578	0	968.3418
12/24/2012 14:00	2.854166	293.837	18.05186	-20.08683	226.1865	-196.183	35.817	77.98997	0	968.3801
12/24/2012 15:00	3.157646	295.8415	15.49033	-19.47781	225.9123	-195.9006	36.0994	79.73753	0	968.6791
12/24/2012 16:00	2.673619	292.2708	17.55154	-19.39541	226.0287	-196.1754	35.8246	81.45	0	969.0469
12/24/2012 17:00	2.943438	293.859	16.67872	-19.66953	225.9055	-196.0303	35.9697	81.92466	0	969.3429
12/24/2012 18:00	3.009134	295.1572	14.87502	-19.95826	225.8161	-195.9006	36.0994	82.25585	0	969.7934
12/24/2012 19:00	1.88921	287.0253	17.7562	-20.3946	225.6876	-195.5343	36.4657	81.39352	0	970.1269
12/24/2012 20:00	2.978062	291.0291	16.27698	-21.2341	225.6028	-195.8396	36.1604	82.04218	0	970.4524
12/24/2012 21:00	3.319182	296.4894	13.0343	-21.93364	225.5503	-195.5649	36.4351	80.77081	0	970.933
12/24/2012 22:00	3.487018	294.4113	12.91004	-22.7104	225.5005	-195.7404	36.2596	79.92527	0	971.4716
12/24/2012 23:00	3.101652	291.6454	14.11005	-23.14046	225.3243	-195.3893	36.6107	79.71922	0	971.9191
12/25/2012 0:00	2.553535	286.2086	16.78281	-23.74356	225.2831	-195.7633	36.2367	79.30561	0	972.2407
12/25/2012 1:00	2.287953	284.4884	18.32212	-24.4912	225.1103	-194.8017	37.1983	79.31782	0	972.4354
12/25/2012 2:00	2.098116	281.9697	17.79342	-24.9428	225.1029	-195.168	36.832	78.67374	0	972.9295
12/25/2012 3:00	1.987537	282.7978	16.45756	-25.29184	225.175	-194.4659	37.5341	79.01714	0	973.7012
12/25/2012 4:00	1.742463	274.4474	18.62671	-25.47855	225.0914	-195.4733	36.5267	79.13009	0	974.0704
12/25/2012 5:00	1.535547	269.8621	21.54437	-25.46666	225.1592	-194.5881	37.4119	79.36819	0	974.1887
12/25/2012 6:00	1.721822	262.8751	22.15728	-25.44038	225.1119	-195.0459	36.9541	79.03241	0	974.1945
12/25/2012 7:00	2.004838	260.0911	20.88431	-25.18085	225.0461	-195.3512	36.6488	79.20487	0.254	974.6301
12/25/2012 8:00	1.790162	260.9562	20.68975	-25.01631	225.0643	-194.7788	37.2212	79.14382	0	974.9671
12/25/2012 9:00	1.806745	260.2436	21.06412	-24.8064	225.1798	-194.9009	37.0991	79.13467	0	975.365
12/25/2012 10:00	2.225003	262.6222	21.90485	-24.18491	225.4476	-195.5343	36.4657	78.54552	0	975.7366
12/25/2012 11:00	2.001135	260.8374	22.41443	-22.89473	225.9162	-189.4599	42.5401	75.52813	0	976.0821
12/25/2012 12:00	1.709696	268.3911	27.95535	-21.22736	226.1302	-197.0987	34.9013	74.59102	0	975.7945
12/25/2012 13:00	1.641492	258.4918	29.76516	-20.21272	226.4983	-195.7556	36.2444	73.95762	0	975.509
12/25/2012 14:00	1.777434	245.1595	31.17639	-19.77987	226.3387	-196.0838	35.9162	73.71494	0	975.5585
12/25/2012 15:00	1.698754	252.7976	29.57914	-19.91634	225.7674	-195.8167	36.1833	75.5434	0	975.5942
12/25/2012 16:00	1.46174	250.0884	25.02888	-20.3994	225.961	-195.5954	36.4046	76.92618	0	975.8579
12/25/2012 17:00	0.9149454	245.203	20.70068	-21.18775	225.6204	-195.3207	36.6793	78.58369	0	976.1688
12/25/2012 18:00	0.4757215	230.825	17.64706	-21.97679	225.5019	-194.9238	37.0762	80.51134	0	976.3807
12/25/2012 19:00	0.5445391	221.1828	18.09637	-22.50715	225.2968	-194.9849	37.0151	80.44877	0	976.5375
12/25/2012 20:00	0.7200187	199.9516	15.1325	-22.82396	225.4447	-195.9998	36.0002	81.50494	0	976.9991
12/25/2012 21:00	0.8535185	213.0714	23.54289	-23.04465	225.3298	-195.4122	36.5878	81.38894	0	977.3102
12/25/2012 22:00	0.893486	201.5677	19.20416	-23.05491	225.5065	-194.9849	37.0151	80.70518	0	977.3203
12/25/2012 23:00	0.8458094	208.495	17.66722	-23.39103	225.4072	-195.5267	36.4733	81.28058	0	977.0576
12/26/2012 0:00	0.8883607	195.8144	14.94878	-23.61444	225.328	-194.8094	37.1906	80.20152	0	977.3211
12/26/2012 1:00	0.9787783	207.6393	18.30023	-23.75912	225.3331	-195.2596	36.7404	81.0028	0	977.4164
12/26/2012 2:00	0.5220926	206.3267	17.75273	-22.93796	225.442	-196.1601	35.8399	80.34041	0	977.2049
12/26/2012 3:00	0.3692375	204.1475	18.01213	-22.19739	225.742	-195.687	36.313	81.37215	0	976.7475
12/26/2012 4:00	0.3524544	191.498	21.44753	-21.53424	225.7413	-196.2746	35.7254	82.46037	0.254	976.1453
12/26/2012 5:00	0.2768248	172.1813	30.72481	-21.19502	225.8844	-195.8777	36.1223	80.99822	0	975.8763
12/26/2012 6:00	0.2167757	167.942	18.91959	-21.24472	225.8614	-196.0914	35.9086	81.21342	0	975.8214
12/26/2012 7:00	0.4174579	178.0605	19.02026	-21.31253	225.7643	-195.9693	36.0307	81.43777	0	976.4946
12/26/2012 8:00	0.4390484	155.0903	15.71919	-21.01275	225.9859	-196.328	35.672	81.5202	0	976.8203
12/26/2012 9:00	0.5248443	172.2743	21.28487	-20.74146	226.2212	-196.6638	35.3362	81.06232	0	977.0308

12/26/2012 10:00	0.6677326	172.8661	24.7312	-20.33573	226.6418	-196.6103	35.3897	79.83827	0	977.0252
12/26/2012 11:00	0.8707331	172.6094	28.41211	-19.43685	226.881	-196.8545	35.1455	79.56049	0	976.7717
12/26/2012 12:00	1.204752	162.3622	22.76468	-18.71247	227.0672	-196.9385	35.0615	78.70274	0	976.1753
12/26/2012 13:00	0.9324618	186.3968	38.38858	-17.88508	227.4572	-197.9763	34.0237	77.35811	0.254	975.7399
12/26/2012 14:00	0.8141289	234.9148	36.00214	-17.53039	228.2223	-198.5334	33.4666	75.39993	0	975.4862
12/26/2012 15:00	0.527351	194.9363	48.20857	-17.36101	229.0615	-197.6406	34.3594	77.27416	0	975.3661
12/26/2012 16:00	0.2708162	208.5915	27.81671	-18.21957	228.9914	-199.556	32.444	79.19418	0	975.4744
12/26/2012 17:00	0.1689005	183.3773	13.06052	-19.94132	229.0751	-198.2816	33.7184	81.72777	0	975.824
12/26/2012 18:00	0.6033742	162.3801	26.52945	-22.04903	229.2551	-199.5255	32.4745	84.53302	0.254	975.8973
12/26/2012 19:00	0.614942	199.9185	13.86419	-21.81605	229.2129	-199.411	32.589	81.18137	0	975.9362
12/26/2012 20:00	0.3776684	192.5086	22.72746	-23.12789	229.7447	-200.5023	31.4977	77.54279	0	975.8993
12/26/2012 21:00	0.191598	241.6011	8.378498	-24.36246	229.8148	-199.9681	32.0319	78.37001	0	976.093
12/26/2012 22:00	0.4385117	268.0458	21.00633	-24.98707	229.5714	-200.2657	31.7343	77.60537	0	976.0478
12/26/2012 23:00	0.1681495	316.4771	10.07768	-25.73057	229.3118	-198.7623	33.2377	77.4161	0	976.0375
12/27/2012 0:00	0.6036962	147.5929	8.064366	-26.84336	229.5542	-199.8994	32.1006	78.60506	0	976.0969
12/27/2012 1:00	0.4341581	149.4978	12.72471	-27.52903	229.5221	-200.3573	31.6427	75.17403	0	976.0758
12/27/2012 2:00	0.2043745	319.8935	3.196645	-28.37164	229.178	-197.8008	34.1992	74.3926	0	976.2662
12/27/2012 3:00	0.03454398	325.0354	0	-28.92601	228.7258	-198.6784	33.3216	75.54644	0	976.5557
12/27/2012 4:00	0.1681304	331.4433	30.09096	-29.22183	228.9366	-199.2202	32.7798	77.53516	0	976.6515
12/27/2012 5:00	0.7620599	144.7642	5.539895	-28.13266	229.4144	-199.4415	32.5585	80.95549	0	976.7654
12/27/2012 6:00	0.7821216	142.5754	7.547411	-26.62905	229.7149	-199.2355	32.7645	81.59193	0	976.8653
12/27/2012 7:00	0.180597	137.5781	6.716371	-25.2847	229.9955	-200.4336	31.5664	81.71404	0	976.7556
12/27/2012 8:00	0.6545939	145.2876	8.638414	-24.45235	230.2037	-200.6626	31.3374	81.92313	0	976.494
12/27/2012 9:00	0.7317423	144.2503	9.610513	-23.62176	230.4705	-200.6015	31.3985	82.88467	0	976.4758
12/27/2012 10:00	0.7518585	140.9149	13.17734	-22.61835	230.8214	-201.273	30.727	82.6832	0	977.0261
12/27/2012 11:00	0.8008659	134.4258	15.84746	-21.81363	231.1567	-194.8704	37.1296	82.59163	0	977.2109
12/27/2012 12:00	0.7033365	117.6877	20.51546	-20.66045	231.3655	-199.6247	32.3753	83.06935	0	976.5225
12/27/2012 13:00	0.6374043	121.4159	30.17216	-19.5796	230.4257	-200.9678	31.0322	83.49364	0	975.6626
12/27/2012 14:00	0.6085668	148.65	31.29198	-18.21723	230.647	-199.9757	32.0243	81.38894	0.254	975.0047
12/27/2012 15:00	0.45139	148.7046	20.20205	-17.64244	230.1841	-201.792	30.208	79.08277	0	974.7836
12/27/2012 16:00	0.3418652	150.0823	16.06176	-17.02858	231.6767	-201.8606	30.1394	82.18564	0	974.7642
12/27/2012 17:00	0.3604974	139.8443	14.06785	-17.36453	231.8642	-201.7614	30.2386	83.49059	0.254	974.8271
12/27/2012 18:00	0.1544352	142.1458	19.73852	-17.21591	231.6882	-201.4943	30.5057	82.97166	0	974.6133
12/27/2012 19:00	0.1353984	142.1888	26.0616	-17.10137	231.7162	-201.647	30.353	83.9042	0	974.4245
12/27/2012 20:00	0.3808868	124.2807	20.42789	-17.17476	231.6031	-201.5859	30.4141	84.22167	0	974.2522
12/27/2012 21:00	0.5447937	123.5225	14.70753	-17.11079	230.7532	-199.7849	32.2151	84.30866	0	973.7687
12/27/2012 22:00	0.2853274	140.2941	46.6369	-16.86739	229.7037	-199.9376	32.0624	83.94083	0	973.4711
12/27/2012 23:00	0.8291028	136.7786	20.27434	-16.80813	229.5692	-199.2279	32.7721	84.85812	0	973.0591
12/28/2012 0:00	0.7871226	152.3714	20.34523	-16.61357	229.4111	-199.7621	32.2379	84.7528	0	972.6132
12/28/2012 1:00	0.6471119	148.2757	18.06865	-16.25049	228.8881	-199.0294	32.9706	85.33584	0	972.3514
12/28/2012 2:00	0.4721566	148.5554	16.70213	-15.90142	228.5598	-198.2205	33.7795	85.41367	0	972.0024
12/28/2012 3:00	0.6376019	138.379	15.98059	-15.75426	228.3857	-198.5258	33.4742	85.49914	0	971.5551
12/28/2012 4:00	0.7470508	146.8194	13.8179	-15.64128	228.3758	-198.5182	33.4818	85.24273	0	971.2977
12/28/2012 5:00	0.3253067	138.4575	16.10584	-15.57442	228.4186	-198.4647	33.5353	84.20335	0	970.9938
12/28/2012 6:00	0.4449359	133.1022	9.999169	-16.69029	227.8804	-197.2819	34.7181	83.84926	0	970.6139
12/28/2012 7:00	0.6247227	133.1499	8.337055	-18.15221	226.8483	-196.3661	35.6339	84.98785	0	970.392
12/28/2012 8:00	0.6277493	133.8371	8.380966	-18.47841	226.5959	-196.5264	35.4736	83.71648	0	970.0547
12/28/2012 9:00	0.6229321	135.6789	10.00076	-18.25039	226.4802	-195.9769	36.0231	83.42649	0	969.6998
12/28/2012 10:00	0.3578423	143.1912	15.81116	-16.26067	226.5511	-196.4043	35.5957	82.49395	0	969.7808
12/28/2012 11:00	0.5443411	149.9651	19.39095	-14.65154	227.6292	-197.4727	34.5273	81.7705	0	969.3944
12/28/2012 12:00	0.7174634	147.923	21.14333	-13.1012	227.4524	-197.0911	34.9089	78.86147	0	968.6782
12/28/2012 13:00	0.885313	155.7936	26.21741	-11.37664	226.9952	-197.0682	34.9318	78.98663	0	967.8982
12/28/2012 14:00	0.8554708	152.5282	23.09336	-10.19456	227.2643	-197.61	34.39	77.89382	0	967.0561
12/28/2012 15:00	0.4752684	150.246	15.48584	-9.848791	228.3118	-200.2352	31.7648	80.02294	0	966.4691
12/28/2012 16:00	0.3363267	144.898	8.38273	-10.26358	229.8823	-199.7926	32.2074	85.63497	0	966.3376
12/28/2012 17:00	0.4425629	142.1513	10.91007	-11.76488	229.147	-198.1976	33.8024	88.13345	0	966.1715
12/28/2012 18:00	0.5549706	164.7299	7.455487	-12.51913	227.556	-196.7553	35.2447	88.66	0	966.1411
12/28/2012 19:00	0.9825876	158.3924	13.22113	-11.79389	228.3028	-200.0291	31.9709	89.10415	0	965.8359
12/28/2012 20:00	1.060141	155.1273	12.28538	-11.66154	229.398	-199.5713	32.4287	89.00341	0	965.517
12/28/2012 21:00	0.7919579	154.6385	15.67456	-11.61338	230.2096	-200.3649	31.6351	88.98052	0	965.172
12/28/2012 22:00	0.5505266	151.8835	12.48814	-11.58647	230.1269	-199.9376	32.0624	88.82942	0	964.8359
12/28/2012 23:00	0.6431688	150.4027	9.169519	-11.58849	229.8953	-199.7621	32.2379	88.83247	0	964.5957
12/29/2012 0:00	0.4328306	157.4268	9.012793	-11.30415	229.6869	-200.0978	31.9022	89.15604	0	964.2963
12/29/2012 1:00	0.3836165	147.7681	14.28493	-11.15475	231.53	-200.426	31.574	89.16214	0	963.9308
12/29/2012 2:00	0.4492745	144.9543	2.525328	-11.0533	229.2173	-197.7398	34.2602	88.7119	0	963.6139
12/29/2012 3:00	0.3658757	147.0909	4.016441	-11.06841	228.2451	-198.0374	33.9626	88.99273	0	963.4517
12/29/2012 4:00	0.242497	147.9375	4.794922	-11.01099	218.7067	-198.0374	33.9626	88.88131	0	963.2983
12/29/2012 5:00	0.1194972	165.0135	6.402263	-11.08502	226.0826	-196.0303	35.9697	89.30714	0	963.0676
12/29/2012 6:00	0.2811039	203.0941	16.87823	-11.11174	211.8058	-198.9226	33.0774	89.92986	0	962.9241
12/29/2012 7:00	0.5294098	251.9215	19.50703	-11.19075	136.5061	8.098276	32	89.7467	0	963.093
12/29/2012 8:00	0.7633482	262.7477	16.22836	-11.12345	21.90293	8.189854	31	89.1072	0	963.0525
12/29/2012 9:00	1.026087	284.6042	15.34663	-11.25108	39.43605	-201.273	30.727	88.51044	0	963.3156
12/29/2012 10:00	1.507183	295.191	14.59758	-11.18275	224.8196	-194.878	37.122	86.43931	0	963.8082
12/29/2012 11:00	1.892646	299.0984	16.91386	-11.00969	225.0859	-195.3359	36.6641	85.15726	0	963.9257

12/29/2012 12:00	2.052628	298.5532	16.12389	-10.73149	227.0842	-200.9602	31.0398	82.77173	0	963.6166
12/29/2012 13:00	2.104821	298.0629	17.72666	-10.64614	228.6263	-197.1827	34.8173	82.88619	0	963.4103
12/29/2012 14:00	2.736837	294.6366	16.68546	-11.0267	228.9662	-199.6018	32.3982	81.11726	0	963.4457
12/29/2012 15:00	2.148741	298.7988	14.34048	-11.67348	122.6504	8.037228	32	82.22075	0	963.6168
12/29/2012 16:00	1.546263	301.893	10.92122	-12.15281	102.2143	-200.7312	31.2688	84.66428	0	964.1254
12/29/2012 17:00	1.583066	292.0975	13.86971	-12.41895	226.8078	-198.77	33.23	83.90726	0	964.609
12/29/2012 18:00	1.420377	291.8846	12.92561	-12.69829	228.9955	-199.2279	32.7721	85.68076	0	964.8904
12/29/2012 19:00	1.119601	285.4958	18.32922	-12.76654	229.2931	-200.2733	31.7267	84.97868	0	965.1213
12/29/2012 20:00	1.561121	286.9603	17.21783	-13.16224	108.3487	8.281427	31	82.86025	0	965.1801
12/29/2012 21:00	1.804917	297.9515	13.34796	-13.56316	21.61806	8.434052	31	84.06446	0	965.3171
12/29/2012 22:00	0.9013405	297.5886	13.72252	-13.6731	178.5073	-200.6015	31.3985	84.90085	0	965.1949
12/29/2012 23:00	0.210795	274.1077	16.80189	-13.7681	229.1749	-198.8845	33.1155	85.52356	0	965.2505
12/30/2012 0:00	0.5719489	232.4692	28.94126	-14.03055	228.6988	-198.6784	33.3216	83.05866	0	965.115
12/30/2012 1:00	0.6599984	218.3773	30.72394	-14.48229	228.1523	-196.1754	35.8246	84.07668	0	965.1876
12/30/2012 2:00	0.6741903	229.4718	28.28683	-15.07574	228.0712	-197.9229	34.0771	85.17709	0	965.2833
12/30/2012 3:00	0.5814015	207.4182	25.45216	-15.8211	228.0836	-198.8234	33.1766	85.32668	0	965.5789
12/30/2012 4:00	0.4831268	181.4528	19.74138	-17.2853	227.5823	-197.7932	34.2068	85.51746	0	965.547
12/30/2012 5:00	0.63732	146.425	16.5545	-18.80914	228.6787	-199.7468	32.2532	86.06081	0	965.2493
12/30/2012 6:00	0.9268671	148.9516	11.9278	-18.29248	218.5516	-198.4037	33.5963	85.3343	0	964.7394
12/30/2012 7:00	0.9535999	154.6424	15.61963	-17.90732	228.6498	-198.3732	33.6268	84.97564	0	964.4348
12/30/2012 8:00	1.299008	150.1494	13.22734	-17.49146	209.7001	-202.2498	29.7502	85.57392	0	963.6959
12/30/2012 9:00	1.533104	154.3947	16.28987	-16.83444	197.0155	-198.5868	33.4132	84.91306	0	962.6558
12/30/2012 10:00	1.179932	155.0247	19.0976	-15.76935	222.1828	-193.6341	38.3659	84.48724	0	962.0062
12/30/2012 11:00	1.294304	162.8895	23.23343	-14.61016	223.1639	-192.4284	39.5716	82.3169	0	961.6696
12/30/2012 12:00	1.08514	194.0576	33.75827	-13.31166	222.7817	-192.9931	39.0069	80.84712	0	961.2073
12/30/2012 13:00	1.235147	216.8351	35.16122	-12.91155	224.0331	-194.4431	37.5569	80.77844	0	960.6311
12/30/2012 14:00	1.067023	231.1903	33.83836	-12.43582	224.6863	-194.8933	37.1067	80.85476	0	959.9559
12/30/2012 15:00	1.09344	233.1149	31.6018	-12.45683	221.9416	-196.0227	35.9773	82.53516	0	959.3605
12/30/2012 16:00	0.8158576	241.792	30.47652	-12.63549	222.7429	-191.6577	40.3423	85.4793	0	959.231
12/30/2012 17:00	1.159984	259.7242	23.70604	-12.93685	221.2399	-190.7495	41.2505	86.95977	0	959.2797
12/30/2012 18:00	0.94947	268.564	18.42737	-13.34267	220.7325	-190.7419	41.2581	86.64841	0.254	959.2615
12/30/2012 19:00	1.386416	275.9987	18.71992	-13.92451	220.3661	-190.5969	41.4031	86.46068	0	959.3669
12/30/2012 20:00	2.844643	293.3646	14.45861	-13.58414	220.5918	-191.0777	40.9223	85.97075	0	959.4533
12/30/2012 21:00	4.831913	301.0409	11.95054	-14.2153	220.9086	-190.4977	41.5023	84.52539	0	959.8486
12/30/2012 22:00	4.739175	306.3575	12.27456	-15.19376	220.1943	-190.2306	41.7694	82.94877	0	960.3484
12/30/2012 23:00	4.620835	313.0609	12.24824	-16.20228	220.0563	-190.1924	41.8076	81.82393	0	960.9602
12/31/2012 0:00	5.248162	302.852	11.64481	-17.37001	220.1161	-189.8262	42.1738	81.53546	0	961.6115
12/31/2012 1:00	5.438721	305.8914	12.50707	-18.78088	220.1204	-190.223	41.777	80.75249	0	962.4398
12/31/2012 2:00	4.489424	304.5738	11.15232	-20.07691	220.0849	-189.8109	42.1891	82.49395	0	963.4839
12/31/2012 3:00	4.133248	301.195	10.75213	-21.06693	220.0346	-189.788	42.212	79.74059	0	964.5565
12/31/2012 4:00	4.587306	301.1605	10.15946	-22.1689	220.0645	-190.3451	41.6549	79.67344	0	965.4906
12/31/2012 5:00	3.737188	300.4281	10.24605	-23.12252	220.019	-190.3298	41.6702	81.38589	0.254	966.2079
12/31/2012 6:00	3.318254	297.8886	10.18894	-23.96795	219.9095	-190.3527	41.6473	81.10506	0	966.9645
12/31/2012 7:00	3.359402	298.5529	10.7649	-24.60234	219.9595	-190.3145	41.6855	80.67465	0	967.8374
12/31/2012 8:00	3.033594	298.3031	9.690811	-25.1406	219.927	-190.139	41.861	80.47166	0	968.4911
12/31/2012 9:00	2.318258	299.3607	12.69837	-24.76431	220.0836	-190.2611	41.7389	79.91305	0	968.9164
12/31/2012 10:00	1.937473	294.5655	15.69761	-23.95129	220.1905	-190.5587	41.4413	79.09498	0	969.3648
12/31/2012 11:00	2.992548	302.8254	13.03449	-23.55432	220.656	-192.3597	39.6403	77.50616	0	969.5438
12/31/2012 12:00	2.471263	298.258	21.78006	-22.51121	220.6233	-191.0471	40.9529	76.03027	0	969.4368
12/31/2012 13:00	2.019092	283.6827	23.00384	-21.43489	221.1204	-190.9632	41.0368	76.38436	0	968.845
12/31/2012 14:00	2.581482	289.1889	19.0426	-20.5813	220.8239	-191.1693	40.8307	75.91274	0	968.4796
12/31/2012 15:00	2.387384	286.1157	19.3337	-20.05182	220.7697	-191.1387	40.8613	77.06812	0	968.5558
12/31/2012 16:00	1.645693	274.1612	21.99243	-20.24996	220.8605	-190.8793	41.1207	78.7409	0	968.7284
12/31/2012 17:00	1.637415	264.9902	20.00723	-20.98506	220.7555	-190.6274	41.3726	81.0608	0	969.2151
12/31/2012 18:00	1.617808	268.09	19.14792	-21.90234	220.6781	-190.3451	41.6549	81.51867	0	969.5047
12/31/2012 19:00	2.106593	271.9682	20.66817	-22.11721	220.6395	-191.07	40.93	81.65451	0	969.0494
12/31/2012 20:00	1.903308	281.2929	20.53011	-22.34565	220.7752	-190.9556	41.0444	81.25463	0	968.9396
12/31/2012 21:00	1.639058	280.0783	20.29948	-22.43772	220.8459	-190.6885	41.3115	81.34163	0	968.7917
12/31/2012 22:00	1.363767	267.571	24.29744	-21.90053	220.8939	-190.925	41.075	81.2119	0	968.121
12/31/2012 23:00	1.155187	248.6488	24.49095	-21.6858	220.8552	-190.864	41.136	81.19969	0	967.4666

APPENDIX B:

Springpole 2012 Meteorological Data Graphs

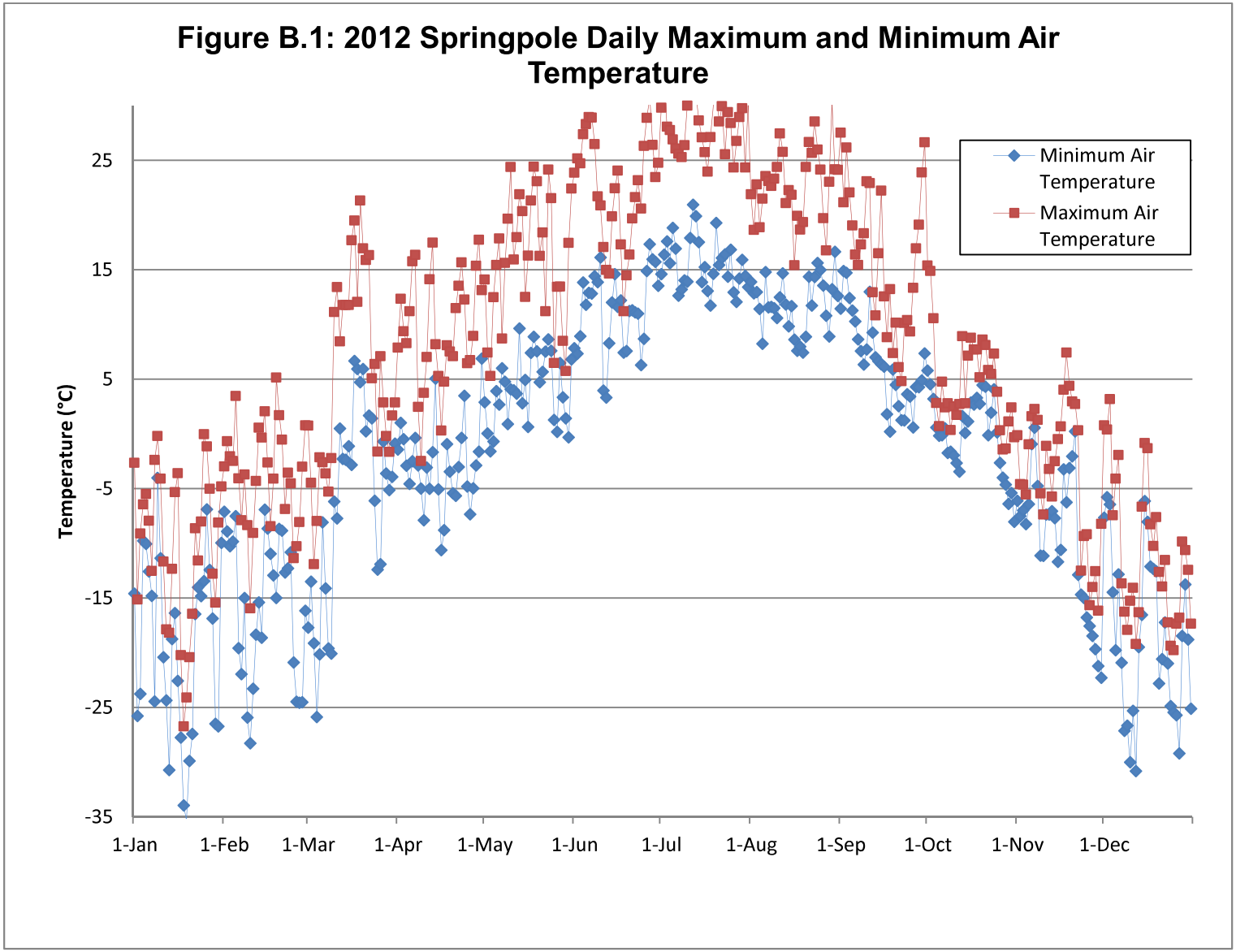


Figure B.1: 2012 Springpole Daily Maximum and Minimum Air Temperature
Temperature (°C)
25
15
5
-5
-15
-25
-35
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
1-Oct
1-Nov
1-Dec
Minimum Air Temperature
Maximum Air Temperature

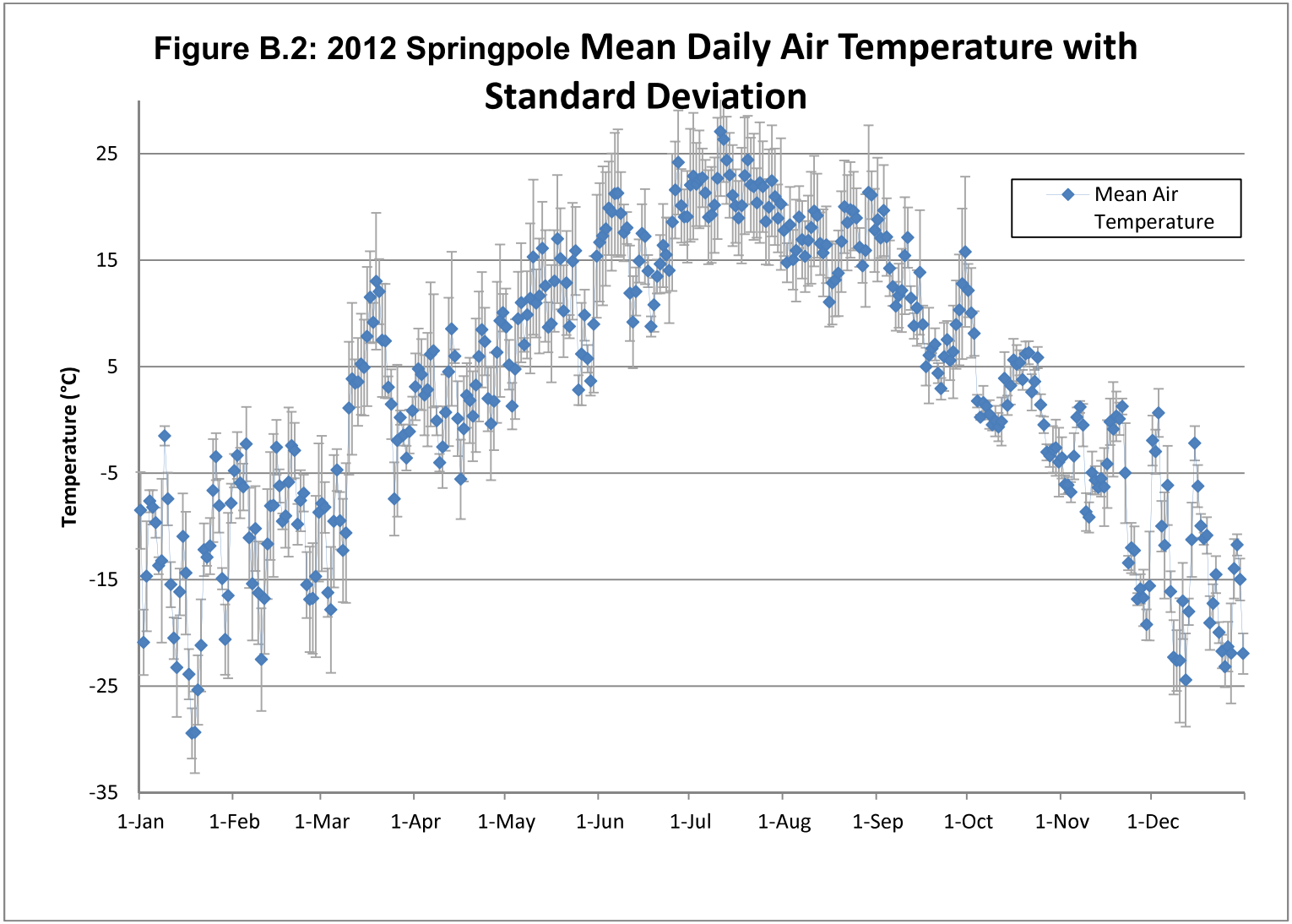


Figure B.2: 2012 Springpole Mean Daily Air Temperature with Standard Deviation
Temperature (°C)
25
15
5
-5
-15
-25
-35
1-Jan
1-Feb
1-Mar
1-Apr
1-May
1-Jun
1-Jul
1-Aug
1-Sep
1-Oct
1-Nov
1-Dec
Mean Air Temperature

Figure B.3: 2012 Springpole Daily Maximum and Minimum Relative Humidity

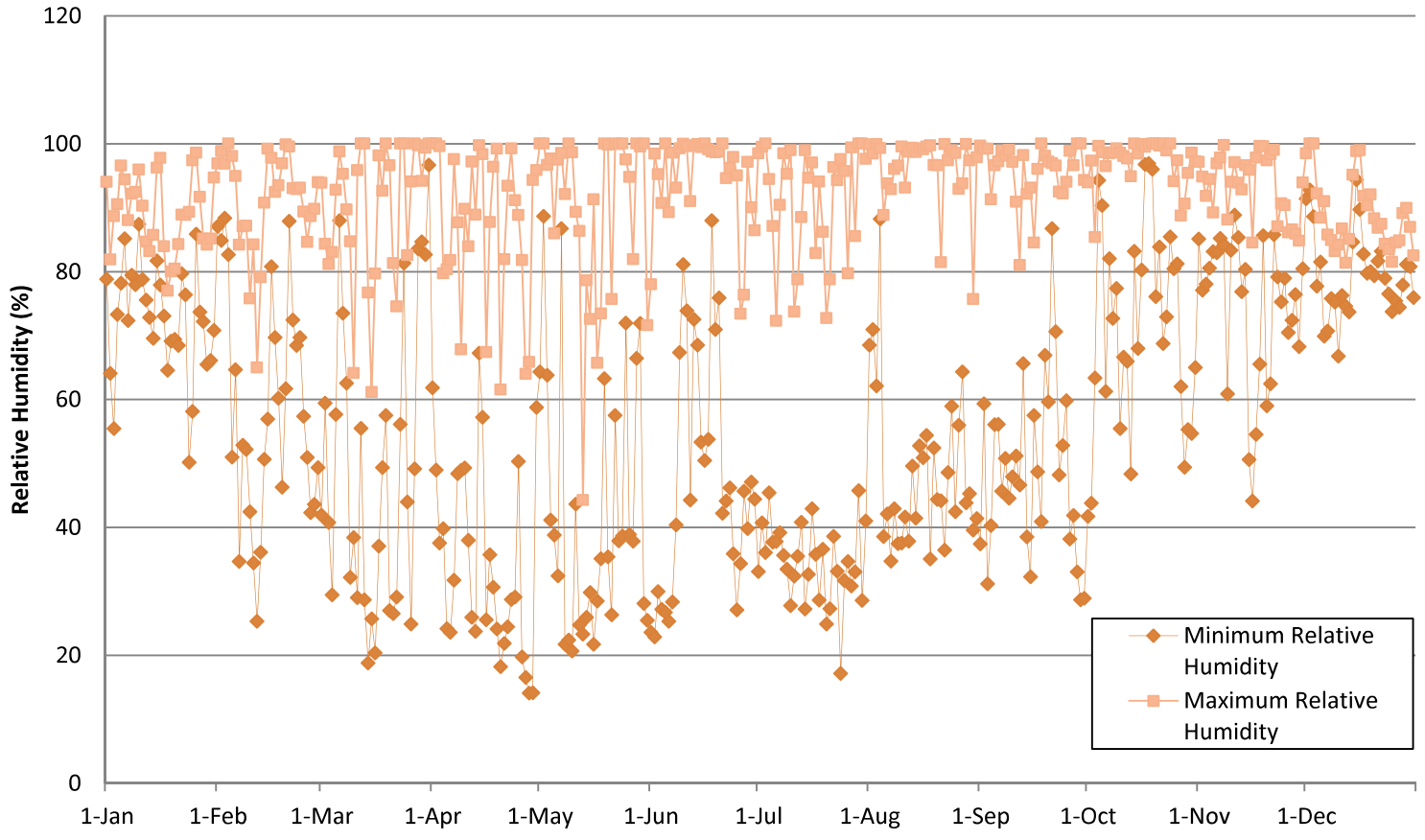


Figure B.4: 2012 Springpole Mean Daily Relative Humidity with Standard Deviation

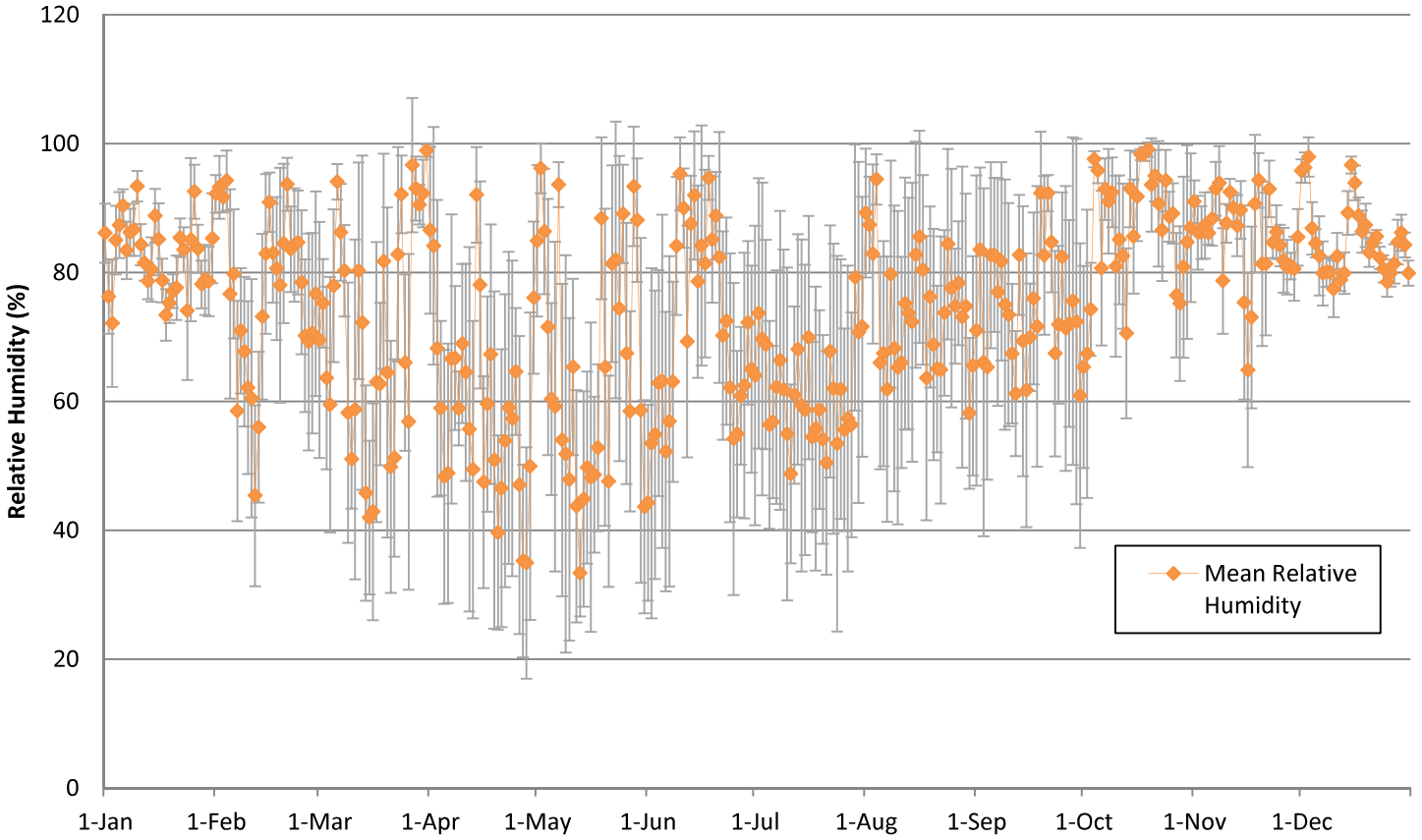


Figure B.5: 2012 Springpole Daily Maximum and Minimum Air Pressure

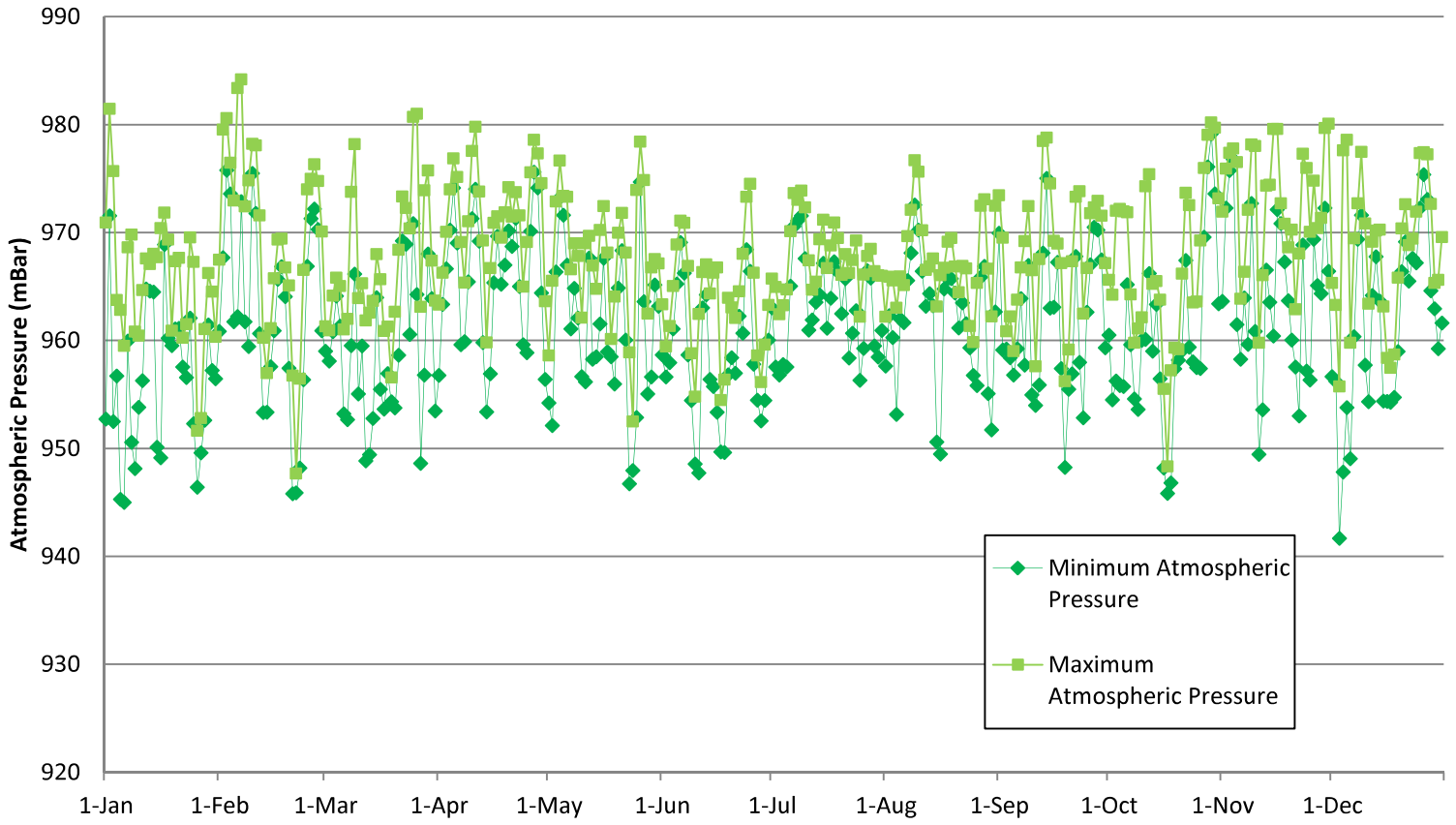


Figure B.6: 2012 Springpole Mean Daily Air Pressure with Standard Deviation

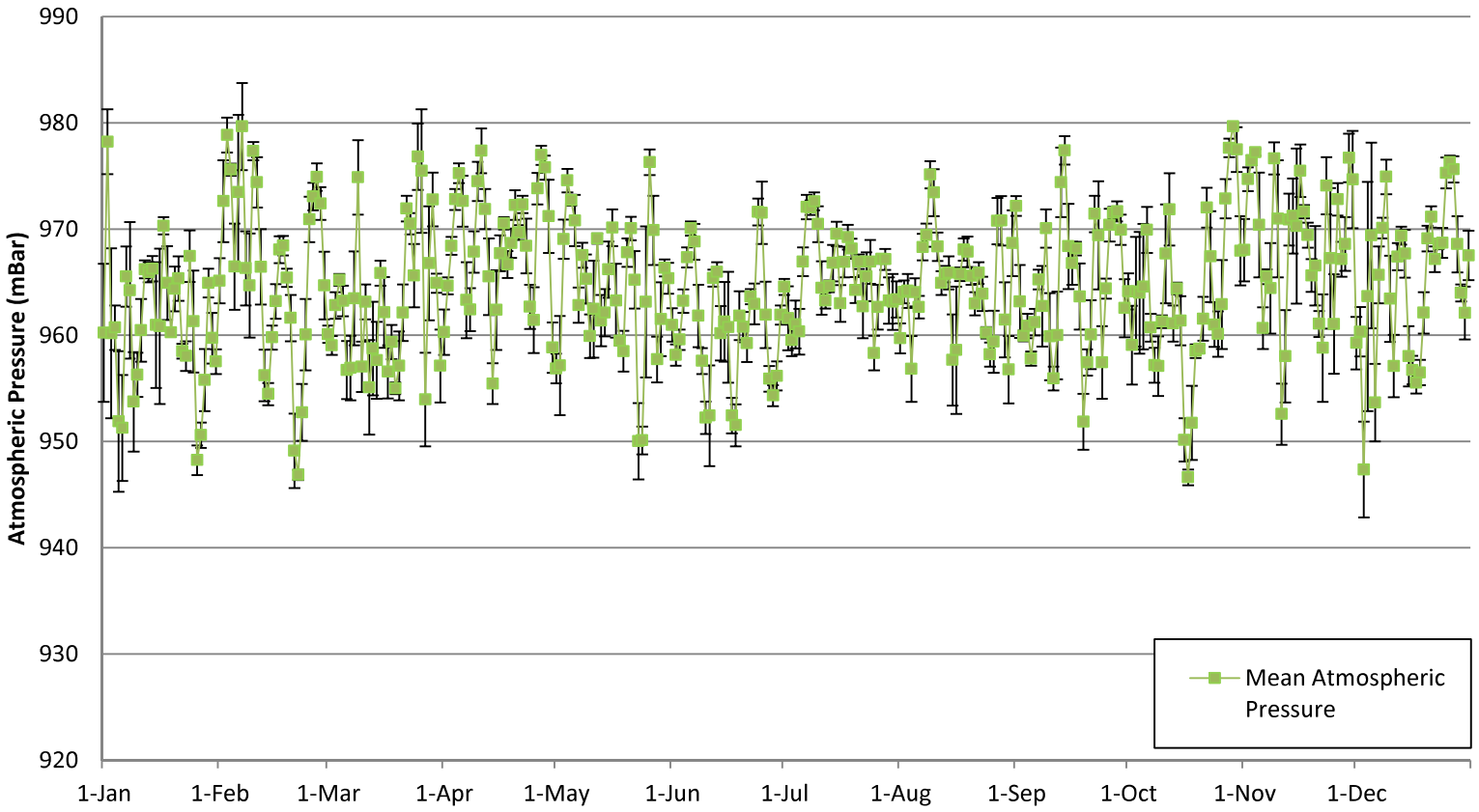


Figure B.7: 2012 Springpole Mean Daily Wind Speed

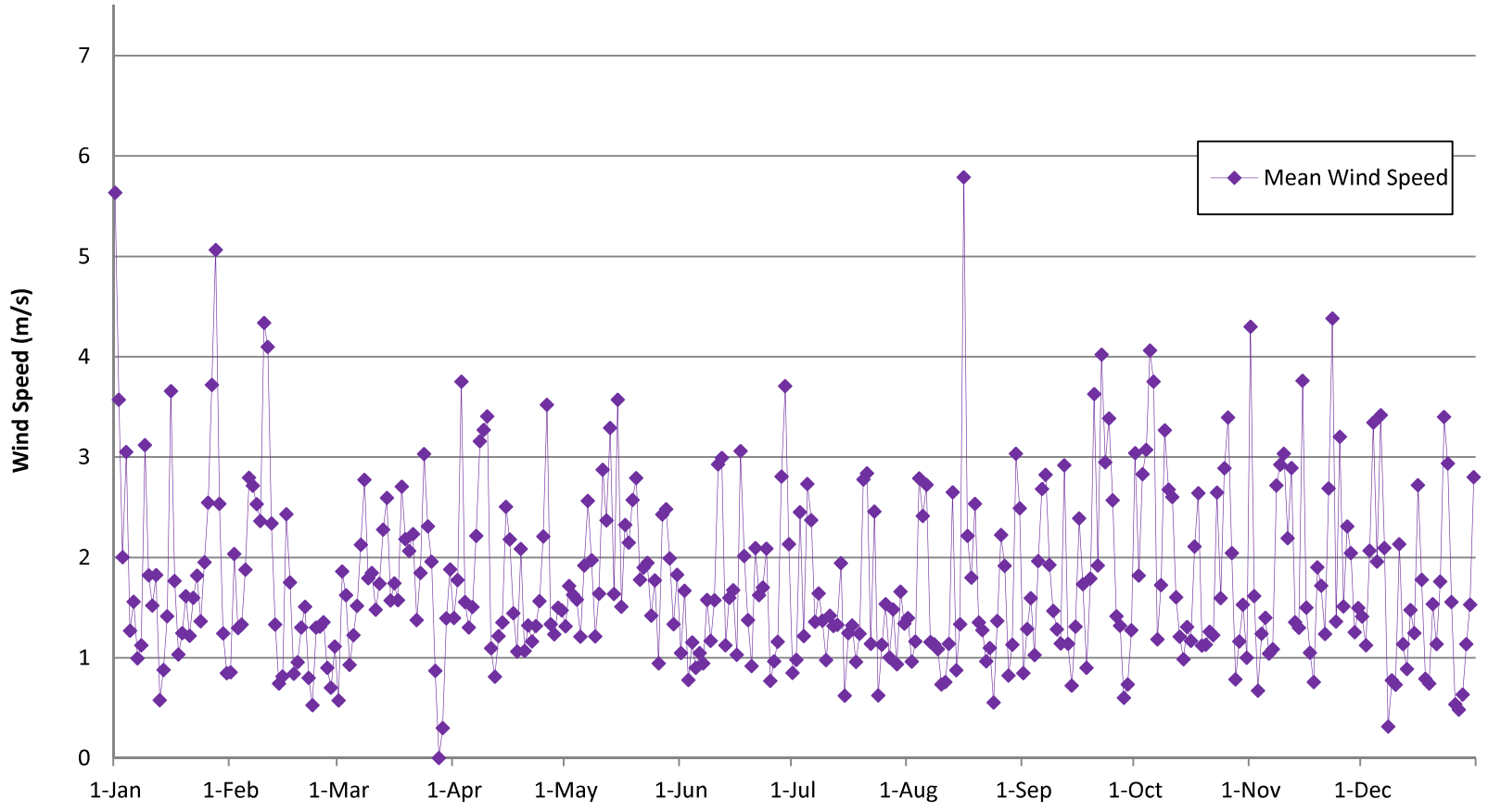


Figure B.8: 2012 Springpole Wind Class Frequency

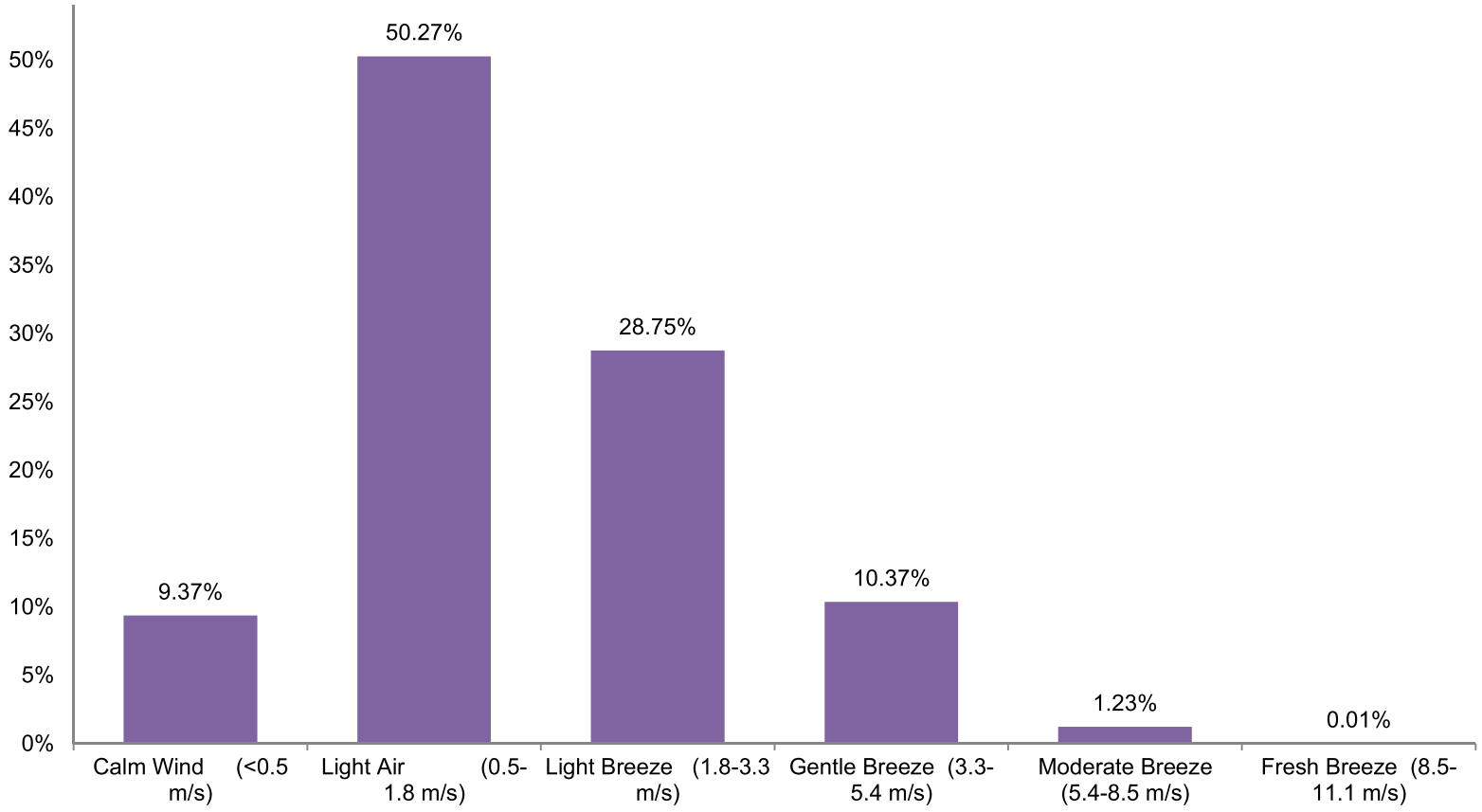


Figure B.9: 2012 Springpole Precipitation

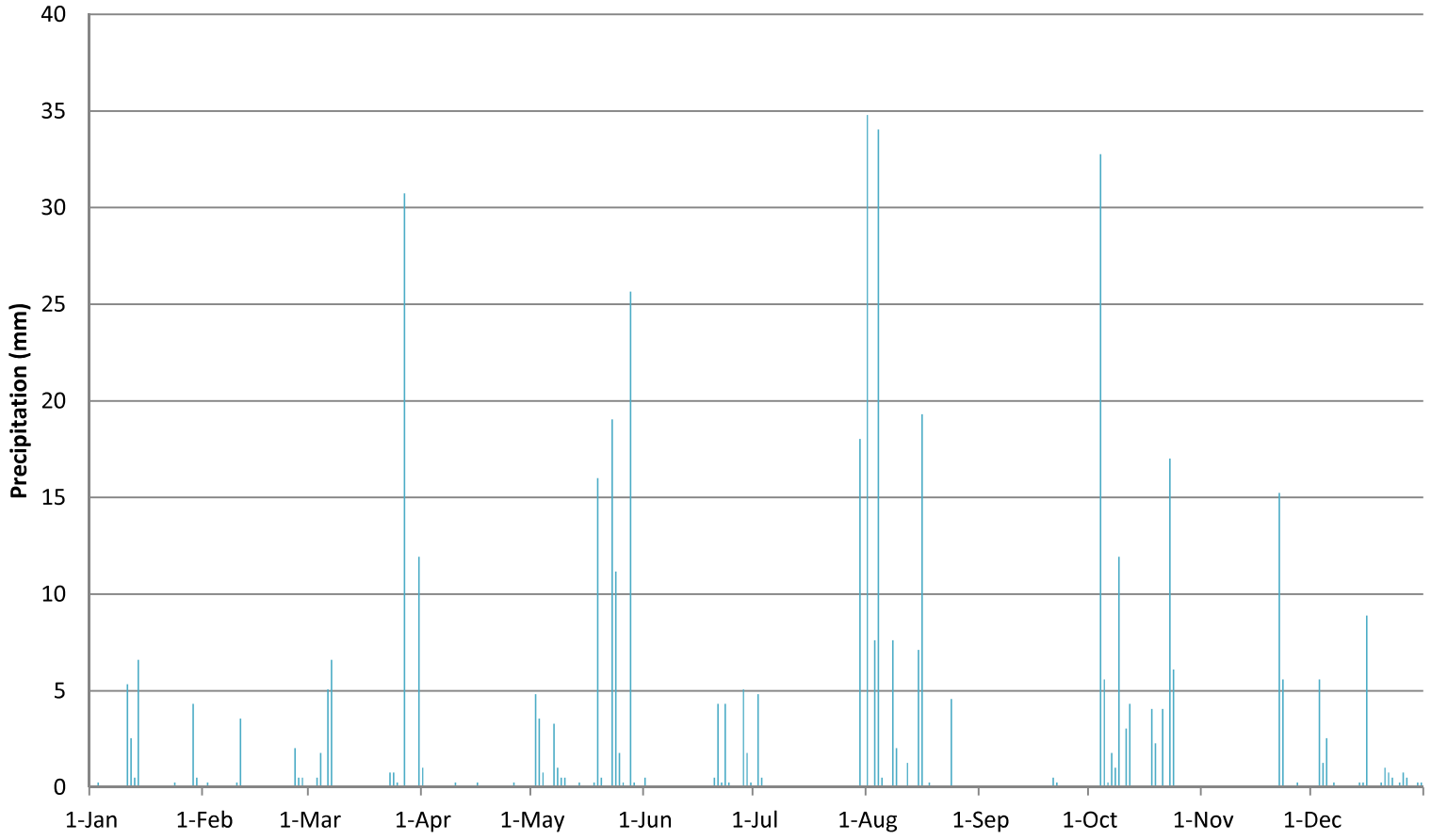
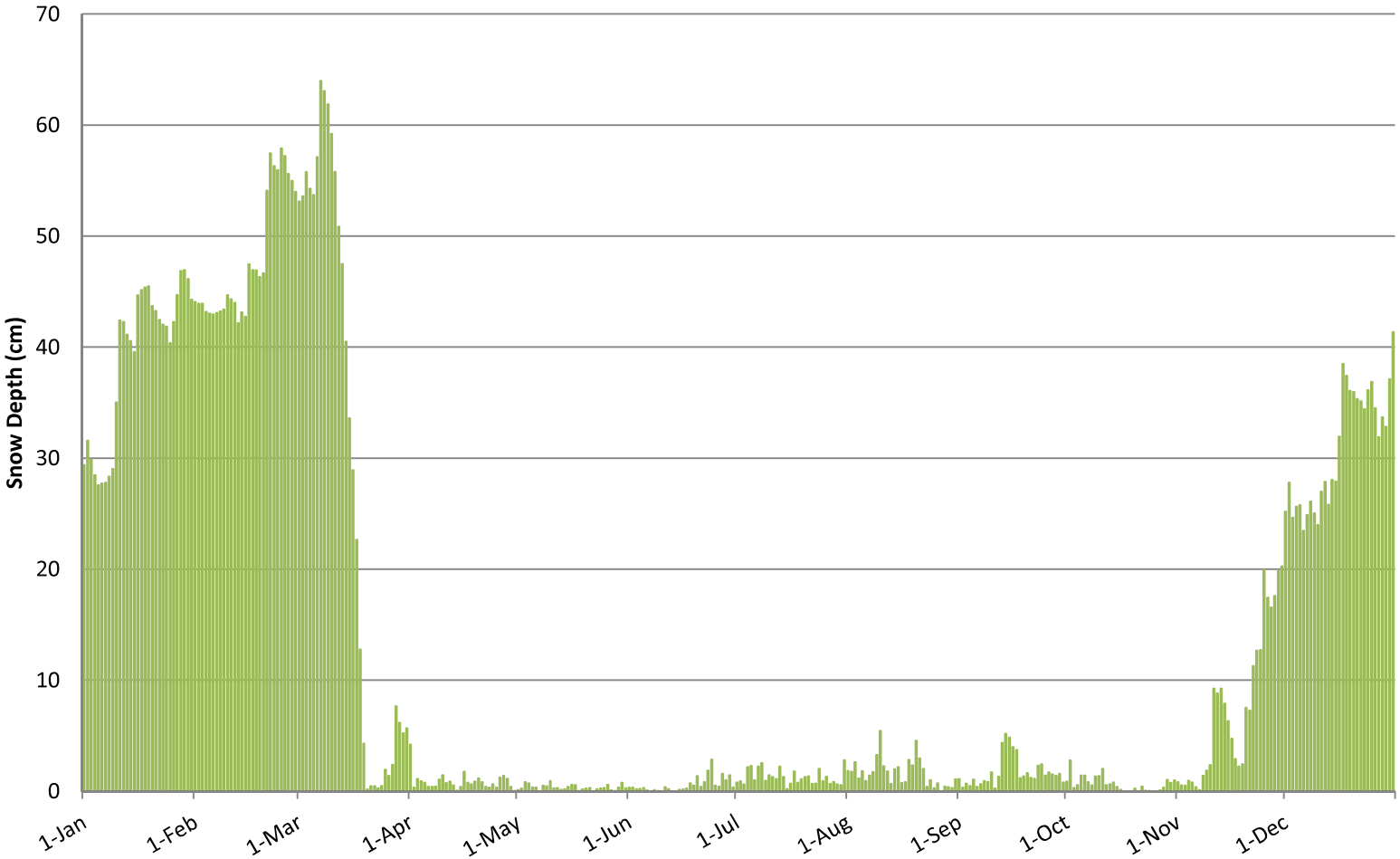


Figure B.10: 2012 Springpole Snow Depth



APPENDIX C:

Springpole 2013 Meteorological Data

TOA5		CR2xx	No_SN	CR200X.Std.01	DST3.CR2		42162 DST3				
TIMESTAMP	RECORD	Mark	WS_ms_S_WVT	WindDir_D1_WVT	WindDir_SD1_WVT	AirTC_Avg	Depth	RH	DistT_Avg	Rain_mm_Tot	SEVolt_Avg
TS	RN	mm	meters/sec	meters/sec	meters/sec	Deg C		%		mm	mBar
1/1/2013 0:00	11365	333	1.487986	252.5981	23.33599	-21.40993	-191.3829	81.48357	221.0097	0	967.2093
1/1/2013 1:00	11366	333	1.743572	258.6686	23.21147	-21.07183	-191.36	81.79645	221.0337	0	966.9748
1/1/2013 2:00	11367	333	1.821444	264.609	24.07603	-20.63819	-191.3982	81.80408	221.1582	0	966.4797
1/1/2013 3:00	11368	333	1.615188	270.6665	22.32661	-20.0232	-191.0548	81.98876	221.1542	0	966.2062
1/1/2013 4:00	11369	333	1.750791	257.4396	23.95395	-19.68577	-191.4897	81.6133	221.1669	0	965.7259
1/1/2013 5:00	11370	333	2.016294	253.6418	24.91508	-20.4686	-191.2074	82.77783	221.2466	0	965.1023
1/1/2013 6:00	11371	333	2.123849	258.876	27.26884	-21.23408	-191.0319	81.65604	221.2033	0	964.7924
1/1/2013 7:00	11372	333	1.278279	243.6629	27.43806	-22.66819	-191.0548	80.92038	221.0611	0	964.5443
1/1/2013 8:00	11373	333	0.6193518	252.0426	28.90733	-23.66989	-191.0471	80.18777	220.8913	0	963.9809
1/1/2013 9:00	11374	333	0.3995656	239.3755	29.98075	-23.92914	-190.8335	80.08857	220.8867	0	963.6031
1/1/2013 10:00	11375	333	0.5317923	231.0869	30.78276	-22.79308	-190.9021	79.92831	221.2907	0	963.4183
1/1/2013 11:00	11376	333	1.441969	260.1624	27.00619	-21.26565	-191.9629	79.21708	221.6124	0	963.2251
1/1/2013 12:00	11377	333	1.545583	260.8257	28.9352	-20.03154	-191.505	79.73449	221.7947	0	962.6312
1/1/2013 13:00	11378	333	1.31757	262.57	25.43724	-18.72318	-192.2987	79.89931	222.0107	0	962.2615
1/1/2013 14:00	11379	333	1.331116	258.4197	31.19004	-17.54832	-192.2758	78.47685	222.3529	0	961.9861
1/1/2013 15:00	11380	333	1.067669	278.4641	29.38123	-17.00416	-192.3216	80.02905	222.4918	0	962.151
1/1/2013 16:00	11381	333	0.6233884	241.3811	50.74554	-16.61511	-192.4742	81.41183	222.7565	0	962.5851
1/1/2013 17:00	11382	333	0.1697922	192.3894	23.62099	-16.49039	-193.2602	82.4329	222.7905	0	962.8352
1/1/2013 18:00	11383	333	0.2576173	186.9581	22.07829	-16.55231	-193.1228	83.06324	222.8385	0	962.9557
1/1/2013 19:00	11384	333	0.4900095	153.417	14.4631	-16.62735	-192.8787	83.25707	222.9638	0	962.7434
1/1/2013 20:00	11385	333	0.6708319	144.2205	17.43328	-16.62256	-192.5734	82.671	222.8135	0	962.8069
1/1/2013 21:00	11386	333	0.7133714	149.9733	15.90992	-16.58076	-192.3673	83.60201	222.2158	0	962.861
1/1/2013 22:00	11387	333	0.7240146	135.0924	19.29371	-16.60766	-192.4513	84.74059	222.2736	0	962.7908
1/1/2013 23:00	11388	333	0.8717936	138.9057	20.75779	-16.52705	-193.7334	84.36819	222.873	0	962.6641
1/2/2013 0:00	11389	333	1.05835	125.7572	16.25919	-16.84365	-195.1375	84.66275	224.7792	0	962.538
1/2/2013 1:00	11390	333	0.9102073	127.8656	16.27916	-17.42396	-191.94	84.85812	224.1063	0	962.7916
1/2/2013 2:00	11391	333	1.170976	108.1594	19.11331	-17.92717	-191.9171	84.61391	221.8027	0	962.7908
1/2/2013 3:00	11392	333	1.554548	109.9227	20.53464	-17.54183	-193.4586	84.12551	222.5632	0	962.9033
1/2/2013 4:00	11393	333	1.763398	117.3379	21.00478	-17.24032	-192.5734	83.70122	223.3597	0	963.0151
1/2/2013 5:00	11394	333	1.568901	120.9631	21.89615	-16.98879	-193.2144	83.75158	222.6572	0	963.0535
1/2/2013 6:00	11395	333	1.465126	116.7194	19.28443	-16.83922	-190.3222	84.27966	221.7581	0	963.2658
1/2/2013 7:00	11396	333	1.44627	110.1383	20.38517	-16.7403	-195.5954	83.66611	225.0748	0	963.3943
1/2/2013 8:00	11397	333	1.56475	108.8433	19.22379	-16.70374	-197.7703	83.51043	222.0496	0	963.6874
1/2/2013 9:00	11398	333	1.461627	106.7954	20.59141	-16.62693	-190.6503	82.76562	222.9203	0	964.1626
1/2/2013 10:00	11399	333	1.485127	91.85561	23.476	-16.5505	-189.9559	82.8923	220.8251	0	964.9119
1/2/2013 11:00	11400	333	1.240574	70.9133	25.84167	-16.48908	-190.8335	82.06966	192.244	0	965.7225
1/2/2013 12:00	11401	333	1.451019	113.3005	25.41704	-15.12898	-194.4431	75.13284	204.4779	0	965.3688
1/2/2013 13:00	11402	333	1.084211	127.4978	21.10056	-13.80422	-189.3759	75.16946	220.5324	0	965.146
1/2/2013 14:00	11403	333	0.799628	61.01266	34.55939	-13.96251	-189.8414	77.54279	219.6771	0	964.9988
1/2/2013 15:00	11404	333	0.9571305	126.9552	23.35119	-13.3053	-189.2691	74.46739	220.2458	0	964.5581
1/2/2013 16:00	11405	333	0.671751	328.3714	43.18002	-14.06493	-188.7272	81.0547	219.4864	0	965.624
1/2/2013 17:00	11406	333	0.317178	0.08677508	28.85501	-15.78397	-188.5136	84.2934	219.1233	0	966.2097
1/2/2013 18:00	11407	333	0.4166327	316.9046	18.37471	-17.41616	-189.0096	84.52997	218.8433	0	966.8422

1/2/2013 19:00	11408	333	0.7880056	311.252	8.206283	-18.02388	-188.7959	85.51135	218.7489	0	967.5422
1/2/2013 20:00	11409	333	0.6619504	295.7626	11.17485	-17.6804	-188.8188	83.86758	218.8406	0	967.6633
1/2/2013 21:00	11410	333	1.380851	309.301	11.01511	-18.49333	-190.284	85.96312	218.897	0	967.4703
1/2/2013 22:00	11411	333	1.605348	301.3648	11.0348	-17.77102	-189.2767	84.47198	218.884	0	967.4858
1/2/2013 23:00	11412	333	1.64091	300.782	8.991665	-19.33379	-188.7883	82.46648	219.2368	0	967.5819
1/3/2013 0:00	11413	333	2.141116	299.5082	9.892641	-20.49497	-189.1164	86.4332	219.2134	0	967.8264
1/3/2013 1:00	11414	333	2.16633	299.2421	10.40504	-20.675	-188.2083	84.37429	218.8917	0	967.6626
1/3/2013 2:00	11415	333	1.879922	300.8135	10.11716	-21.19469	-189.002	84.06905	218.9417	0	967.8294
1/3/2013 3:00	11416	333	2.112385	295.2777	12.67773	-21.35058	-188.3762	84.61849	218.9168	0	967.9893
1/3/2013 4:00	11417	333	1.523936	284.5197	16.55719	-20.62244	-188.8722	84.13009	218.8496	0	967.6392
1/3/2013 5:00	11418	333	1.634669	286.2254	19.75215	-20.00204	-189.2538	83.16397	219.1472	0	967.3743
1/3/2013 6:00	11419	333	1.220099	272.9341	23.65029	-19.26113	-189.4599	83.01745	219.3382	0	967.0189
1/3/2013 7:00	11420	333	1.078919	256.9079	32.35043	-18.70059	-189.5591	82.86178	219.3341	0	966.1711
1/3/2013 8:00	11421	333	0.8568512	226.1661	36.55392	-18.30506	-188.9714	83.22502	219.2627	0	965.0837
1/3/2013 9:00	11422	333	0.9217423	204.3855	27.67624	-17.76485	-189.7727	82.95488	219.4068	0	964.2076
1/3/2013 10:00	11423	333	1.093799	202.9686	32.41269	-16.78711	-189.8719	79.98021	219.6768	0	963.351
1/3/2013 11:00	11424	333	1.818895	205.1976	33.96264	-15.64014	-190.0398	78.83094	220.089	0	961.6063
1/3/2013 12:00	11425	333	2.294683	211.1147	33.82619	-14.59588	-190.223	80.0321	220.4053	0	959.5441
1/3/2013 13:00	11426	333	2.175132	202.1989	32.75928	-13.05722	-190.9632	80.98753	220.76	0	957.3172
1/3/2013 14:00	11427	333	2.323368	194.703	28.87898	-12.01485	-190.9021	80.5846	220.9519	0	955.04
1/3/2013 15:00	11428	333	2.41673	207.3633	35.36804	-10.94743	-190.6351	81.55073	221.012	0	953.5341
1/3/2013 16:00	11429	333	2.184226	224.5579	38.51574	-10.21437	-190.658	81.40878	220.4471	0	953.0251
1/3/2013 17:00	11430	333	2.464674	233.2893	35.40342	-9.782893	-190.574	83.58828	220.4257	0	952.66
1/3/2013 18:00	11431	333	2.56387	248.1193	31.42639	-9.357907	-190.5587	84.50097	220.4981	0	952.3417
1/3/2013 19:00	11432	333	2.476358	248.5621	26.92524	-8.802773	-190.5816	85.59834	220.4135	0	952.0204
1/3/2013 20:00	11433	333	2.770961	265.2883	24.17191	-7.830361	-190.7724	85.19847	220.5725	0	952.0659
1/3/2013 21:00	11434	333	3.11701	269.3566	25.26355	-7.062524	-190.5969	85.65939	220.6251	0	951.3795
1/3/2013 22:00	11435	333	3.54347	294.2429	15.82043	-6.721205	-191.0166	87.53668	220.7603	0	952.2852
1/3/2013 23:00	11436	333	3.532171	286.1555	18.68026	-6.115811	-191.1845	89.69023	220.9549	0	952.6434
1/4/2013 0:00	11437	333	4.157718	293.7399	15.29272	-5.820342	-191.3066	90.12674	221.0547	0	953.1486
1/4/2013 1:00	11438	333	4.111207	291.6722	16.03115	-5.828883	-190.9632	90.68382	221.0592	0	953.4104
1/4/2013 2:00	11439	333	3.352879	286.8229	19.04749	-5.739232	-190.8106	90.91734	221.0989	0	953.403
1/4/2013 3:00	11440	333	2.738556	278.2302	21.88319	-5.699806	-191.3371	91.48205	221.084	0	953.509
1/4/2013 4:00	11441	333	3.265628	280.2422	22.25499	-5.674183	-191.3906	92.96862	221.2222	0	953.8225
1/4/2013 5:00	11442	333	4.441515	289.5198	18.86864	-5.714866	-191.4974	92.66948	221.2994	0	953.9935
1/4/2013 6:00	11443	333	4.366893	292.8097	15.9546	-5.878791	-191.3677	91.78425	221.3092	0	954.4262
1/4/2013 7:00	11444	333	4.357238	291.6059	17.19689	-5.636117	-191.3753	89.1881	221.5903	0	954.8777
1/4/2013 8:00	11445	333	4.184197	289.4189	17.75081	-5.383833	-191.5737	87.67405	221.6385	0	955.2596
1/4/2013 9:00	11446	333	5.647547	294.5836	15.75117	-5.162683	-191.3066	81.45915	221.6652	0	955.8885
1/4/2013 10:00	11447	333	6.907643	300.3025	12.52933	-5.18047	-191.6729	75.82269	221.7677	0	956.9282
1/4/2013 11:00	11448	333	7.053863	302.1017	12.84069	-5.301627	-192.0545	68.38985	221.7334	0.254	958.188
1/4/2013 12:00	11449	333	8.34186	305.3045	12.62173	-6.201133	-189.5056	68.56384	221.8513	0	959.416
1/4/2013 13:00	11450	333	7.75362	309.764	13.74543	-8.113867	-191.299	66.015	222.0436	0	960.957
1/4/2013 14:00	11451	333	5.960693	312.3889	14.47235	-9.970126	-186.911	64.88252	221.177	0	962.7781
1/4/2013 15:00	11452	333	4.437868	315.5717	19.20122	-11.05446	-191.0166	66.95975	220.7317	0	964.6257
1/4/2013 16:00	11453	333	2.978264	322.9023	17.23803	-13.21744	-190.5358	69.42922	220.9986	0	966.2881

1/4/2013 17:00	11454	333	1.675162	328.0759	15.46175	-15.25749	-190.719	76.83461	220.658	0	967.4237
1/4/2013 18:00	11455	333	1.150085	326.8137	15.9313	-17.0369	-190.3832	81.26837	220.4255	0	968.461
1/4/2013 19:00	11456	333	1.495664	319.2714	9.618681	-18.70073	-190.1314	83.61117	220.3756	0	969.2873
1/4/2013 20:00	11457	333	0.5782665	346.5119	20.56897	-19.86976	-189.5896	88.12734	219.7825	0	969.879
1/4/2013 21:00	11458	333	0.2064494	317.0644	14.96939	-20.83957	-189.4064	82.40543	219.6836	0	970.192
1/4/2013 22:00	11459	333	0.01916816	68.69462	16.19135	-22.11183	-189.7422	88.25249	219.784	0	969.9131
1/4/2013 23:00	11460	333	0.1038204	148.9344	15.30336	-22.70195	-189.4675	81.27294	219.8283	0	969.8989
1/5/2013 0:00	11461	333	0.2494966	159.9253	0.495282	-23.10409	-190.6885	79.997	219.892	0	969.8218
1/5/2013 1:00	11462	333	0.234836	152.4448	6.045798	-23.52554	-189.4293	80.38619	219.8534	0	969.7332
1/5/2013 2:00	11463	333	0.205435	142.8274	7.58574	-24.13695	-189.8948	79.71464	219.578	0	969.6766
1/5/2013 3:00	11464	333	0.3760667	140.7422	6.07976	-24.2914	-189.2996	80.82423	219.7307	0	969.6104
1/5/2013 4:00	11465	333	0.5540338	136.7224	9.747719	-24.25969	-189.6964	80.30072	219.7401	0	969.344
1/5/2013 5:00	11466	333	0.05282053	336.7982	8.87431	-24.56026	-190.2382	79.23083	219.7623	0	969.1838
1/5/2013 6:00	11467	333	0.1276069	344.5666	4.487803	-24.60084	-189.7956	78.39291	219.7277	0	968.8696
1/5/2013 7:00	11468	333	0.05194743	345.8311	1.614518	-25.26668	-189.6277	77.55499	219.6584	0	968.5538
1/5/2013 8:00	11469	333	0.4269597	338.1125	55.63664	-26.47542	-189.788	78.47227	219.6189	0	968.3981
1/5/2013 9:00	11470	333	0.2397274	148.6358	0.6050454	-26.39029	-189.3072	77.41	219.5056	0	968.2937
1/5/2013 10:00	11471	333	0.02519458	5.122016	10.76833	-25.49908	-190.1543	78.747	220.0775	0	968.3004
1/5/2013 11:00	11472	333	0.2303007	349.0709	6.277088	-22.6463	-191.1387	77.14291	220.4527	0.254	967.9454
1/5/2013 12:00	11473	333	0.525514	334.2915	16.02274	-18.91488	-190.6351	73.13802	221.0142	0.254	967.4034
1/5/2013 13:00	11474	333	0.5937275	305.8765	19.34245	-16.3249	-191.1082	70.27782	221.2536	1.016	966.7787
1/5/2013 14:00	11475	333	0.7686489	300.8885	12.01965	-14.91533	-191.3982	68.56384	220.9334	0.508	966.3013
1/5/2013 15:00	11476	333	0.4060693	306.9874	13.71603	-13.74673	-191.215	65.06109	221.1951	0	966.1965
1/5/2013 16:00	11477	333	0.1310707	316.4753	8.02389	-13.86308	-190.6122	70.92648	221.0296	0	966.3463
1/5/2013 17:00	11478	333	0.2593826	329.941	5.827104	-15.35701	-190.7572	78.11361	220.7819	0.254	966.6891
1/5/2013 18:00	11479	333	0.07140666	354.1339	21.55902	-15.94445	-190.7801	79.74212	220.6093	0	966.7231
1/5/2013 19:00	11480	333	0.2388157	329.5878	9.860399	-16.10967	-190.7801	80.52355	220.5673	0	966.8896
1/5/2013 20:00	11481	333	0.3192511	312.6011	6.028622	-16.38028	-190.7648	81.33094	220.5756	0	967.201
1/5/2013 21:00	11482	333	0.2234215	12.16267	16.71122	-16.97483	-190.1161	83.93015	220.5031	0	967.4291
1/5/2013 22:00	11483	333	0.2872619	9.424177	13.19144	-17.68209	-189.9559	85.90206	220.5095	0	967.8214
1/5/2013 23:00	11484	333	0.1823898	353.0038	17.01943	-18.86429	-190.3145	84.7528	220.3816	0	968.1039
1/6/2013 0:00	11485	333	0.3608908	10.8529	51.87952	-20.66139	-190.1924	86.41336	220.2682	0	968.3582
1/6/2013 1:00	11486	333	0.1035572	12.34318	26.06623	-21.47382	-190.2611	80.07331	220.2888	0	968.4009
1/6/2013 2:00	11487	333	0.1526989	16.61856	33.66441	-22.8867	-189.7651	79.59407	220.048	0	968.8021
1/6/2013 3:00	11488	333	0.3869602	324.7816	4.765046	-24.16359	-190.2916	79.10873	220.1171	0	969.3104
1/6/2013 4:00	11489	333	0.04085208	323.7171	2.146753	-24.98537	-189.7727	79.2644	219.934	0	969.5117
1/6/2013 5:00	11490	333	0.08851003	339.8827	2.222318	-25.83249	-189.5819	76.84071	219.7229	0	969.761
1/6/2013 6:00	11491	333	0.02768211	340.6778	0.02908792	-26.58728	-189.643	78.03271	219.5414	0	969.8203
1/6/2013 7:00	11492	333	0.1430319	355.0585	7.688621	-27.66298	-188.6357	74.9741	219.6678	0	969.8263
1/6/2013 8:00	11493	333	0.1105139	99.53027	5.505001	-28.45983	-188.918	78.27996	219.1285	0	970.0222
1/6/2013 9:00	11494	333	0.1709847	119.7689	6.714792	-28.80829	-189.4599	75.13131	219.0037	0	969.9091
1/6/2013 10:00	11495	333	0.2563232	128.3603	3.400347	-26.50874	-190.139	79.77875	219.8504	0	970.198
1/6/2013 11:00	11496	333	0.5737634	134.0738	9.397055	-21.39379	-187.5978	77.30469	221.1658	0	969.7058
1/6/2013 12:00	11497	333	0.5623078	141.6615	45.29985	-17.93337	-186.0181	74.1133	220.9404	0	969.5283
1/6/2013 13:00	11498	333	0.8967527	205.208	43.84195	-14.6141	-191.4211	65.12825	221.162	0.254	968.8268
1/6/2013 14:00	11499	333	1.014591	138.3882	20.49644	-13.23131	-191.7187	63.86909	221.5042	0	967.7641

1/6/2013 15:00	11500	333	1.341647	154.5114	18.22867	-12.67815	-191.6042	62.72592	221.6108	0	966.7462
1/6/2013 16:00	11501	333	0.92527	158.5014	17.81305	-12.99137	-190.8945	68.312	221.374	0	966.5276
1/6/2013 17:00	11502	333	0.9502494	155.1892	14.27275	-13.48327	-191.3371	71.53088	221.1475	0	965.6434
1/6/2013 18:00	11503	333	1.130211	157.7481	16.58778	-12.98457	-191.4516	73.95457	221.3064	0	964.9897
1/6/2013 19:00	11504	333	1.620896	158.9318	18.11068	-12.99944	-191.4821	74.29187	221.3276	0	963.7589
1/6/2013 20:00	11505	333	1.886829	152.301	16.7577	-13.05202	-191.4287	75.64413	221.3224	0	962.4752
1/6/2013 21:00	11506	333	1.881187	151.4294	18.57222	-12.86018	-191.4669	78.79584	221.3763	0	961.1034
1/6/2013 22:00	11507	333	1.92305	152.1365	16.26619	-12.57949	-191.4058	77.48784	221.3986	0	959.9621
1/6/2013 23:00	11508	333	2.89175	154.1197	16.84494	-12.03194	-191.2684	77.60078	221.4406	0	957.8882
1/7/2013 0:00	11509	333	3.073425	156.0235	16.73527	-11.32508	-191.5737	80.05958	221.4606	0	956.0539
1/7/2013 1:00	11510	333	3.041558	154.5159	16.81062	-10.49503	-192.2529	81.84377	221.6508	0	954.1774
1/7/2013 2:00	11511	333	3.281879	154.4984	17.90498	-9.67532	-191.5356	82.3108	221.728	0.254	952.1211
1/7/2013 3:00	11512	333	2.691925	158.4303	21.05694	-9.078647	-191.9095	83.71037	221.761	0	950.7162
1/7/2013 4:00	11513	333	2.209701	166.001	22.54259	-8.325234	-191.8408	84.16977	221.8405	0	949.3776
1/7/2013 5:00	11514	333	2.312299	178.9327	28.47532	-7.604191	-191.9705	84.13314	221.8857	0	948.1348
1/7/2013 6:00	11515	333	1.894572	180.5366	29.56117	-7.265708	-191.5737	85.65176	221.9566	0	947.0416
1/7/2013 7:00	11516	333	1.825942	186.7086	29.80091	-7.002905	-192.1842	86.63161	222.0609	0	946.1993
1/7/2013 8:00	11517	333	1.741404	189.543	33.80362	-6.684342	-192.2758	89.87643	222.0552	0	945.2396
1/7/2013 9:00	11518	333	1.597655	194.6293	34.64622	-6.37669	-192.5276	91.90787	222.1728	0	944.7339
1/7/2013 10:00	11519	333	1.86541	209.0532	30.82647	-5.649164	-192.9702	86.86361	222.8108	0	944.7666
1/7/2013 11:00	11520	333	1.80011	215.2249	34.72744	-4.922313	-193.0084	89.36208	223.0923	0	944.6578
1/7/2013 12:00	11521	333	1.60898	230.9284	37.5577	-4.447565	-193.596	87.11086	223.2375	0	944.1838
1/7/2013 13:00	11522	333	3.055344	272.7892	25.21992	-4.192071	-192.7642	80.90359	223.3158	0	944.0337
1/7/2013 14:00	11523	333	3.973309	280.2638	22.7601	-4.74381	-192.3979	78.13192	222.3396	0	944.9061
1/7/2013 15:00	11524	333	4.746353	283.0995	20.91237	-5.65157	-192.4666	80.16641	222.5573	0	946.1981
1/7/2013 16:00	11525	333	5.369601	291.2196	16.99292	-6.803145	-191.4058	82.11391	221.5726	0	948.2153
1/7/2013 17:00	11526	333	5.581695	296.7206	14.37909	-7.963563	-191.5279	81.00738	221.834	0	950.2593
1/7/2013 18:00	11527	333	6.239814	298.3873	13.23672	-9.101998	-191.65	75.69907	221.4154	0	952.0562
1/7/2013 19:00	11528	333	5.391569	298.7159	13.47025	-9.900083	-191.5661	80.10231	221.3896	0	953.7442
1/7/2013 20:00	11529	333	4.725703	298.019	12.94597	-10.33299	-191.3524	82.25433	221.3199	0	955.2482
1/7/2013 21:00	11530	333	3.917879	295.4119	15.24838	-10.45927	-191.795	83.05103	221.3933	0	956.1838
1/7/2013 22:00	11531	333	2.919291	293.5522	17.03137	-10.48567	-191.9171	83.68137	221.9096	0	956.7314
1/7/2013 23:00	11532	333	2.098303	272.9028	25.92204	-10.512	-193.6341	84.30103	222.4291	0	957.34
1/8/2013 0:00	11533	333	1.423751	255.7914	23.90994	-10.40154	-195.168	85.39688	224.1456	0	957.7163
1/8/2013 1:00	11534	333	1.677923	237.273	30.74433	-11.06157	-194.8399	86.42252	224.2735	0	957.8285
1/8/2013 2:00	11535	333	1.244864	215.1487	31.63593	-11.35185	-196.2746	84.88559	225.2839	0	958.1774
1/8/2013 3:00	11536	333	1.041728	204.8492	28.59356	-11.24798	-196.5798	83.92405	226.2582	0	958.9913
1/8/2013 4:00	11537	333	1.009257	188.4789	26.59863	-11.16733	-195.458	83.57606	226.0085	0	959.2649
1/8/2013 5:00	11538	333	0.7845418	176.0664	25.09207	-10.95223	-192.3597	84.36514	224.1571	0	959.1486
1/8/2013 6:00	11539	333	0.6129705	162.4834	21.67578	-10.61798	-192.0621	85.51898	222.0149	0	959.4368
1/8/2013 7:00	11540	333	1.087609	153.7241	16.21965	-10.27294	-191.94	86.48815	221.9677	0	959.4409
1/8/2013 8:00	11541	333	0.9245685	153.3979	16.84114	-9.848012	-191.734	86.19205	222.0681	0	959.5974
1/8/2013 9:00	11542	333	1.056016	148.282	11.95393	-9.320451	-191.8103	87.73357	221.7039	0	959.6708
1/8/2013 10:00	11543	333	1.21014	156.1366	18.65186	-8.246758	-191.9629	85.22441	221.8565	0	959.5453
1/8/2013 11:00	11544	333	1.511741	157.2524	17.7313	-6.019855	-192.7413	75.11758	222.2529	0	959.0059
1/8/2013 12:00	11545	333	1.646719	166.416	26.43177	-3.73525	-194.1225	72.01928	223.8673	0	959.1107

1/8/2013 13:00	11546	333	1.640346	171.4463	28.42213	-2.669717	-191.9629	72.61909	222.6649	0	958.6849
1/8/2013 14:00	11547	333	1.448248	153.539	22.96425	-1.867974	-193.161	71.75219	222.7486	0	957.5005
1/8/2013 15:00	11548	333	1.954189	153.999	17.32534	-2.052942	-192.9473	74.50402	223.1172	0	956.7822
1/8/2013 16:00	11549	333	2.364532	152.7434	17.76926	-2.458526	-194.4049	77.52142	223.9265	0	956.1318
1/8/2013 17:00	11550	333	2.680407	153.1641	16.52572	-2.736907	-193.6189	78.04186	224.262	0	955.2399
1/8/2013 18:00	11551	333	2.828888	152.1252	17.67895	-2.677989	-193.4739	79.68259	223.7764	0	953.9482
1/8/2013 19:00	11552	333	3.33247	153.0113	18.27485	-2.604251	-192.4971	87.04065	223.0175	0	952.6591
1/8/2013 20:00	11553	333	3.217892	153.6602	17.69723	-2.754143	-190.925	96.80867	222.9846	0	951.6367
1/8/2013 21:00	11554	333	3.078336	153.1196	19.18764	-2.8734	-190.9021	96.54311	220.8884	0	950.6535
1/8/2013 22:00	11555	333	3.215286	154.9331	18.4955	-2.564354	-189.7422	96.39353	220.1222	0	949.5822
1/8/2013 23:00	11556	333	2.789498	155.8299	18.64785	-2.243657	-189.7346	95.32057	213.8268	0	948.8321
1/9/2013 0:00	11557	333	2.225313	159.134	20.00146	-2.227284	-189.6582	95.48541	219.6836	0	948.2509
1/9/2013 1:00	11558	333	1.603644	162.1764	22.88111	-2.170315	-190.0093	95.97076	219.7214	0	947.6713
1/9/2013 2:00	11559	333	1.226116	165.3553	21.67744	-2.198851	-189.6888	96.19054	219.6348	0	947.4678
1/9/2013 3:00	11560	333	1.044888	175.3138	25.16475	-2.150629	-188.7807	96.05928	219.6175	0	947.6758
1/9/2013 4:00	11561	333	0.9441115	193.654	30.63893	-2.099855	-189.8872	95.98755	220.0837	0	947.7706
1/9/2013 5:00	11562	333	0.667169	225.9091	29.66113	-1.991363	-189.9101	96.12949	220.1581	0	947.913
1/9/2013 6:00	11563	333	2.309683	273.3838	27.98964	-2.091021	-190.4138	93.47533	220.5186	0	948.6464
1/9/2013 7:00	11564	333	3.446024	286.0115	19.467	-3.279834	-191.4516	92.94115	220.2217	0	950.1965
1/9/2013 8:00	11565	333	3.10505	285.0603	18.9422	-4.114579	-189.0172	91.66367	220.0971	0	951.6616
1/9/2013 9:00	11566	333	5.389075	295.1952	14.82533	-3.980321	-189.5972	90.98144	218.9543	0	953.5217
1/9/2013 10:00	11567	333	7.530209	298.4799	13.00217	-5.460631	-188.7349	85.02447	219.1478	0	956.4498
1/9/2013 11:00	11568	333	7.995212	301.1471	12.84007	-7.347202	-188.7807	82.84042	219.0007	0	959.1965
1/9/2013 12:00	11569	333	7.240392	300.2727	12.89654	-7.983182	-189.1546	78.00066	219.4002	0	961.2712
1/9/2013 13:00	11570	333	5.437431	300.9468	14.78668	-8.211152	-189.1241	77.87246	219.449	0	962.8324
1/9/2013 14:00	11571	333	5.054589	299.7532	13.048	-8.04533	-189.0935	75.15725	219.366	0	964.3705
1/9/2013 15:00	11572	333	4.225482	301.4689	13.33623	-8.394768	-189.3454	80.01684	219.349	0	966.1254
1/9/2013 16:00	11573	333	2.460026	304.4875	12.71048	-8.688052	-189.1393	85.34347	219.3757	0	967.8652
1/9/2013 17:00	11574	333	1.923984	306.0312	13.15233	-9.148777	-189.002	88.04493	219.357	0	969.0256
1/9/2013 18:00	11575	333	0.7561774	336.9986	19.67558	-10.47839	-188.6051	89.73754	219.1802	0	969.6501
1/9/2013 19:00	11576	333	0.07742404	171.4565	38.245	-10.34282	-189.3759	88.75311	219.149	0	970.6343
1/9/2013 20:00	11577	333	0.2534123	125.1309	30.09417	-10.23701	-189.353	89.57118	219.1683	0	971.6104
1/9/2013 21:00	11578	333	0.518216	131.2892	15.36195	-10.62849	-188.7654	90.3633	218.9195	0	971.9789
1/9/2013 22:00	11579	333	0.7015386	131.7577	13.77099	-10.63227	-188.5136	91.25616	218.9204	0	972.1612
1/9/2013 23:00	11580	333	0.9311285	138.279	12.93451	-9.592708	-189.2691	91.45305	218.9858	0	971.761
1/10/2013 0:00	11581	333	1.16649	131.8122	14.69965	-8.929852	-189.0249	91.51716	219.1572	0	971.1964
1/10/2013 1:00	11582	333	1.267896	137.2552	16.01224	-8.595353	-189.2233	92.02692	219.3129	0	970.7102
1/10/2013 2:00	11583	333	1.193632	137.8426	16.30463	-8.759789	-188.857	92.25586	219.374	0	970.1818
1/10/2013 3:00	11584	333	1.155474	131.5291	12.12845	-10.10366	-189.4293	93.99579	219.3098	0	969.6401
1/10/2013 4:00	11585	333	1.595888	139.3038	16.15358	-8.871403	-189.6125	93.31355	219.2401	0	968.6506
1/10/2013 5:00	11586	333	2.249757	148.3844	17.69955	-6.996559	-190.0169	91.7934	219.6333	0	966.8851
1/10/2013 6:00	11587	333	2.841524	153.7905	16.43891	-5.907047	-189.8643	88.37002	220.0636	0	965.6331
1/10/2013 7:00	11588	333	2.293545	155.5736	17.5525	-4.92666	-190.5816	84.39719	220.3181	0	964.8542
1/10/2013 8:00	11589	333	2.208996	154.1178	18.13547	-4.279471	-190.6656	83.60506	220.4754	0	963.8834
1/10/2013 9:00	11590	333	2.362222	154.9491	15.32174	-3.74571	-190.1161	82.24364	220.5128	0	963.3654
1/10/2013 10:00	11591	333	2.339581	156.8591	17.64759	-2.902425	-190.9327	78.49059	220.7174	0	962.7756

1/10/2013 11:00	11592	333	2.272431	157.9308	17.70999	-1.852658	-191.0624	75.18626	220.859	0	961.8854
1/10/2013 12:00	11593	333	1.395542	159.8715	22.02225	-1.016206	-190.925	70.67618	220.9195	0	961.5056
1/10/2013 13:00	11594	333	1.691672	152.748	17.37818	-0.1911038	-190.9937	72.60841	221.0426	0	960.2039
1/10/2013 14:00	11595	333	2.097347	157.3696	19.3289	0.5993843	-191.3143	72.10323	221.1589	0	959.6432
1/10/2013 15:00	11596	333	1.40182	155.1983	18.5991	0.9027637	-191.0014	73.2235	221.1096	0	959.5659
1/10/2013 16:00	11597	333	0.7529645	148.9981	26.45468	0.4801669	-190.8182	76.58888	221.0188	0	959.6676
1/10/2013 17:00	11598	333	0.4594929	124.9305	12.22542	-0.6138611	-190.8869	84.82912	220.7766	0	960.1813
1/10/2013 18:00	11599	333	1.283421	138.2177	11.65191	-2.704991	-190.6427	94.2354	220.6183	0	960.3619
1/10/2013 19:00	11600	333	1.491747	153.7123	10.10102	-3.322682	-191.0929	93.20672	220.5069	0	960.3413
1/10/2013 20:00	11601	333	1.175286	151.1492	7.267508	-2.850397	-191.0853	91.8743	220.6443	0	959.8034
1/10/2013 21:00	11602	333	1.184715	147.6507	8.152047	-2.694882	-190.6198	92.63132	220.6771	0	958.9824
1/10/2013 22:00	11603	333	1.149681	154.4695	8.223007	-1.558427	-190.9174	91.05317	220.7968	0	958.3238
1/10/2013 23:00	11604	333	0.9911214	147.532	11.10598	-0.4038673	-191.4821	86.73998	221.0431	0	957.9027
1/11/2013 0:00	11605	333	0.8659469	137.6764	7.980388	-0.0334106	-191.444	83.91946	221.2446	0	957.3381
1/11/2013 1:00	11606	333	1.104384	138.612	12.01932	0.2437012	-191.4745	87.22227	221.294	0	956.8065
1/11/2013 2:00	11607	333	1.11055	153.303	13.41384	0.4571801	-191.6042	79.09804	221.3128	0	956.6075
1/11/2013 3:00	11608	333	1.216465	342.5738	37.32903	-0.008285517	-190.8793	91.24243	221.3497	0	956.9788
1/11/2013 4:00	11609	333	1.348842	3.699419	35.90438	-1.596096	-190.6885	94.16521	220.7604	0	956.591
1/11/2013 5:00	11610	333	1.707152	16.18755	33.52038	-3.338991	-188.8036	94.01868	219.764	0	955.7039
1/11/2013 6:00	11611	333	2.142343	17.36141	30.93468	-5.309469	-187.4528	93.59133	219.1296	0	955.5837
1/11/2013 7:00	11612	333	2.355577	11.75557	29.88909	-6.44082	-189.7651	91.18748	216.8498	6.858002	955.7958
1/11/2013 8:00	11613	333	2.663278	1.773434	29.0464	-8.74551	-187.3918	89.11025	216.1345	0	956.286
1/11/2013 9:00	11614	333	2.759079	1.726916	30.03103	-11.48808	-181.6454	87.29401	213.788	0	956.9394
1/11/2013 10:00	11615	333	2.960668	359.5915	29.71475	-13.04853	-181.0044	82.77477	211.3117	0	957.2078
1/11/2013 11:00	11616	333	2.493405	5.86832	30.957	-13.2683	-180.7068	82.93198	211.1364	0	957.5941
1/11/2013 12:00	11617	333	2.572378	3.7918	28.16604	-13.39544	-181.2944	82.04523	211.1032	0	957.3954
1/11/2013 13:00	11618	333	2.561163	10.05442	32.13881	-13.67129	-181.3707	81.21342	211.2647	0	957.0373
1/11/2013 14:00	11619	333	2.652642	6.796321	30.68903	-13.97018	-180.7068	83.92252	210.8789	0	957.2476
1/11/2013 15:00	11620	333	2.8872	6.553419	25.80355	-14.49361	-181.3402	82.97472	211.1134	0	957.8631
1/11/2013 16:00	11621	333	2.471049	6.755281	29.45976	-14.95061	-179.1729	84.44602	209.9391	0	958.2001
1/11/2013 17:00	11622	333	2.617774	13.53625	29.06739	-15.2234	-179.1424	81.23632	209.2884	0	958.4796
1/11/2013 18:00	11623	333	2.786664	11.84776	27.62586	-15.07024	-179.0432	82.66946	208.9248	0	958.4731
1/11/2013 19:00	11624	333	2.638566	15.93976	29.8857	-15.13388	-179.0661	82.69542	209.1481	0	958.468
1/11/2013 20:00	11625	333	2.604353	19.99339	31.512	-15.38249	-178.8066	82.57942	208.6564	0	958.4067
1/11/2013 21:00	11626	333	3.146461	14.97839	26.25809	-15.59679	-178.6769	83.19908	208.6875	0	957.8892
1/11/2013 22:00	11627	333	3.017745	16.18369	30.03765	-15.87265	-178.1427	82.93504	208.3248	0	957.4567
1/11/2013 23:00	11628	333	3.28795	11.35865	26.62978	-16.06013	-177.4177	83.21435	207.8117	0	956.9229
1/12/2013 0:00	11629	333	2.725401	19.17715	30.81617	-16.0496	-176.7919	84.53302	207.4023	0	956.6888
1/12/2013 1:00	11630	333	2.941128	17.12051	30.30518	-16.03577	-175.922	81.79187	206.5777	0	956.4392
1/12/2013 2:00	11631	333	3.599415	12.77171	27.07099	-16.14193	-175.0902	85.15115	205.9204	0	955.6465
1/12/2013 3:00	11632	333	3.293603	11.35619	29.16272	-16.34613	-174.2049	84.93748	204.3481	0	954.9615
1/12/2013 4:00	11633	333	3.06016	14.2737	28.90512	-16.36959	-173.0603	84.54066	203.2724	0	954.4934
1/12/2013 5:00	11634	333	3.384713	8.771098	27.97673	-16.46004	-171.3051	83.05866	202.0809	0	954.0496
1/12/2013 6:00	11635	333	3.336042	2.591624	25.83932	-16.67603	-170.7633	82.28638	201.3144	0	954.0786
1/12/2013 7:00	11636	333	3.375677	1.424661	25.74654	-16.9187	-170.0764	82.3047	200.825	0	954.6281
1/12/2013 8:00	11637	333	3.32606	0.8055633	24.71318	-17.11571	-169.8933	82.28638	200.0273	0	955.4392

1/12/2013 9:00	11638	333	3.392017	353.9521	23.13238	-17.29557	-171.099	81.72472	200.6393	0	956.1559
1/12/2013 10:00	11639	333	3.029879	348.5854	23.85441	-17.30546	-169.0462	80.64413	199.2467	0	956.7853
1/12/2013 11:00	11640	333	3.256164	348.0811	24.18321	-17.0799	-168.7028	77.17038	198.9452	0	957.3819
1/12/2013 12:00	11641	333	2.963526	346.6796	23.46521	-16.70945	-169.2904	77.04369	199.1133	0	958.0847
1/12/2013 13:00	11642	333	3.18983	341.9129	22.98527	-16.42502	-169.1454	74.10109	199.2491	0	958.6851
1/12/2013 14:00	11643	333	3.218448	338.1934	22.45663	-16.00516	-169.3133	75.24425	199.1262	0	959.5134
1/12/2013 15:00	11644	333	2.896803	332.7849	21.03141	-16.29831	-169.5117	78.38833	199.2178	0	961.0252
1/12/2013 16:00	11645	333	2.844241	330.2455	19.48351	-16.70656	-168.9547	78.61269	199.8774	0	962.2405
1/12/2013 17:00	11646	333	2.73912	333.0421	19.29808	-17.18865	-169.2599	79.42465	199.007	0	963.131
1/12/2013 18:00	11647	333	2.337601	331.9363	18.68462	-17.64884	-168.7028	80.47472	198.9896	0	963.7038
1/12/2013 19:00	11648	333	2.553463	327.8303	16.61382	-18.3173	-169.1378	81.189	199.178	0	964.5187
1/12/2013 20:00	11649	333	2.287874	325.3503	18.16082	-18.83993	-169.4354	81.60262	199.1409	0	965.3876
1/12/2013 21:00	11650	333	1.938932	326.255	16.53479	-19.39805	-169.672	81.35384	199.4865	0	965.8713
1/12/2013 22:00	11651	333	1.676127	328.3475	15.62135	-20.42746	-170.2367	81.92007	199.9106	0	966.1558
1/12/2013 23:00	11652	333	1.772429	318.5212	9.029174	-21.89683	-170.023	82.26043	200.0391	0	966.5496
1/13/2013 0:00	11653	333	1.898674	315.1319	7.485331	-22.88044	-170.0078	82.17801	200.1547	0	966.631
1/13/2013 1:00	11654	333	1.622602	305.9717	9.029318	-22.3981	-170.5725	81.58583	200.5143	0	967.4578
1/13/2013 2:00	11655	333	1.23802	306.1479	11.85487	-22.03922	-170.5648	80.86391	200.7206	0	968.0811
1/13/2013 3:00	11656	333	1.613358	303.0815	9.455647	-22.43858	-170.603	80.229	200.6445	0	968.2755
1/13/2013 4:00	11657	333	1.599342	310.7115	7.885234	-24.65591	-171.038	79.55286	200.5121	0	967.7894
1/13/2013 5:00	11658	333	1.590481	308.3186	6.623829	-26.14928	-170.748	79.05225	200.467	0	967.2361
1/13/2013 6:00	11659	333	0.8838521	308.9114	6.241697	-27.67667	-170.0764	77.38406	200.0727	0	967.0812
1/13/2013 7:00	11660	333	0.846636	310.9545	8.190578	-28.95964	-169.5652	77.98235	199.9168	0	967.3183
1/13/2013 8:00	11661	333	0.4968182	274.8684	83.28729	-29.78175	-169.5804	76.37825	199.4487	0	967.9559
1/13/2013 9:00	11662	333	0.3051904	291.7507	64.84169	-30.15516	-169.7407	75.05957	199.7258	0	968.3531
1/13/2013 10:00	11663	333	0.3021381	332.4537	30.28812	-28.76725	-170.6869	74.29187	200.6464	0	968.5793
1/13/2013 11:00	11664	333	0.4958117	338.3726	49.77731	-26.07702	-172.5337	74.84437	201.3669	0	968.7516
1/13/2013 12:00	11665	333	0.5903462	333.7949	28.29646	-23.82322	-171.4501	71.17221	201.4229	0	968.345
1/13/2013 13:00	11666	333	0.4982525	314.469	44.33033	-20.27522	-173.9684	74.0614	201.9768	0	967.8068
1/13/2013 14:00	11667	333	1.022966	286.5899	28.97036	-18.58559	-173.2587	75.74792	201.5782	0	966.8615
1/13/2013 15:00	11668	333	0.8163289	313.1106	20.01062	-17.27926	-171.9156	75.92496	201.7363	0	966.4659
1/13/2013 16:00	11669	333	0.6889288	317.2643	21.42715	-17.54383	-171.4501	80.15878	201.7648	0	966.3632
1/13/2013 17:00	11670	333	0.4611652	278.881	29.71239	-18.40494	-172.5032	84.45366	201.4853	0	966.1899
1/13/2013 18:00	11671	333	0.4425851	271.4514	33.30677	-18.95645	-171.7629	81.26073	201.9861	0	966.1212
1/13/2013 19:00	11672	333	0.7900919	238.7875	18.4295	-18.56268	-172.5795	83.2876	202.552	0	966.203
1/13/2013 20:00	11673	333	0.7600979	245.3748	19.99873	-18.34353	-171.6485	83.0434	202.2696	0.254	966.2934
1/13/2013 21:00	11674	333	1.692656	281.7911	22.0683	-18.60007	-171.0227	81.10963	201.0245	0	966.4317
1/13/2013 22:00	11675	333	3.178452	297.4552	13.41157	-19.2006	-170.9311	80.66855	200.8082	0	966.6892
1/13/2013 23:00	11676	333	3.965693	298.8182	12.06445	-20.76185	-169.8322	80.35109	200.5594	0	967.1096
1/14/2013 0:00	11677	333	3.001306	299.7317	10.73681	-21.03777	-170.6259	80.99822	200.5493	0	967.4475
1/14/2013 1:00	11678	333	2.211004	293.4258	14.82115	-21.1137	-170.5954	81.21342	200.6174	0	967.5016
1/14/2013 2:00	11679	333	1.563224	284.9263	18.02403	-21.03403	-170.8319	80.88528	200.6135	0	967.7574
1/14/2013 3:00	11680	333	1.357291	277.3965	17.35127	-21.03354	-170.3435	80.75555	200.7323	0	968.1702
1/14/2013 4:00	11681	333	1.327091	264.0526	19.1046	-21.37157	-171.1753	80.80438	200.8311	0	968.4217
1/14/2013 5:00	11682	333	1.294133	259.1083	17.70477	-22.08998	-170.458	80.71434	200.5587	0	968.3702
1/14/2013 6:00	11683	333	1.551095	262.8544	19.47513	-22.48626	-170.0764	80.10842	200.4022	0	968.7151

1/14/2013 7:00	11684	333	1.034359	244.8409	21.25328	-22.68277	-170.3817	80.16183	200.2055	0	969.2487
1/14/2013 8:00	11685	333	1.000779	240.4618	26.01646	-23.02649	-169.6262	79.46587	200.0379	0	969.6074
1/14/2013 9:00	11686	333	0.8414096	204.0103	18.51181	-23.89413	-170.4504	80.06415	199.8724	0	969.7768
1/14/2013 10:00	11687	333	1.098585	197.747	25.62491	-22.54546	-170.8853	77.12001	200.4306	0	969.9512
1/14/2013 11:00	11688	333	1.938628	247.0477	31.06177	-21.02083	-165.5587	74.31934	201.1457	0.254	970.3376
1/14/2013 12:00	11689	333	2.331801	263.3492	29.37613	-19.6138	-165.8945	72.34743	201.1284	0	970.2939
1/14/2013 13:00	11690	333	2.314762	255.9009	26.52406	-19.0464	-171.2746	73.64169	201.3782	0	969.9566
1/14/2013 14:00	11691	333	1.957237	253.6206	27.97366	-18.41172	-168.1915	72.71983	201.7936	0	969.6794
1/14/2013 15:00	11692	333	2.298144	260.3038	29.0367	-17.91929	-171.4577	71.86054	202.6971	0	969.8467
1/14/2013 16:00	11693	333	1.993392	254.1971	23.44757	-18.29898	-171.2669	75.57697	201.4183	0	969.9739
1/14/2013 17:00	11694	333	1.214345	248.425	22.79987	-19.4964	-170.8396	79.2354	201.0378	0	969.8469
1/14/2013 18:00	11695	333	1.349105	256.6195	21.00186	-20.36963	-170.6411	80.22441	200.8287	0	969.7602
1/14/2013 19:00	11696	333	0.984803	244.7481	23.87762	-21.38457	-170.9464	82.39017	200.796	0	969.7144
1/14/2013 20:00	11697	333	0.7928046	244.5482	18.47729	-22.56017	-170.5343	82.59773	200.5193	0	969.7845
1/14/2013 21:00	11698	333	1.313237	257.9779	17.90325	-22.56632	-170.4427	79.97411	200.7293	0	969.6181
1/14/2013 22:00	11699	333	0.9431494	235.2253	16.33358	-23.50311	-170.664	81.55988	200.5542	0	969.325
1/14/2013 23:00	11700	333	0.8742229	230.8813	16.75723	-24.23201	-170.5954	74.43533	200.5897	0	968.9299
1/15/2013 0:00	11701	333	0.7158798	211.5239	9.642101	-27.09665	-170.4198	76.64535	200.8118	0	968.7845
1/15/2013 1:00	11702	333	0.7390624	230.9733	20.46243	-27.28968	-170.5877	74.34529	200.6311	0	968.5201
1/15/2013 2:00	11703	333	0.751894	160.9615	16.21876	-29.4193	-170.3817	76.13863	200.4573	0	968.4033
1/15/2013 3:00	11704	333	0.6471396	166.5405	9.169716	-30.23328	-170.5114	76.91396	200.1277	0.254	968.0099
1/15/2013 4:00	11705	333	0.6025239	168.5921	11.61936	-29.02847	-169.9772	76.94449	200.1022	0	967.0375
1/15/2013 5:00	11706	333	0.5023975	187.9359	18.81109	-27.67928	-170.7861	80.88833	200.543	0	965.8864
1/15/2013 6:00	11707	333	0.6824013	158.5098	8.490408	-28.12771	-170.4733	76.81019	200.2142	0	964.9184
1/15/2013 7:00	11708	333	0.9049208	160.4653	8.562627	-27.51345	-170.5343	79.968	200.3009	0	964.2914
1/15/2013 8:00	11709	333	0.8134838	177.205	22.68936	-24.2689	-171.244	81.04248	200.9137	0	963.7648
1/15/2013 9:00	11710	333	1.024595	184.2955	18.58675	-23.42722	-171.4653	81.94907	201.0562	0	963.2928
1/15/2013 10:00	11711	333	1.693599	194.3858	28.86642	-21.32629	-171.5416	80.91428	201.6493	0	961.9005
1/15/2013 11:00	11712	333	1.690649	199.5516	31.96342	-18.60995	-172.4116	80.09773	201.9892	0	960.8853
1/15/2013 12:00	11713	333	1.763585	197.3551	30.13463	-16.27427	-172.3124	77.31079	202.3978	0	959.7172
1/15/2013 13:00	11714	333	1.713603	191.5664	30.16217	-15.00073	-172.3658	75.99211	202.4712	0	958.0087
1/15/2013 14:00	11715	333	1.759841	184.3227	27.91352	-14.06939	-172.6405	75.61361	202.4774	0	956.0118
1/15/2013 15:00	11716	333	2.084833	183.2143	28.55833	-13.06378	-172.3734	77.28637	202.5983	0	954.0398
1/15/2013 16:00	11717	333	2.14558	199.2132	33.45311	-11.9263	-172.7932	80.91733	202.6577	0	953.4296
1/15/2013 17:00	11718	333	2.297321	198.2757	35.56837	-11.5224	-172.6711	82.2528	202.6554	0	952.1859
1/15/2013 18:00	11719	333	2.663476	199.8689	34.26009	-11.26253	-172.3353	82.381	202.6202	0	951.1703
1/15/2013 19:00	11720	333	2.409828	199.9139	33.76466	-10.87014	-173.0374	82.73968	202.6528	0	949.8792
1/15/2013 20:00	11721	333	1.845962	218.2511	36.08564	-10.49404	-174.2355	86.74303	202.9099	0	949.7354
1/15/2013 21:00	11722	333	1.604674	196.8959	30.32529	-10.3427	-171.3203	88.37612	202.8842	0	948.7419
1/15/2013 22:00	11723	333	1.632676	205.5713	38.47553	-10.17536	-172.9153	89.2934	202.2047	0	947.3308
1/15/2013 23:00	11724	333	1.256135	266.6691	24.93638	-10.14009	-167.9168	90.14047	200.4091	0	947.0808
1/16/2013 0:00	11725	333	1.329775	261.9158	25.45831	-10.32969	-167.6649	89.57423	197.0641	0	946.7039
1/16/2013 1:00	11726	333	1.507451	278.2755	24.50195	-10.53621	-165.8869	90.19237	196.1716	0	946.1351
1/16/2013 2:00	11727	333	3.520196	305.7859	12.6693	-11.11529	-165.7495	85.58308	197.0716	0	946.5333
1/16/2013 3:00	11728	333	3.02518	324.5318	17.28991	-12.68708	-165.0551	82.54584	195.4382	0	947.4375
1/16/2013 4:00	11729	333	3.077874	328.8398	20.24195	-14.03155	-166.215	82.78546	195.2694	0	948.7534

1/16/2013 5:00	11730	333	3.959509	328.0445	19.86147	-16.1968	-165.3222	77.93351	195.4617	0	950.1523
1/16/2013 6:00	11731	333	2.994648	334.3077	22.38258	-19.57007	-164.8872	75.43809	194.9159	0	951.7932
1/16/2013 7:00	11732	333	4.709419	314.7682	13.29268	-22.83776	-164.559	76.36604	194.4136	0.254	953.6586
1/16/2013 8:00	11733	333	4.247222	315.1627	13.36585	-25.38378	-164.3683	74.29491	194.3366	0	955.6361
1/16/2013 9:00	11734	333	3.269975	317.5185	14.31571	-27.14664	-164.4064	75.26562	194.199	0	957.1055
1/16/2013 10:00	11735	333	4.486372	310.7854	12.95064	-27.90045	-164.4904	72.65725	194.4342	0	958.6538
1/16/2013 11:00	11736	333	4.66264	307.1338	11.99745	-27.83876	-164.9482	69.96952	194.6318	0.254	959.8382
1/16/2013 12:00	11737	333	4.350655	303.7759	12.13287	-27.30506	-164.9559	66.4332	195.0135	0	960.666
1/16/2013 13:00	11738	333	5.114789	306.8028	11.82113	-27.16528	-164.8872	65.26714	195.1417	0.254	961.5633
1/16/2013 14:00	11739	333	5.0011	305.616	12.25381	-26.78659	-165.0093	63.41885	194.936	0.254	962.4167
1/16/2013 15:00	11740	333	4.423263	301.5392	14.06401	-26.58457	-165.1009	65.37093	194.8407	0	963.5933
1/16/2013 16:00	11741	333	4.42985	300.3657	12.31765	-27.08975	-164.7651	65.1954	194.7226	0.254	964.7744
1/16/2013 17:00	11742	333	3.18072	297.107	12.71342	-27.77616	-164.2461	68.15481	194.5794	0	965.7462
1/16/2013 18:00	11743	333	2.490749	286.9959	14.76352	-28.45222	-164.8261	71.47135	194.3797	0.254	966.7678
1/16/2013 19:00	11744	333	2.875097	290.559	14.45815	-28.97064	-164.8872	71.72013	194.383	0	967.4786
1/16/2013 20:00	11745	333	2.689374	288.9371	14.4361	-29.62778	-164.002	73.40969	194.2524	0.254	968.0398
1/16/2013 21:00	11746	333	2.418862	288.4041	16.32888	-30.14885	-164.2156	73.89809	194.1681	0	967.9976
1/16/2013 22:00	11747	333	2.913896	288.7933	15.81972	-30.15571	-164.2156	74.7589	194.1803	0.254	968.1113
1/16/2013 23:00	11748	333	2.710467	287.8904	16.42655	-30.27295	-164.5285	74.17892	194.2725	0	968.2911
1/17/2013 0:00	11749	333	2.186119	277.1503	18.78399	-30.77629	-164.1851	73.61116	194.3306	0	968.5419
1/17/2013 1:00	11750	333	2.050975	263.3619	21.22434	-31.11985	-164.8643	72.95944	194.2556	0	968.7689
1/17/2013 2:00	11751	333	2.016188	268.7271	19.47515	-31.51646	-164.6735	73.13039	194.3551	0.254	968.8704
1/17/2013 3:00	11752	333	2.055784	264.3987	19.21708	-31.48687	-164.3759	73.22654	194.3265	0	969.2103
1/17/2013 4:00	11753	333	1.794955	261.8611	20.38175	-31.68473	-164.1851	74.29187	194.2786	0	969.1929
1/17/2013 5:00	11754	333	2.247894	257.69	19.24368	-31.90901	-164.2385	73.87368	194.2621	0.254	968.9675
1/17/2013 6:00	11755	333	2.33372	266.6223	20.8301	-31.52493	-164.4904	73.39748	194.2559	0	968.8702
1/17/2013 7:00	11756	333	2.047756	263.0379	19.73103	-31.32593	-164.3683	73.51958	194.4182	0	968.7975
1/17/2013 8:00	11757	333	2.172755	252.854	20.86571	-31.69003	-164.0935	73.82941	194.3326	0	968.9016
1/17/2013 9:00	11758	333	2.18796	257.7518	21.93808	-31.19459	-164.8643	72.05895	194.48	0	969.3494
1/17/2013 10:00	11759	333	3.198609	278.2381	20.25007	-29.67772	-165.2916	67.1139	194.93	0	969.8616
1/17/2013 11:00	11760	333	3.828009	287.2612	18.80978	-27.73559	-167.1689	65.94937	195.2737	0.254	970.0629
1/17/2013 12:00	11761	333	3.916512	286.6685	19.28154	-25.72402	-165.8945	65.02293	195.8143	0	970.0786
1/17/2013 13:00	11762	333	4.304714	290.6631	18.65	-24.41839	-166.2303	64.71158	194.9937	0	970.0119
1/17/2013 14:00	11763	333	3.530216	282.7993	21.386	-23.12489	-166.0471	65.06109	195.8094	0	970.0742
1/17/2013 15:00	11764	333	3.796072	286.0667	20.48154	-22.25704	-166.1692	64.71616	196.016	0	970.2139
1/17/2013 16:00	11765	333	3.196337	276.6352	21.61502	-22.47278	-165.7419	67.61604	195.9216	0	970.5977
1/17/2013 17:00	11766	333	2.569766	274.5503	19.68146	-23.21326	-165.9556	69.82758	195.7071	0	970.8486
1/17/2013 18:00	11767	333	2.210341	266.3354	20.66936	-24.09369	-165.8411	74.79095	195.5729	0	971.0181
1/17/2013 19:00	11768	333	2.671558	263.4922	20.26091	-24.62512	-165.3451	75.08247	195.5534	0	971.0415
1/17/2013 20:00	11769	333	2.596437	272.8358	18.78452	-24.93426	-165.4671	76.20579	195.4728	0	971.1148
1/17/2013 21:00	11770	333	2.613334	280.7198	17.3967	-25.35255	-165.7342	75.94633	195.5564	0	971.105
1/17/2013 22:00	11771	333	2.276461	278.8939	17.28628	-25.69591	-165.5892	76.11421	195.5171	0	970.9647
1/17/2013 23:00	11772	333	1.836954	265.5662	20.93342	-26.20897	-165.5892	76.60414	195.634	0	970.4252
1/18/2013 0:00	11773	333	1.677749	264.6294	22.34497	-27.09992	-165.3451	77.56873	195.5314	0	970.2556
1/18/2013 1:00	11774	333	1.419208	258.6192	21.3233	-27.77666	-166.0853	77.00097	195.4972	0	970.4615
1/18/2013 2:00	11775	333	0.3371616	220.0069	18.59349	-29.01994	-165.078	78.15939	195.4075	0	970.0341

1/18/2013 3:00	11776	333	0.3922739	191.1839	14.99089	-30.7294	-165.7114	76.87734	195.4192	0	969.6752
1/18/2013 4:00	11777	333	0.4914168	200.9121	11.30775	-31.69817	-165.6045	78.1426	195.24	0	969.2308
1/18/2013 5:00	11778	333	0.4236448	127.7659	12.72378	-30.53165	-165.5206	74.87032	195.4607	0	968.3352
1/18/2013 6:00	11779	333	0.304083	146.6228	3.143013	-31.28424	-165.8029	74.32086	195.4071	0	967.6151
1/18/2013 7:00	11780	333	0.1157323	148.1119	0.8731673	-32.1762	-165.4061	74.80621	195.3513	0.254	967.1223
1/18/2013 8:00	11781	333	0.498678	158.4543	5.847329	-33.53247	-165.0093	73.94236	195.1669	0	966.5622
1/18/2013 9:00	11782	333	0.1560776	133.0392	3.474567	-33.02466	-165.7037	74.56964	195.1916	0	966.5203
1/18/2013 10:00	11783	333	0.2829541	120.8149	12.87857	-30.01686	-165.9556	74.1835	196.0137	0	966.2187
1/18/2013 11:00	11784	333	0.4342248	130.1282	13.99599	-26.33042	-167.726	70.96922	196.7148	0	965.7393
1/18/2013 12:00	11785	333	0.6032375	109.6469	26.90039	-23.69044	-168.9165	64.94357	199.2556	0	965.1209
1/18/2013 13:00	11786	333	0.9833765	120.4024	19.89358	-21.31079	-167.8481	59.4918	197.4818	0	964.0486
1/18/2013 14:00	11787	333	0.7184591	86.13602	76.14334	-20.03726	-167.2681	60.19235	197.8227	0	963.2953
1/18/2013 15:00	11788	333	0.718309	305.1621	19.34858	-19.80052	-167.52	57.24057	197.6674	0	963.2479
1/18/2013 16:00	11789	333	0.5664309	325.7218	26.82354	-19.86524	-167.6726	61.82086	197.4633	0	963.1422
1/18/2013 17:00	11790	333	0.2387601	37.70738	14.30627	-20.25271	-166.5432	66.90786	197.329	0	962.6218
1/18/2013 18:00	11791	333	0.585802	77.24973	26.84674	-22.08042	-167.6039	76.72929	197.0379	0	962.5829
1/18/2013 19:00	11792	333	0.3276618	138.9101	10.80727	-23.4085	-166.4745	81.23326	196.589	0	962.7925
1/18/2013 20:00	11793	333	0.1634468	80.12668	9.571316	-24.42834	-166.6271	79.8459	196.2114	0	962.9529
1/18/2013 21:00	11794	333	0.4749341	88.96152	12.34007	-25.37603	-166.0013	83.13497	196.58	0	962.431
1/18/2013 22:00	11795	333	0.2060181	92.11994	23.4053	-25.49272	-166.1692	81.07759	196.5694	0	962.0379
1/18/2013 23:00	11796	333	0.3012949	81.19853	12.74626	-25.78936	-166.7721	76.51867	196.5118	0	962.2566
1/19/2013 0:00	11797	333	0.4733099	84.37213	18.11388	-26.02369	-166.5355	76.84682	196.5159	0	962.0522
1/19/2013 1:00	11798	333	0.3984313	81.61297	12.65915	-25.27624	-167.5123	78.65389	196.3298	0	961.3997
1/19/2013 2:00	11799	333	0.5634651	64.88511	23.08055	-24.67105	-167.6115	77.86024	196.7925	0	961.0787
1/19/2013 3:00	11800	333	1.379425	83.48	21.60909	-23.70328	-166.9629	75.87002	197.095	0	961.19
1/19/2013 4:00	11801	333	1.78981	83.05901	22.12277	-23.01237	-167.6421	71.72623	197.4026	0	960.7021
1/19/2013 5:00	11802	333	1.717985	86.44069	20.91119	-22.82141	-167.7871	70.78606	197.5485	0	960.3994
1/19/2013 6:00	11803	333	1.326217	58.57589	32.21277	-22.79954	-167.9397	74.04613	197.6083	0	960.7146
1/19/2013 7:00	11804	333	1.768271	51.73523	30.12191	-22.87051	-167.2986	77.01775	197.8223	0	961.2181
1/19/2013 8:00	11805	333	1.697868	61.35719	27.71133	-23.04013	-166.7492	78.62184	196.9229	0	961.01
1/19/2013 9:00	11806	333	1.754576	42.5984	32.01936	-23.25888	-166.6576	77.58094	196.8458	0	961.4893
1/19/2013 10:00	11807	333	1.653644	37.09577	29.69391	-23.19931	-166.4745	76.20885	196.6433	0	962.4786
1/19/2013 11:00	11808	333	1.724102	22.6045	30.55817	-22.77634	-166.7187	74.69937	196.6269	0	963.0627
1/19/2013 12:00	11809	333	2.15688	12.39801	28.64563	-21.8569	-166.3066	71.47594	196.6575	0	963.502
1/19/2013 13:00	11810	333	2.183405	2.024296	26.89248	-20.88689	-166.8408	70.70059	196.7193	0	963.7061
1/19/2013 14:00	11811	333	2.535761	355.3728	23.62271	-20.5532	-167.0468	70.05042	196.8647	0	964.2062
1/19/2013 15:00	11812	333	2.328303	343.3768	23.17271	-20.42662	-166.6271	71.13253	196.6931	0	964.7273
1/19/2013 16:00	11813	333	2.110435	334.8871	22.05036	-20.87996	-166.2913	74.61391	196.6209	0	965.5616
1/19/2013 17:00	11814	333	2.436991	323.3162	15.99231	-21.96914	-165.6274	76.98418	196.3967	0	966.4874
1/19/2013 18:00	11815	333	3.193756	320.306	15.55631	-23.31082	-166.1845	77.79919	196.1514	0	967.5551
1/19/2013 19:00	11816	333	4.083607	313.713	10.30835	-24.59335	-166.4516	77.88009	196.1023	0	968.4264
1/19/2013 20:00	11817	333	3.676708	313.6359	10.09551	-25.43442	-165.6198	79.30714	196.0323	0	969.2749
1/19/2013 21:00	11818	333	4.228539	311.6767	8.873694	-26.31419	-165.864	78.38528	195.9432	0	969.804
1/19/2013 22:00	11819	333	3.552189	309.5776	8.13016	-27.16124	-165.7495	79.11787	195.8062	0.254	969.9144
1/19/2013 23:00	11820	333	3.822524	306.9725	9.983763	-27.40822	-165.7419	78.69815	195.8644	0	970.2382
1/20/2013 0:00	11821	333	3.811342	304.3277	9.043539	-27.7481	-165.6503	79.01104	195.9461	0	970.3924

1/20/2013 1:00	11822	333	3.653578	305.9571	9.02617	-28.05649	-166.7797	76.76745	195.9289	0	970.28
1/20/2013 2:00	11823	333	2.128443	301.4559	11.09544	-29.19378	-166.0777	77.88772	195.8608	0	970.2281
1/20/2013 3:00	11824	333	1.905059	298.2574	11.25206	-29.45449	-166.1692	77.08492	195.927	0	970.4373
1/20/2013 4:00	11825	333	2.251246	295.9249	9.447355	-29.8093	-165.5892	78.12276	195.9006	0	970.5062
1/20/2013 5:00	11826	333	3.179941	296.6671	10.22767	-29.54293	-165.4671	77.13985	195.6583	0	970.4301
1/20/2013 6:00	11827	333	2.342118	291.8089	11.87286	-29.6651	-165.719	77.19022	195.8341	0	970.5474
1/20/2013 7:00	11828	333	1.893728	288.0425	14.97528	-29.84386	-166.2303	77.29248	195.8504	0	970.5634
1/20/2013 8:00	11829	333	1.356694	289.4251	15.75191	-29.64054	-165.925	76.57209	195.8292	0	970.4432
1/20/2013 9:00	11830	333	0.8168911	256.8149	19.45551	-29.2425	-165.4519	75.80896	195.9434	0	970.2465
1/20/2013 10:00	11831	333	1.235729	260.7642	21.26858	-28.22678	-166.6576	75.66244	196.3415	0	970.3034
1/20/2013 11:00	11832	333	1.661006	283.1996	23.66543	-26.40394	-167.3826	76.17068	197.0086	0	970.2934
1/20/2013 12:00	11833	333	3.256742	291.4649	17.50711	-24.3776	-167.7642	74.85048	197.688	0	969.9078
1/20/2013 13:00	11834	333	3.181352	291.1773	18.85678	-23.10131	-168.6799	71.93839	198.1476	0	969.2733
1/20/2013 14:00	11835	333	3.305463	291.6195	17.27502	-22.54778	-167.7642	69.38039	198.0125	0.254	968.9141
1/20/2013 15:00	11836	333	2.916555	288.7137	20.2297	-22.44139	-167.7031	71.98112	197.3975	0	968.5029
1/20/2013 16:00	11837	333	3.237388	291.3524	16.70403	-22.87004	-167.146	72.42984	197.2982	0	968.3721
1/20/2013 17:00	11838	333	3.421194	292.7817	14.55163	-23.64747	-166.8713	72.6313	197.0453	0	968.2438
1/20/2013 18:00	11839	333	3.154796	297.8817	11.976	-24.95802	-166.7645	74.85658	196.827	0	968.2446
1/20/2013 19:00	11840	333	2.466333	293.313	11.79489	-26.14253	-166.8026	75.76775	196.7814	0	968.1863
1/20/2013 20:00	11841	333	2.095119	290.0093	11.87386	-27.05508	-166.5355	76.50188	196.6505	0	968.2817
1/20/2013 21:00	11842	333	3.506659	301.5623	10.0953	-27.35379	-167.2376	73.20823	196.7002	0	968.2906
1/20/2013 22:00	11843	333	4.045355	299.6117	11.68002	-27.84929	-165.7114	73.24181	196.5253	0	968.2964
1/20/2013 23:00	11844	333	3.674955	297.9388	10.81664	-29.0479	-166.6271	72.87246	196.3556	0	968.2747
1/21/2013 0:00	11845	333	2.977596	296.3201	11.20131	-30.04525	-166.5584	71.9506	196.1833	0	968.2234
1/21/2013 1:00	11846	333	2.536074	293.7147	12.69061	-30.8986	-166.444	74.25066	196.2714	0	968.061
1/21/2013 2:00	11847	333	1.839745	281.4026	12.2429	-32.00161	-166.1082	74.53301	196.4109	0	967.7172
1/21/2013 3:00	11848	333	1.902243	282.4507	14.17527	-32.63103	-165.4901	74.42313	196.0836	0	967.7086
1/21/2013 4:00	11849	333	1.805375	283.1895	13.98508	-33.2481	-165.9861	74.60017	195.771	0	967.7739
1/21/2013 5:00	11850	333	1.908147	286.9508	13.71126	-33.78418	-165.4137	74.81384	195.6865	0	967.7869
1/21/2013 6:00	11851	333	1.573604	284.4832	13.7596	-34.2689	-165.8487	74.16061	195.6845	0	967.5322
1/21/2013 7:00	11852	333	1.499955	279.332	16.25023	-34.51421	-165.7419	74.28271	195.6514	0	967.4238
1/21/2013 8:00	11853	333	1.017968	257.7262	16.83706	-34.87098	-165.4061	73.82484	195.6572	0	967.2347
1/21/2013 9:00	11854	333	0.8255458	247.4863	17.75847	-34.99343	-165.5206	72.7183	195.5324	0	967.1499
1/21/2013 10:00	11855	333	1.212151	255.7761	24.50226	-33.66592	-166.1998	72.4451	195.967	0	967.3035
1/21/2013 11:00	11856	333	1.714211	270.4338	23.65312	-32.22993	-166.5966	71.3462	196.607	0	967.533
1/21/2013 12:00	11857	333	1.560413	269.6163	25.76565	-30.48591	-167.2452	69.51164	197.2101	0	967.2601
1/21/2013 13:00	11858	333	2.465554	291.8969	19.6943	-28.97227	-166.8408	66.50645	197.0842	0	966.801
1/21/2013 14:00	11859	333	2.544772	298.2554	19.48792	-28.01327	-167.1155	65.27325	197.1451	0	966.6469
1/21/2013 15:00	11860	333	2.874141	290.5316	18.91494	-27.56064	-166.9629	66.2943	197.0978	0	966.8372
1/21/2013 16:00	11861	333	2.708341	293.4149	16.54826	-27.75646	-167.1613	69.35749	197.2237	0	967.5705
1/21/2013 17:00	11862	333	1.624077	286.5523	15.4012	-28.24452	-166.505	71.3233	197.0942	0.254	968.1262
1/21/2013 18:00	11863	333	1.747697	284.7803	12.43692	-28.80297	-167.1232	73.50738	196.8219	0	968.4037
1/21/2013 19:00	11864	333	1.616311	281.0951	12.61751	-29.25441	-166.8179	73.42343	196.7882	0	968.6425
1/21/2013 20:00	11865	333	1.691438	286.4468	12.17062	-29.36663	-167.2681	74.07209	196.8916	0	968.6713
1/21/2013 21:00	11866	333	1.465701	276.0922	13.28813	-29.68167	-166.6958	74.58796	196.816	0	968.5316
1/21/2013 22:00	11867	333	1.498629	277.2297	13.51882	-30.31536	-167.2147	74.96037	196.7764	0	968.6714

1/21/2013 23:00	11868	333	1.217357	280.0357	13.61658	-31.04468	-166.4134	74.3926	196.7203	0	968.8409
1/22/2013 0:00	11869	333	1.478749	287.8046	14.04951	-31.04586	-166.5203	75.41213	196.445	0	969.0842
1/22/2013 1:00	11870	333	1.395147	282.5348	15.30497	-30.32347	-167.2071	75.35109	196.3723	0	969.2411
1/22/2013 2:00	11871	333	1.717061	284.6564	16.08041	-29.69983	-167.2071	75.41213	196.6261	0	969.4498
1/22/2013 3:00	11872	333	1.375057	269.0708	19.6354	-29.45112	-166.9552	75.19236	196.7909	0	969.7338
1/22/2013 4:00	11873	333	1.284945	263.9743	19.66021	-29.77061	-167.8786	75.11299	196.9399	0	969.864
1/22/2013 5:00	11874	333	1.423711	254.5304	18.58636	-30.84471	-166.9934	75.28393	196.9265	0	969.8136
1/22/2013 6:00	11875	333	0.9948485	245.1639	19.19995	-31.86553	-166.3524	74.67953	196.6078	0	969.7986
1/22/2013 7:00	11876	333	1.111679	247.6459	20.45306	-32.43733	-166.1158	74.72227	196.4519	0	969.8578
1/22/2013 8:00	11877	333	0.7154641	235.7668	24.33004	-32.80545	-166.5966	74.9451	196.4142	0	969.9015
1/22/2013 9:00	11878	333	0.8173045	245.8278	20.27096	-32.78383	-166.3066	74.1713	196.3853	0	969.7928
1/22/2013 10:00	11879	333	1.219545	253.334	26.04531	-31.34628	-167.1155	73.62948	197.0612	0	969.6265
1/22/2013 11:00	11880	333	1.240425	257.5212	28.08602	-29.18822	-167.2071	73.25402	197.3347	0	969.6973
1/22/2013 12:00	11881	333	1.593775	271.1833	26.66117	-26.78334	-168.2144	71.8285	197.7334	0	969.6095
1/22/2013 13:00	11882	333	1.873704	271.7512	27.84731	-25.06856	-175.7236	68.84009	198.1288	0	968.8652
1/22/2013 14:00	11883	333	1.717383	241.2915	33.93545	-24.07324	-172.9229	66.01958	198.5607	0.254	968.2885
1/22/2013 15:00	11884	333	1.374008	225.5801	36.37276	-22.40305	-168.7944	68.08155	198.2594	0	967.8011
1/22/2013 16:00	11885	333	1.36464	217.6375	35.38263	-23.07744	-168.4891	71.51409	198.4137	0	967.7858
1/22/2013 17:00	11886	333	1.358906	227.3561	30.14294	-23.35728	-167.8863	75.41824	198.076	0	967.5883
1/22/2013 18:00	11887	333	1.609951	228.1995	28.86638	-23.31219	-168.161	76.32941	197.9209	0	967.3071
1/22/2013 19:00	11888	333	1.706338	236.6803	31.52863	-23.1415	-168.3976	77.32606	197.9544	0	966.8965
1/22/2013 20:00	11889	333	1.475184	243.9439	27.8582	-23.0165	-168.6418	77.6542	198.139	0	966.5303
1/22/2013 21:00	11890	333	1.95783	251.2229	27.16169	-22.89135	-168.0313	78.20365	198.3644	0	966.076
1/22/2013 22:00	11891	333	1.742741	254.2683	26.01271	-22.58159	-168.1228	78.57148	197.9215	0	965.6684
1/22/2013 23:00	11892	333	1.682851	264.1783	22.74109	-22.46508	-168.451	78.76531	198.0326	0	965.6441
1/23/2013 0:00	11893	333	1.395532	250.8061	22.84089	-22.60024	-167.5123	79.01409	198.046	0	965.5993
1/23/2013 1:00	11894	333	0.9206912	244.544	23.05944	-22.89557	-167.5352	78.77447	197.7233	0	965.3942
1/23/2013 2:00	11895	333	1.032696	245.6074	19.86237	-23.63186	-167.3902	79.39565	197.5627	0	965.3239
1/23/2013 3:00	11896	333	1.368104	250.6194	18.86974	-24.04272	-167.6115	79.22472	197.5558	0	965.4932
1/23/2013 4:00	11897	333	1.61618	281.3513	20.19571	-24.06263	-167.6726	79.01562	197.6731	0	965.8497
1/23/2013 5:00	11898	333	2.412041	303.0047	12.52383	-24.16438	-167.4818	78.42038	197.8605	0	966.1701
1/23/2013 6:00	11899	333	1.714651	329.9376	18.08481	-24.34071	-168.0618	76.91702	197.5468	0	966.6428
1/23/2013 7:00	11900	333	2.236756	334.8425	19.63412	-24.86124	-167.9473	75.04584	197.3758	0	967.6177
1/23/2013 8:00	11901	333	2.560736	331.4342	20.073	-25.89714	-167.0239	74.90389	196.9462	0	968.9258
1/23/2013 9:00	11902	333	2.49518	328.338	18.84745	-26.95688	-166.9629	71.62093	196.7171	0	970.3613
1/23/2013 10:00	11903	333	3.02204	327.9491	19.56166	-27.57865	-166.9629	68.9164	196.8	0	972.1502
1/23/2013 11:00	11904	333	3.067461	327.4163	19.13253	-27.45225	-166.8103	66.41946	196.9772	0	973.7233
1/23/2013 12:00	11905	333	3.062208	324.8218	19.2007	-26.67442	-167.7031	65.14046	196.5662	0	974.7749
1/23/2013 13:00	11906	333	3.251942	321.6474	18.84517	-26.26448	-169.7941	64.66732	197.2704	0	975.7676
1/23/2013 14:00	11907	333	3.681886	314.7476	16.01966	-26.09531	-164.0783	66.61635	197.2335	0	976.6267
1/23/2013 15:00	11908	333	4.253294	311.9248	12.83858	-26.10546	-167.3063	64.47807	197.4201	0	977.7646
1/23/2013 16:00	11909	333	3.570401	310.7663	13.07977	-26.52074	-166.9629	67.22073	197.0849	0	979.2927
1/23/2013 17:00	11910	333	3.109681	305.2532	10.68064	-27.26866	-166.4974	71.16305	196.7755	0	980.6432
1/23/2013 18:00	11911	333	2.619362	309.1786	9.805685	-28.49045	-166.6271	72.13985	196.6227	0	981.4625
1/23/2013 19:00	11912	333	2.166811	304.4285	9.139063	-30.12746	-166.3295	74.78943	196.6866	0	982.1077
1/23/2013 20:00	11913	333	1.742162	315.5923	9.086083	-31.09159	-166.36	76.22258	196.565	0	982.5077

1/23/2013 21:00	11914	333	1.559042	313.8465	7.30264	-31.67693	-166.1463	74.75585	196.4714	0	983.0105
1/23/2013 22:00	11915	333	1.237935	310.5099	12.21613	-32.26596	-166.2532	74.41702	196.1363	0	983.2052
1/23/2013 23:00	11916	333	1.591359	286.8276	11.92313	-31.90133	-165.9556	75.74334	196.4057	0.254	983.8566
1/24/2013 0:00	11917	333	1.995996	292.212	13.94093	-32.21882	-166.0777	74.88252	196.3376	0	984.5942
1/24/2013 1:00	11918	333	1.636331	291.7394	12.29392	-32.53014	-166.505	74.92374	196.3536	0	984.7982
1/24/2013 2:00	11919	333	0.6856422	287.5524	15.20817	-33.48036	-166.0013	74.33765	196.2016	0	984.7735
1/24/2013 3:00	11920	333	1.46128	282.6916	14.9912	-33.27201	-166.3371	73.64169	196.1679	0	985.4684
1/24/2013 4:00	11921	333	0.16936	299.6872	6.424324	-34.0848	-166.0242	73.31201	196.2599	0	984.5219
1/24/2013 5:00	11922	333	0.2961621	188.0852	21.98919	-35.47342	-166.2913	72.59773	196.2232	0	984.2374
1/24/2013 6:00	11923	333	0.1024218	209.9247	14.92689	-36.49821	-165.8564	71.35841	195.9855	0	983.9134
1/24/2013 7:00	11924	333	0.1791698	226.6842	16.92779	-37.29993	-166.1692	73.40969	195.9388	0	984.2335
1/24/2013 8:00	11925	333	0.1186892	250.6537	11.25857	-37.18626	-166.1692	69.98478	195.926	0	984.4448
1/24/2013 9:00	11926	333	0.1365812	168.5554	14.6989	-37.14517	-166.2913	71.98112	196.0236	0	984.2313
1/24/2013 10:00	11927	333	0.5597662	130.1804	13.45724	-33.93727	-166.9552	70.28393	196.7144	0	983.6368
1/24/2013 11:00	11928	333	0.7293568	122.6548	13.56598	-31.54296	-167.2681	68.86909	197.206	0	983.0208
1/24/2013 12:00	11929	333	1.048054	215.6068	43.52035	-28.02435	-167.5734	67.21922	197.4035	0	983.1246
1/24/2013 13:00	11930	333	0.8907763	225.471	35.26744	-25.82106	-167.6649	64.13161	197.8857	0	982.1687
1/24/2013 14:00	11931	333	0.8619947	189.4427	42.49658	-24.51195	-168.0007	61.31872	198.0935	0	980.8555
1/24/2013 15:00	11932	333	0.908825	150.6722	23.5524	-24.30855	-168.1152	65.28088	197.9029	0.254	979.7132
1/24/2013 16:00	11933	333	1.108929	151.3519	20.96122	-24.72353	-167.5429	68.07849	197.6733	0	978.3892
1/24/2013 17:00	11934	333	1.176347	143.1885	21.42181	-24.81333	-167.4513	72.72593	197.5038	0	977.2662
1/24/2013 18:00	11935	333	0.9466081	146.3584	18.58924	-24.71712	-166.9171	74.98021	197.3811	0	976.2422
1/24/2013 19:00	11936	333	0.9007924	145.9138	20.21785	-24.4816	-166.9247	74.33155	197.307	0.254	975.142
1/24/2013 20:00	11937	333	1.583798	151.2479	16.93409	-24.25942	-167.8252	74.99089	197.2995	0	974.0294
1/24/2013 21:00	11938	333	1.788911	151.5871	16.46354	-24.25795	-167.7565	76.09589	197.8788	0	972.9128
1/24/2013 22:00	11939	333	1.448139	145.657	17.80506	-24.20541	-167.5429	76.40572	197.5043	0	971.8546
1/24/2013 23:00	11940	333	1.144233	131.2898	21.35098	-24.06663	-167.5429	77.18411	197.338	0	971.118
1/25/2013 0:00	11941	333	1.02098	126.345	16.64653	-23.82663	-166.6118	77.53057	197.0222	0	970.3502
1/25/2013 1:00	11942	333	0.9538916	127.7466	16.25524	-23.59672	-166.6882	78.18228	196.8904	0	969.4847
1/25/2013 2:00	11943	333	0.817396	123.633	14.18706	-23.70989	-166.6576	78.68594	196.7989	0	968.4284
1/25/2013 3:00	11944	333	0.5744724	114.7797	17.17757	-24.17282	-166.3447	78.59438	196.6361	0	967.6548
1/25/2013 4:00	11945	333	0.5951521	108.1926	15.49466	-24.41005	-166.5737	79.16518	196.5201	0	967.0985
1/25/2013 5:00	11946	333	0.4241503	77.62232	17.61299	-24.52583	-166.505	78.43869	196.5176	0	966.6339
1/25/2013 6:00	11947	333	0.3317927	55.95697	27.38924	-24.5602	-166.7492	78.04949	196.5768	0	966.5081
1/25/2013 7:00	11948	333	0.3347972	8.612391	21.05641	-25.16905	-166.1387	77.65267	196.459	0	966.609
1/25/2013 8:00	11949	333	0.4876175	346.6446	11.3664	-26.67205	-166.5737	79.76501	196.5226	0	966.8618
1/25/2013 9:00	11950	333	0.5423744	332.3839	9.979792	-27.1744	-167.0239	77.98845	196.5755	0	967.2502
1/25/2013 10:00	11951	333	0.8069482	330.3798	10.46582	-25.89046	-166.7187	74.49333	197.2477	0	968.06
1/25/2013 11:00	11952	333	0.8593575	317.0589	16.9334	-23.57874	-168.5807	72.15359	197.882	0	968.3558
1/25/2013 12:00	11953	333	1.435672	335.3107	30.86768	-20.60219	-165.0169	65.87611	199.1317	0	969.1304
1/25/2013 13:00	11954	333	1.201514	334.575	37.49045	-18.92033	-167.2071	64.76042	198.6627	0	969.4623
1/25/2013 14:00	11955	333	1.567427	309.4346	16.67402	-18.11635	-170.6259	68.48905	198.819	0	969.6664
1/25/2013 15:00	11956	333	1.242207	318.8267	18.07261	-17.74888	-168.9241	67.97013	198.7415	0	969.8818
1/25/2013 16:00	11957	333	1.468416	312.4964	11.13886	-17.99461	-168.2831	74.47044	198.4384	0	970.3373
1/25/2013 17:00	11958	333	0.7920247	324.9012	17.47668	-18.78512	-167.3063	79.21708	198.0652	0	971.09
1/25/2013 18:00	11959	333	0.5533146	318.1809	12.36603	-20.88306	-167.6955	82.78699	197.4579	0	971.8754

1/25/2013 19:00	11960	333	0.5980067	332.1314	21.79434	-22.32297	-167.3902	79.7238	197.3027	0	972.3039
1/25/2013 20:00	11961	333	0.3659502	300.2954	10.58664	-23.58097	-166.4745	79.6017	197.0792	0	972.7569
1/25/2013 21:00	11962	333	0.2252688	298.2248	7.08568	-25.66262	-166.5126	82.32149	196.7991	0	972.8449
1/25/2013 22:00	11963	333	0.2196647	314.4192	2.920313	-26.89663	-166.6042	75.38161	196.6236	0	973.203
1/25/2013 23:00	11964	333	0.1788225	321.2731	2.972491	-28.20593	-166.3219	76.29126	196.4061	0	973.7012
1/26/2013 0:00	11965	333	0.1690227	139.4443	10.08647	-29.55704	-167.1766	77.23296	196.5929	0	974.011
1/26/2013 1:00	11966	333	0.08298092	244.0518	41.6849	-30.72446	-166.2913	73.7882	196.4496	0	974.3376
1/26/2013 2:00	11967	333	0.2111984	162.1775	60.688	-31.4756	-166.5661	74.5147	196.4226	0	974.394
1/26/2013 3:00	11968	333	0.07271171	142.107	0.02095284	-32.07616	-166.1082	75.01531	196.219	0	974.3174
1/26/2013 4:00	11969	333	0.5061065	135.7957	6.139917	-32.70655	-166.5661	75.26257	196.3544	0	974.0447
1/26/2013 5:00	11970	333	0.2456485	137.0491	1.713845	-32.76942	-166.1998	74.1835	196.3172	0	973.8295
1/26/2013 6:00	11971	333	0.04735728	140.216	0.04188692	-33.45998	-166.589	72.78545	196.2304	0	973.9365
1/26/2013 7:00	11972	333	0.2590719	137.1355	2.145572	-33.66794	-166.2684	73.76989	196.158	0	974.1784
1/26/2013 8:00	11973	333	0.366751	133.9558	3.875828	-32.9175	-166.3829	75.16336	196.3726	0	974.04
1/26/2013 9:00	11974	333	0.3692043	149.415	5.134342	-31.71168	-166.505	73.14108	196.6329	0	974.1456
1/26/2013 10:00	11975	333	0.7592601	137.7377	9.719287	-28.19801	-167.8634	77.86635	197.1942	0	974.1702
1/26/2013 11:00	11976	333	0.7636581	137.8474	20.41355	-22.86546	-168.7944	74.66274	197.8047	0.254	973.7874
1/26/2013 12:00	11977	333	1.219572	150.4836	20.20298	-18.90859	-162.1476	72.63436	198.7294	0	973.3716
1/26/2013 13:00	11978	333	1.282014	141.8812	23.66705	-16.43836	-164.2233	64.73142	199.1436	0	972.6818
1/26/2013 14:00	11979	333	1.519547	155.1913	23.67365	-14.04238	-164.4751	62.77324	199.9807	0	972.0646
1/26/2013 15:00	11980	333	1.603182	155.9152	19.80686	-12.72028	-169.5499	66.63924	199.3371	0	971.136
1/26/2013 16:00	11981	333	1.504796	153.8539	18.96728	-12.61313	-169.0996	69.67495	199.2672	0	970.7349
1/26/2013 17:00	11982	333	1.770539	156.8118	15.47645	-13.54	-169.1378	74.40023	199.0007	0	970.241
1/26/2013 18:00	11983	333	1.68621	154.6764	16.266	-15.167	-168.7867	79.28424	198.755	0	969.5579
1/26/2013 19:00	11984	333	1.861842	151.549	14.51315	-15.74458	-168.6494	80.87612	198.6582	0	969.1208
1/26/2013 20:00	11985	333	1.553819	154.7776	12.95319	-15.60409	-168.5883	82.50158	198.7235	0	968.834
1/26/2013 21:00	11986	333	1.425137	153.541	13.99979	-15.03641	-169.0081	83.88589	198.8425	0	968.5378
1/26/2013 22:00	11987	333	1.003079	152.5494	8.451488	-16.20787	-168.947	84.70549	198.7493	0	968.5326
1/26/2013 23:00	11988	333	1.0826	151.6454	7.63347	-17.52749	-168.5578	85.02142	198.5628	0	968.4952
1/27/2013 0:00	11989	333	1.070402	158.2643	12.04601	-16.48107	-168.9547	87.54585	198.6084	0	968.4407
1/27/2013 1:00	11990	333	0.5278556	165.5887	17.17822	-14.44899	-168.741	87.54431	198.9484	0	968.3903
1/27/2013 2:00	11991	333	0.3314093	193.4466	17.26117	-13.56449	-169.4507	86.19358	199.0629	0	968.2618
1/27/2013 3:00	11992	333	0.4451398	170.5242	16.03042	-13.39992	-169.5499	86.15695	199.3229	0	968.1063
1/27/2013 4:00	11993	333	0.3299733	175.2143	16.08243	-13.15704	-169.3515	86.17985	199.4342	0	967.8592
1/27/2013 5:00	11994	333	0.3569038	161.8782	11.97445	-13.17066	-169.5957	86.61483	199.5701	0	967.5743
1/27/2013 6:00	11995	333	0.3371901	165.545	14.25207	-13.10058	-169.878	85.76929	199.493	0	967.6132
1/27/2013 7:00	11996	333	0.405706	159.4071	13.78244	-12.91267	-169.7101	86.18901	199.3972	0	967.6088
1/27/2013 8:00	11997	333	0.6074046	149.2343	11.35758	-12.85607	-169.9162	86.25005	199.6621	0	967.149
1/27/2013 9:00	11998	333	0.4545547	158.3871	16.51868	-12.45167	-169.817	83.87521	199.752	0	967.5184
1/27/2013 10:00	11999	333	0.4932195	147.905	17.25253	-11.24045	-169.9696	78.24028	199.9524	0	967.6547
1/27/2013 11:00	12000	333	0.5915396	154.544	24.84707	-9.75375	-170.603	70.20151	200.3061	0	967.4956
1/27/2013 12:00	12001	333	0.8153437	149.3723	34.86216	-8.723913	-171.9156	70.63954	200.7828	0	967.3523
1/27/2013 13:00	12002	333	0.8877723	153.4411	42.23063	-7.920654	-173.8615	69.58643	200.4998	0	966.9802
1/27/2013 14:00	12003	333	1.352719	123.7661	30.01505	-7.621927	-167.6649	68.14412	201.1015	0	966.6816
1/27/2013 15:00	12004	333	1.125504	126.3631	20.37867	-7.197643	-170.9617	71.44082	200.3421	0	966.3794
1/27/2013 16:00	12005	333	1.094293	125.7164	15.69836	-7.295674	-170.8167	71.95364	200.7958	0	965.9465

1/27/2013 17:00	12006	333	0.8596631	124.3816	19.44832	-7.090125	-170.6564	78.08765	200.6981	0	965.5461
1/27/2013 18:00	12007	333	0.5570251	111.1045	38.87081	-8.680716	-169.9162	87.79005	200.5259	0	965.3522
1/27/2013 19:00	12008	333	0.7635997	106.6483	21.60836	-10.47087	-170.3206	90.56935	200.1502	0	965.391
1/27/2013 20:00	12009	333	0.709362	119.0962	22.34712	-11.50299	-169.7788	92.6481	200.0679	0	965.4847
1/27/2013 21:00	12010	333	0.8153405	139.283	17.63454	-12.19576	-170.3512	91.90787	200.0145	0	965.0314
1/27/2013 22:00	12011	333	0.4703061	139.7533	22.12684	-12.49353	-169.6643	91.06538	199.9436	0	964.7733
1/27/2013 23:00	12012	333	0.7856876	99.34657	20.95893	-12.26833	-170.3588	90.60751	200.0585	0	964.317
1/28/2013 0:00	12013	333	1.100629	101.9962	21.22915	-11.83843	-170.0841	90.22442	200.119	0	964.2479
1/28/2013 1:00	12014	333	0.9082654	59.23921	41.24754	-11.4487	-170.5648	89.92527	200.5447	0	964.3806
1/28/2013 2:00	12015	333	1.268111	116.3321	19.60807	-11.44889	-170.7404	89.27357	200.6372	0	963.17
1/28/2013 3:00	12016	333	1.385801	97.11329	18.89616	-11.7917	-170.5648	89.09957	200.7691	0	962.8173
1/28/2013 4:00	12017	333	1.17736	114.0363	21.53455	-12.22235	-170.5725	89.3804	200.7907	0	962.8373
1/28/2013 5:00	12018	333	1.351843	121.4018	21.04554	-12.51457	-170.8243	89.13467	200.8226	0	962.4711
1/28/2013 6:00	12019	333	1.659954	133.1288	16.83487	-12.91246	-170.6106	89.1881	200.5755	0	961.9084
1/28/2013 7:00	12020	333	1.770268	130.4516	17.12376	-12.86363	-170.8167	89.11025	200.895	0	961.6577
1/28/2013 8:00	12021	333	0.8934111	105.9919	28.57133	-12.8104	-171.3356	91.16	200.9883	0	961.7543
1/28/2013 9:00	12022	333	1.410237	111.1184	22.72988	-12.47585	-173.4953	91.22564	201.526	0	961.4603
1/28/2013 10:00	12023	333	1.497878	124.8596	19.48121	-11.11143	-174.0752	89.85506	203.5554	0	961.0437
1/28/2013 11:00	12024	333	1.379754	132.131	21.63306	-9.899374	-173.9989	88.31966	203.9131	0	960.6915
1/28/2013 12:00	12025	333	1.034245	136.0327	22.52026	-8.996387	-172.0682	89.22472	204.1873	0	960.3823
1/28/2013 13:00	12026	333	1.257949	143.2383	18.54386	-7.829046	-171.1372	89.89017	202.0318	0	959.8137
1/28/2013 14:00	12027	333	1.563079	141.6985	17.31471	-6.778872	-171.0227	88.78974	201.5413	0	958.7151
1/28/2013 15:00	12028	333	1.163965	153.6588	22.46826	-5.347234	-172.2819	88.80195	201.1387	0	957.8749
1/28/2013 16:00	12029	333	0.9775398	153.0587	15.77591	-5.615865	-170.0078	91.93687	200.3563	0	958.4114
1/28/2013 17:00	12030	333	1.438627	154.3778	15.65574	-5.655467	-169.6415	93.49365	199.6016	0	958.2151
1/28/2013 18:00	12031	333	1.299538	155.2111	14.45778	-5.480891	-172.5184	94.21557	200.186	0	958.2755
1/28/2013 19:00	12032	333	0.97824	155.8605	15.4106	-5.137048	-171.7095	94.34682	160.7807	0	957.7214
1/28/2013 20:00	12033	333	0.6997879	159.8241	19.92754	-4.941363	-168.9775	94.12856	199.0011	0	957.5015
1/28/2013 21:00	12034	333	0.5951319	179.9739	22.34343	-4.698783	-168.9394	94.60476	198.9728	0	957.5789
1/28/2013 22:00	12035	333	0.4587525	262.7837	20.7956	-4.380033	-169.2141	94.53455	199.021	0	957.2094
1/28/2013 23:00	12036	333	1.123515	278.9925	20.25547	-4.465805	-168.9089	96.01044	199.1792	0	957.3659
1/29/2013 0:00	12037	333	1.665566	292.8122	17.45109	-4.673065	-169.0462	97.0315	199.1282	0.508	957.2977
1/29/2013 1:00	12038	333	1.363728	287.4121	19.55708	-4.853793	-169.3286	96.88804	199.2383	0.508	957.0141
1/29/2013 2:00	12039	333	1.481858	299.346	14.4405	-5.033688	-169.5652	96.36452	199.2634	0.254	956.1464
1/29/2013 3:00	12040	333	1.523849	302.0643	10.9611	-5.220384	-169.1912	95.37552	199.2799	0.508	956.0994
1/29/2013 4:00	12041	333	1.633674	310.1976	15.771	-5.50345	-168.8173	96.12949	199.3651	0	955.4022
1/29/2013 5:00	12042	333	1.11748	318.2586	15.99412	-5.741304	-169.2599	95.46404	199.3156	0	954.8116
1/29/2013 6:00	12043	333	2.282624	305.4001	11.71126	-6.089322	-169.6643	95.30226	199.411	1.016	954.6537
1/29/2013 7:00	12044	333	2.069562	318.2383	14.89002	-6.557234	-169.2904	94.46587	199.4243	0	954.4757
1/29/2013 8:00	12045	333	1.553907	314.1917	13.85825	-6.937682	-169.0462	93.41276	199.2679	0.762	954.516
1/29/2013 9:00	12046	333	1.745487	311.8179	12.90818	-7.119273	-168.9928	92.86178	199.3355	0	954.5178
1/29/2013 10:00	12047	333	2.096306	312.4855	13.21756	-7.07343	-170.5038	92.44969	200.0414	0.254	954.1348
1/29/2013 11:00	12048	333	2.606867	307.2179	12.56536	-6.967534	-171.2593	91.45305	200.6749	1.016	954.5671
1/29/2013 12:00	12049	333	3.195221	304.3689	12.06417	-6.94521	7.296995	92.52142	192.2923	0	954.7701
1/29/2013 13:00	12050	333	3.976906	301.7884	10.85809	-7.127982	-174.8536	89.20946	173.9837	0.762	954.6716
1/29/2013 14:00	12051	333	3.622256	305.5832	12.65171	-7.138099	-171.1143	86.91398	202.0208	1.016	954.7759

1/29/2013 15:00	12052	333	3.773381	303.0003	11.97383	-7.127295	-170.9006	85.37093	200.5999	0.508	955.0012
1/29/2013 16:00	12053	333	3.7209	307.7864	13.14802	-7.453277	-170.6946	85.84865	201.1057	1.016	955.6801
1/29/2013 17:00	12054	333	4.635802	309.6839	11.91754	-8.562505	-173.129	83.82636	201.9922	0.508	956.2272
1/29/2013 18:00	12055	333	5.045226	307.1022	12.53169	-9.891965	-174.5331	84.13924	203.2413	0.762	956.9102
1/29/2013 19:00	12056	333	5.323543	313.975	13.62128	-11.60343	-174.4339	81.92618	203.6253	0.508	957.9095
1/29/2013 20:00	12057	333	4.902135	309.1336	12.21419	-12.88707	-174.5331	84.15909	204.1817	0	958.7801
1/29/2013 21:00	12058	333	4.51874	313.3637	13.18227	-13.95301	-173.9989	83.09225	203.6907	0	959.0882
1/29/2013 22:00	12059	333	4.062563	309.0183	13.38986	-14.61232	-171.0151	83.11361	203.5917	0	959.7261
1/29/2013 23:00	12060	333	3.999919	310.9165	12.47221	-15.1876	-170.809	83.33797	202.767	0	960.1457
1/30/2013 0:00	12061	333	3.52485	313.5537	14.29151	-15.80542	-170.6717	82.97015	201.2825	0	960.3986
1/30/2013 1:00	12062	333	4.137016	304.8046	12.59643	-16.32798	-170.6564	84.09499	201.0005	0	960.5242
1/30/2013 2:00	12063	333	3.676628	308.0227	12.31492	-16.73608	-171.2059	84.77264	200.9745	0.254	961.0223
1/30/2013 3:00	12064	333	3.761992	305.2145	11.653	-17.13438	-170.9693	85.54035	201.2004	0	960.8023
1/30/2013 4:00	12065	333	3.416792	307.3527	11.88208	-17.4976	-170.8472	84.18504	201.1653	0	960.1579
1/30/2013 5:00	12066	333	3.689548	309.705	12.62268	-17.77234	-171.0609	83.00829	200.9532	0	959.8779
1/30/2013 6:00	12067	333	3.012124	316.6938	14.42167	-18.0337	-171.5187	85.00158	201.1432	0	959.5377
1/30/2013 7:00	12068	333	2.238876	326.8001	18.48634	-18.10044	-171.9537	84.17893	201.0265	0	960.0317
1/30/2013 8:00	12069	333	1.639017	315.3947	17.27898	-18.26973	-170.6335	84.01409	201.109	0	960.7125
1/30/2013 9:00	12070	333	2.527872	307.2183	12.15437	-18.26121	-169.5957	82.35353	200.086	0	960.8381
1/30/2013 10:00	12071	333	3.422571	312.395	11.90928	-17.99645	-167.7794	78.05561	198.8714	0	960.0208
1/30/2013 11:00	12072	333	2.995457	318.9102	15.69878	-17.37525	-168.0313	74.6078	198.2956	0	959.465
1/30/2013 12:00	12073	333	2.354785	328.9969	21.19662	-16.53279	-168.4433	70.87917	197.7523	0.254	959.1284
1/30/2013 13:00	12074	333	2.449907	328.6021	20.12905	-15.98805	-167.9397	70.68685	198.3534	0.254	958.8116
1/30/2013 14:00	12075	333	2.09553	327.3272	21.62704	-15.70267	-167.7871	71.64687	198.0534	0	958.7314
1/30/2013 15:00	12076	333	1.786387	328.913	22.22087	-15.71121	-167.4513	73.28759	198.0675	0	958.7136
1/30/2013 16:00	12077	333	1.919531	328.8647	19.64913	-16.22622	-167.6573	75.24272	197.8335	0	958.8481
1/30/2013 17:00	12078	333	2.256287	332.1845	20.37476	-16.89843	-167.8634	76.16457	197.7229	0	958.7301
1/30/2013 18:00	12079	333	2.480712	339.1364	21.13477	-17.55427	-167.0392	76.84987	197.6153	0	958.9436
1/30/2013 19:00	12080	333	1.793651	333.501	18.89908	-18.44099	-167.1232	78.96677	197.3451	0	959.0942
1/30/2013 20:00	12081	333	2.179881	338.5688	21.68153	-18.35138	-167.726	76.23785	197.3332	0	959.415
1/30/2013 21:00	12082	333	2.111166	348.0244	24.23446	-19.01979	-167.52	78.19297	197.4042	0	959.561
1/30/2013 22:00	12083	333	1.876639	341.9585	23.65587	-19.27822	-167.7489	79.67648	197.4367	0	959.4252
1/30/2013 23:00	12084	333	1.754131	339.3329	21.71656	-19.37157	-167.3902	79.92221	197.646	0	959.4457
1/31/2013 0:00	12085	333	1.802598	338.2877	20.41747	-19.52839	-167.7565	79.96342	197.5704	0	959.3481
1/31/2013 1:00	12086	333	1.563933	334.0271	20.04982	-19.50424	-167.7031	80.49761	197.5973	0	959.247
1/31/2013 2:00	12087	333	1.851268	328.5925	16.82825	-19.65734	-167.2529	79.84438	197.4245	0	959.4198
1/31/2013 3:00	12088	333	2.016797	322.7603	16.51622	-19.70956	-167.3979	79.05988	197.2878	0	959.6088
1/31/2013 4:00	12089	333	2.535285	334.7719	20.9504	-19.90209	-167.6726	77.30011	197.4628	0	959.9355
1/31/2013 5:00	12090	333	2.704872	331.8735	19.68495	-20.41998	-170.5419	77.01775	198.2027	0	960.5905
1/31/2013 6:00	12091	333	2.692056	325.2966	18.30248	-20.9221	-167.3139	76.79797	198.4304	0	961.1583
1/31/2013 7:00	12092	333	3.508899	319.8179	14.52758	-21.56948	-167.0239	76.75829	196.9726	0	961.683
1/31/2013 8:00	12093	333	3.711135	318.8596	14.50329	-22.50312	-166.4134	75.54492	196.5909	0	962.2493
1/31/2013 9:00	12094	333	3.904348	317.4714	13.4186	-23.38033	-166.2913	73.96677	196.526	0	962.9011
1/31/2013 10:00	12095	333	3.782816	318.2496	14.23378	-23.33529	-167.1842	70.95242	197.0195	0	963.5382
1/31/2013 11:00	12096	333	3.78049	316.7702	13.93216	-22.57576	-167.2071	68.94083	197.5128	0	964.0238
1/31/2013 12:00	12097	333	4.208305	308.7935	13.44013	-21.79095	-166.7187	67.5733	197.8431	0	964.3366

1/31/2013 13:00	12098	333	4.214071	305.5964	12.60217	-21.46492	-163.918	66.86665	197.0981	0.254	964.3515
1/31/2013 14:00	12099	333	3.98614	302.7009	13.31845	-21.01938	-163.4296	65.80285	197.0784	0	964.5056
1/31/2013 15:00	12100	333	4.082451	299.7085	14.88043	-20.86503	-167.2986	67.1078	196.5145	0	964.7131
1/31/2013 16:00	12101	333	4.541591	297.7605	13.01731	-21.38895	-166.8408	69.4338	197.2863	0	965.1786
1/31/2013 17:00	12102	333	4.204022	299.5178	10.99467	-22.21698	-167.0239	72.47563	197.0537	0	965.6996
1/31/2013 18:00	12103	333	3.208973	299.5835	9.819963	-23.03475	-166.7492	75.08247	196.8297	0	966.1415
1/31/2013 19:00	12104	333	4.14884	300.4348	10.19432	-23.64419	-166.5661	75.91427	196.6733	0	966.4931
1/31/2013 20:00	12105	333	4.228404	299.331	11.04375	-24.41898	-166.4897	75.89748	196.6045	0	966.8932
1/31/2013 21:00	12106	333	3.809166	299.5663	10.92354	-25.19441	-165.6198	76.23021	196.361	0	967.1693
1/31/2013 22:00	12107	333	4.14916	302.3394	10.66282	-25.87925	-166.0777	76.63009	196.2041	0	967.273
1/31/2013 23:00	12108	333	3.604315	298.7745	11.09273	-26.62087	-166.3524	77.02538	196.1082	0	967.3868
2/1/2013 0:00	12109	333	2.370334	294.1718	11.86924	-27.44014	-166.505	77.79766	196.0662	0	967.4307
2/1/2013 1:00	12110	333	2.173511	292.1069	12.3864	-28.05213	-166.2455	78.75311	196.0736	0	967.3582
2/1/2013 2:00	12111	333	2.06087	290.8614	12.88401	-28.75165	-166.444	77.96098	195.8602	0	967.0139
2/1/2013 3:00	12112	333	2.097876	287.9311	15.3751	-29.39986	-165.5435	77.48174	195.9354	0	967.3811
2/1/2013 4:00	12113	333	2.332596	292.5906	15.63288	-30.10958	-166.0166	76.68045	195.8166	0	967.4166
2/1/2013 5:00	12114	333	2.015572	294.7095	13.31636	-30.78508	-165.7419	76.51714	195.7949	0	967.3948
2/1/2013 6:00	12115	333	1.514889	286.7429	15.4794	-31.42319	-165.5816	75.65633	195.7813	0	967.4816
2/1/2013 7:00	12116	333	1.208477	283.704	16.58857	-31.90208	-165.5511	75.5434	195.6708	0	967.5122
2/1/2013 8:00	12117	333	0.7291613	264.9504	19.77926	-32.28312	-164.6277	75.26562	195.5519	0	967.3732
2/1/2013 9:00	12118	333	0.9157365	261.7938	22.12011	-32.10138	-165.7724	74.99699	195.5845	0	967.4317
2/1/2013 10:00	12119	333	1.463616	273.155	24.48544	-30.58031	-166.3524	72.98234	196.3942	0	967.5603
2/1/2013 11:00	12120	333	1.575068	276.2992	24.90806	-28.7428	-167.146	70.30225	196.5062	0	967.8597
2/1/2013 12:00	12121	333	1.722857	274.9278	30.29768	-26.28567	-175.3649	68.84925	196.8036	0	967.8162
2/1/2013 13:00	12122	333	1.687993	282.699	25.72176	-24.6328	-174.6857	66.04247	197.5618	0	967.2292
2/1/2013 14:00	12123	333	1.56766	272.3469	29.82293	-23.22542	-167.3215	64.02172	197.358	0.254	966.5751
2/1/2013 15:00	12124	333	1.977581	259.783	29.48013	-22.25174	-167.3597	63.98508	199.345	0	966.3834
2/1/2013 16:00	12125	333	1.446699	263.7161	28.94384	-22.10849	-167.2681	67.50615	197.4523	0	966.4228
2/1/2013 17:00	12126	333	1.279632	254.127	21.55549	-23.1825	-166.2455	71.65755	196.8124	0	966.5765
2/1/2013 18:00	12127	333	1.275219	255.343	16.79059	-24.62673	-166.6271	74.83826	196.3859	0	966.9017
2/1/2013 19:00	12128	333	1.244933	262.3566	16.65208	-25.15297	-166.4211	77.19479	196.3578	0	967.1842
2/1/2013 20:00	12129	333	1.023281	256.3007	16.24183	-26.22195	-166.8408	73.573	196.1378	0	967.4913
2/1/2013 21:00	12130	333	1.595641	287.0889	10.84022	-28.50293	-166.4134	79.93594	196.3349	0	967.608
2/1/2013 22:00	12131	333	1.315448	285.678	11.55036	-28.30956	-166.2608	78.15328	196.2711	0	967.7634
2/1/2013 23:00	12132	333	1.135736	274.168	11.7681	-29.0205	-165.4366	74.63375	196.2291	0	967.981
2/2/2013 0:00	12133	333	1.310344	278.8519	14.33719	-30.21484	-166.444	72.23143	195.9872	0	967.912
2/2/2013 1:00	12134	333	1.281541	275.644	13.87665	-32.08359	-165.7419	74.04308	196.1503	0	967.892
2/2/2013 2:00	12135	333	0.9934828	267.9659	14.38113	-32.60136	-165.8792	70.03515	195.9754	0	967.9818
2/2/2013 3:00	12136	333	0.8087525	257.903	11.37349	-33.28833	-165.284	75.76623	196.0323	0	968.2373
2/2/2013 4:00	12137	333	0.5755168	257.728	14.18418	-33.53712	-165.8105	71.96433	195.7946	0	968.1643
2/2/2013 5:00	12138	333	0.8070524	248.3401	14.78856	-35.15665	-166.0471	73.87978	195.8087	0	968.0031
2/2/2013 6:00	12139	333	0.8395864	239.8851	15.76588	-34.85666	-166.2913	73.39291	195.9232	0	967.9364
2/2/2013 7:00	12140	333	0.826229	238.8649	14.89325	-34.97448	-165.7724	73.04339	195.8855	0	967.5634
2/2/2013 8:00	12141	333	0.8269902	233.1396	14.20646	-35.34137	-166.3295	73.72716	195.9876	0	967.1298
2/2/2013 9:00	12142	333	0.9474547	241.2983	17.17895	-33.62597	-166.1692	76.65145	195.8708	0	967.0063
2/2/2013 10:00	12143	333	1.343049	245.1815	25.43657	-28.09441	-166.8789	73.97136	196.864	0	966.4628

2/2/2013 11:00	12144	333	1.733839	255.353	26.45872	-25.50549	-167.2758	72.32301	197.3641	0	966.2225
2/2/2013 12:00	12145	333	1.857785	252.5693	30.07	-22.9975	-164.2233	63.54552	198.3261	0	965.7159
2/2/2013 13:00	12146	333	1.892691	247.3642	31.57514	-20.85658	-161.0487	61.44387	197.4814	0	964.5933
2/2/2013 14:00	12147	333	1.518826	220.4823	35.325	-19.8011	-168.5807	62.50004	198.2343	0	963.6423
2/2/2013 15:00	12148	333	1.681852	248.6753	31.45857	-19.81216	-168.2831	65.8639	198.1896	0.254	963.1179
2/2/2013 16:00	12149	333	1.252146	225.8686	33.44524	-19.77475	-168.3441	67.19021	197.9906	0	962.7154
2/2/2013 17:00	12150	333	1.004347	216.9202	32.22508	-20.14126	-167.9015	73.84772	197.6796	0.254	962.2217
2/2/2013 18:00	12151	333	0.8838381	216.2859	30.33492	-20.73739	-167.085	76.7995	197.3898	0	961.9035
2/2/2013 19:00	12152	333	0.720018	222.8939	26.09893	-20.92671	-167.4818	79.76196	197.4498	0	961.6219
2/2/2013 20:00	12153	333	1.133871	236.684	29.27316	-20.88935	-167.4513	79.45976	197.4836	0	961.1907
2/2/2013 21:00	12154	333	1.922922	275.6211	21.21974	-20.33012	-168.0542	78.20213	197.873	0	960.6853
2/2/2013 22:00	12155	333	2.872277	290.056	16.34192	-20.17696	-167.6726	78.83094	197.9825	0	960.3615
2/2/2013 23:00	12156	333	3.199902	297.2653	12.09356	-20.41143	-167.7565	77.51226	197.7701	0	960.3082
2/3/2013 0:00	12157	333	4.438001	300.9437	11.82431	-20.746	-166.8484	75.58919	197.2963	0	960.4146
2/3/2013 1:00	12158	333	3.871801	305.0878	11.52088	-21.65839	-167.5505	76.81171	197.1199	0	960.6165
2/3/2013 2:00	12159	333	2.981329	298.1861	10.96203	-22.76314	-167.1689	78.47227	197.025	0	960.759
2/3/2013 3:00	12160	333	2.456795	287.6426	11.29704	-23.67843	-166.8713	79.81384	196.7541	0	961.0917
2/3/2013 4:00	12161	333	3.053864	293.3008	12.45431	-24.11655	-167.2376	80.34499	196.7254	0	961.1407
2/3/2013 5:00	12162	333	3.156466	297.0568	10.30104	-24.7542	-166.6958	80.13741	196.7851	0	961.4563
2/3/2013 6:00	12163	333	3.820022	301.1123	10.06285	-25.37357	-166.6271	80.229	196.5986	0	961.6444
2/3/2013 7:00	12164	333	2.9413	295.9538	10.84283	-26.21173	-167.146	79.94817	196.715	0	962.0413
2/3/2013 8:00	12165	333	2.416395	290.093	12.30213	-27.04314	-166.3753	78.47075	196.6199	0.254	962.5565
2/3/2013 9:00	12166	333	2.423217	285.4504	14.40027	-27.53375	-166.5737	77.39626	196.6414	0	962.7906
2/3/2013 10:00	12167	333	3.251323	293.6006	14.60001	-26.65314	-167.291	74.81384	197.3268	0	962.9646
2/3/2013 11:00	12168	333	2.803278	295.2293	17.10536	-25.31482	-167.4818	71.15847	197.2752	0	962.9672
2/3/2013 12:00	12169	333	4.015814	302.0635	14.37263	-23.86262	-174.4873	65.49913	198.2034	0	962.8986
2/3/2013 13:00	12170	333	3.370145	292.9594	18.39776	-22.4904	-176.8301	62.9976	197.9643	0	962.6608
2/3/2013 14:00	12171	333	3.730176	291.7809	19.29537	-21.41928	-164.7117	61.28057	197.603	0	962.5677
2/3/2013 15:00	12172	333	3.963368	293.6566	17.8689	-21.10699	-168.1305	63.71035	197.0243	0	962.4343
2/3/2013 16:00	12173	333	3.192888	291.7986	18.20626	-21.14832	-167.3215	65.79522	197.8685	0	962.6886
2/3/2013 17:00	12174	333	2.284168	285.8027	18.96108	-21.71743	-167.146	69.72684	197.5432	0	962.7115
2/3/2013 18:00	12175	333	1.609957	272.2112	18.21772	-22.701	-166.9934	73.77905	197.238	0	962.6355
2/3/2013 19:00	12176	333	1.974707	275.8271	18.03286	-23.31577	-166.7492	74.23998	197.1596	0	962.8286
2/3/2013 20:00	12177	333	2.464267	280.951	15.7992	-23.66245	-167.8252	75.12062	197.1835	0	962.6245
2/3/2013 21:00	12178	333	2.415034	283.8144	15.57987	-24.03242	-167.8023	76.7995	197.4915	0	962.5034
2/3/2013 22:00	12179	333	2.571384	285.4187	14.73868	-24.46513	-167.3521	78.14108	197.1758	0	962.582
2/3/2013 23:00	12180	333	2.365776	290.1143	14.36693	-24.93229	-167.4818	78.91641	197.1581	0.254	962.683
2/4/2013 0:00	12181	333	2.126464	288.4501	13.73362	-25.81107	-167.7642	78.44022	197.0414	0	962.7258
2/4/2013 1:00	12182	333	1.884126	279.5719	15.45405	-26.46284	-166.7797	77.47563	196.885	0	962.79
2/4/2013 2:00	12183	333	2.246302	281.7805	14.93377	-26.84592	-166.8103	77.33521	196.9358	0	962.7833
2/4/2013 3:00	12184	333	1.982229	277.3766	16.41055	-27.2927	-167.291	78.06171	196.9694	0	962.6791
2/4/2013 4:00	12185	333	1.516285	261.5583	19.9386	-27.90064	-166.8103	78.43411	196.7896	0	962.48
2/4/2013 5:00	12186	333	1.717065	254.4796	20.09529	-28.32642	-167.1155	78.73479	196.6948	0	962.4122
2/4/2013 6:00	12187	333	1.536356	267.7433	19.10854	-28.5641	-167.0239	78.43565	196.6774	0	962.3167
2/4/2013 7:00	12188	333	1.308371	262.019	19.29264	-28.74233	-166.5737	78.64779	196.6222	0	962.2026
2/4/2013 8:00	12189	333	1.07935	252.4442	20.50299	-29.11811	-166.3676	77.97318	196.5602	0	961.9379

2/4/2013 9:00	12190	333	1.105305	258.7016	23.82561	-28.63156	-166.8713	77.2009	196.65	0	961.7734
2/4/2013 10:00	12191	333	1.332912	277.7191	25.17546	-26.3926	-167.6955	73.47685	198.1626	0	961.4805
2/4/2013 11:00	12192	333	1.824774	287.3573	26.12597	-24.06417	-167.6879	69.19418	198.0509	0	961.2704
2/4/2013 12:00	12193	333	1.761839	279.6593	27.63878	-21.57379	-165.5358	61.91091	197.8135	0	960.9822
2/4/2013 13:00	12194	333	1.278587	249.664	33.79124	-19.62118	-180.0887	58.25248	200.1872	0	960.3299
2/4/2013 14:00	12195	333	1.50984	238.7484	38.96363	-18.06494	-164.0172	57.55651	197.9661	0	959.7375
2/4/2013 15:00	12196	333	1.655975	237.5441	33.37873	-17.30894	-169.3362	57.77324	200.1767	0	959.1016
2/4/2013 16:00	12197	333	1.41536	235.4551	31.46	-17.62455	-168.5502	63.58215	198.966	0	958.7095
2/4/2013 17:00	12198	333	0.9615439	237.5934	25.3334	-18.70482	-168.6418	67.323	198.4634	0	958.5767
2/4/2013 18:00	12199	333	0.2974471	203.8918	32.46589	-20.78506	-167.0239	77.10475	198.0568	0	958.0906
2/4/2013 19:00	12200	333	0.5097209	142.4755	9.492285	-23.84901	-167.4818	82.11544	197.6043	0	957.7933
2/4/2013 20:00	12201	333	0.2884057	150.0102	9.58474	-25.42525	-167.7947	80.98449	197.5186	0	957.6467
2/4/2013 21:00	12202	333	0.1713415	109.7588	40.03222	-26.99949	-166.9324	80.5785	197.2618	0	957.5133
2/4/2013 22:00	12203	333	0.01994731	198.0001	16.15858	-28.09607	-167.2758	76.31568	197.0117	0	957.2235
2/4/2013 23:00	12204	333	0.2321031	224.3303	54.03313	-29.83797	-167.3826	79.82607	197.0634	0	957.0159
2/5/2013 0:00	12205	333	0.2098649	322.3017	1.139092	-30.39051	-166.8332	75.13589	196.8973	0.254	957.0772
2/5/2013 1:00	12206	333	0.2249231	323.419	0.3181674	-31.32305	-166.1005	74.0324	196.7334	0	957.056
2/5/2013 2:00	12207	333	0.6677056	323.8389	0.06576127	-32.20304	-167.1155	73.7012	196.8141	0	957.2934
2/5/2013 3:00	12208	333	0.9141458	321.7117	3.550506	-33.31598	-166.1692	75.18626	196.7488	0	957.8084
2/5/2013 4:00	12209	333	0.9821443	314.4978	5.440498	-33.5794	-166.6653	73.88589	196.7441	0	958.3649
2/5/2013 5:00	12210	333	0.924952	305.636	2.407253	-33.80348	-166.7492	71.93839	196.6586	0	958.8294
2/5/2013 6:00	12211	333	0.4819883	314.6558	6.048624	-34.22166	-166.7797	73.09071	196.6253	0	959.3705
2/5/2013 7:00	12212	333	0.5042027	312.4364	6.264688	-34.74538	-166.8026	71.7064	196.5635	0	959.9857
2/5/2013 8:00	12213	333	0.6271067	307.7618	7.789707	-35.26818	-166.795	73.7882	196.6181	0	960.6988
2/5/2013 9:00	12214	333	1.167254	303.0316	7.915821	-33.39996	-167.1766	73.17618	196.7806	0	961.5193
2/5/2013 10:00	12215	333	1.904333	312.7324	10.97951	-30.0924	-168.0618	75.52813	197.1499	0	961.9651
2/5/2013 11:00	12216	333	2.068769	308.2596	13.96606	-26.45989	-168.6952	72.17648	198.1324	0	962.5671
2/5/2013 12:00	12217	333	2.285342	300.7621	17.43222	-23.86552	-172.5871	67.63435	197.5269	0	963.0291
2/5/2013 13:00	12218	333	2.932237	296.734	18.43055	-22.22241	-166.1692	63.64167	198.1343	0	963.3402
2/5/2013 14:00	12219	333	2.910638	304.5269	16.79169	-20.73223	-162.0941	61.10352	198.7875	0.254	963.5161
2/5/2013 15:00	12220	333	3.336515	304.0126	16.66268	-19.51323	-169.031	61.36298	201.9701	0	963.6741
2/5/2013 16:00	12221	333	3.568974	304.5194	13.54724	-19.65595	-169.1302	63.28148	198.7106	0	963.8925
2/5/2013 17:00	12222	333	3.317546	303.423	11.41199	-20.36793	-168.0313	68.31812	198.5546	0.254	964.1893
2/5/2013 18:00	12223	333	2.223205	297.4568	9.813218	-21.4912	-168.1839	74.08736	198.6593	0	964.6992
2/5/2013 19:00	12224	333	1.349966	290.8535	10.41024	-23.5747	-167.8176	74.98785	198.0919	0	964.8336
2/5/2013 20:00	12225	333	0.9020061	300.5431	15.28013	-24.77648	-167.9397	81.63314	197.8491	0	965.1825
2/5/2013 21:00	12226	333	0.7046316	306.6615	13.92459	-25.5249	-167.2758	80.33277	197.5542	0	965.5955
2/5/2013 22:00	12227	333	0.9623768	310.4286	9.27971	-25.21147	-167.9626	76.89718	197.697	0.254	966.0118
2/5/2013 23:00	12228	333	0.3925717	332.6543	12.21431	-25.34622	-167.4971	79.92679	197.8168	0	966.6005
2/6/2013 0:00	12229	333	0.0646764	41.60539	5.455029	-24.99153	-168.6189	76.47594	198.0356	0	966.7545
2/6/2013 1:00	12230	333	0.06350303	87.1012	7.610304	-24.81341	-168.7944	76.74455	198.2834	0	966.9589
2/6/2013 2:00	12231	333	0.3035569	93.37684	15.31843	-24.87402	-168.2831	75.32209	198.2419	0.254	967.4088
2/6/2013 3:00	12232	333	0.3701112	106.734	15.89108	-24.78689	-167.5047	76.22411	198.2148	0	967.6036
2/6/2013 4:00	12233	333	0.496609	120.9091	15.83002	-24.97942	-168.0923	76.75066	197.8224	0	967.6177
2/6/2013 5:00	12234	333	0.5248515	112.3591	14.67992	-25.94971	-167.2681	76.98724	197.62	0	967.8502
2/6/2013 6:00	12235	333	0.4411677	102.0987	13.55401	-27.41306	-166.2379	78.99577	197.1338	0	968.4719

2/6/2013 7:00	12236	333	0.2903336	114.5199	13.23791	-28.48428	-166.7492	79.04004	196.913	0	968.9788
2/6/2013 8:00	12237	333	0.113902	91.60287	11.22043	-29.35192	-166.6042	78.04339	196.7411	0	969.4104
2/6/2013 9:00	12238	333	0.2491419	104.2745	29.42698	-28.86321	-166.9018	77.1078	197.0681	0	969.7554
2/6/2013 10:00	12239	333	0.4484164	119.1963	22.77053	-26.26904	-167.7871	75.51134	197.7413	0.254	970.3429
2/6/2013 11:00	12240	333	0.8887678	119.0954	27.24486	-23.35244	-173.541	65.37093	198.5311	0	970.7474
2/6/2013 12:00	12241	333	0.9916377	134.36	26.58435	-20.00281	-162.9946	52.54124	198.7831	0	971.1458
2/6/2013 13:00	12242	333	1.096782	128.3919	35.11428	-18.28834	-165.7724	52.20394	200.2376	0	971.123
2/6/2013 14:00	12243	333	0.618817	159.266	59.43058	-17.06938	-168.9775	47.08489	199.3888	0	971.0554
2/6/2013 15:00	12244	333	1.283459	41.57376	35.80741	-16.76921	-169.7559	54.17739	200.427	0	971.2112
2/6/2013 16:00	12245	333	1.374076	73.37382	29.75512	-17.26738	-168.7791	59.27964	199.4272	0	971.6296
2/6/2013 17:00	12246	333	1.408095	82.90318	19.18831	-18.39731	-168.8936	62.99302	198.6395	0	972.0739
2/6/2013 18:00	12247	333	1.037051	90.69705	15.88242	-20.32265	-167.7871	71.08064	198.3955	0	972.5695
2/6/2013 19:00	12248	333	0.8315321	74.89271	13.12599	-21.79352	-168.016	73.81415	198.1046	0	973.409
2/6/2013 20:00	12249	333	0.8909275	75.10448	16.71828	-23.02083	-167.6955	73.69205	197.8006	0	974.0796
2/6/2013 21:00	12250	333	0.8553368	98.3363	16.06942	-24.32751	-168.0923	81.44083	197.9517	0	974.5549
2/6/2013 22:00	12251	333	0.5759004	99.6142	15.30973	-25.60116	-167.2147	79.59407	197.6923	0.254	974.9824
2/6/2013 23:00	12252	333	0.4809041	88.52203	11.70868	-26.53747	-167.4818	80.35109	197.3141	0	975.3793
2/7/2013 0:00	12253	333	0.2863244	97.93282	12.98854	-27.02514	-166.7263	77.12611	197.0667	0	975.5942
2/7/2013 1:00	12254	333	0.2092748	100.9325	10.87103	-28.27614	-167.0545	75.13436	196.9196	0	976.0074
2/7/2013 2:00	12255	333	0.204966	13.36353	6.419066	-30.43717	-166.8103	79.6307	197.1107	0.254	976.3247
2/7/2013 3:00	12256	333	8.45E-05	21.63377	0.000335342	-30.5026	-167.1155	73.08613	196.7887	0	976.7677
2/7/2013 4:00	12257	333	0.03154954	14.40686	1.997128	-31.60002	-166.856	73.32574	196.7485	0	977.0019
2/7/2013 5:00	12258	333	0.07339697	5.520684	0.07217266	-32.72343	-166.8103	72.94267	196.7041	0	977.1963
2/7/2013 6:00	12259	333	0.01961871	5.460152	0.04926053	-33.17917	-166.5279	76.05927	196.5747	0	977.1924
2/7/2013 7:00	12260	333	0.00130479	6.065791	0.001867106	-33.68875	-166.4745	73.47533	196.6448	0	977.3344
2/7/2013 8:00	12261	333	0	0	0	-34.53254	-166.7874	71.78576	196.5723	0	978.0766
2/7/2013 9:00	12262	333	0.1268846	9.055343	4.620155	-34.15207	-166.7492	73.91794	196.6891	0	978.4388
2/7/2013 10:00	12263	333	0.0350978	82.6445	23.9204	-29.02817	-168.6418	70.67007	198.5133	0	978.5975
2/7/2013 11:00	12264	333	0.4283465	136.024	33.85197	-23.79278	-173.9607	64.38496	198.5207	0	978.778
2/7/2013 12:00	12265	333	0.7114694	353.9667	68.54311	-21.12057	-162.3307	55.68074	201.7458	0	978.741
2/7/2013 13:00	12266	333	1.06798	132.1529	23.78854	-17.09049	-199.0981	49.80009	198.6297	0	978.429
2/7/2013 14:00	12267	333	0.9081292	286.9048	77.01979	-15.77773	-168.6723	48.06932	199.7362	0	978.1399
2/7/2013 15:00	12268	333	0.8651665	305.0438	62.30244	-14.89987	-171.7553	43.43409	200.1112	0	977.9015
2/7/2013 16:00	12269	333	0.4252774	256.9062	53.60921	-14.60702	-169.5575	46.17372	199.509	0	977.7049
2/7/2013 17:00	12270	333	0.3248078	129.1698	28.33529	-15.742	-168.6494	52.03605	198.9204	0	977.5641
2/7/2013 18:00	12271	333	0.4782377	90.36422	17.36016	-18.3584	-168.5273	71.53088	198.3345	0	977.4617
2/7/2013 19:00	12272	333	0.4154973	115.169	14.34128	-20.72752	-168.0771	80.19236	198.2891	0	977.4931
2/7/2013 20:00	12273	333	0.3914749	134.101	11.81888	-21.91322	-167.9091	78.95304	198.2122	0	977.5019
2/7/2013 21:00	12274	333	0.7892415	149.9545	5.168467	-23.33863	-167.6955	84.97258	198.1948	0	977.4983
2/7/2013 22:00	12275	333	0.7280181	144.5393	4.968403	-24.17878	-168.0923	78.50738	198.1253	0.254	977.4409
2/7/2013 23:00	12276	333	0.8330045	150.1796	7.132228	-26.1634	-168.5197	78.34865	197.7601	0	977.3585
2/8/2013 0:00	12277	333	0.9217413	155.7069	5.934035	-27.3138	-167.9321	77.46495	197.5333	0	977.2893
2/8/2013 1:00	12278	333	0.9421259	151.7486	7.407838	-28.17303	-167.7031	75.04278	197.4498	0	977.1821
2/8/2013 2:00	12279	333	0.6356605	144.5579	8.196779	-27.19145	-167.5123	79.40786	197.4426	0.254	977.0216
2/8/2013 3:00	12280	333	0.679145	145.8678	7.670783	-27.66052	-167.4818	79.15755	197.4641	0	976.9857
2/8/2013 4:00	12281	333	0.2512638	138.7036	6.144421	-27.28922	-167.1766	79.09193	197.3363	0	976.7504

2/8/2013 5:00	12282	333	0.6544109	140.3941	6.591508	-28.08276	-167.3902	78.06934	197.4206	0	976.3697
2/8/2013 6:00	12283	333	0.8633062	151.2889	16.4655	-29.00412	-167.3902	79.74364	197.4198	0	975.9647
2/8/2013 7:00	12284	333	0.50715	147.6647	31.19099	-28.21166	-167.4208	75.52813	197.4925	0	976.1
2/8/2013 8:00	12285	333	0.7296488	155.5798	14.09809	-28.15315	-167.6726	80.81965	197.4951	0.254	975.9205
2/8/2013 9:00	12286	333	0.8905306	146.8314	8.915374	-24.31416	-168.7333	80.12215	198.1236	0	975.9484
2/8/2013 10:00	12287	333	1.145171	142.8586	16.10907	-20.01241	-169.1836	74.90084	198.3435	0	975.5387
2/8/2013 11:00	12288	333	1.297521	146.2949	20.79269	-15.85764	-164.559	69.13008	200.0841	0	975.0735
2/8/2013 12:00	12289	333	1.412027	183.6731	34.00741	-10.00757	-167.1842	60.56017	200.16	0	974.7536
2/8/2013 13:00	12290	333	1.369596	200.2484	43.41665	-6.935441	-168.9852	63.68441	202.9317	0	973.9543
2/8/2013 14:00	12291	333	1.748161	190.9875	34.51562	-5.435427	-167.2529	56.18135	203.1627	0	973.2784
2/8/2013 15:00	12292	333	1.751251	177.4842	30.7584	-4.931196	-167.4742	65.05957	200.8643	0	972.619
2/8/2013 16:00	12293	333	1.644927	171.7586	25.32327	-5.052308	-170.2748	68.93625	200.7534	0	972.3212
2/8/2013 17:00	12294	333	1.603497	162.5105	21.19113	-6.817935	-170.5496	78.24791	200.3276	0	971.8274
2/8/2013 18:00	12295	333	1.797735	162.1	17.68747	-8.850236	-169.8399	83.75005	199.9254	0	971.3766
2/8/2013 19:00	12296	333	2.322484	159.4594	15.63087	-10.08172	-170.0993	86.84682	199.6683	0	971.0966
2/8/2013 20:00	12297	333	1.932258	158.9405	14.40641	-11.21753	-169.9238	90.26104	199.5934	0	971.0568
2/8/2013 21:00	12298	333	1.928653	156.0342	13.149	-11.98804	-169.6262	91.6301	199.4895	0	970.6746
2/8/2013 22:00	12299	333	1.720923	155.8287	12.76906	-12.63973	-169.9238	91.45305	199.5198	0	970.5422
2/8/2013 23:00	12300	333	1.903775	157.1133	12.38112	-12.45367	-169.4812	92.17039	199.5107	0	970.1458
2/9/2013 0:00	12301	333	1.89045	157.3358	14.00072	-11.40789	-169.4965	91.26379	199.579	0	969.5645
2/9/2013 1:00	12302	333	1.694591	154.3099	14.85828	-10.71459	-169.8704	90.41214	199.6324	0	969.0034
2/9/2013 2:00	12303	333	1.860264	156.6132	15.54084	-9.720088	-170.0001	89.16214	199.9733	0	968.1668
2/9/2013 3:00	12304	333	1.61109	160.4233	16.28551	-9.763103	-169.8628	89.92833	199.945	0	967.6794
2/9/2013 4:00	12305	333	1.578906	157.4168	13.36275	-10.61081	-169.8933	88.96373	199.7897	0	966.7617
2/9/2013 5:00	12306	333	1.644457	155.7772	13.03905	-10.16467	-170.893	91.71862	200.0146	0	965.7706
2/9/2013 6:00	12307	333	1.522943	167.2077	20.46419	-9.217633	-170.8853	89.95885	200.639	0	965.1107
2/9/2013 7:00	12308	333	1.613119	170.8358	20.9488	-8.903411	-170.4809	89.0721	200.6642	0	964.6542
2/9/2013 8:00	12309	333	1.656818	169.2461	22.69471	-8.866374	-170.7327	88.43717	200.6661	0	964.0836
2/9/2013 9:00	12310	333	1.498104	178.2123	24.55337	-8.64025	-170.8472	88.33644	200.8538	0	963.8441
2/9/2013 10:00	12311	333	1.340647	179.5514	26.1865	-8.109464	-171.2516	88.85842	201.1374	0	963.5643
2/9/2013 11:00	12312	333	1.334553	189.3067	29.1816	-7.454976	-170.7938	87.87093	201.1227	0	963.3431
2/9/2013 12:00	12313	333	1.482633	200.8385	30.10958	-6.714458	-170.6564	86.51257	201.1323	0	963.1622
2/9/2013 13:00	12314	333	1.332237	200.7186	31.48627	-5.971658	-171.2135	85.21068	201.4069	0	962.6831
2/9/2013 14:00	12315	333	1.331926	200.4476	31.44227	-5.732732	-171.4348	86.71557	201.4084	0	962.3356
2/9/2013 15:00	12316	333	1.303446	210.5988	32.60614	-5.722319	-170.7327	87.12918	201.3107	0.254	962.4142
2/9/2013 16:00	12317	333	1.244413	233.0726	33.16327	-5.845839	-170.2291	87.11849	200.7085	0	962.4996
2/9/2013 17:00	12318	333	1.271004	240.0011	32.72074	-6.032888	-170.5419	88.75921	200.423	0	962.7756
2/9/2013 18:00	12319	333	0.7536216	243.1868	27.76597	-6.154757	-169.9849	90.00768	200.3561	0	963.1522
2/9/2013 19:00	12320	333	0.384275	233.5925	24.00449	-6.140501	-170.1146	90.77997	200.1761	0	963.5983
2/9/2013 20:00	12321	333	0.710547	240.2544	28.35074	-6.167643	-170.168	93.69817	200.1501	0	963.9171
2/9/2013 21:00	12322	333	0.3341869	229.4185	26.58755	-6.132461	-169.9849	92.52906	199.9979	0	964.1039
2/9/2013 22:00	12323	333	0.4646076	229.369	27.12848	-6.125411	-169.3515	92.45428	199.8821	0	964.3419
2/9/2013 23:00	12324	333	0.4290791	242.0661	25.28757	-6.14783	-169.9238	92.57484	199.8125	0	964.5306
2/10/2013 0:00	12325	333	0.3478348	260.7934	25.38553	-6.128933	-170.023	92.8801	199.841	0	964.5963
2/10/2013 1:00	12326	333	0.2690984	218.5961	41.83456	-6.213936	-169.6567	92.78242	199.8284	0	965.1147
2/10/2013 2:00	12327	333	0.0719512	136.8281	18.77491	-6.262043	-169.8551	93.19604	199.8411	0	965.2041

2/10/2013 3:00	12328	333	0.1248947	120.615	24.29151	-6.302053	-170.2977	92.16582	199.8887	0	965.5804
2/10/2013 4:00	12329	333	0.232807	144.5585	20.25383	-6.337947	-170.168	92.51227	199.8423	0	965.7095
2/10/2013 5:00	12330	333	0.5437216	139.86	21.45106	-6.39091	-169.9238	92.68015	199.829	0	965.7379
2/10/2013 6:00	12331	333	0.2067109	95.95301	26.48869	-6.444456	-169.5499	92.6481	199.8042	0	965.7972
2/10/2013 7:00	12332	333	0.4575219	82.25454	17.81281	-6.541899	-169.8704	92.77631	199.789	0	966.1031
2/10/2013 8:00	12333	333	0.937306	84.22445	25.34441	-6.632102	-170.1375	93.4555	199.7519	0	966.2332
2/10/2013 9:00	12334	333	1.322351	103.172	21.48412	-6.433807	-169.8628	92.20245	200.0423	0	966.6125
2/10/2013 10:00	12335	333	1.413113	90.71865	23.6897	-6.248476	-170.0841	89.92527	199.8785	0	966.4091
2/10/2013 11:00	12336	333	1.697022	88.14922	25.94462	-5.798271	-170.0764	88.39597	200.0116	0	966.4383
2/10/2013 12:00	12337	333	1.934262	69.67286	25.87808	-5.570933	-170.1604	82.08033	200.1922	0	965.7546
2/10/2013 13:00	12338	333	1.88371	71.46836	27.47804	-5.378024	-170.5191	83.57149	200.3582	0	965.4089
2/10/2013 14:00	12339	333	2.329414	76.51007	23.94141	-5.759335	-170.2062	83.23571	200.1921	0	965.1713
2/10/2013 15:00	12340	333	2.193048	79.47156	28.02343	-5.976198	-169.9238	86.50951	200.0743	0	965.1763
2/10/2013 16:00	12341	333	2.310688	65.41412	27.8195	-6.473183	-170.1756	86.53088	200.023	0	965.2928
2/10/2013 17:00	12342	333	2.47437	69.72887	28.163	-6.756743	-169.7483	85.13284	199.9097	0	964.7389
2/10/2013 18:00	12343	333	2.334555	63.54664	28.39147	-6.949949	-169.8704	85.22594	199.8206	0	963.8068
2/10/2013 19:00	12344	333	2.155203	57.51845	30.22799	-6.919222	-170.0459	83.27843	199.8071	0	963.3324
2/10/2013 20:00	12345	333	2.782253	65.48062	28.23306	-6.913577	-169.9925	81.01043	199.9161	0	962.5547
2/10/2013 21:00	12346	333	2.249164	61.93376	31.08075	-7.052451	-169.9314	85.17709	200.0284	0	962.493
2/10/2013 22:00	12347	333	2.184499	22.70304	34.69628	-7.230511	-169.8017	87.41611	200.0277	0	962.3222
2/10/2013 23:00	12348	333	2.279437	18.07296	31.24275	-8.586104	-169.1149	86.63467	199.903	0	962.1174
2/11/2013 0:00	12349	333	2.489265	13.82312	29.76974	-9.790555	-169.7865	86.3279	199.6355	0	961.504
2/11/2013 1:00	12350	333	2.567721	8.525187	28.9823	-10.72629	-169.5652	84.16062	199.5466	0	960.9691
2/11/2013 2:00	12351	333	2.555738	7.061159	26.95538	-11.71419	-169.672	84.3987	199.4257	0	960.4757
2/11/2013 3:00	12352	333	2.452986	2.501372	23.85807	-12.12943	-169.3438	84.63833	199.3516	0	960.4379
2/11/2013 4:00	12353	333	2.562993	356.4768	22.87985	-12.53245	-169.382	84.46739	199.2913	0	960.2447
2/11/2013 5:00	12354	333	2.26134	348.6193	21.21634	-12.87117	-169.3515	85.50677	199.6524	0	960.3062
2/11/2013 6:00	12355	333	2.106347	353.5386	21.3194	-13.21067	-169.2904	85.41825	199.4077	0	960.3929
2/11/2013 7:00	12356	333	2.074503	351.9742	22.15688	-13.52478	-169.443	84.91153	199.4489	0.254	960.5061
2/11/2013 8:00	12357	333	2.079745	350.9954	20.51412	-14.07959	-169.5041	83.73022	199.4259	0.508	960.666
2/11/2013 9:00	12358	333	1.929571	351.5785	22.19954	-14.14077	-169.6415	81.63619	199.4693	0.254	960.9061
2/11/2013 10:00	12359	333	1.784911	337.1282	20.67952	-13.68265	-169.7712	78.36697	199.7279	0.508	961.1212
2/11/2013 11:00	12360	333	1.852058	323.922	19.04324	-13.09548	-170.3206	75.22746	200.0121	0	961.0401
2/11/2013 12:00	12361	333	1.726384	314.9708	15.36861	-11.74965	-177.8451	66.50798	200.1584	0	960.8629
2/11/2013 13:00	12362	333	1.788704	306.9341	15.41969	-9.867788	-173.9684	66.09589	199.9226	0	960.5034
2/11/2013 14:00	12363	333	1.411152	306.7339	19.48647	-8.911842	-169.8399	62.55346	200.5361	0	960.1953
2/11/2013 15:00	12364	333	0.5798314	289.307	42.57396	-7.628513	-171.0456	57.91059	202.9855	0	959.8613
2/11/2013 16:00	12365	333	0.6488283	303.5363	18.17366	-7.74552	-170.8396	60.55712	201.1374	0	959.9449
2/11/2013 17:00	12366	333	0.2209332	286.8454	22.03113	-8.336702	-170.168	66.39352	200.4794	0	960.0211
2/11/2013 18:00	12367	333	0.3325444	226.7629	8.102573	-10.86024	-170.0001	83.29066	199.962	0	960.0739
2/11/2013 19:00	12368	333	0.3977764	162.8804	20.13922	-13.79062	-169.4125	90.24273	199.7217	0	960.1136
2/11/2013 20:00	12369	333	0.5154991	165.9077	11.11118	-15.39524	-169.6186	87.7412	199.6138	0	959.8172
2/11/2013 21:00	12370	333	0.8027353	166.7048	8.676178	-16.8153	-169.0767	85.44725	199.4346	0	959.5352
2/11/2013 22:00	12371	333	0.6857384	165.8145	12.53878	-17.2872	-169.588	85.6945	199.4006	0	959.1711
2/11/2013 23:00	12372	333	0.9968991	154.4392	7.137446	-17.62178	-169.5423	86.27905	199.4279	0	958.7191
2/12/2013 0:00	12373	333	0.7390747	160.3765	9.862638	-16.93266	-169.4354	84.17435	199.3819	0	958.4789

2/12/2013 1:00	12374	333	0.9257153	168.589	13.27128	-16.57024	-169.6338	86.80255	199.4762	0	958.0355
2/12/2013 2:00	12375	333	0.6342968	173.9011	15.99277	-15.41046	-169.443	86.70793	199.5062	0	957.677
2/12/2013 3:00	12376	333	1.027658	149.4682	10.8945	-15.72108	-169.4583	88.20824	199.5323	0	957.1108
2/12/2013 4:00	12377	333	1.213782	185.5557	27.61177	-13.06439	-170.2901	87.92283	199.8701	0	956.6083
2/12/2013 5:00	12378	333	1.243669	182.4618	25.2933	-11.87726	-170.3206	88.5959	200.1718	0	955.9086
2/12/2013 6:00	12379	333	1.299736	180.4194	26.0108	-11.34754	-170.3512	88.35629	200.3695	0	954.9542
2/12/2013 7:00	12380	333	1.174166	193.4244	29.31651	-11.215	-170.5954	88.31355	200.3913	0	954.8266
2/12/2013 8:00	12381	333	1.229139	195.2514	29.44884	-10.9731	-170.4809	88.26775	200.4982	0	954.8221
2/12/2013 9:00	12382	333	1.374518	219.2977	35.40203	-10.46509	-170.5343	86.92313	200.6444	0	954.7035
2/12/2013 10:00	12383	333	1.694013	220.5367	36.37882	-9.401544	-170.603	81.7995	200.6741	0	954.228
2/12/2013 11:00	12384	333	1.864168	221.3475	35.75296	-8.05585	-171.1067	76.8926	200.9834	0	953.5966
2/12/2013 12:00	12385	333	1.862103	213.5214	37.13804	-7.220924	-171.3585	76.09132	201.1564	0	953.3953
2/12/2013 13:00	12386	333	1.620239	216.0643	38.41963	-6.471615	-171.2974	76.8056	201.2998	0	952.9639
2/12/2013 14:00	12387	333	1.587657	220.1092	36.50549	-6.082209	-171.6561	80.87154	201.3186	0	952.5812
2/12/2013 15:00	12388	333	1.800588	215.8982	32.7512	-5.540029	-170.4885	84.47044	201.1769	0	952.2018
2/12/2013 16:00	12389	333	1.547621	208.8371	30.936	-5.229249	-171.1372	82.41458	201.0228	0	951.8585
2/12/2013 17:00	12390	333	1.524312	214.0056	32.08494	-5.073832	-170.9693	82.44053	200.83	0	951.6756
2/12/2013 18:00	12391	333	1.348786	199.5067	30.55984	-5.08349	-170.8396	83.77905	200.6074	0	951.2609
2/12/2013 19:00	12392	333	1.335387	189.8906	24.84208	-4.781865	-170.603	83.7058	200.8133	0	951.0723
2/12/2013 20:00	12393	333	1.180448	209.5275	29.56907	-4.647007	-170.9006	92.24517	200.8231	0	950.8727
2/12/2013 21:00	12394	333	1.275547	227.4178	31.00818	-4.557256	-169.7865	93.89505	200.3899	0	950.6287
2/12/2013 22:00	12395	333	1.623183	246.8051	27.5281	-4.372254	-169.7865	93.47381	200.2127	0	950.3376
2/12/2013 23:00	12396	333	1.303059	250.2971	24.67346	-4.483552	-168.7715	94.35903	199.1417	0	949.9204
2/13/2013 0:00	12397	333	1.561682	260.2005	22.39442	-4.484385	-169.4049	94.04158	199.2185	0	949.9066
2/13/2013 1:00	12398	333	1.691616	271.7875	19.27387	-4.447936	-169.5728	94.0141	199.4272	0	950.0598
2/13/2013 2:00	12399	333	1.593043	274.1774	17.05905	-4.365784	-169.6567	94.08278	199.4727	0	950.3587
2/13/2013 3:00	12400	333	1.483011	276.47	15.80393	-4.193707	-169.5423	93.56386	199.416	0	950.5455
2/13/2013 4:00	12401	333	1.701169	284.1654	15.8143	-4.114861	-169.4507	94.57118	199.3773	0	950.5933
2/13/2013 5:00	12402	333	1.300629	274.3528	24.28561	-3.9996	-169.5728	94.77265	199.3746	0	950.7079
2/13/2013 6:00	12403	333	1.14919	259.3504	21.64131	-4.027548	-169.527	95.09164	199.6799	0	950.5003
2/13/2013 7:00	12404	333	1.881035	279.6273	21.14579	-4.013982	-170.0459	93.86758	200.3569	0	950.412
2/13/2013 8:00	12405	333	1.944371	290.1733	16.12959	-3.885554	-169.5193	90.83797	200.0871	0	950.5811
2/13/2013 9:00	12406	333	3.052886	298.5581	12.11604	-3.882468	-170.1451	84.13619	199.9803	0	950.8745
2/13/2013 10:00	12407	333	3.899916	305.4189	14.72826	-4.007437	-170.8701	84.37582	200.2432	0	951.1241
2/13/2013 11:00	12408	333	4.163814	308.7816	13.88604	-4.410541	-170.0764	79.51775	200.5827	0	951.4736
2/13/2013 12:00	12409	333	4.678586	306.4402	13.96684	-4.942837	-166.6271	76.04553	200.7786	6.858002	952.0093
2/13/2013 13:00	12410	333	4.486419	307.3152	14.12595	-5.60866	-171.8927	73.49669	199.8377	0.254	952.2455
2/13/2013 14:00	12411	333	3.518012	314.7506	21.24143	-6.24329	-179.1424	68.64778	200.2309	0	952.7221
2/13/2013 15:00	12412	333	2.382738	318.5289	20.79745	-6.059041	-170.0993	67.67556	199.7329	0.254	953.3121
2/13/2013 16:00	12413	333	2.394463	322.9966	22.31314	-6.168039	-169.8857	73.47074	199.9671	1.524	953.7906
2/13/2013 17:00	12414	333	3.263321	320.3699	16.47429	-7.908383	-169.4125	78.57148	199.5891	3.302	954.6959
2/13/2013 18:00	12415	333	4.245261	309.7805	13.71108	-9.358471	-169.2904	76.8865	199.3222	2.032	955.6327
2/13/2013 19:00	12416	333	3.127084	327.8092	18.9334	-10.43824	-169.1683	76.69113	199.4444	0	956.5419
2/13/2013 20:00	12417	333	2.244955	333.8427	21.94497	-10.98197	-170.0001	77.73357	199.6924	0	957.1231
2/13/2013 21:00	12418	333	2.546325	333.8381	22.64165	-11.42452	-169.6872	76.97502	199.6538	0	957.6826
2/13/2013 22:00	12419	333	2.354289	322.0164	19.98368	-11.94446	-169.2599	75.2702	199.4744	0	958.1846

2/13/2013 23:00	12420	333	2.168107	324.4432	17.25723	-12.14846	-169.5346	78.20518	199.3243	0	958.7156
2/14/2013 0:00	12421	333	2.325524	321.6331	16.41514	-12.75297	-169.0081	82.94572	199.3382	0	959.1963
2/14/2013 1:00	12422	333	1.782367	321.0851	16.34945	-13.56685	-168.7486	85.64413	199.2192	0	959.7299
2/14/2013 2:00	12423	333	2.145838	316.0793	11.79492	-14.74453	-169.2294	86.94908	199.0842	0.254	960.341
2/14/2013 3:00	12424	333	2.046699	317.5887	12.6994	-15.62461	-168.6112	84.13619	198.8601	0	960.9852
2/14/2013 4:00	12425	333	2.636411	317.8101	12.61852	-16.3379	-168.6341	83.0724	198.4771	0	961.6052
2/14/2013 5:00	12426	333	1.771387	327.6944	17.52659	-18.12426	-168.2831	84.8749	198.2406	0	962.2765
2/14/2013 6:00	12427	333	1.645133	333.1959	16.54822	-19.49781	-167.9626	82.18259	198.0738	0	963.2562
2/14/2013 7:00	12428	333	1.19262	325.2814	10.77106	-21.42661	-168.3594	83.56843	197.9375	0	963.9341
2/14/2013 8:00	12429	333	2.105629	310.7302	8.218012	-22.5554	-167.9321	82.82515	197.8314	0	964.7674
2/14/2013 9:00	12430	333	2.258187	305.8573	10.71024	-21.20976	-167.8863	80.08247	197.9872	0	965.3846
2/14/2013 10:00	12431	333	2.407224	308.7102	12.30842	-19.48514	-188.6738	71.86971	198.3712	0	965.7753
2/14/2013 11:00	12432	333	2.65872	305.894	12.97039	-17.29413	-171.1143	63.00676	198.096	0	966.1177
2/14/2013 12:00	12433	333	3.056531	309.0363	13.2246	-15.78555	-165.7571	58.19754	198.2824	0	966.1794
2/14/2013 13:00	12434	333	2.646434	309.6299	15.15309	-14.19704	-167.3368	52.1551	200.6207	0	966.0411
2/14/2013 14:00	12435	333	3.1116	306.767	15.0863	-12.58744	-166.5203	48.75308	198.2012	0	965.9997
2/14/2013 15:00	12436	333	3.281215	300.4769	16.9148	-12.34542	-165.9556	54.05834	198.6966	0	966.1924
2/14/2013 16:00	12437	333	2.868453	295.7601	14.58278	-12.50647	-169.3286	55.40754	199.1712	0	966.4991
2/14/2013 17:00	12438	333	3.46249	298.1421	12.18828	-12.68076	-168.4433	61.76133	199.0734	0	966.983
2/14/2013 18:00	12439	333	3.285935	302.2274	11.26377	-13.43513	-168.6189	67.79613	198.714	0	967.6543
2/14/2013 19:00	12440	333	3.148024	301.6404	10.56737	-14.26669	-168.802	74.20334	198.6246	0	968.0003
2/14/2013 20:00	12441	333	2.466103	311.8055	10.50813	-14.53623	-168.9317	77.91519	198.7194	0	968.2449
2/14/2013 21:00	12442	333	2.625045	314.2321	12.62862	-14.80883	-168.6876	78.54552	198.5875	0	968.4557
2/14/2013 22:00	12443	333	2.364428	315.5233	13.59932	-15.2195	-167.5505	79.11941	198.5019	0	968.7251
2/14/2013 23:00	12444	333	2.241074	316.8508	14.21646	-15.56706	-169.0691	79.14993	198.6913	0	968.8124
2/15/2013 0:00	12445	333	2.928504	312.3347	11.108	-15.88082	-170.4198	79.07208	199.3763	0	969.0204
2/15/2013 1:00	12446	333	3.123623	311.8556	12.67301	-16.55944	-168.3976	79.56355	199.3065	0	969.3373
2/15/2013 2:00	12447	333	2.107655	318.1924	13.35549	-18.2535	-168.0847	82.41153	198.3865	0	969.7846
2/15/2013 3:00	12448	333	1.682249	311.5663	8.719569	-19.63019	-168.161	81.7934	198.0347	0	970.102
2/15/2013 4:00	12449	333	2.01123	311.7455	9.003561	-18.78756	-168.3747	81.85902	198.1036	0	970.2688
2/15/2013 5:00	12450	333	2.220088	310.6209	8.80967	-19.20639	-167.4818	81.12185	198.0913	0	970.6491
2/15/2013 6:00	12451	333	2.02542	310.193	9.249352	-19.48598	-168.3365	82.85567	198.0511	0	971.0621
2/15/2013 7:00	12452	333	1.776816	304.8496	8.372575	-20.49185	-167.4208	84.5376	197.7998	0	971.3806
2/15/2013 8:00	12453	333	2.322889	297.8996	9.876516	-19.75968	-167.4208	83.11819	197.6874	0	971.7269
2/15/2013 9:00	12454	333	2.494587	304.1241	11.61329	-19.54548	-167.7489	79.6246	197.7901	0	972.1088
2/15/2013 10:00	12455	333	2.727507	304.646	12.45998	-18.75333	-169.1989	72.80682	198.1911	0	972.3569
2/15/2013 11:00	12456	333	2.94278	309.2077	13.43081	-17.53826	-173.5258	65.8578	199.056	0	972.3151
2/15/2013 12:00	12457	333	3.157266	314.1324	14.05788	-16.61742	-160.8655	62.71371	197.7972	0	972.4415
2/15/2013 13:00	12458	333	2.899178	310.0354	16.54882	-15.84164	-171.7858	60.71738	198.3478	0	972.3617
2/15/2013 14:00	12459	333	3.119928	305.5479	14.16073	-15.63963	-173.5029	62.31383	198.1676	0	972.1854
2/15/2013 15:00	12460	333	2.701214	312.0687	16.83166	-15.07694	-171.9232	57.33215	199.3527	0	972.1032
2/15/2013 16:00	12461	333	2.556533	307.0522	17.24615	-15.23695	-168.741	65.54034	198.7646	0	972.1851
2/15/2013 17:00	12462	333	2.662017	303.5025	11.87924	-16.07508	-168.2526	67.52599	198.4469	0	972.3745
2/15/2013 18:00	12463	333	1.469622	305.3487	8.961096	-17.27007	-167.9091	81.65298	198.202	0	972.5916
2/15/2013 19:00	12464	333	0.8872346	298.1957	8.183528	-19.44894	-167.4513	83.97747	197.6201	0	972.6614
2/15/2013 20:00	12465	333	0.8715131	307.5919	7.136573	-20.82502	-167.8176	85.08858	197.3731	0	972.4915

2/15/2013 21:00	12466	333	0.8774714	305.3878	5.445226	-21.82795	-167.7184	79.55134	197.2403	0	972.3064
2/15/2013 22:00	12467	333	0.009302486	292.9899	0.4772038	-23.99613	-167.3979	77.51379	197.5125	0	972.1827
2/15/2013 23:00	12468	333	0.03031985	291.932	0.006467844	-25.50552	-166.9171	77.43289	197.0753	0	972.1821
2/16/2013 0:00	12469	333	0.01100152	186.7866	10.68316	-26.80255	-167.085	77.77325	196.9104	0	971.9772
2/16/2013 1:00	12470	333	0.09792566	147.618	3.310429	-27.89066	-165.8411	74.66274	196.7096	0	971.8068
2/16/2013 2:00	12471	333	0.163419	111.9165	35.90705	-29.35386	-165.7037	76.40726	196.3252	0.254	971.6331
2/16/2013 3:00	12472	333	0.00152069	98.09705	0.002464251	-29.82547	-166.1692	76.13863	196.1774	0	971.3831
2/16/2013 4:00	12473	333	0.07361266	345.0581	23.07938	-30.63293	-166.2913	74.22929	196.1297	0	971.4697
2/16/2013 5:00	12474	333	0.2097814	348.4778	55.29803	-31.68959	-166.1387	73.12276	196.1869	0	971.5054
2/16/2013 6:00	12475	333	0.1678026	131.9021	1.057441	-31.92653	-166.2608	74.58796	196.0799	0	971.4078
2/16/2013 7:00	12476	333	0.1344036	132.8017	0.6730769	-32.33067	-165.9556	74.52233	196.0042	0	971.3915
2/16/2013 8:00	12477	333	0.1262742	132.7517	0.5830265	-32.42545	-166.0166	73.01897	196.0294	0	971.5483
2/16/2013 9:00	12478	333	0.4575425	132.5025	6.984581	-29.39997	-166.5355	75.10689	196.412	0	971.4791
2/16/2013 10:00	12479	333	0.6500747	132.9349	14.1154	-23.57706	-165.6122	71.88192	198.5961	0	971.0627
2/16/2013 11:00	12480	333	1.088412	120.7427	17.99418	-19.31679	-171.1448	70.88527	198.5065	0	970.937
2/16/2013 12:00	12481	333	1.32347	128.396	28.26016	-15.15066	-166.4516	55.27629	199.7104	0	970.7657
2/16/2013 13:00	12482	333	1.668479	147.6228	31.18607	-12.25804	-165.6579	50.59222	200.4571	0	970.0436
2/16/2013 14:00	12483	333	1.338234	163.1745	34.72804	-10.51396	-172.3429	46.18898	200.5081	0	969.749
2/16/2013 15:00	12484	333	1.988113	151.3074	24.96914	-10.59202	-170.0154	49.20943	199.1471	0	969.2266
2/16/2013 16:00	12485	333	1.367868	145.4232	24.24665	-10.9283	-169.237	49.95577	199.1948	0	968.8251
2/16/2013 17:00	12486	333	1.384036	153.4875	20.36532	-11.84116	-169.0081	58.27079	199.2521	0	968.6067
2/16/2013 18:00	12487	333	0.8773896	159.4717	12.52928	-14.83735	-168.3976	70.84711	198.7997	0	968.4241
2/16/2013 19:00	12488	333	0.7885829	163.5426	10.45653	-17.17189	-168.4891	76.12642	198.3817	0	968.3563
2/16/2013 20:00	12489	333	1.323366	155.0284	8.573816	-19.6743	-168.6647	80.90054	198.1931	0	967.7219
2/16/2013 21:00	12490	333	1.632497	154.969	11.66642	-18.7015	-167.7565	74.73143	198.1533	0	967.0472
2/16/2013 22:00	12491	333	1.609094	155.2849	12.17128	-18.1793	-168.1228	76.88955	198.3022	0	966.6401
2/16/2013 23:00	12492	333	1.543014	156.0624	12.10884	-18.19267	-168.5273	75.47472	198.2396	0	966.0871
2/17/2013 0:00	12493	333	1.272542	155.7944	12.74055	-17.20149	-168.6876	74.07667	198.3303	0	965.4323
2/17/2013 1:00	12494	333	1.747038	154.7963	14.0697	-16.26979	-168.5883	71.80712	198.4302	0	964.741
2/17/2013 2:00	12495	333	1.839432	154.1087	15.2411	-15.5399	-168.657	71.77813	198.5503	0	964.4763
2/17/2013 3:00	12496	333	1.986205	156.4862	14.91014	-15.05467	-168.8249	72.24364	198.6532	0	963.7221
2/17/2013 4:00	12497	333	1.9618	154.9044	15.61576	-14.63709	-168.8554	71.09284	198.6608	0	962.7903
2/17/2013 5:00	12498	333	1.968551	153.5788	16.29442	-14.2554	-168.3441	70.91579	198.7528	0	962.0933
2/17/2013 6:00	12499	333	2.388746	153.2036	16.77857	-13.94923	-168.8631	71.05468	198.7007	0	961.0974
2/17/2013 7:00	12500	333	2.411472	151.8283	17.32022	-13.65458	-169.0386	75.88528	198.7937	0	960.1171
2/17/2013 8:00	12501	333	2.430858	152.8249	17.05668	-13.59307	-168.9165	82.9274	199.1112	0	959.0726
2/17/2013 9:00	12502	333	2.911415	153.0032	16.6996	-12.84399	-168.512	82.68626	198.8559	0	958.1668
2/17/2013 10:00	12503	333	2.82551	153.5441	17.97831	-11.41784	-167.6421	81.51714	198.6333	0	957.5012
2/17/2013 11:00	12504	333	3.067091	153.781	18.89171	-10.33727	-167.2071	81.50799	197.8398	0	956.6319
2/17/2013 12:00	12505	333	2.804637	155.2348	19.21801	-9.225209	-166.1769	80.44877	196.8572	0	955.8385
2/17/2013 13:00	12506	333	2.771206	155.5534	20.06057	-8.436904	-165.6808	82.28638	196.4863	0	955.1237
2/17/2013 14:00	12507	333	2.449497	154.0285	18.46864	-8.305624	-166.0929	85.65787	195.786	0	954.3295
2/17/2013 15:00	12508	333	1.998176	153.9743	20.12134	-7.087932	-163.6967	83.39901	194.6842	0	953.9841
2/17/2013 16:00	12509	333	1.71762	150.9651	19.75219	-7.01441	-163.4372	85.19236	193.2931	0	953.8851
2/17/2013 17:00	12510	333	1.9753	152.3876	17.80359	-7.213845	-162.6283	87.84193	193.5913	0	953.8457
2/17/2013 18:00	12511	333	1.465862	151.0255	19.58155	-7.66442	-162.3918	89.52234	192.3571	0	953.6558

2/17/2013 19:00	12512	333	1.273913	149.3967	17.8799	-8.121521	-161.6821	90.18626	191.9784	0	953.687
2/17/2013 20:00	12513	333	1.011921	133.1424	17.40004	-8.124852	-161.8957	90.82272	191.9246	0	953.6807
2/17/2013 21:00	12514	333	0.7692225	119.0491	19.90371	-8.17281	-162.117	90.6884	192.2312	0	953.7162
2/17/2013 22:00	12515	333	0.4670212	93.38272	22.72323	-8.132543	-161.4531	91.21038	181.3126	0	953.8846
2/17/2013 23:00	12516	333	0.4128026	33.1735	24.79494	-8.250506	-160.2626	91.58279	185.5473	0	954.016
2/18/2013 0:00	12517	333	0.5430278	37.11773	25.80396	-8.301823	-162.056	91.17527	191.2654	0	954.0585
2/18/2013 1:00	12518	333	0.5623739	25.22996	28.28556	-8.317745	-161.3768	91.10201	191.4727	0	954.3391
2/18/2013 2:00	12519	333	0.7842431	13.96383	32.99458	-8.379442	-161.621	91.421	191.5427	0	954.5159
2/18/2013 3:00	12520	333	1.108349	356.6389	22.92076	-8.500702	-161.4455	91.55683	191.5601	0	954.9484
2/18/2013 4:00	12521	333	1.941347	354.3597	23.04549	-8.740715	-159.8277	90.70518	191.1344	0	955.2524
2/18/2013 5:00	12522	333	3.253619	341.6846	20.97884	-11.11047	-159.6369	86.73846	189.5244	0	955.9709
2/18/2013 6:00	12523	333	2.9866	345.8743	23.31669	-13.46075	-158.3319	83.92405	189.2894	0	956.8296
2/18/2013 7:00	12524	333	2.829816	345.708	22.55711	-15.14796	-158.3853	83.84163	189.0097	0	957.6846
2/18/2013 8:00	12525	333	2.983485	346.8289	21.78415	-16.57956	-156.9583	82.8053	187.2254	0	958.4598
2/18/2013 9:00	12526	333	3.415711	353.2945	22.03963	-16.80777	-156.6836	79.60323	186.481	0	959.0598
2/18/2013 10:00	12527	333	3.093505	354.7669	22.82597	-16.51165	-156.9812	80.11757	186.8488	0	959.6053
2/18/2013 11:00	12528	333	3.268445	349.4316	23.99963	-16.49743	-156.9812	77.86941	187.021	0	960.0882
2/18/2013 12:00	12529	333	3.443334	347.6999	25.37462	-16.51657	-157.3857	76.05927	187.0741	0	960.5612
2/18/2013 13:00	12530	333	3.458216	345.6392	23.22457	-16.64989	-162.0255	77.67709	187.2798	0	960.8611
2/18/2013 14:00	12531	333	3.340812	340.2712	22.15593	-16.94417	-155.8289	77.31689	186.4846	0	961.2779
2/18/2013 15:00	12532	333	3.425458	343.0854	23.0862	-17.18717	-155.0047	77.02538	185.6704	0	961.9061
2/18/2013 16:00	12533	333	3.550691	340.0158	24.01551	-17.79682	-154.6384	76.20121	185.0187	0	962.8124
2/18/2013 17:00	12534	333	3.993258	339.4943	21.11734	-18.82506	-153.4174	77.52752	184.1712	0	963.629
2/18/2013 18:00	12535	333	4.207465	341.0008	23.09615	-19.97669	-152.8832	77.63436	183.3196	0	964.8397
2/18/2013 19:00	12536	333	3.712999	343.3119	22.90446	-20.82584	-153.0206	75.96922	182.7779	0	966.1189
2/18/2013 20:00	12537	333	3.657967	345.1772	23.5361	-21.56738	-152.1888	75.0901	182.834	0	966.9922
2/18/2013 21:00	12538	333	3.430006	347.338	23.29858	-22.05422	-153.1121	75.00005	183.0874	0	967.3794
2/18/2013 22:00	12539	333	3.35486	340.7988	21.73373	-21.83497	-153.2113	74.32086	183.0823	0	967.4124
2/18/2013 23:00	12540	333	3.583878	341.7734	22.42133	-21.8735	-153.4708	73.61574	183.0843	0	967.5651
2/19/2013 0:00	12541	333	3.375178	341.1302	22.5602	-22.2799	-153.0206	75.47929	183.207	0	968.0757
2/19/2013 1:00	12542	333	3.597433	344.0993	24.3087	-22.73455	-153.4632	74.40023	183.2864	0	968.7172
2/19/2013 2:00	12543	333	3.462001	341.4724	22.42785	-23.30111	-153.3182	74.77721	183.356	0	969.2813
2/19/2013 3:00	12544	333	3.493915	339.0986	21.59952	-23.73411	-153.509	72.5733	183.2533	0	969.7482
2/19/2013 4:00	12545	333	3.349554	341.2212	22.73589	-24.43077	-153.2724	74.52843	183.1057	0	970.4778
2/19/2013 5:00	12546	333	3.163396	340.6723	22.12826	-25.30148	-153.0129	75.32819	182.9431	0	971.3008
2/19/2013 6:00	12547	333	3.237037	337.3577	20.47307	-26.39781	-152.6543	75.91885	182.6942	0	971.8948
2/19/2013 7:00	12548	333	3.158314	333.228	20.08016	-27.02409	-152.1735	75.85169	182.5224	0	972.3862
2/19/2013 8:00	12549	333	2.748289	334.2031	21.05924	-27.48149	-152.9824	75.69907	182.7385	0	973.2454
2/19/2013 9:00	12550	333	2.552002	329.097	21.56209	-27.19588	-153.2495	73.28149	183.0393	0	974.1223
2/19/2013 10:00	12551	333	2.790838	335.5042	22.85884	-25.42139	-148.6173	69.01408	183.8117	0	974.9481
2/19/2013 11:00	12552	333	2.755177	335.9887	23.40663	-23.62439	-147.7626	68.3868	183.6114	0	975.6291
2/19/2013 12:00	12553	333	3.293751	342.0458	24.27791	-21.20588	-148.2739	64.4628	185.5506	0	975.9655
2/19/2013 13:00	12554	333	3.500177	338.7225	24.42373	-19.33428	-147.0911	60.82727	184.2312	0	975.864
2/19/2013 14:00	12555	333	3.499474	334.715	22.77802	-18.56676	-170.9006	57.08642	185.3589	0	975.7643
2/19/2013 15:00	12556	333	3.717652	335.2914	21.44407	-18.15846	-155.1878	55.12519	185.1895	0	976.1646
2/19/2013 16:00	12557	333	3.584119	335.1725	22.05431	-18.30504	-156.0731	54.97409	184.7496	0	977.0341

2/19/2013 17:00	12558	333	3.124253	337.2448	22.096	-19.19423	-154.2339	60.73112	184.9581	0	977.9625
2/19/2013 18:00	12559	333	2.64695	337.0941	20.10794	-20.79491	-154.4476	67.84193	184.3605	0	979.092
2/19/2013 19:00	12560	333	2.183691	328.2665	16.70699	-22.59917	-154.2034	72.09711	184.1991	0	980.0214
2/19/2013 20:00	12561	333	2.082368	327.4497	16.86349	-24.07376	-154.2645	73.31354	183.9944	0	980.6423
2/19/2013 21:00	12562	333	1.847163	326.9857	15.36663	-25.26442	-154.1424	75.56629	183.902	0	981.1928
2/19/2013 22:00	12563	333	1.994777	335.2918	16.34177	-26.32583	-153.8982	74.53301	183.8928	0	981.5223
2/19/2013 23:00	12564	333	2.392616	344.2522	16.15256	-27.02033	-153.2266	74.16061	183.7626	0	981.9163
2/20/2013 0:00	12565	333	1.663435	343.516	17.90223	-27.90546	-153.3182	75.99975	183.7249	0	982.4789
2/20/2013 1:00	12566	333	1.192499	330.4049	13.51794	-29.03479	-152.8298	77.06049	183.2032	0	982.9976
2/20/2013 2:00	12567	333	1.116762	318.8378	10.49672	-29.94854	-153.28	77.97166	182.9167	0	983.2185
2/20/2013 3:00	12568	333	0.8490144	311.7181	13.71543	-30.82484	-152.8985	79.1011	182.8201	0	983.5557
2/20/2013 4:00	12569	333	1.597496	312.4662	5.248897	-31.77734	-153.3106	77.62215	182.8844	0	984.222
2/20/2013 5:00	12570	333	1.167652	327.3333	6.351529	-32.56656	-152.6772	78.11818	182.7712	0	984.8222
2/20/2013 6:00	12571	333	0.8922238	334.095	13.7685	-32.16232	-152.8908	77.38406	182.732	0	984.9324
2/20/2013 7:00	12572	333	0.7127152	330.3973	14.90359	-32.45057	-152.6772	73.93015	182.6752	0	985.0786
2/20/2013 8:00	12573	333	0.8008211	335.8398	20.11821	-32.53489	-152.99	76.74455	182.7164	0	985.5263
2/20/2013 9:00	12574	333	0.6966366	345.4748	37.07995	-30.24122	-153.4784	71.9567	183.273	0	985.6494
2/20/2013 10:00	12575	333	1.326285	59.63025	34.74768	-25.6913	-147.3658	51.38282	184.8528	0	985.4788
2/20/2013 11:00	12576	333	1.344542	75.97316	33.73418	-22.0159	-151.5248	46.11267	184.4676	0	985.4269
2/20/2013 12:00	12577	333	1.371511	40.8919	36.02039	-19.56011	-149.846	44.11938	185.9324	0	985.569
2/20/2013 13:00	12578	333	1.559849	39.61097	35.19926	-17.77198	-155.5999	41.29429	185.3188	0	985.4063
2/20/2013 14:00	12579	333	1.554592	31.92581	33.97942	-16.21165	-153.3945	40.51132	187.8568	0	984.914
2/20/2013 15:00	12580	333	1.658266	27.48998	29.73815	-15.35478	-156.4775	42.79307	187.7654	0	984.6053
2/20/2013 16:00	12581	333	1.377237	29.60916	31.51437	-14.81879	-157.9656	41.73232	186.5379	0	984.5035
2/20/2013 17:00	12582	333	0.9287236	58.07835	28.98601	-14.7896	-155.7907	44.55284	186.3649	0	984.6987
2/20/2013 18:00	12583	333	0.912906	84.7381	17.86921	-16.69583	-155.2107	61.4515	185.5973	0	984.7759
2/20/2013 19:00	12584	333	0.5689467	110.1143	11.00753	-19.33279	-155.0352	70.78454	185.1058	0	984.8585
2/20/2013 20:00	12585	333	0.7487136	83.2713	12.78941	-21.08807	-155.1421	75.28088	184.7446	0	984.6949
2/20/2013 21:00	12586	333	0.9819298	117.6196	13.71219	-21.90112	-155.4626	80.60903	185.076	0	984.3335
2/20/2013 22:00	12587	333	1.304109	125.6026	14.54641	-22.86647	-155.0886	75.28393	184.928	0	984.2844
2/20/2013 23:00	12588	333	1.341557	121.3094	16.69927	-22.20144	-155.6991	73.98051	185.0324	0	984.0074
2/21/2013 0:00	12589	333	1.511639	119.8482	15.20792	-22.7497	-154.5544	73.24181	185.0967	0	983.8595
2/21/2013 1:00	12590	333	0.934413	113.9869	13.45129	-23.72323	-154.4781	80.1771	184.993	0	984.0665
2/21/2013 2:00	12591	333	0.958479	119.6085	12.90992	-24.33327	-154.5544	80.13436	184.9217	0	984.2733
2/21/2013 3:00	12592	333	0.5285841	123.6657	7.972092	-25.08863	-155.3328	81.74609	184.6559	0	984.4457
2/21/2013 4:00	12593	333	0.8123364	120.5965	13.07732	-25.10794	-155.2184	78.52569	184.7619	0	984.4302
2/21/2013 5:00	12594	333	0.9817772	131.3551	9.771065	-25.56955	-154.9207	80.09621	184.849	0	984.6339
2/21/2013 6:00	12595	333	0.9695178	141.7318	10.54186	-25.30779	-154.6689	78.33034	184.8583	0	985.1051
2/21/2013 7:00	12596	333	0.9851212	136.3507	7.756702	-25.87789	-154.8521	78.8401	184.8795	0	985.3655
2/21/2013 8:00	12597	333	1.093072	134.7324	9.732134	-26.46849	-154.7529	77.26196	184.9118	0	985.2236
2/21/2013 9:00	12598	333	1.335708	139.7935	13.10314	-24.04539	-155.4549	64.74058	185.1862	0	984.7106
2/21/2013 10:00	12599	333	1.457956	132.6187	17.88638	-19.57157	-165.8105	52.25125	185.1788	0	984.1395
2/21/2013 11:00	12600	333	1.365316	123.9548	21.378	-16.81023	-152.433	45.52353	186.055	0	983.5175
2/21/2013 12:00	12601	333	1.581676	121.6003	22.72573	-13.16794	-153.0892	41.55375	186.3233	0	983.1743
2/21/2013 13:00	12602	333	1.781956	145.0934	26.58845	-9.979993	-161.7431	35.19233	185.5437	0	983.1073
2/21/2013 14:00	12603	333	1.469314	150.0764	28.77576	-7.521356	-156.1112	33.58366	187.1237	0	982.6934

2/21/2013 15:00	12604	333	1.552053	139.3469	23.53255	-6.847367	-159.8506	32.91364	186.602	0	981.9274
2/21/2013 16:00	12605	333	1.073491	139.164	25.37255	-7.013479	-158.2709	35.96156	187.923	0	981.3103
2/21/2013 17:00	12606	333	1.457738	101.1006	27.64435	-7.78786	-157.1338	52.8877	187.6042	0	980.8158
2/21/2013 18:00	12607	333	1.301862	99.45026	23.5497	-10.77122	-156.8667	63.99577	187.0424	0	980.5507
2/21/2013 19:00	12608	333	1.08574	127.0623	20.32201	-14.10331	-156.8972	71.74303	186.7965	0	980.2024
2/21/2013 20:00	12609	333	1.1851	133.7957	14.13488	-15.46239	-156.6302	78.21281	186.6366	0	979.9468
2/21/2013 21:00	12610	333	1.02356	135.1875	12.08172	-15.88895	-156.3631	74.53454	186.4833	0	979.8234
2/21/2013 22:00	12611	333	1.348054	132.192	9.473194	-16.58775	-156.2791	79.7299	186.4511	0	979.5748
2/21/2013 23:00	12612	333	1.267698	128.9029	11.65408	-17.1734	-156.3631	76.6835	186.4046	0	979.0851
2/22/2013 0:00	12613	333	0.8385469	122.3535	11.0851	-17.27403	-156.5691	81.4622	186.3263	0	978.4952
2/22/2013 1:00	12614	333	0.9919104	134.1952	10.23419	-18.72881	-156.0502	82.93504	186.2166	0	977.969
2/22/2013 2:00	12615	333	0.9827359	132.9284	7.883318	-19.66019	-155.6991	84.32088	186.1686	0	977.7679
2/22/2013 3:00	12616	333	0.6043051	117.2	17.76189	-19.85657	-155.9205	85.79829	186.0178	0	977.2355
2/22/2013 4:00	12617	333	0.6483607	102.4444	17.55206	-19.71903	-156.1494	82.42832	185.9139	0	976.4987
2/22/2013 5:00	12618	333	0.8410596	119.5727	10.73674	-20.59591	-156.012	82.15817	186.1175	0	975.8428
2/22/2013 6:00	12619	333	0.8372611	114.0393	13.8669	-20.60605	-156.5004	81.35842	186.0831	0	975.6152
2/22/2013 7:00	12620	333	0.8626318	95.45379	12.72226	-20.22939	-156.0807	79.44144	186.1786	0	975.3294
2/22/2013 8:00	12621	333	0.7501787	119.7659	13.68741	-20.67283	-155.8594	78.46922	186.1973	0	974.9653
2/22/2013 9:00	12622	333	0.7921957	124.6984	22.40932	-18.16407	-156.9964	69.72684	186.494	0	974.1917
2/22/2013 10:00	12623	333	0.9776878	132.0205	17.01556	-15.3432	-156.2868	62.98997	187.2699	0	973.5855
2/22/2013 11:00	12624	333	1.087171	299.8078	85.09914	-12.83883	-154.5392	61.34467	186.9233	0	972.8466
2/22/2013 12:00	12625	333	0.9807018	309.1408	79.42361	-9.721023	-164.3072	57.10168	187.9207	0	971.855
2/22/2013 13:00	12626	333	1.597786	102.0222	33.58533	-5.669433	-155.2413	56.9689	188.6454	0	970.5813
2/22/2013 14:00	12627	333	2.158411	125.9583	23.32117	-3.34379	-158.2861	54.39717	189.2061	0	969.5969
2/22/2013 15:00	12628	333	2.156986	125.6371	22.41262	-2.161304	-156.2257	55.3526	189.0845	0	968.8145
2/22/2013 16:00	12629	333	1.908308	122.0892	24.79769	-2.361121	-158.9653	54.44296	189.0859	0	968.3442
2/22/2013 17:00	12630	333	1.579301	86.13484	26.99548	-3.512456	-158.309	62.35047	188.6255	0	968.02
2/22/2013 18:00	12631	333	1.459419	91.96293	20.60999	-5.588276	-157.4849	69.45975	188.1333	0	967.7502
2/22/2013 19:00	12632	333	1.113645	98.70655	16.46461	-7.273732	-158.3243	78.16092	187.9109	0	967.5411
2/22/2013 20:00	12633	333	1.077012	107.4877	15.90876	-9.106369	-157.874	85.87307	187.8774	0	967.1808
2/22/2013 21:00	12634	333	0.8067068	100.8221	16.54532	-10.27939	-157.5688	86.5843	187.6629	0	966.7025
2/22/2013 22:00	12635	333	0.8974549	97.12975	16.96176	-10.4087	-157.4162	86.37826	187.6203	0	966.1606
2/22/2013 23:00	12636	333	0.9584595	102.1875	19.3565	-10.9141	-158.0572	90.09011	187.7728	0	965.6039
2/23/2013 0:00	12637	333	0.7773228	92.80776	21.79673	-11.89437	-157.813	89.7818	187.754	0	965.3728
2/23/2013 1:00	12638	333	0.854876	108.6349	15.26169	-12.43475	-157.9885	91.37521	187.6693	0	965.0018
2/23/2013 2:00	12639	333	1.067931	105.6639	16.0705	-12.95727	-157.7138	87.6481	187.5879	0	964.6398
2/23/2013 3:00	12640	333	0.8450052	116.3183	14.27925	-13.92	-157.4925	90.82576	187.5978	0	964.4926
2/23/2013 4:00	12641	333	0.3662517	115.1867	13.2809	-15.2869	-157.2559	90.61056	187.3204	0	964.3853
2/23/2013 5:00	12642	333	0.4344268	36.03025	44.1003	-16.22166	-157.6909	88.34866	187.2753	0	964.174
2/23/2013 6:00	12643	333	0.7639101	124.439	23.28777	-17.17145	-157.2864	87.44664	187.431	0	963.8922
2/23/2013 7:00	12644	333	0.3605251	74.94659	78.85974	-17.62977	-157.6299	87.87246	187.2658	0	963.8559
2/23/2013 8:00	12645	333	0.4664478	331.5296	10.73259	-18.25496	-157.0422	87.75951	187.2276	0	963.7437
2/23/2013 9:00	12646	333	0.4120521	50.47876	42.66612	-15.40444	-157.3093	82.49853	187.5971	0	963.4002
2/23/2013 10:00	12647	333	0.9681523	87.22611	32.26525	-11.26083	-155.5236	66.70944	188.148	0	963.1327
2/23/2013 11:00	12648	333	1.391328	86.51247	31.83829	-8.123154	-155.5541	62.64503	187.9935	0	962.9044
2/23/2013 12:00	12649	333	1.125903	56.03128	62.96856	-4.609074	-158.4769	59.2537	191.0325	0	962.8204

2/23/2013 13:00	12650	333	0.9706676	1.580832	45.36127	-2.484385	-159.4995	54.78025	190.3508	0	962.789
2/23/2013 14:00	12651	333	1.370826	28.6428	42.88303	-0.7940696	-156.9583	54.91609	191.0175	0	962.7297
2/23/2013 15:00	12652	333	1.298463	89.90414	30.48924	0.2981245	-156.8972	53.61572	191.8434	0	962.5345
2/23/2013 16:00	12653	333	1.915455	91.92207	23.50474	0.2388931	-161.8728	51.67585	190.8409	0	962.3563
2/23/2013 17:00	12654	333	1.363776	93.69193	26.72215	-0.4726589	-159.2324	56.08215	190.3638	0	962.4431
2/23/2013 18:00	12655	333	0.826555	114.7338	21.83094	-2.782505	-159.1866	68.28149	189.3748	0	962.7597
2/23/2013 19:00	12656	333	0.4876951	107.0413	18.46378	-5.325437	-159.0264	78.2357	188.7721	0	963.0779
2/23/2013 20:00	12657	333	0.8510866	94.00555	10.342	-7.468866	-158.3625	86.11727	188.8306	0	963.2814
2/23/2013 21:00	12658	333	0.4655762	93.13554	10.57377	-8.712276	-159.0111	87.36727	188.4447	0	963.8063
2/23/2013 22:00	12659	333	0.2801742	103.6726	7.458624	-10.34443	-158.6753	89.2293	188.4579	0	964.2444
2/23/2013 23:00	12660	333	0.3876939	117.132	10.56948	-12.31954	-158.2709	88.52264	188.6337	0	964.4573
2/24/2013 0:00	12661	333	0.3835731	164.6361	50.95493	-14.01771	-158.0572	91.25006	188.2422	0	964.7248
2/24/2013 1:00	12662	333	0.06601871	128.4582	22.31687	-15.46329	-157.5993	89.80927	188.0462	0	965.0866
2/24/2013 2:00	12663	333	0.8717445	136.5166	4.449439	-16.63447	-158.4845	84.56812	188.1867	0	965.1619
2/24/2013 3:00	12664	333	0.3352561	341.4173	55.36338	-18.33282	-157.9427	86.92619	187.8897	0	965.5767
2/24/2013 4:00	12665	333	0.2746819	325.4753	4.872994	-19.05222	-157.7138	83.25555	187.7305	0	965.7118
2/24/2013 5:00	12666	333	0.00306954	94.65595	0.005601318	-19.80013	-157.9885	83.73327	187.6369	0	965.825
2/24/2013 6:00	12667	333	0.2393505	140.3941	7.431752	-20.54618	-157.8893	82.28638	187.6963	0	966.0823
2/24/2013 7:00	12668	333	0.3210244	114.0077	65.5474	-21.64849	-157.668	79.80164	187.5052	0	966.3908
2/24/2013 8:00	12669	333	0.6116619	133.4207	6.282941	-21.92774	-157.6833	79.61239	187.658	0	966.4265
2/24/2013 9:00	12670	333	0.2133023	141.0526	9.190703	-18.27082	-158.6066	80.3282	187.9998	0	966.4266
2/24/2013 10:00	12671	333	0.4583445	117.1682	15.40998	-13.34671	-164.559	79.71617	189.4207	0	966.7949
2/24/2013 11:00	12672	333	1.190514	120.9408	15.09898	-8.23608	-175.4488	68.12276	190.4839	0	966.9668
2/24/2013 12:00	12673	333	1.055055	143.3855	25.93871	-2.520743	-184.614	50.01529	192.1427	0	966.7507
2/24/2013 13:00	12674	333	1.363702	162.72	30.50856	0.8816988	-170.893	45.19539	193.6499	0	966.514
2/24/2013 14:00	12675	333	1.42945	166.1589	30.01751	2.280595	-159.9879	42.43135	191.3567	0	965.9999
2/24/2013 15:00	12676	333	1.641958	158.8344	26.26793	2.778127	-162.552	46.77506	191.005	0	965.5656
2/24/2013 16:00	12677	333	1.45435	144.3606	21.90498	2.325516	-157.5154	46.48965	191.4223	0	965.3864
2/24/2013 17:00	12678	333	1.075497	147.6319	18.40484	0.7771865	-160.4153	56.24545	190.7502	0	965.3693
2/24/2013 18:00	12679	333	0.6527652	160.7537	10.14988	-2.344827	-159.5148	68.45853	190.0334	0	965.564
2/24/2013 19:00	12680	333	0.9771471	149.4818	7.71489	-4.993601	-159.3927	79.27355	189.421	0	965.6168
2/24/2013 20:00	12681	333	1.274386	154.4509	10.0236	-7.191616	-159.7895	83.12887	189.3059	0	965.569
2/24/2013 21:00	12682	333	1.221952	156.1796	10.76477	-8.041867	-159.614	87.32148	189.2805	0	965.676
2/24/2013 22:00	12683	333	1.121313	155.8983	8.93008	-9.36339	-159.1179	92.05592	189.1266	0	965.5839
2/24/2013 23:00	12684	333	1.038635	158.7309	9.299796	-10.30853	-159.2706	94.8978	188.9982	0	965.3069
2/25/2013 0:00	12685	333	0.8891115	158.9932	7.926624	-10.28962	-158.9119	95.83645	189.1129	0	965.1393
2/25/2013 1:00	12686	333	0.6452799	153.2843	10.30609	-9.973812	-159.1561	93.52112	189.0408	0	964.9515
2/25/2013 2:00	12687	333	0.9102959	156.0726	8.960462	-10.92572	-159.1866	93.92252	189.1626	0	964.9225
2/25/2013 3:00	12688	333	0.9159359	164.9225	10.32781	-11.54153	-159.4919	92.6481	189.2216	0	965.0455
2/25/2013 4:00	12689	333	0.9998354	159.2828	12.98545	-12.24778	-159.4308	96.73694	189.2265	0	964.8283
2/25/2013 5:00	12690	333	0.5598626	175.8983	9.198072	-12.02569	-159.2171	92.51227	189.2408	0	964.9373
2/25/2013 6:00	12691	333	0.7685951	181.4403	9.730024	-13.13425	-159.179	92.91825	189.3085	0	964.9711
2/25/2013 7:00	12692	333	0.8570855	186.8645	11.23085	-14.23085	-159.3469	87.17191	189.2017	0	964.9822
2/25/2013 8:00	12693	333	0.9857205	166.8492	12.39136	-15.38313	-158.8432	88.68596	189.0152	0	964.6513
2/25/2013 9:00	12694	333	0.9539843	175.1236	29.04975	-11.68738	-159.7284	87.82514	189.2256	0	964.7046
2/25/2013 10:00	12695	333	0.7460108	143.7901	43.64771	-9.62219	-159.8429	90.4381	189.6155	0	964.7176

2/25/2013 11:00	12696	333	1.039992	221.2963	37.4537	-6.919453	-159.9116	87.59164	189.9366	0	964.8845
2/25/2013 12:00	12697	333	0.9544921	210.7339	37.61737	-4.994025	-155.8594	78.93472	190.2436	0	964.5427
2/25/2013 13:00	12698	333	1.286279	217.6618	36.82874	-3.602402	-161.5752	72.59926	190.4648	0	964.1265
2/25/2013 14:00	12699	333	1.258456	197.9049	38.62013	-2.213234	-161.9034	71.90786	191.3825	0	963.8014
2/25/2013 15:00	12700	333	1.593176	233.7683	32.85972	-2.71543	-160.7968	76.30805	190.8939	0	964.1409
2/25/2013 16:00	12701	333	1.854453	257.5353	29.77888	-3.402987	-160.5603	80.91885	190.7211	0	964.4395
2/25/2013 17:00	12702	333	1.322511	234.3057	33.35553	-3.717322	-160.545	84.67191	190.5303	0	964.7495
2/25/2013 18:00	12703	333	1.152952	220.893	35.47887	-4.331147	-160.4763	86.04401	190.2934	0	965.1087
2/25/2013 19:00	12704	333	0.7050168	179.4097	30.30312	-4.69975	-160.4839	87.17802	190.2946	0	965.3759
2/25/2013 20:00	12705	333	0.8844397	153.8669	11.84622	-5.971132	-160.5221	95.61056	190.2263	0	965.511
2/25/2013 21:00	12706	333	0.8751613	152.3706	6.981176	-8.094648	-159.6827	94.5544	190.059	0	965.6853
2/25/2013 22:00	12707	333	0.9669565	164.0429	11.53295	-9.32304	-160.0337	94.69939	189.9295	0	965.3536
2/25/2013 23:00	12708	333	0.8908189	166.1764	10.09738	-9.628804	-159.6979	92.94572	189.8487	0	965.5563
2/26/2013 0:00	12709	333	0.3655823	156.2435	16.04126	-9.483521	-159.7666	94.60171	189.8248	0	965.888
2/26/2013 1:00	12710	333	0.8553911	141.2616	13.08995	-10.93237	-159.8582	91.65452	189.974	0	965.8824
2/26/2013 2:00	12711	333	0.7927718	149.1301	12.06289	-11.8438	-160.0108	91.57515	189.8153	0	965.8137
2/26/2013 3:00	12712	333	0.5617705	151.3408	5.571074	-11.92173	-160.0947	92.20245	189.691	0	965.8237
2/26/2013 4:00	12713	333	0.6705223	146.0411	7.544725	-12.82833	-160.0642	90.04585	189.8393	0	965.6698
2/26/2013 5:00	12714	333	0.3176456	155.3928	7.415298	-14.29535	-159.5606	89.40176	189.7013	0	966.1396
2/26/2013 6:00	12715	333	0.4373014	90.81214	65.62453	-15.89898	-159.3621	89.14841	189.4451	0	966.7933
2/26/2013 7:00	12716	333	0.3249055	131.5727	15.24133	-15.73266	-159.4308	84.52843	189.3855	0	967.0905
2/26/2013 8:00	12717	333	0.558615	140.9386	5.790649	-16.10135	-159.5758	88.84621	189.4452	0	967.4243
2/26/2013 9:00	12718	333	0.6244796	132.3007	15.932	-12.38696	-159.9803	89.67496	189.9122	0	967.8401
2/26/2013 10:00	12719	333	0.7703764	126.443	16.918	-7.84762	-170.0154	81.88802	190.4097	0	968.1714
2/26/2013 11:00	12720	333	1.010904	118.0676	19.59774	-5.145133	-158.6295	73.44785	190.1083	0	968.007
2/26/2013 12:00	12721	333	0.8226069	131.1907	86.17329	-1.370932	-161.7202	63.4799	191.944	0	968.0114
2/26/2013 13:00	12722	333	0.8708394	119.9292	82.26926	1.079226	-161.9034	56.37824	193.476	0	967.784
2/26/2013 14:00	12723	333	0.7024171	281.3322	80.74673	2.969919	-160.3542	49.33306	193.3663	0.254	967.5667
2/26/2013 15:00	12724	333	0.7861952	338.2315	89.18757	4.513951	-164.5896	46.38281	192.9001	0.762	967.6279
2/26/2013 16:00	12725	333	1.351132	336.3546	58.24445	4.598261	-162.0407	45.68684	193.2029	0.254	967.824
2/26/2013 17:00	12726	333	1.312044	61.40619	33.91131	4.010423	-161.5294	48.57451	191.7962	0	967.9494
2/26/2013 18:00	12727	333	0.959219	69.14996	19.37988	2.001213	-161.3997	54.7192	191.3716	0	968.4443
2/26/2013 19:00	12728	333	0.5982699	33.49494	23.92266	-1.364066	-160.6823	67.0498	190.9185	0	968.9522
2/26/2013 20:00	12729	333	0.6990131	2.612159	19.05564	-3.187011	-160.6747	76.01653	190.5677	0.254	969.3276
2/26/2013 21:00	12730	333	0.7202159	49.80085	18.05765	-3.038338	-161.1173	73.26928	190.4099	0	969.5057
2/26/2013 22:00	12731	333	1.251281	20.17806	31.82207	-5.410615	-160.316	74.34376	190.449	0	969.8304
2/26/2013 23:00	12732	333	1.368649	37.55555	30.07395	-4.295816	-159.9803	78.89046	190.4554	0	970.271
2/27/2013 0:00	12733	333	1.611104	36.83494	29.74944	-4.84234	-160.8121	83.35781	190.4737	0	970.5803
2/27/2013 1:00	12734	333	1.584785	35.31072	29.15046	-5.513567	-160.1176	87.09254	190.5674	0	970.996
2/27/2013 2:00	12735	333	1.303803	35.7572	31.01218	-6.290869	-160.0184	89.58645	190.4703	0	970.8864
2/27/2013 3:00	12736	333	1.176139	12.99297	32.8687	-7.081203	-160.8121	92.57484	190.4406	0	971.0237
2/27/2013 4:00	12737	333	0.8424137	24.16208	32.03354	-7.728044	-160.4	94.72839	190.5866	0.254	971.1521
2/27/2013 5:00	12738	333	1.330406	51.95982	31.67222	-7.928044	-160.9952	94.18657	190.6069	0	971.1535
2/27/2013 6:00	12739	333	1.462292	59.80153	32.877	-7.245205	-160.6747	92.21008	190.7193	0.254	971.6461
2/27/2013 7:00	12740	333	1.762875	60.59715	31.16139	-7.262449	-160.5145	92.2757	190.8446	0	972.5037
2/27/2013 8:00	12741	333	2.073505	62.44665	28.20262	-7.718959	-161.1173	94.17131	190.947	0	973.2207

2/27/2013 9:00	12742	333	2.128392	66.15147	25.33912	-7.301079	-160.8121	91.06691	191.0594	0	973.6888
2/27/2013 10:00	12743	333	1.979025	57.67754	32.64845	-6.610291	-161.3844	90.2061	191.321	0	974.144
2/27/2013 11:00	12744	333	1.95753	58.43877	28.90796	-6.352619	-161.4913	86.73083	191.3777	0	974.4236
2/27/2013 12:00	12745	333	1.622945	38.92756	34.32979	-5.711535	-161.5752	81.70487	191.5784	0	974.5082
2/27/2013 13:00	12746	333	1.645686	44.52517	34.07226	-4.827333	-161.5905	82.23296	191.8236	0	974.5428
2/27/2013 14:00	12747	333	1.677405	25.16838	33.41428	-4.146531	-161.9644	77.9274	191.8604	0	974.5143
2/27/2013 15:00	12748	333	1.634965	18.25084	35.20839	-3.25506	-157.3551	70.81201	191.678	0	974.5471
2/27/2013 16:00	12749	333	1.985305	17.54611	32.56539	-2.822922	-161.9568	69.51164	191.9835	0	974.6807
2/27/2013 17:00	12750	333	1.764517	16.27662	32.90873	-3.467817	-161.1708	70.96768	191.6006	0	975.0259
2/27/2013 18:00	12751	333	1.639341	15.84676	29.4119	-4.098274	-161.2242	71.00433	191.4262	0	975.5434
2/27/2013 19:00	12752	333	1.921258	13.40857	25.31608	-5.190193	-160.9494	69.45059	191.232	0	976.2317
2/27/2013 20:00	12753	333	2.084272	14.87944	27.06595	-6.770209	-160.7434	68.20059	190.9947	0	976.5828
2/27/2013 21:00	12754	333	2.180266	16.75385	30.48439	-8.238472	-160.6747	68.78667	190.8818	0	976.7736
2/27/2013 22:00	12755	333	2.217213	21.86356	28.11268	-9.518589	-160.9494	72.97929	190.8864	0	977.1414
2/27/2013 23:00	12756	333	1.993612	18.19354	25.53937	-10.9398	-160.6823	75.56629	190.7953	0	977.1848
2/28/2013 0:00	12757	333	2.052365	11.18387	23.56801	-12.11236	-160.5679	77.74273	190.6187	0	977.4891
2/28/2013 1:00	12758	333	1.630575	8.563104	24.97898	-13.43624	-160.5145	80.74333	190.4158	0	977.7659
2/28/2013 2:00	12759	333	1.326973	20.68789	31.54627	-14.48844	-160.2169	82.54431	190.3121	0	978.1279
2/28/2013 3:00	12760	333	1.14413	11.87481	27.78451	-15.76789	-160.2321	84.9909	190.1331	0	978.4276
2/28/2013 4:00	12761	333	1.042073	20.00379	27.34207	-16.73734	-160.2245	86.59805	190.0669	0	978.5186
2/28/2013 5:00	12762	333	1.042907	353.5318	23.3589	-17.88306	-160.3695	88.72869	190.0954	0	979.181
2/28/2013 6:00	12763	333	0.9001139	352.9365	24.44142	-18.92968	-160.2474	88.91031	190.0235	0	979.6667
2/28/2013 7:00	12764	333	0.6236431	5.607286	27.85147	-19.48576	-159.614	86.8163	189.7766	0	979.9333
2/28/2013 8:00	12765	333	0.8035145	23.74472	28.57594	-19.33243	-160.1405	83.34408	189.9439	0	980.1019
2/28/2013 9:00	12766	333	1.316251	46.47852	33.13651	-17.45521	-160.3695	77.07881	190.5358	0	980.0244
2/28/2013 10:00	12767	333	1.720492	57.6619	29.10486	-14.9808	-153.5929	65.51286	190.784	0	980.1355
2/28/2013 11:00	12768	333	1.929315	64.37823	35.8924	-12.41086	-159.4537	58.44784	191.2308	0	980.345
2/28/2013 12:00	12769	333	2.006145	45.90561	29.23642	-10.97098	-158.3319	55.61511	192.4608	0	980.7302
2/28/2013 13:00	12770	333	1.876887	57.71746	34.60933	-9.325677	-160.4839	51.84222	193.9329	0	980.8502
2/28/2013 14:00	12771	333	2.032776	67.643	29.54084	-8.083568	-173.5792	48.90571	192.083	0	980.5652
2/28/2013 15:00	12772	333	1.800609	52.51055	36.12163	-7.160021	-159.965	48.13647	192.5736	0	980.565
2/28/2013 16:00	12773	333	1.443874	39.68845	36.76928	-6.666989	-167.3368	49.16212	192.4226	0	980.7437
2/28/2013 17:00	12774	333	1.41239	34.51554	31.96413	-7.222963	-161.6591	52.71524	191.7146	0	980.7914
2/28/2013 18:00	12775	333	0.9804952	31.95928	26.05269	-8.743904	-161.2852	57.50004	191.4379	0	980.8932
2/28/2013 19:00	12776	333	0.7259973	58.58724	22.71574	-10.42198	-160.2932	63.77293	190.8461	0	981.2921
2/28/2013 20:00	12777	333	1.212834	64.68032	20.27585	-11.49624	-161.186	63.04796	190.5473	0	981.6218
2/28/2013 21:00	12778	333	1.079894	54.06521	23.50576	-12.69983	-160.6595	64.21707	190.5812	0	981.8063
2/28/2013 22:00	12779	333	1.71285	73.55802	20.98252	-13.52	-160.5221	62.71066	190.5384	0	981.8645
2/28/2013 23:00	12780	333	1.819271	79.91957	20.96107	-14.47251	-160.3847	63.98051	190.5643	0	982.0435
3/1/2013 0:00	12781	333	1.890621	83.01903	20.86622	-15.38311	-160.6823	65.29766	190.4917	0	982.2453
3/1/2013 1:00	12782	333	1.617197	86.31624	20.74898	-16.21143	-160.5908	67.65572	190.4051	0	982.7336
3/1/2013 2:00	12783	333	1.154838	92.3581	20.03178	-17.06422	-160.4839	71.44998	190.3718	0	983.2658
3/1/2013 3:00	12784	333	0.8690805	99.27116	19.21129	-17.9788	-160.5145	74.4857	190.2389	0	983.3948
3/1/2013 4:00	12785	333	0.7639576	107.0095	17.35721	-18.91758	-159.9803	78.00219	190.294	0	983.5308
3/1/2013 5:00	12786	333	1.022222	106.2379	18.16141	-19.42082	-158.9577	77.55347	190.1207	0.254	983.8481
3/1/2013 6:00	12787	333	1.455103	115.4847	14.98933	-20.02324	-160.7205	78.30744	190.2069	0	984.136

3/1/2013 7:00	12788	333	1.387102	121.0028	16.51005	-20.41562	-160.2169	77.57331	190.0689	0	984.364
3/1/2013 8:00	12789	333	1.455272	117.4056	15.14039	-20.31977	-160.1253	71.66518	190.1754	0	984.7877
3/1/2013 9:00	12790	333	1.403296	126.4637	19.42776	-18.61029	-161.041	55.61053	190.5743	0	985.1378
3/1/2013 10:00	12791	333	1.533546	108.7234	27.03695	-16.36304	-154.791	47.35199	192.6493	0	985.2037
3/1/2013 11:00	12792	333	1.789458	130.4323	22.21859	-13.182	-157.7214	39.1728	191.1434	1.016	985.0928
3/1/2013 12:00	12793	333	1.452117	145.962	28.07589	-10.94747	-156.1036	29.87639	193.3235	0.254	985.2322
3/1/2013 13:00	12794	333	1.452922	146.0839	30.42255	-8.572737	-161.5905	30.5571	193.6272	0	984.7741
3/1/2013 14:00	12795	333	1.844688	131.9402	23.4893	-7.159046	-158.9424	27.8129	193.2687	0	983.9258
3/1/2013 15:00	12796	333	1.942223	134.3782	22.36444	-6.119139	-158.5532	28.06931	192.3112	0	983.1832
3/1/2013 16:00	12797	333	1.607106	128.237	22.6595	-5.635584	-159.0416	29.01558	191.9363	0	982.8004
3/1/2013 17:00	12798	333	1.231166	115.4576	26.74543	-6.4154	-161.9415	28.85686	191.778	0	982.6676
3/1/2013 18:00	12799	333	1.189684	96.27766	18.81092	-8.26904	-161.7813	36.18898	191.7481	0	982.7219
3/1/2013 19:00	12800	333	0.6230607	77.73316	13.26574	-11.34442	-160.8884	41.75827	191.0821	0	982.5714
3/1/2013 20:00	12801	333	0.5630541	84.3681	23.32336	-13.46545	-161.2165	50.69295	190.7911	0	982.4644
3/1/2013 21:00	12802	333	0.9845411	121.2345	13.75137	-15.84835	-160.4305	62.67862	190.8164	0	982.0027
3/1/2013 22:00	12803	333	1.083563	118.4968	14.4922	-16.90091	-160.4	62.27568	190.6304	0	981.4731
3/1/2013 23:00	12804	333	1.229955	121.9209	12.37836	-17.88804	-160.4687	59.72379	190.4616	0	980.9273
3/2/2013 0:00	12805	333	1.169712	133.9554	10.11676	-17.99052	-160.4305	59.42311	190.4329	0	980.6367
3/2/2013 1:00	12806	333	1.081908	135.9077	9.021214	-19.16872	-159.9803	67.38863	190.2197	0	980.1772
3/2/2013 2:00	12807	333	0.9627526	136.4115	10.01566	-20.61312	-158.683	64.57117	190.0012	0	979.9026
3/2/2013 3:00	12808	333	0.466417	141.1475	10.62916	-20.18145	-160.3389	58.97897	189.6481	0	979.9295
3/2/2013 4:00	12809	333	0.6998395	118.4677	12.81803	-21.44385	-160.2397	69.91152	190.0217	0	979.8405
3/2/2013 5:00	12810	333	0.6314701	140.5314	8.208952	-22.60366	-159.7056	64.6368	189.7196	0	979.6271
3/2/2013 6:00	12811	333	0.6110796	140.8073	5.906784	-23.16502	-159.7361	70.54034	189.6006	0	979.3922
3/2/2013 7:00	12812	333	0.5499195	136.27	9.232298	-23.5869	-159.759	73.57758	189.7516	0	979.2561
3/2/2013 8:00	12813	333	0.9885738	138.3833	9.254253	-23.92274	-160.6747	60.90205	189.8339	0	978.7092
3/2/2013 9:00	12814	333	1.308084	134.0746	12.13039	-19.65174	-160.835	47.76407	190.5416	0	978.2656
3/2/2013 10:00	12815	333	1.258653	124.0157	16.73648	-15.99415	-156.157	36.36449	191.6931	0	977.892
3/2/2013 11:00	12816	333	1.323327	134.1491	21.29694	-11.46473	-159.3774	30.79214	191.4757	1.778	977.5615
3/2/2013 12:00	12817	333	1.49173	143.1857	30.1483	-8.625503	-160.6823	23.97895	193.9799	0	977.1312
3/2/2013 13:00	12818	333	1.555532	160.3165	34.76276	-6.060873	-159.2324	20.4411	193.8454	0	976.421
3/2/2013 14:00	12819	333	1.765915	145.3001	26.39783	-4.740062	-160.4687	21.36296	194.8483	0	975.5253
3/2/2013 15:00	12820	333	1.584491	135.5327	24.43229	-3.891924	-158.7516	19.05221	193.5767	0	974.6581
3/2/2013 16:00	12821	333	1.179132	151.711	29.54384	-2.633676	-158.7288	19.37425	193.0977	0	974.2084
3/2/2013 17:00	12822	333	0.908141	137.4251	24.43039	-4.477204	-161.7736	21.48048	191.8821	0	973.8901
3/2/2013 18:00	12823	333	0.7357671	115.1376	22.58008	-6.678709	-161.3539	28.78512	191.2952	0	973.7308
3/2/2013 19:00	12824	333	0.9779022	116.6548	20.73769	-9.616473	-161.3158	34.65203	190.9893	0	973.6985
3/2/2013 20:00	12825	333	0.9440818	145.804	19.68287	-10.61217	-160.4153	35.52047	190.7191	0	973.5773
3/2/2013 21:00	12826	333	1.107797	149.1763	16.57075	-10.54196	-161.0945	43.91181	190.7291	0	973.3474
3/2/2013 22:00	12827	333	0.9942156	146.9174	11.91046	-11.27158	-160.8808	46.23172	190.797	0	973.0593
3/2/2013 23:00	12828	333	1.198716	138.962	12.72386	-12.06336	-160.3237	44.32848	190.709	0	972.7368
3/3/2013 0:00	12829	333	1.043833	144.0593	10.50199	-12.57646	-160.9189	47.37488	190.6059	0	972.3896
3/3/2013 1:00	12830	333	1.090413	138.0859	10.2917	-12.34631	-160.8274	50.03819	190.6627	0	972.0502
3/3/2013 2:00	12831	333	1.218564	139.4312	12.46508	-12.54079	-160.3237	53.49057	190.6335	0	971.8065
3/3/2013 3:00	12832	333	1.136411	144.4851	10.55164	-14.07396	-160.2169	51.70485	190.6168	0	971.6326
3/3/2013 4:00	12833	333	0.9860508	133.4869	9.937837	-15.13612	-159.7513	55.6319	190.3085	0	971.4282

3/3/2013 5:00	12834	333	1.050558	131.0238	10.01752	-15.64573	-160.0947	50.0214	190.1437	0	971.4023
3/3/2013 6:00	12835	333	1.05951	137.6555	9.811403	-15.52165	-160.6595	55.62122	190.2613	0	971.3882
3/3/2013 7:00	12836	333	0.9969471	134.8914	8.151401	-15.97703	-160.1863	48.60504	190.1389	0	971.5084
3/3/2013 8:00	12837	333	1.22404	133.1592	15.17453	-14.12074	-161.0105	44.82909	190.3782	0	971.2958
3/3/2013 9:00	12838	333	1.370035	139.4026	16.62188	-11.48727	-161.2852	39.23537	191.0258	0	971.0126
3/3/2013 10:00	12839	333	1.50501	134.581	17.86344	-9.79175	-161.6821	32.64349	191.2931	0	970.9327
3/3/2013 11:00	12840	333	1.491788	117.9597	19.04343	-7.874139	-157.5383	29.6154	191.3964	0	970.883
3/3/2013 12:00	12841	333	1.658	128.2393	22.75132	-5.796376	-157.1796	27.33365	192.2238	0	970.936
3/3/2013 13:00	12842	333	1.944066	123.0584	21.33392	-4.743645	-160.5297	28.96522	192.4446	0	970.6624
3/3/2013 14:00	12843	333	1.966984	121.7601	21.83541	-3.705543	-158.1183	25.01833	192.5435	0	970.2716
3/3/2013 15:00	12844	333	2.009466	123.9448	22.93671	-2.527377	-170.7327	27.48018	193.1762	0	969.881
3/3/2013 16:00	12845	333	1.802316	128.072	23.81162	-2.340588	-159.9726	27.877	192.8554	0	969.7066
3/3/2013 17:00	12846	333	1.444336	123.1086	22.95355	-3.434578	-161.4455	26.03939	192.3725	0	969.6539
3/3/2013 18:00	12847	333	1.365203	107.3437	19.52533	-5.369233	-160.8655	29.18195	191.4314	0	969.7209
3/3/2013 19:00	12848	333	1.172347	111.0782	19.14146	-8.008614	-161.4684	32.92279	191.2306	0	969.9366
3/3/2013 20:00	12849	333	0.9883695	118.4525	17.11831	-10.29301	-161.3234	36.31413	191.0902	0	970.377
3/3/2013 21:00	12850	333	0.997071	118.4166	18.09275	-11.4081	-161.3158	38.75308	191.0654	0	970.7646
3/3/2013 22:00	12851	333	1.239773	134.473	17.20791	-12.52895	-161.3615	38.90417	190.9245	0	970.9857
3/3/2013 23:00	12852	333	0.8645663	149.7739	15.12949	-12.76871	-160.6213	43.20515	190.7967	0	971.2121
3/4/2013 0:00	12853	333	1.090905	136.3589	13.28115	-13.30678	-160.5908	37.68012	190.6613	0	971.4155
3/4/2013 1:00	12854	333	1.04176	130.5728	12.62954	-14.04442	-160.2779	42.57023	190.5877	0	971.7014
3/4/2013 2:00	12855	333	1.279659	133.1794	10.93019	-15.93178	-160.7358	51.43776	190.5428	0	972.0143
3/4/2013 3:00	12856	333	1.064373	138.1634	10.49394	-16.56161	-159.9421	46.975	190.3415	0	972.0413
3/4/2013 4:00	12857	333	1.098579	117.9588	15.1765	-16.15436	-160.8655	47.35504	190.3367	0	972.3104
3/4/2013 5:00	12858	333	0.7692859	96.97079	17.40154	-16.8609	-160.0337	47.01163	190.1894	0	972.6035
3/4/2013 6:00	12859	333	0.7424994	103.191	16.89531	-17.6937	-160.0719	49.40022	190.1635	0	973.2249
3/4/2013 7:00	12860	333	1.011519	104.7262	17.58591	-17.82665	-160.3084	48.84313	190.1277	0	973.4419
3/4/2013 8:00	12861	333	0.9061874	96.67038	16.91883	-16.85696	-160.3466	39.48568	190.2401	0	973.6708
3/4/2013 9:00	12862	333	0.5105383	126.4288	52.9691	-13.78141	-160.9494	34.28268	191.2434	0	973.9254
3/4/2013 10:00	12863	333	0.8758699	137.3888	34.91006	-10.11671	-161.1097	29.84434	191.5551	0	974.2416
3/4/2013 11:00	12864	333	2.05873	123.8688	24.86017	-7.024896	-161.0105	27.55038	192.1124	0	974.1002
3/4/2013 12:00	12865	333	2.223294	102.0242	28.35302	-5.700588	-160.5679	23.59281	192.726	0	974.0754
3/4/2013 13:00	12866	333	1.575294	88.52955	39.50729	-4.179817	-161.0715	25.7082	193.9642	0	973.8185
3/4/2013 14:00	12867	333	2.191469	55.86607	31.16283	-4.028131	-168.7181	24.53451	192.6816	0	973.4075
3/4/2013 15:00	12868	333	2.231441	56.57587	28.09562	-3.89063	-163.7348	22.03909	193.076	0	973.3588
3/4/2013 16:00	12869	333	2.234804	69.00383	26.77669	-3.534774	-162.3002	20.93103	192.7648	0	973.6135
3/4/2013 17:00	12870	333	1.651992	69.67549	27.56285	-3.983711	-161.9339	23.43561	192.2568	0	974.0658
3/4/2013 18:00	12871	333	1.511733	58.83068	28.12035	-4.920186	-160.9113	30.54184	191.8944	0	974.4337
3/4/2013 19:00	12872	333	1.324053	63.47333	22.68157	-5.921099	-161.2394	31.17676	191.6153	0	974.9492
3/4/2013 20:00	12873	333	1.508302	62.02633	26.77822	-6.579321	-161.6439	34.07512	191.547	0	975.4484
3/4/2013 21:00	12874	333	1.982265	63.11472	25.69833	-7.554821	-161.7813	34.52536	191.6584	0	975.7894
3/4/2013 22:00	12875	333	2.430138	72.21507	23.20809	-8.315351	-161.8118	36.19508	191.7749	0	976.095
3/4/2013 23:00	12876	333	2.237102	76.02864	21.15025	-8.893826	-161.6057	37.70454	191.6034	0	976.2195
3/5/2013 0:00	12877	333	2.121754	78.96584	22.31132	-9.310732	-161.8347	41.87732	191.6635	0	976.5391
3/5/2013 1:00	12878	333	1.670843	70.58035	24.59943	-9.821785	-161.7889	47.20546	191.6125	0	976.9695
3/5/2013 2:00	12879	333	1.360547	70.78809	23.95694	-10.46438	-161.8041	51.30192	191.5982	0	977.5548

3/5/2013 3:00	12880	333	1.380185	64.555	24.63745	-10.96292	-161.6591	56.45761	191.5905	0	978.1543
3/5/2013 4:00	12881	333	1.388523	59.52798	26.63383	-11.49613	-161.2852	60.95089	191.5405	0	977.9968
3/5/2013 5:00	12882	333	1.483721	68.7641	25.81643	-11.94013	-160.6137	63.79278	191.4936	0	978.1706
3/5/2013 6:00	12883	333	1.936261	77.31088	22.08066	-12.44676	-161.5905	65.49607	191.4021	0	978.4591
3/5/2013 7:00	12884	333	1.680717	77.05795	22.31933	-12.79526	-161.3539	66.2241	191.3885	0	978.9265
3/5/2013 8:00	12885	333	1.434111	77.56049	25.184	-12.86883	-161.6286	64.96341	191.3748	0	979.2294
3/5/2013 9:00	12886	333	1.408204	58.67819	27.54242	-12.46623	-161.9797	62.35505	191.5038	0	979.4883
3/5/2013 10:00	12887	333	1.134043	47.5387	31.54037	-11.53227	-162.2697	56.94601	192.1963	0	980.0061
3/5/2013 11:00	12888	333	1.301729	43.38778	32.87982	-10.66581	-160.0032	53.50889	192.2861	0	980.2836
3/5/2013 12:00	12889	333	1.775442	33.91479	29.75436	-9.536581	-168.016	48.54551	192.4141	0	980.2866
3/5/2013 13:00	12890	333	1.631575	41.8138	30.0264	-8.211057	-168.5197	45.87762	192.6772	0	980.2979
3/5/2013 14:00	12891	333	1.409987	62.18661	35.19852	-6.896015	-159.1866	44.11175	193.7855	0	980.1523
3/5/2013 15:00	12892	333	1.359609	45.27701	38.16805	-6.384592	-163.9256	44.23843	192.7903	0	979.8709
3/5/2013 16:00	12893	333	1.533146	50.63796	34.53647	-6.612762	-162.7428	45.01682	192.7689	0	979.6395
3/5/2013 17:00	12894	333	1.33067	39.47781	30.16207	-7.104908	-162.3536	46.80864	192.3578	0	979.511
3/5/2013 18:00	12895	333	1.186436	51.89571	28.47648	-8.043664	-162.0865	50.20608	192.1117	0	979.535
3/5/2013 19:00	12896	333	0.971568	37.47329	27.29651	-8.581507	-161.9034	50.58306	191.9432	0	979.5558
3/5/2013 20:00	12897	333	1.188501	24.90785	28.29225	-8.942756	-161.8118	53.1319	191.825	0	979.4566
3/5/2013 21:00	12898	333	0.9439337	21.99648	30.08879	-9.375013	-161.0563	54.15602	191.8892	0	979.3179
3/5/2013 22:00	12899	333	1.342412	48.59974	33.90825	-9.94255	-161.7507	62.81292	191.8465	0	979.373
3/5/2013 23:00	12900	333	0.8104897	24.09262	31.90487	-10.65951	-161.476	60.49912	191.786	0	979.6505
3/6/2013 0:00	12901	333	0.8409964	49.56763	29.92871	-10.94502	-161.9949	67.70914	191.8324	0	979.5643
3/6/2013 1:00	12902	333	1.015058	60.94913	23.59824	-11.67855	-161.6286	81.31567	191.8489	0	979.4148
3/6/2013 2:00	12903	333	0.5280177	53.80259	27.01029	-12.09925	-161.6439	85.10232	191.6237	0	979.4468
3/6/2013 3:00	12904	333	0.3544539	16.62098	21.5977	-12.23166	-161.1479	85.92191	191.402	0	979.3832
3/6/2013 4:00	12905	333	0.5425491	351.7941	27.083	-12.46005	-163.9104	87.13528	191.2985	0	979.1597
3/6/2013 5:00	12906	333	0.6989068	339.0878	16.89883	-12.55489	-160.4382	87.39932	190.9093	0	979.0643
3/6/2013 6:00	12907	333	0.6782746	332.5852	15.39276	-12.82574	-160.5526	87.31996	190.522	0	979.1746
3/6/2013 7:00	12908	333	0.86922	326.1707	15.21627	-13.27751	-160.4382	86.90788	190.276	0	979.3191
3/6/2013 8:00	12909	333	0.7565333	321.3223	13.86818	-13.26505	-160.6595	84.76196	190.3853	0	979.475
3/6/2013 9:00	12910	333	1.053983	327.3574	25.49349	-12.32482	-161.3768	79.50707	191.562	0	979.4453
3/6/2013 10:00	12911	333	0.9509333	347.5542	31.3112	-11.2267	-163.8875	74.68106	191.3079	0	979.3734
3/6/2013 11:00	12912	333	0.9057565	315.076	30.66408	-9.70484	-159.6445	67.84345	191.9343	0	979.1876
3/6/2013 12:00	12913	333	1.154622	320.7719	34.99228	-7.467678	-162.0865	57.02385	190.7082	0	978.931
3/6/2013 13:00	12914	333	1.213844	343.7728	46.12327	-6.247699	-159.6521	57.5153	193.0471	0	978.5878
3/6/2013 14:00	12915	333	2.070257	312.3039	22.54951	-5.400466	-161.4684	59.48111	193.0196	0	978.1893
3/6/2013 15:00	12916	333	1.949493	324.768	30.41628	-4.726531	-166.4592	58.75462	191.3049	0	977.7358
3/6/2013 16:00	12917	333	1.444156	335.2659	33.4733	-4.709162	-162.5596	61.39656	192.1455	0	977.4652
3/6/2013 17:00	12918	333	1.213899	346.6729	27.81637	-5.051374	-161.7507	61.11726	191.7953	0	977.3215
3/6/2013 18:00	12919	333	1.294017	345.6657	27.58493	-6.079505	-161.2928	68.94693	191.3447	0	977.3329
3/6/2013 19:00	12920	333	0.4473651	345.9989	27.75425	-7.581857	-160.835	78.84773	190.9797	0	977.5157
3/6/2013 20:00	12921	333	0.3220664	349.8098	21.64636	-9.35059	-160.6595	86.17832	190.562	0	977.7452
3/6/2013 21:00	12922	333	0.08621965	310.2692	24.4392	-11.52702	-160.4992	91.09286	190.4237	0	978.0164
3/6/2013 22:00	12923	333	0.5528836	138.7116	15.12248	-13.05139	-160.194	88.05103	190.3179	0	977.6765
3/6/2013 23:00	12924	333	0.5296484	319.4753	36.3302	-15.17204	-160.316	88.1655	190.11	0	977.7092
3/7/2013 0:00	12925	333	0.57113	320.4939	5.448165	-16.87109	-159.3011	85.79675	189.7244	0	978.5105

3/7/2013 1:00	12926	333	0.4162754	328.1039	4.043302	-17.32275	-159.3698	86.35537	189.6118	0	978.8672
3/7/2013 2:00	12927	333	0.3877646	134.8915	11.91419	-18.18686	-159.5453	85.25494	189.7136	0	978.4958
3/7/2013 3:00	12928	333	0.5003453	143.1652	74.65039	-19.46215	-159.5758	83.20518	189.7838	0	978.1526
3/7/2013 4:00	12929	333	0.4753866	132.5517	89.5885	-21.03642	-159.7284	82.12307	189.5818	0	978.6421
3/7/2013 5:00	12930	333	0.1126351	141.8466	27.43013	-21.43429	-159.3774	79.87643	189.2896	0	979.2946
3/7/2013 6:00	12931	333	0.2413013	123.7591	8.493444	-21.68948	-159.6674	79.78942	189.4388	0.254	979.5101
3/7/2013 7:00	12932	333	0.3257746	119.097	67.62472	-22.54318	-159.2935	80.16183	189.4127	0	979.3311
3/7/2013 8:00	12933	333	0.1792366	42.28628	58.81566	-21.40824	-159.4232	79.52844	189.486	0	979.638
3/7/2013 9:00	12934	333	0.3204265	138.8969	10.18369	-16.02391	-160.9342	80.97533	190.4937	0	979.262
3/7/2013 10:00	12935	333	0.5781171	80.26398	78.2041	-11.6127	-159.4919	72.96403	192.6031	0.254	979.4028
3/7/2013 11:00	12936	333	0.7753832	330.6238	55.92229	-8.832047	-160.9189	61.42098	189.9882	0	979.7635
3/7/2013 12:00	12937	333	0.7210499	126.3717	47.74015	-4.025343	-190.8411	50.99362	192.2839	0	979.3846
3/7/2013 13:00	12938	333	0.8029999	112.4687	75.86137	-2.588066	-161.3463	46.38434	194.7001	0	978.8612
3/7/2013 14:00	12939	333	0.9983298	118.1474	39.17702	-1.736812	-159.8277	45.58764	194.7484	0	978.2864
3/7/2013 15:00	12940	333	1.256494	162.2874	32.63441	0.1794555	-161.186	39.84893	194.3957	0	977.6722
3/7/2013 16:00	12941	333	0.8735875	174.5992	46.3981	1.226598	-166.8332	39.12701	192.9515	0	977.3369
3/7/2013 17:00	12942	333	0.8556287	164.5025	31.30133	-0.1731874	-162.262	46.68348	193.3602	0	977.0546
3/7/2013 18:00	12943	333	0.9067686	133.6448	16.37504	-2.883109	-161.5065	59.06292	191.8471	0	976.6614
3/7/2013 19:00	12944	333	0.8765786	127.9613	17.78997	-6.128135	-161.1326	69.20486	191.3426	0	976.8264
3/7/2013 20:00	12945	333	1.06249	135.4163	19.27492	-7.672925	-161.2318	71.92922	191.1163	0	976.6501
3/7/2013 21:00	12946	333	1.029503	148.5034	16.40347	-8.701364	-161.2089	78.37612	191.1065	0	976.4106
3/7/2013 22:00	12947	333	1.052163	148.7948	11.33093	-9.217351	-161.0715	79.4277	190.9791	0	976.0241
3/7/2013 23:00	12948	333	1.116008	148.439	11.15703	-8.735066	-161.2547	80.58003	191.0695	0	975.8215
3/8/2013 0:00	12949	333	0.89649	138.326	11.98977	-9.057768	-161.3539	79.90389	191.1819	0	975.7461
3/8/2013 1:00	12950	333	1.222584	143.0779	13.27832	-8.954194	-160.8579	80.80897	191.082	0	975.2886
3/8/2013 2:00	12951	333	1.208964	146.707	11.75736	-8.389139	-160.9265	80.27935	191.1188	0	974.8993
3/8/2013 3:00	12952	333	1.223987	139.7925	13.05147	-7.864458	-160.8731	84.11025	191.1535	0	974.3659
3/8/2013 4:00	12953	333	1.354409	130.1215	15.91978	-7.862666	-161.4684	87.69695	191.4133	0	973.2776
3/8/2013 5:00	12954	333	1.353371	143.4902	12.4976	-7.906912	-161.2928	84.45061	191.4689	0	972.6961
3/8/2013 6:00	12955	333	1.050085	140.9665	11.35901	-7.951095	-161.6363	84.35445	191.4928	0	972.6748
3/8/2013 7:00	12956	333	1.305709	144.5125	10.41959	-8.14633	-161.476	81.25158	191.4451	0	972.3132
3/8/2013 8:00	12957	333	1.768007	153.9906	13.95543	-6.835437	-161.3615	79.15908	191.5485	0	971.9359
3/8/2013 9:00	12958	333	1.730865	159.3925	17.43524	-5.817003	-161.0181	80.50524	191.0211	0	971.6292
3/8/2013 10:00	12959	333	1.54409	166.236	25.59178	-3.836576	-162.2315	68.62184	191.0484	0	971.541
3/8/2013 11:00	12960	333	1.34191	187.8527	35.20945	-2.227448	-159.8047	67.44204	191.8315	0	971.4824
3/8/2013 12:00	12961	333	1.230989	177.2088	33.85574	-1.881398	-159.5529	64.53606	192.8462	0	971.3575
3/8/2013 13:00	12962	333	1.373135	193.3923	34.25319	-1.649191	-162.6589	65.58459	192.8343	0	971.222
3/8/2013 14:00	12963	333	1.386923	188.2939	35.67684	-1.792757	-162.0331	65.51439	192.8004	0	971.0186
3/8/2013 15:00	12964	333	1.15699	199.9844	37.25936	-1.690539	-161.5752	68.78515	192.0439	0	970.832
3/8/2013 16:00	12965	333	0.9983977	209.1239	35.47318	-2.265836	-161.0868	73.55164	191.4449	0	970.7962
3/8/2013 17:00	12966	333	0.5820395	209.4464	31.4363	-2.491119	-161.2013	75.85169	191.0722	0	970.9193
3/8/2013 18:00	12967	333	0.6100694	209.081	23.58227	-2.945214	-161.1021	80.40298	191.03	0	971.3145
3/8/2013 19:00	12968	333	0.2576275	185.8337	15.80151	-3.541401	-161.5676	86.70183	191.4734	0	971.4935
3/8/2013 20:00	12969	333	0.2880152	153.8339	9.715299	-4.054011	-161.415	90.48998	191.0215	0	971.2136
3/8/2013 21:00	12970	333	0.4791279	159.6763	7.846925	-4.32416	-161.1173	90.84408	190.9725	0	970.9562
3/8/2013 22:00	12971	333	0.4694225	153.4794	12.74409	-4.215428	-160.9876	91.32027	190.9189	0	970.7322

3/8/2013 23:00	12972	333	0.4594268	165.1707	13.25054	-4.299133	-160.7205	91.93076	190.7843	0	970.2343
3/9/2013 0:00	12973	333	0.6166943	171.6975	17.31626	-4.488291	-160.7816	92.16123	190.7004	0	970.0115
3/9/2013 1:00	12974	333	0.5076755	170.6694	15.11145	-4.524636	-160.8579	91.9674	190.7585	0	969.602
3/9/2013 2:00	12975	333	0.480792	165.556	16.51994	-4.648927	-160.835	92.8511	190.8866	0	969.4445
3/9/2013 3:00	12976	333	0.5604589	155.3024	10.75694	-4.911838	-161.0487	93.87063	190.7829	0	969.0313
3/9/2013 4:00	12977	333	0.5443683	154.5521	12.91439	-4.938491	-160.7052	93.71038	190.8109	0	968.6505
3/9/2013 5:00	12978	333	0.5815705	148.1803	11.77924	-4.902267	-161.0029	94.1133	190.8109	0	968.2963
3/9/2013 6:00	12979	333	0.6115068	144.953	14.03294	-5.129622	-160.8579	95.31142	190.8631	0	968.0588
3/9/2013 7:00	12980	333	0.3954192	150.9558	13.24257	-5.213173	-160.4763	93.3807	190.8243	0	967.5459
3/9/2013 8:00	12981	333	0.8191497	152.7035	13.81777	-4.82268	-160.9571	87.98083	190.8775	0	966.9493
3/9/2013 9:00	12982	333	1.018661	150.7546	18.21577	-3.612963	-161.5294	80.96922	191.0327	0	966.3642
3/9/2013 10:00	12983	333	1.013531	142.8305	22.00507	-2.342582	-162.0102	67.11238	191.6031	0	965.921
3/9/2013 11:00	12984	333	1.420164	125.8622	20.67924	-1.265236	-163.6204	76.68503	191.8655	0	965.236
3/9/2013 12:00	12985	333	1.325052	126.7873	25.61538	-0.6817635	-164.5132	68.74852	191.7425	0	964.61
3/9/2013 13:00	12986	333	1.350202	149.9181	25.78581	0.6057376	-163.979	73.26623	192.611	0	964.0651
3/9/2013 14:00	12987	333	1.373697	134.0497	24.31203	0.5178313	-166.8789	76.36758	192.9185	0	963.1186
3/9/2013 15:00	12988	333	0.9828032	127.2652	28.18724	0.6602954	-163.0328	72.7183	191.4047	0	962.3729
3/9/2013 16:00	12989	333	0.4904497	92.85413	41.78661	0.3190956	-161.2852	85.63039	191.929	0	962.0579
3/9/2013 17:00	12990	333	0.5948515	21.05723	31.7818	-0.2878876	-160.6595	86.72014	191.1811	0	962.0099
3/9/2013 18:00	12991	333	0.4854106	41.21414	30.2295	-0.8465934	-159.7284	93.05256	190.5209	0	961.7596
3/9/2013 19:00	12992	333	0.5291709	20.87016	19.16352	-1.371309	-160.049	94.8276	190.0621	0	961.5468
3/9/2013 20:00	12993	333	0.2158176	31.08387	28.38087	-2.180722	-159.8887	96.69115	189.8563	0	961.2374
3/9/2013 21:00	12994	333	0.466403	324.9668	7.726857	-2.646303	-160.4382	96.55226	189.9184	0	961.414
3/9/2013 22:00	12995	333	0.9605629	321.859	8.94744	-2.695961	-159.7284	96.89414	190.0363	0	961.6846
3/9/2013 23:00	12996	333	0.9586102	323.5279	14.16276	-2.461129	-160.3847	96.76746	190.0315	0	961.7905
3/10/2013 0:00	12997	333	2.371104	312.1827	10.67976	-2.859432	-163.8951	95.88834	190.24	0.254	961.6791
3/10/2013 1:00	12998	333	3.468718	317.3513	14.63759	-3.092744	-160.0261	91.91398	190.2195	0	961.8697
3/10/2013 2:00	12999	333	4.205018	313.8144	12.28468	-3.901809	-160.2474	90.36636	190.1272	0	962.2541
3/10/2013 3:00	13000	333	4.449909	316.0254	13.68236	-4.127385	-160.2169	82.2009	190.1932	0	962.6809
3/10/2013 4:00	13001	333	4.615154	321.2592	18.98275	-5.502341	-159.8582	86.09438	189.8848	0	963.4589
3/10/2013 5:00	13002	333	4.867596	319.5754	16.03702	-7.330497	-159.5911	85.03516	189.5952	0	964.7986
3/10/2013 6:00	13003	333	4.296873	317.2269	16.92745	-8.682562	-159.4995	85.05042	189.3293	0	965.9751
3/10/2013 7:00	13004	333	4.325846	316.9033	16.61193	-10.35236	-159.2782	83.7119	189.2921	0	967.2659
3/10/2013 8:00	13005	333	4.525666	316.5411	13.82035	-12.33471	-158.7516	82.80377	189.1275	0	968.2658
3/10/2013 9:00	13006	333	4.000449	314.9888	16.27746	-12.21134	-159.4079	78.07239	189.2105	0	968.9792
3/10/2013 10:00	13007	333	3.128816	323.1321	20.76161	-12.13252	-158.0572	70.09467	190.0014	0	969.4869
3/10/2013 11:00	13008	333	3.186131	314.7826	18.529	-10.42953	-154.4095	62.37336	188.9235	0	970.1506
3/10/2013 12:00	13009	333	3.592149	310.7824	14.92453	-9.28134	-158.8432	53.82024	191.2262	0	970.6479
3/10/2013 13:00	13010	333	2.996108	318.0215	24.96024	-7.903958	-165.1237	49.85656	192.0232	0	971.0207
3/10/2013 14:00	13011	333	2.654601	324.4298	23.86174	-6.804788	-181.7828	44.10717	191.2233	0	970.9116
3/10/2013 15:00	13012	333	2.880631	323.3247	21.87374	-6.071179	-159.1179	43.167	192.143	0	970.6888
3/10/2013 16:00	13013	333	3.114385	320.4979	18.09674	-6.232361	-160.2474	42.94722	191.2088	0	970.7434
3/10/2013 17:00	13014	333	2.263471	320.0645	18.69114	-6.94166	-159.5758	47.42067	189.8434	0	970.791
3/10/2013 18:00	13015	333	1.563505	359.8778	24.5823	-8.182528	-159.675	50.7189	189.793	0	971.1808
3/10/2013 19:00	13016	333	0.9415726	9.603399	14.66493	-10.42457	-158.538	63.7592	189.3274	0	972.2078
3/10/2013 20:00	13017	333	0.8812863	1.483687	15.8052	-12.55421	-158.4159	67.6023	189.0435	0	972.3904

3/10/2013 21:00	13018	333	0.6184542	8.522333	26.03155	-13.79815	-158.7593	75.08552	188.8817	0	972.2484
3/10/2013 22:00	13019	333	0.850112	37.53809	26.39395	-14.80207	-158.7135	73.05865	188.7202	0	971.9189
3/10/2013 23:00	13020	333	1.311642	79.98486	19.95017	-14.73528	-158.9958	77.48021	188.7787	0	971.3799
3/11/2013 0:00	13021	333	0.8382272	100.8675	20.42444	-16.04993	-158.7288	82.37337	188.8898	0	971.5738
3/11/2013 1:00	13022	333	0.8186265	106.5506	17.00266	-17.22178	-158.0343	85.17099	188.8068	0	971.3257
3/11/2013 2:00	13023	333	1.009865	123.4658	18.51519	-18.49171	-158.7135	87.08492	188.4485	0	970.696
3/11/2013 3:00	13024	333	1.166705	126.1729	16.80073	-18.44733	-158.5456	88.02509	188.6527	0	970.1387
3/11/2013 4:00	13025	333	0.8757179	126.7495	16.31135	-18.54827	-158.5761	85.12063	188.5882	0	969.4234
3/11/2013 5:00	13026	333	0.3756122	102.6592	20.02554	-19.09656	-158.5456	86.98113	188.5414	0	968.8043
3/11/2013 6:00	13027	333	0.4298584	71.46613	27.76058	-19.38791	-158.2098	87.94114	188.3413	0	968.5247
3/11/2013 7:00	13028	333	0.3377909	85.38673	22.76559	-17.80109	-158.5151	85.77539	188.6021	0	968.3585
3/11/2013 8:00	13029	333	1.179858	93.78803	22.09417	-16.00851	-159.1561	85.88833	188.9578	0	968.1022
3/11/2013 9:00	13030	333	1.948876	98.88242	23.4333	-14.2868	-159.53	85.01073	189.3842	0	967.5161
3/11/2013 10:00	13031	333	1.896084	80.98847	26.72211	-13.32762	-156.9201	76.01196	190.672	0	967.0558
3/11/2013 11:00	13032	333	2.063921	113.5647	30.27296	-11.3808	-158.7059	62.9106	190.2615	0.254	966.6903
3/11/2013 12:00	13033	333	1.462593	88.82514	45.25698	-8.948256	-187.9794	57.49393	193.9044	0	965.9066
3/11/2013 13:00	13034	333	1.978811	96.69388	35.29619	-6.714007	-157.0346	51.08215	192.952	0	964.7738
3/11/2013 14:00	13035	333	2.19259	88.89539	32.00723	-5.490088	-160.4763	44.48416	192.3826	0	963.7748
3/11/2013 15:00	13036	333	2.449867	74.92162	31.94706	-4.520868	-159.8353	45.80742	190.5482	0	962.9882
3/11/2013 16:00	13037	333	1.92072	38.66376	33.02361	-4.339132	-159.1866	44.16212	191.5585	0	962.5508
3/11/2013 17:00	13038	333	1.638353	53.23475	31.19867	-4.996734	-160.7358	44.65662	190.7778	0	962.5068
3/11/2013 18:00	13039	333	1.716209	68.60561	27.28194	-5.840631	-160.3924	47.79002	190.5537	0	962.8491
3/11/2013 19:00	13040	333	1.27623	66.09309	22.35097	-6.924219	-159.9192	49.18044	190.1604	0	963.2137
3/11/2013 20:00	13041	333	1.529304	72.11707	21.45478	-7.704384	-160.2474	52.75034	190.0275	0	963.4185
3/11/2013 21:00	13042	333	1.66289	67.14616	24.24621	-8.36096	-160.1329	57.09406	189.9666	0	963.3928
3/11/2013 22:00	13043	333	2.089201	76.1254	21.02333	-9.026043	-159.9574	61.78117	190.0567	0	963.3137
3/11/2013 23:00	13044	333	2.011683	75.40576	21.78329	-9.810223	-159.9879	64.93136	189.9582	0	963.527
3/12/2013 0:00	13045	333	1.768006	76.9378	23.71336	-10.58965	-159.82	66.09131	189.8649	0	963.905
3/12/2013 1:00	13046	333	1.236618	70.07367	23.14407	-11.27735	-159.8811	68.05712	189.8217	0	964.0861
3/12/2013 2:00	13047	333	0.548876	23.70732	18.43276	-12.16121	-159.8277	70.78149	189.5992	0	964.3085
3/12/2013 3:00	13048	333	0.5101063	12.69716	23.29172	-13.13616	-159.6369	71.20121	189.5007	0	964.4652
3/12/2013 4:00	13049	333	0.468242	355.5047	20.48042	-13.8817	-159.3545	73.56537	189.4297	0	964.6655
3/12/2013 5:00	13050	333	0.653446	348.4459	13.70095	-14.61503	-159.2858	76.14474	189.4512	0	965.1329
3/12/2013 6:00	13051	333	0.6571426	337.8298	15.24374	-15.42595	-159.3393	79.77111	189.3548	0	965.8345
3/12/2013 7:00	13052	333	0.6129771	342.6179	15.31336	-16.10993	-158.9043	77.26806	189.1318	0	966.5529
3/12/2013 8:00	13053	333	0.7388863	332.8521	14.92947	-15.0249	-159.7056	69.32086	189.4372	0	967.151
3/12/2013 9:00	13054	333	0.9325936	320.2477	17.441	-13.21277	-160.1405	59.93441	189.994	0	967.6985
3/12/2013 10:00	13055	333	1.32719	307.8116	14.38462	-10.8597	-159.2858	46.59649	190.2845	0	967.9904
3/12/2013 11:00	13056	333	2.130532	315.4437	20.46314	-7.799197	-180.0047	38.48751	192.9745	0	968.1591
3/12/2013 12:00	13057	333	2.528031	336.4611	27.64906	-5.281391	-171.0761	39.3651	192.0844	0	968.27
3/12/2013 13:00	13058	333	2.333031	344.7624	30.60298	-4.568467	-158.4922	37.0681	191.6868	0	968.546
3/12/2013 14:00	13059	333	2.562707	335.913	26.3272	-4.398216	-159.7819	37.14441	191.6634	0	968.543
3/12/2013 15:00	13060	333	2.581833	332.9205	25.47758	-4.054452	-161.5905	35.58611	191.7631	0	968.7217
3/12/2013 16:00	13061	333	2.462914	348.4921	27.46387	-2.980361	-163.193	31.88036	193	0	968.9019
3/12/2013 17:00	13062	333	2.530551	336.9443	24.96575	-3.130046	-161.1097	36.3477	191.897	0	969.2818
3/12/2013 18:00	13063	333	1.74503	346.7136	24.7726	-4.264639	-160.8579	38.38372	191.296	0	969.8784

3/12/2013 19:00	13064	333	1.260606	347.2266	21.1013	-6.233709	-160.6442	44.19111	190.9556	0	970.6425
3/12/2013 20:00	13065	333	1.274168	328.3358	10.83078	-8.723659	-160.6595	50.32818	190.7331	0	971.4437
3/12/2013 21:00	13066	333	1.104212	331.3281	9.736945	-9.831333	-160.6747	53.47836	190.521	0	972.0986
3/12/2013 22:00	13067	333	1.394956	331.7466	11.88406	-11.11841	-160.255	59.78178	190.3472	0	972.4961
3/12/2013 23:00	13068	333	1.419244	331.8145	10.65121	-12.08912	-159.6369	68.9973	190.281	0	972.7361
3/13/2013 0:00	13069	333	1.341148	331.3377	11.45921	-12.59779	-160.2245	77.36117	190.1335	0	973.1059
3/13/2013 1:00	13070	333	1.218782	333.8588	13.61231	-13.67927	-160.2016	86.74609	190.0607	0	973.3256
3/13/2013 2:00	13071	333	1.180442	326.4193	8.921209	-14.94062	-159.9192	90.19083	189.9436	0	973.4114
3/13/2013 3:00	13072	333	1.68499	314.4616	6.261905	-15.97743	-160.1253	89.74822	190.0195	0	973.9796
3/13/2013 4:00	13073	333	1.68337	319.9743	7.431192	-16.48501	-159.6445	88.91184	189.8631	0	974.312
3/13/2013 5:00	13074	333	1.470676	321.204	8.573073	-16.9683	-159.7819	86.90329	189.8072	0	974.8252
3/13/2013 6:00	13075	333	1.330319	314.9705	9.249945	-17.97302	-159.3087	86.75982	189.7017	0	975.1493
3/13/2013 7:00	13076	333	1.281342	324.6476	8.790418	-19.26242	-159.5224	86.01806	189.5749	0	975.6868
3/13/2013 8:00	13077	333	0.8480439	331.6942	17.69143	-18.74652	-160.461	77.20242	189.6275	0	976.1117
3/13/2013 9:00	13078	333	0.8006702	326.6588	26.53889	-16.71528	-157.8206	67.76256	190.5028	0.254	976.4062
3/13/2013 10:00	13079	333	1.155378	319.6519	30.08364	-14.54545	-159.9421	58.5211	192.4561	1.524	976.4119
3/13/2013 11:00	13080	333	1.08377	299.8908	27.51078	-11.63651	-158.6677	49.8062	192.3613	0	976.2853
3/13/2013 12:00	13081	333	1.365649	297.7854	21.09082	-9.492987	-160.8045	42.35656	191.5919	0	976.015
3/13/2013 13:00	13082	333	1.321095	310.5839	46.30931	-7.033659	-161.0181	37.34282	192.1614	0	975.4395
3/13/2013 14:00	13083	333	1.173615	315.5956	44.11752	-5.102135	-160.0795	31.3248	195.1464	0	974.8405
3/13/2013 15:00	13084	333	1.12883	317.0869	35.30872	-3.602913	-160.2397	26.19202	192.439	0	974.4084
3/13/2013 16:00	13085	333	1.001719	318.2738	69.64175	-2.82056	-159.3927	29.13769	192.4866	0	974.0646
3/13/2013 17:00	13086	333	0.9604369	138.5382	25.61396	-3.365731	-161.9186	27.96095	191.3486	0	973.5569
3/13/2013 18:00	13087	333	0.7968016	151.1038	19.91574	-4.939548	-160.6213	33.55008	191.3151	0	973.1177
3/13/2013 19:00	13088	333	0.6856669	128.5283	14.88846	-8.117573	-160.5984	38.85534	190.7905	0	972.8693
3/13/2013 20:00	13089	333	0.7435814	136.3005	9.975564	-10.44874	-160.3084	43.07848	190.6481	0	972.575
3/13/2013 21:00	13090	333	0.9055758	147.2423	4.207003	-11.9174	-160.4839	47.6786	190.4879	0	972.5119
3/13/2013 22:00	13091	333	1.150478	144.2053	8.409091	-12.57315	-160.1253	46.84222	190.3232	0	972.015
3/13/2013 23:00	13092	333	1.291565	144.9796	7.353903	-12.27696	-160.69	53.56993	190.4116	0	971.3604
3/14/2013 0:00	13093	333	1.297242	150.6355	7.408003	-13.83096	-160.7052	58.50126	190.413	0	970.7645
3/14/2013 1:00	13094	333	1.160122	152.4298	7.552641	-14.42977	-160.0032	61.50034	190.2863	0	970.551
3/14/2013 2:00	13095	333	1.168746	157.2174	7.611664	-14.93106	-160.5984	66.75066	190.2513	0	970.3228
3/14/2013 3:00	13096	333	1.077517	156.5698	9.902918	-14.32754	-159.7361	73.03423	190.2454	0	969.8522
3/14/2013 4:00	13097	333	1.19102	159.5838	10.87959	-14.55344	-160.3771	79.90237	190.2068	0	969.0582
3/14/2013 5:00	13098	333	1.233669	158.1659	11.47044	-13.31388	-160.4076	74.31934	190.2189	0	968.3934
3/14/2013 6:00	13099	333	1.251347	155.845	13.62959	-11.41032	-160.8502	70.48081	190.459	0	967.3962
3/14/2013 7:00	13100	333	0.9700064	156.4799	17.64821	-10.2695	-160.7205	69.76347	190.718	0	967.0191
3/14/2013 8:00	13101	333	0.8294713	170.4701	22.48641	-8.776943	-161.5981	82.91061	191.0057	0	966.6885
3/14/2013 9:00	13102	333	1.12956	180.2924	26.30955	-7.337312	-159.9955	83.43717	191.2782	0	965.9439
3/14/2013 10:00	13103	333	1.272573	200.9944	32.20745	-6.456476	-160.4687	85.29156	191.4447	1.524	965.1782
3/14/2013 11:00	13104	333	1.545764	242.7124	35.84738	-6.19274	-159.7742	83.02814	188.6002	1.27	964.6578
3/14/2013 12:00	13105	333	2.878711	284.4741	22.18777	-6.006743	-159.6064	80.19541	189.3071	0	964.438
3/14/2013 13:00	13106	333	3.713732	291.7741	18.22114	-5.556801	-161.2623	78.09987	188.7887	0	964.376
3/14/2013 14:00	13107	333	4.268459	297.8948	14.36493	-4.996151	-155.951	78.17159	189.1851	0	964.272
3/14/2013 15:00	13108	333	5.393238	303.5164	13.61041	-4.728091	-158.599	71.28973	188.9655	0	964.4257
3/14/2013 16:00	13109	333	5.501668	308.3726	13.4553	-4.824067	-159.8582	76.18442	188.8502	0	965.1227

3/14/2013 17:00	13110	333	4.39051	314.6647	16.17662	-5.298118	-158.8585	75.87459	189.0558	0	965.9959
3/14/2013 18:00	13111	333	4.937922	311.385	14.72805	-5.871652	-158.9272	80.37704	188.8518	0	966.6485
3/14/2013 19:00	13112	333	4.164986	324.2072	18.61359	-7.471766	-158.2632	69.72379	188.3083	0	967.5928
3/14/2013 20:00	13113	333	3.629269	320.5816	17.44211	-8.885192	-158.0419	72.9625	187.9679	0	968.3533
3/14/2013 21:00	13114	333	3.775516	323.6881	18.52474	-10.26379	-157.813	72.31537	187.9155	0	968.9679
3/14/2013 22:00	13115	333	3.196676	325.268	17.89407	-11.94266	-157.813	77.88772	187.6848	0	969.4982
3/14/2013 23:00	13116	333	3.300394	323.7401	17.64649	-13.47376	-157.0422	76.6774	187.3868	0	969.8905
3/15/2013 0:00	13117	333	2.338169	326.092	17.6825	-15.31471	-156.737	78.43717	187.0201	0	970.3283
3/15/2013 1:00	13118	333	2.546074	339.9014	21.63265	-17.02199	-156.6836	76.76745	186.9128	0	971.0577
3/15/2013 2:00	13119	333	2.731813	341.0593	21.99093	-19.16472	-156.798	67.11086	186.6464	0	971.8811
3/15/2013 3:00	13120	333	1.958756	341.9406	19.45063	-20.86117	-156.5233	71.02264	186.4949	0	972.3204
3/15/2013 4:00	13121	333	1.546725	334.8169	17.41593	-22.45059	-156.096	77.15054	186.3689	0	972.6929
3/15/2013 5:00	13122	333	1.440063	344.3246	17.6568	-23.49975	-155.577	77.15206	186.0665	0	972.9728
3/15/2013 6:00	13123	333	0.9995545	329.8234	19.23548	-24.68292	-155.3023	79.93137	185.9192	0	973.347
3/15/2013 7:00	13124	333	1.161579	340.4064	14.18328	-26.4458	-155.516	79.11177	185.7491	0	973.4717
3/15/2013 8:00	13125	333	1.054443	333.6897	20.45702	-24.84771	-156.7141	65.84711	186.1346	0.254	973.2083
3/15/2013 9:00	13126	333	1.159959	329.9555	25.16905	-22.70492	-151.6393	59.10107	187.3364	0	973.0255
3/15/2013 10:00	13127	333	1.899403	322.423	26.29581	-20.74118	-157.2254	47.95638	188.4189	0	972.675
3/15/2013 11:00	13128	333	1.579206	311.4146	28.17177	-18.3688	-152.4864	40.89441	191.1451	0	972.4058
3/15/2013 12:00	13129	333	1.742803	325.1216	36.46752	-16.75069	-168.4357	36.19355	190.576	0	971.895
3/15/2013 13:00	13130	333	1.969612	305.5997	27.12164	-15.32479	-188.6738	33.63861	189.8389	0	971.1669
3/15/2013 14:00	13131	333	1.821722	306.1759	24.32239	-13.81282	-179.8139	29.95728	189.1635	0	970.3998
3/15/2013 15:00	13132	333	2.174153	307.9909	28.57788	-12.90209	-154.3179	30.78451	188.144	0	969.7994
3/15/2013 16:00	13133	333	1.795859	316.8067	23.63962	-12.82012	-155.2336	30.73872	188.742	0	969.6307
3/15/2013 17:00	13134	333	2.196943	312.8604	15.75279	-13.34175	-157.8969	32.09862	188.0659	0	969.5617
3/15/2013 18:00	13135	333	2.312623	305.492	13.11687	-14.11608	-157.8054	35.93562	187.7836	0	969.337
3/15/2013 19:00	13136	333	2.024764	298.5825	10.88398	-15.00005	-157.3551	46.08367	187.6407	0	968.9177
3/15/2013 20:00	13137	333	1.104144	304.5394	8.127666	-16.35045	-157.5383	43.76376	187.3927	0	968.9247
3/15/2013 21:00	13138	333	1.020729	299.621	8.669559	-16.94393	-157.5688	47.64655	187.2742	0	969.0518
3/15/2013 22:00	13139	333	1.032749	307.8933	10.08925	-17.80508	-156.6225	49.20943	187.2626	0	969.2059
3/15/2013 23:00	13140	333	0.95518	290.3903	12.71314	-17.63445	-157.1796	46.50949	187.0278	0	968.8443
3/16/2013 0:00	13141	333	1.974953	291.4268	14.73406	-17.94815	-157.3399	46.15235	187.2112	0	968.599
3/16/2013 1:00	13142	333	2.018104	297.0551	11.48704	-17.87719	-157.1796	48.65388	187.3165	0	968.4524
3/16/2013 2:00	13143	333	1.626333	290.8454	10.57455	-18.4929	-156.9812	48.57604	187.2412	0	968.1309
3/16/2013 3:00	13144	333	1.063321	263.3555	14.41424	-18.62818	-157.3933	50.22897	187.2768	0	967.7861
3/16/2013 4:00	13145	333	1.680269	286.079	15.5839	-19.1582	-157.3475	61.19357	187.2475	0	967.4788
3/16/2013 5:00	13146	333	1.61123	282.5607	17.1195	-19.59241	-157.1033	70.74181	187.1277	0	967.2814
3/16/2013 6:00	13147	333	1.489289	279.3999	18.23951	-19.84134	-157.0575	75.5846	187.061	0	966.9942
3/16/2013 7:00	13148	333	1.747261	281.1541	19.53852	-19.62874	-157.1644	77.75646	186.9825	0	966.7278
3/16/2013 8:00	13149	333	2.427207	282.9526	20.89485	-19.37143	-157.1644	72.73509	186.9762	0	966.2866
3/16/2013 9:00	13150	333	3.000978	289.182	20.1343	-18.7788	-157.027	70.63954	187.1295	0	965.8806
3/16/2013 10:00	13151	333	3.13598	288.7076	22.0739	-17.64062	-152.5016	60.51439	188.0734	0	965.5942
3/16/2013 11:00	13152	333	3.72845	290.9403	19.72254	-16.74114	-162.4375	62.12764	187.3526	0	965.5701
3/16/2013 12:00	13153	333	4.10465	300.0365	17.32694	-16.22533	-156.3478	56.02568	188.8004	0	965.5819
3/16/2013 13:00	13154	333	4.97666	305.2596	14.55013	-16.02386	-155.1573	54.36969	187.2777	0	965.7199
3/16/2013 14:00	13155	333	5.494229	302.3462	14.57547	-15.97795	-159.2019	66.52782	186.8281	0.254	966.0634

3/16/2013 15:00	13156	333	5.943316	305.3551	13.08605	-15.89473	-155.4168	61.10505	188.1035	0.254	966.4196
3/16/2013 16:00	13157	333	6.036458	303.3609	13.12979	-16.23865	-152.9061	43.79887	187.672	0	967.0622
3/16/2013 17:00	13158	333	5.728168	299.6927	13.50352	-16.01793	-157.172	42.05589	187.6797	0	967.796
3/16/2013 18:00	13159	333	5.497236	300.5288	13.18434	-16.50029	-157.0193	41.39655	187.1938	0	968.2936
3/16/2013 19:00	13160	333	4.716265	300.6895	11.27039	-17.43058	-157.1491	44.36969	187.0501	0	968.8524
3/16/2013 20:00	13161	333	3.783392	298.0226	10.77602	-18.38451	-156.5538	47.9579	187.0641	0	969.5743
3/16/2013 21:00	13162	333	1.925539	279.2674	15.60366	-19.53203	-157.0422	51.82544	186.9172	0	970.2166
3/16/2013 22:00	13163	333	2.082262	281.0905	16.74005	-20.39716	-156.9964	54.37579	186.6928	0	970.619
3/16/2013 23:00	13164	333	2.82827	286.8751	13.75353	-20.76682	-156.6759	55.36328	186.7251	0	971.0363
3/17/2013 0:00	13165	333	2.2986	284.3242	15.55922	-21.47399	-156.5767	58.6783	186.5867	0	971.4478
3/17/2013 1:00	13166	333	2.153361	277.9357	15.39825	-22.23074	-156.4852	61.94448	186.4532	0	971.9238
3/17/2013 2:00	13167	333	1.988253	277.4417	15.55867	-22.82868	-156.3173	64.85658	186.4741	0	972.2755
3/17/2013 3:00	13168	333	1.872672	274.6948	15.5444	-23.43273	-156.0044	67.46342	186.3098	0	972.403
3/17/2013 4:00	13169	333	1.407274	272.8697	19.23773	-24.19826	-156.3096	70.95701	186.2476	0	972.0971
3/17/2013 5:00	13170	333	1.277475	244.8478	18.34997	-24.71935	-156.1875	72.439	185.9892	0	972.1376
3/17/2013 6:00	13171	333	0.7568133	224.8647	24.74105	-25.96903	-156.157	78.16702	185.9887	0	972.0484
3/17/2013 7:00	13172	333	0.657061	155.1097	30.33041	-27.90226	-155.951	78.10445	185.9951	0	971.7001
3/17/2013 8:00	13173	333	0.6008859	133.5035	22.44423	-25.36311	-157.0346	60.87763	186.4041	0	971.1949
3/17/2013 9:00	13174	333	1.336074	117.3534	12.19293	-22.02623	-159.8811	54.0446	187.7009	0	970.9447
3/17/2013 10:00	13175	333	1.293015	124.6843	61.83209	-18.35183	-152.494	41.46218	189.0177	0	970.6981
3/17/2013 11:00	13176	333	1.41734	209.8423	46.36591	-13.94712	-157.6299	35.98598	186.7663	0	970.2187
3/17/2013 12:00	13177	333	1.167042	169.6241	59.46304	-11.27912	-155.1802	32.5626	190.9134	0	969.2589
3/17/2013 13:00	13178	333	1.447113	160.6422	52.98199	-9.695453	-158.8585	28.25246	189.2663	0	968.4064
3/17/2013 14:00	13179	333	1.56797	200.1238	49.5368	-8.033768	-167.0773	27.17798	190.4616	0.254	967.6312
3/17/2013 15:00	13180	333	1.725145	183.4186	40.52812	-7.371303	-178.6082	28.02047	189.2591	0	966.6675
3/17/2013 16:00	13181	333	1.899029	169.7154	30.50702	-6.711178	-156.3859	24.53298	189.2334	0	965.8799
3/17/2013 17:00	13182	333	1.600741	173.1683	27.6316	-6.840585	-159.4079	25.66699	189.1356	0	965.3792
3/17/2013 18:00	13183	333	1.38672	163.4115	24.51402	-8.095508	-158.2022	32.66638	188.6671	0	965.0659
3/17/2013 19:00	13184	333	1.090659	175.7521	23.9464	-9.317945	-158.3319	32.53207	188.2921	0.254	965.0592
3/17/2013 20:00	13185	333	0.5481107	146.6064	15.07406	-10.24012	-158.393	43.37915	188.1835	0	964.7834
3/17/2013 21:00	13186	333	0.5551094	131.5471	13.31678	-11.72753	-157.9656	42.54887	188.0893	0	964.3612
3/17/2013 22:00	13187	333	0.702787	125.7485	12.10409	-11.20666	-158.0648	48.18379	188.0609	0	963.8043
3/17/2013 23:00	13188	333	1.004524	132.557	10.70073	-11.96025	-158.538	48.05101	188.1615	0	963.086
3/18/2013 0:00	13189	333	0.82867	139.0621	14.24383	-11.47032	-157.9885	52.22378	188.1126	0.254	962.579
3/18/2013 1:00	13190	333	0.7193618	123.0464	16.0698	-10.83045	-158.6066	55.14655	188.1404	0	962.1078
3/18/2013 2:00	13191	333	0.889178	126.3661	20.55293	-11.08362	-158.8966	77.17801	188.2232	0	961.6493
3/18/2013 3:00	13192	333	1.271305	121.5686	17.6775	-11.47452	-157.6299	87.35049	188.1158	0	961.2256
3/18/2013 4:00	13193	333	1.400429	118.9834	19.11354	-11.22731	-157.3551	87.05286	187.6617	0	959.9651
3/18/2013 5:00	13194	333	1.334125	120.4696	22.33016	-11.08217	-157.4314	87.13985	187.4975	0	958.8514
3/18/2013 6:00	13195	333	1.603001	111.0015	23.73202	-11.02904	-159.9421	87.86025	187.5639	0	957.8956
3/18/2013 7:00	13196	333	1.750033	115.6211	22.12014	-10.80634	-157.3246	87.33064	187.32	0	956.9607
3/18/2013 8:00	13197	333	1.792563	116.8041	20.975	-10.19841	-156.9201	86.12185	187.54	0	956.0706
3/18/2013 9:00	13198	333	1.510592	112.4149	23.5241	-9.244348	-155.226	86.16916	185.6852	0	955.268
3/18/2013 10:00	13199	333	1.318397	102.0304	23.24865	-8.494321	-153.86	85.12673	184.8995	0	954.8198
3/18/2013 11:00	13200	333	1.492464	88.39391	24.78352	-7.543489	-155.0886	81.48052	184.6438	0	954.1708
3/18/2013 12:00	13201	333	1.732735	102.1225	27.50356	-6.760073	-154.3255	83.82178	184.7074	0	953.5186

3/18/2013 13:00	13202	333	1.347746	88.43657	26.45931	-6.568958	-153.4174	85.35873	183.7487	0	953.2935
3/18/2013 14:00	13203	333	1.121094	43.45898	33.40271	-6.043691	-154.2492	85.08401	181.2926	0	952.918
3/18/2013 15:00	13204	333	1.130433	10.02586	33.71564	-5.539759	-154.8902	84.98785	157.6085	0	952.6226
3/18/2013 16:00	13205	333	1.374882	347.7979	26.9516	-5.336013	-152.7229	86.61788	167.8175	2.794	952.6252
3/18/2013 17:00	13206	333	1.67145	336.2485	20.75246	-6.144053	-151.1204	91.96282	161.331	0	953.0119
3/18/2013 18:00	13207	333	1.791711	326.4337	18.62531	-6.677935	-148.8768	92.79462	171.676	0.254	953.4963
3/18/2013 19:00	13208	333	1.934538	331.5842	19.36146	-6.959291	-147.9839	92.8923	178.3196	0.254	953.8798
3/18/2013 20:00	13209	333	2.785602	324.7933	17.19793	-7.936973	-147.8618	89.70549	178.0992	0.254	954.2567
3/18/2013 21:00	13210	333	3.12868	323.1105	17.52054	-9.02538	-148.0831	89.64291	177.9162	0.254	954.6165
3/18/2013 22:00	13211	333	3.201593	321.8208	17.82066	-9.289302	-147.8542	88.776	177.8505	0.254	954.8426
3/18/2013 23:00	13212	333	3.77676	317.5383	14.32732	-9.529115	-148.2663	88.44023	178.0838	22.35199	955.0833
3/19/2013 0:00	13213	333	4.78199	314.7776	12.31308	-10.16557	-147.4039	88.58369	178.1058	0	955.2979
3/19/2013 1:00	13214	333	5.330118	312.4996	12.37524	-10.87001	-146.8545	86.56751	176.8178	0	955.4171
3/19/2013 2:00	13215	333	5.227107	315.6701	14.3161	-11.88637	-146.7553	84.74212	176.95	0	955.8722
3/19/2013 3:00	13216	333	5.613363	313.328	11.58755	-12.4779	-146.7706	84.47198	176.9177	0.254	956.5482
3/19/2013 4:00	13217	333	5.864565	313.2972	12.08348	-13.14367	-147.2513	83.85537	177.0445	0	957.0632
3/19/2013 5:00	13218	333	6.005351	312.4158	12.02986	-13.78878	-146.4729	83.27539	176.9504	0	957.685
3/19/2013 6:00	13219	333	6.338735	312.3615	11.66545	-14.31497	-147.4345	81.44083	177.0953	0	958.3133
3/19/2013 7:00	13220	333	5.640749	312.1023	11.82835	-14.78537	-147.5566	81.57819	177.1803	0	959.2394
3/19/2013 8:00	13221	333	6.165051	312.2946	11.3625	-15.09717	-147.6329	80.47624	177.4248	0	959.6095
3/19/2013 9:00	13222	333	5.964379	312.3596	12.15141	-14.94689	-147.6787	79.76501	177.4863	0	960.0196
3/19/2013 10:00	13223	333	5.680135	310.3494	12.88458	-14.43785	-147.8237	77.92282	177.7074	0	960.5047
3/19/2013 11:00	13224	333	6.039938	311.6705	12.80432	-13.48351	-143.7486	75.99059	177.6429	0	960.7138
3/19/2013 12:00	13225	333	6.01475	309.8174	12.84677	-12.21628	-155.9739	73.57606	178.1195	0	960.9791
3/19/2013 13:00	13226	333	7.274708	307.8039	12.74205	-11.67077	-150.2733	77.15512	178.9418	0	961.2484
3/19/2013 14:00	13227	333	7.455477	309.0143	13.20628	-11.67976	-151.3417	76.93839	179.7551	0	961.5229
3/19/2013 15:00	13228	333	6.913268	310.67	12.85686	-11.52918	-151.853	77.48784	179.8023	0	962.1245
3/19/2013 16:00	13229	333	7.428873	311.8656	13.40832	-11.69376	-150.7007	76.52935	180.3556	0	962.9907
3/19/2013 17:00	13230	333	6.875856	311.8834	13.03596	-11.79893	-150.8151	78.3456	180.6035	0	963.9725
3/19/2013 18:00	13231	333	5.670394	313.4271	13.30188	-12.15261	-149.2278	82.58553	180.4575	0	964.7042
3/19/2013 19:00	13232	333	6.409987	311.6533	12.52713	-12.61688	-149.8994	79.81843	179.7345	0	965.2183
3/19/2013 20:00	13233	333	6.416554	314.3029	13.6843	-12.87388	-149.4186	81.37673	179.9301	0	965.4849
3/19/2013 21:00	13234	333	4.886808	318.4562	16.15446	-13.04027	-148.6173	82.21312	179.2209	0	966.0218
3/19/2013 22:00	13235	333	4.967306	317.0714	14.44079	-13.33135	-149.266	82.3047	178.926	0	966.1096
3/19/2013 23:00	13236	333	5.230075	313.0211	12.65903	-13.56608	-148.9989	81.65298	179.013	0	966.203
3/20/2013 0:00	13237	333	5.329847	314.51	13.71927	-13.82573	-149.0218	81.34773	179.1765	0	966.348
3/20/2013 1:00	13238	333	5.364093	314.18	12.02738	-14.2888	-149.5407	79.04614	179.3583	0	966.3872
3/20/2013 2:00	13239	333	4.624846	316.6404	14.4332	-14.67442	-149.182	80.74792	179.36	0	966.5969
3/20/2013 3:00	13240	333	4.513199	316.2108	14.79308	-15.08482	-149.2507	78.9332	179.3189	0	967.0309
3/20/2013 4:00	13241	333	4.277891	316.2292	14.53876	-15.44621	-149.762	79.72227	179.4469	0	967.4325
3/20/2013 5:00	13242	333	3.971587	318.2372	16.30794	-15.7927	-149.6018	78.61421	179.4922	0	967.7872
3/20/2013 6:00	13243	333	3.352603	322.3549	17.14659	-16.06717	-149.556	80.25036	179.4638	0	968.5439
3/20/2013 7:00	13244	333	3.542454	320.3989	16.43023	-16.2969	-149.3805	79.63985	179.3644	0	969.1202
3/20/2013 8:00	13245	333	3.169889	319.0994	16.4537	-16.00324	-149.6628	73.63863	179.4483	0	969.334
3/20/2013 9:00	13246	333	3.148855	325.6422	19.67901	-14.52457	-150.2428	68.74852	179.9415	0	969.6031
3/20/2013 10:00	13247	333	3.086163	328.3187	21.01506	-12.81901	-161.2318	67.82666	180.1343	0	969.6773

3/20/2013 11:00	13248	333	3.164237	327.2808	20.97776	-12.03628	-147.0835	67.06659	181.2559	0	969.9042
3/20/2013 12:00	13249	333	3.508959	319.5252	18.19846	-11.04772	-147.7474	64.89015	180.7871	0	970.0962
3/20/2013 13:00	13250	333	3.724785	317.9724	17.59179	-10.13745	-156.9201	64.16824	180.9794	0	970.0681
3/20/2013 14:00	13251	333	2.87308	328.9622	22.80641	-9.164634	-156.5233	64.3987	182.1929	0	969.9623
3/20/2013 15:00	13252	333	2.987854	324.7895	20.88857	-9.233663	-151.8606	68.97135	181.4127	0	970.2807
3/20/2013 16:00	13253	333	2.935168	324.8934	19.86328	-9.321945	-151.2654	66.93227	180.5069	0	970.647
3/20/2013 17:00	13254	333	2.380401	336.0902	23.44221	-9.205627	-151.1814	66.87276	181.072	0	971.0309
3/20/2013 18:00	13255	333	1.695971	344.7686	27.15294	-9.530032	-150.9067	71.97196	180.8892	0	971.2903
3/20/2013 19:00	13256	333	1.022584	340.3704	18.62017	-10.96098	-149.846	81.71862	180.5435	0	971.3044
3/20/2013 20:00	13257	333	0.8148981	323.7349	9.207972	-13.14712	-149.9681	89.36514	180.1205	0	971.4581
3/20/2013 21:00	13258	333	0.7568942	339.6597	13.71593	-14.3611	-150.1512	90.52356	179.9093	0	971.3501
3/20/2013 22:00	13259	333	1.116694	324.9206	7.691554	-14.98477	-150.2199	87.55653	180.1265	0	971.1794
3/20/2013 23:00	13260	333	0.9593533	337.3662	16.77687	-15.48154	-150.0062	86.51409	180.0474	0	971.1634
3/21/2013 0:00	13261	333	1.047419	317.5112	5.425779	-16.13517	-150.2123	86.71861	180.0467	0	971.0354
3/21/2013 1:00	13262	333	1.309395	315.5992	4.64166	-17.0899	-149.5407	85.68687	180.0855	0	971.0117
3/21/2013 2:00	13263	333	1.421148	319.218	4.720211	-17.61486	-150.3267	84.7177	179.9135	0	970.9554
3/21/2013 3:00	13264	333	1.447933	320.5019	6.896198	-18.54737	-150.1512	83.11514	179.9782	0	970.9016
3/21/2013 4:00	13265	333	1.383585	321.4053	9.048182	-19.85015	-149.7467	83.55622	179.9862	0	971.108
3/21/2013 5:00	13266	333	1.268196	324.3909	9.774733	-20.51338	-149.8689	83.5257	179.8939	0	971.3248
3/21/2013 6:00	13267	333	1.639228	317.6315	6.147708	-21.70649	-149.3805	83.49517	179.9024	0	971.4522
3/21/2013 7:00	13268	333	1.304311	324.9036	7.629883	-22.29765	-149.5102	81.37826	179.791	0	971.6346
3/21/2013 8:00	13269	333	1.231892	322.831	7.84054	-21.06544	-150.3954	80.27631	180.0313	0	971.3378
3/21/2013 9:00	13270	333	0.9613374	323.8958	14.81898	-18.88895	-150.4565	78.73021	180.5519	0	971.1133
3/21/2013 10:00	13271	333	1.573622	315.3873	13.34123	-16.32127	-144.672	74.67343	181.0069	0	971.0427
3/21/2013 11:00	13272	333	2.120534	318.9573	20.78596	-13.23251	-149.0218	59.52079	180.8048	0	971.1783
3/21/2013 12:00	13273	333	1.709254	345.7072	28.33496	-9.646929	-147.9229	52.53361	182.4783	0	971.1069
3/21/2013 13:00	13274	333	1.794354	40.16201	37.32194	-6.966525	-152.5474	46.15845	183.2461	0	970.8298
3/21/2013 14:00	13275	333	1.613771	44.55122	44.03274	-4.703073	-147.61	44.73446	182.4639	0	970.7857
3/21/2013 15:00	13276	333	1.614032	353.0605	39.21133	-2.995638	-163.3991	49.54826	184.2112	0	970.7045
3/21/2013 16:00	13277	333	1.74927	350.0012	30.66075	-2.170429	-152.1048	52.05742	183.283	0	970.575
3/21/2013 17:00	13278	333	1.852772	340.8183	27.12502	-2.801947	-152.4101	59.01713	183.0042	0	970.782
3/21/2013 18:00	13279	333	2.108782	358.4491	26.13033	-4.413079	-152.3414	67.71677	182.2805	0	971.1318
3/21/2013 19:00	13280	333	1.758838	0.4274554	25.92346	-5.997622	-151.5935	73.97899	181.9294	0	971.6058
3/21/2013 20:00	13281	333	1.993606	3.754309	31.73206	-7.056279	-151.8682	83.96373	181.8663	0	972.1128
3/21/2013 21:00	13282	333	1.8193	22.68105	32.91869	-8.572251	-151.8988	85.43961	181.7949	0	972.5573
3/21/2013 22:00	13283	333	1.838193	36.79501	32.92712	-9.656238	-151.9751	89.80317	181.7697	0	972.8538
3/21/2013 23:00	13284	333	1.527599	36.60662	33.02805	-9.981585	-151.5172	90.29157	181.7453	0	973.0491
3/22/2013 0:00	13285	333	1.542486	32.00705	32.68507	-10.54387	-151.563	91.7583	181.6981	0	973.1555
3/22/2013 1:00	13286	333	1.263992	33.00692	33.13085	-11.13047	-151.8377	91.72778	181.5981	0	973.1569
3/22/2013 2:00	13287	333	1.329588	19.77178	29.69772	-11.28171	-151.6088	91.84682	181.6206	0	973.2582
3/22/2013 3:00	13288	333	1.247155	24.87098	30.57319	-11.64664	-151.6164	91.49731	181.5247	0	973.2311
3/22/2013 4:00	13289	333	0.9210083	4.957418	26.90729	-11.88424	-151.5019	91.57821	181.5543	0	973.0267
3/22/2013 5:00	13290	333	1.040966	357.9182	23.15982	-12.38476	-151.4256	90.8166	181.4857	0	972.8514
3/22/2013 6:00	13291	333	0.7145368	9.605934	27.24734	-12.60804	-151.6469	90.30531	181.4575	0	972.8325
3/22/2013 7:00	13292	333	0.7339203	1.0714	23.52428	-12.96815	-151.6088	88.57607	181.5622	0	972.9379
3/22/2013 8:00	13293	333	0.7354102	25.70732	33.96449	-12.6346	-152.2269	87.97778	181.9452	0	972.9561

3/22/2013 9:00	13294	333	0.7080482	5.288893	41.89729	-10.99894	-158.2709	78.46311	182.3363	0	972.8078
3/22/2013 10:00	13295	333	1.180457	38.60798	37.61802	-8.810915	-151.1585	73.20213	183.2403	0	972.776
3/22/2013 11:00	13296	333	1.68704	32.41567	36.97308	-6.645456	-156.0807	66.54308	183.8893	0	972.7029
3/22/2013 12:00	13297	333	1.995274	61.82401	38.17403	-5.011342	-152.784	63.41121	183.7876	0	972.5068
3/22/2013 13:00	13298	333	1.977121	53.31769	35.76422	-3.440679	-152.1735	58.88892	184.5171	0	972.0314
3/22/2013 14:00	13299	333	1.49783	31.46318	43.70129	-1.249017	-150.6015	55.74484	184.4878	0	971.5603
3/22/2013 15:00	13300	333	1.894008	38.94696	38.41747	-0.3528497	-153.5395	54.11328	184.4948	0	971.2184
3/22/2013 16:00	13301	333	2.010527	57.61362	31.67918	-0.467418	-157.4162	58.92556	183.788	0	971.0815
3/22/2013 17:00	13302	333	1.858899	54.31813	30.75788	-1.188717	-154.0126	64.53453	184.1876	0	971.365
3/22/2013 18:00	13303	333	1.585111	56.64859	29.86925	-2.241483	-153.57	69.05835	183.6489	0	971.8447
3/22/2013 19:00	13304	333	1.449211	39.05041	33.94224	-3.205867	-153.1808	72.33368	183.3575	0	972.2792
3/22/2013 20:00	13305	333	1.773978	27.89045	35.03746	-4.189456	-153.1732	75.44572	183.1572	0	972.6891
3/22/2013 21:00	13306	333	1.510661	18.13105	32.83613	-4.955148	-153.3334	78.28912	183.1288	0	972.9037
3/22/2013 22:00	13307	333	1.531324	52.63015	32.71864	-5.577916	-153.3334	80.4564	183.0223	0	973.0959
3/22/2013 23:00	13308	333	0.9655097	6.504484	34.81883	-6.340041	-152.9595	89.89474	182.9919	0	973.1381
3/23/2013 0:00	13309	333	0.6144629	355.0584	22.51879	-6.668604	-152.9595	85.84254	182.8851	0	973.1557
3/23/2013 1:00	13310	333	0.6676869	7.339937	22.08412	-6.785646	-153.0587	86.98724	182.8552	0	973.2817
3/23/2013 2:00	13311	333	0.9000114	3.888985	20.72851	-6.938398	-152.7611	88.75311	182.8579	0	972.8873
3/23/2013 3:00	13312	333	0.8910573	6.807771	22.14609	-7.067453	-153.0587	89.91764	182.8772	0	972.6871
3/23/2013 4:00	13313	333	0.7114285	13.14674	22.15499	-7.114976	-153.2419	91.06996	182.9352	0	972.5303
3/23/2013 5:00	13314	333	0.6420312	2.234791	22.17058	-7.132612	-153.2419	90.54035	183.0744	0	972.732
3/23/2013 6:00	13315	333	0.5075734	351.9997	19.17554	-7.268432	-153.1808	89.90848	183.0512	0	973.0811
3/23/2013 7:00	13316	333	0.4765761	356.368	22.76259	-7.294396	-153.074	87.63589	183.0593	0	973.4324
3/23/2013 8:00	13317	333	0.6031051	4.15213	29.53683	-6.719187	-153.57	81.05317	183.2983	0	973.7005
3/23/2013 9:00	13318	333	1.021922	349.7665	26.73597	-5.848386	-153.8982	77.1078	183.7925	0	973.9459
3/23/2013 10:00	13319	333	1.123253	351.7652	24.75833	-5.374166	-157.7749	75.45335	184.4148	0	973.9622
3/23/2013 11:00	13320	333	1.429451	340.6239	33.35976	-3.673584	-170.1909	62.57635	185.2978	0	973.8311
3/23/2013 12:00	13321	333	1.365495	29.75016	53.60817	-1.667389	-152.4787	52.08947	185.6577	0	973.5939
3/23/2013 13:00	13322	333	1.608203	58.85402	36.98357	-1.719583	-153.8142	49.69173	185.545	0	973.5029
3/23/2013 14:00	13323	333	1.491778	35.11313	42.08692	-1.073727	-154.3637	45.4518	185.6908	0	973.2502
3/23/2013 15:00	13324	333	1.772633	40.17842	40.05118	-1.124884	-159.7284	46.35534	185.8978	0	972.9145
3/23/2013 16:00	13325	333	1.534264	28.39933	39.45748	-1.436098	-152.6772	54.56047	184.7727	0	972.8405
3/23/2013 17:00	13326	333	1.73824	358.9346	28.7444	-1.916339	-154.9513	61.34772	184.9038	0	972.905
3/23/2013 18:00	13327	333	1.613542	2.541219	28.57908	-2.818196	-154.501	63.86451	184.7437	0	973.1539
3/23/2013 19:00	13328	333	1.334619	2.581996	26.64224	-3.596583	-154.4552	73.2235	184.4434	0	973.4171
3/23/2013 20:00	13329	333	1.18715	359.108	23.25291	-4.222882	-154.1729	75.00616	184.2433	0	973.7781
3/23/2013 21:00	13330	333	1.156012	22.66629	31.55688	-4.690161	-154.5316	77.85414	184.2249	0	973.9763
3/23/2013 22:00	13331	333	0.9672702	16.35304	26.8207	-5.148789	-154.4018	80.55866	184.3121	0	974.1741
3/23/2013 23:00	13332	333	1.141277	41.19024	28.67585	-5.652559	-153.7913	82.39169	184.2567	0	974.304
3/24/2013 0:00	13333	333	1.217087	62.77788	26.21027	-6.167126	-154.1729	74.82147	184.2108	0	974.4902
3/24/2013 1:00	13334	333	1.019252	64.29259	22.9114	-6.718439	-153.9668	78.15939	184.1314	0	974.5364
3/24/2013 2:00	13335	333	0.7781692	34.75647	31.6218	-7.099765	-154.2263	77.10017	184.0987	0	974.4175
3/24/2013 3:00	13336	333	0.9835771	18.26135	28.24791	-7.53045	-154.1271	80.97533	184.0872	0	974.2574
3/24/2013 4:00	13337	333	1.008551	24.94029	33.32201	-8.088194	-154.1118	82.42526	184.1586	0	973.9996
3/24/2013 5:00	13338	333	0.8231413	20.28569	30.71735	-8.540737	-153.7837	82.44205	184.0157	0	974.1815
3/24/2013 6:00	13339	333	0.8834998	15.18446	28.04592	-8.841535	-154.0966	84.37887	183.9961	0	974.6826

3/24/2013 7:00	13340	333	0.8349129	14.21407	37.41913	-8.783774	-154.356	81.41946	184.1381	0	975.0562
3/24/2013 8:00	13341	333	1.085415	46.07973	32.63823	-8.389271	-154.4858	79.36971	184.295	0	975.1972
3/24/2013 9:00	13342	333	1.414346	34.95187	31.48763	-7.369944	-156.2486	70.19846	184.8941	0	975.2331
3/24/2013 10:00	13343	333	1.632018	31.1427	36.85773	-5.680277	-163.2159	61.55529	184.9457	0	975.2773
3/24/2013 11:00	13344	333	1.522424	33.28991	44.08923	-4.024581	-153.7532	52.89381	186.624	0	974.9658
3/24/2013 12:00	13345	333	1.399102	351.9661	52.55482	-3.082774	-159.2858	50.30375	186.315	0	974.6641
3/24/2013 13:00	13346	333	1.53062	44.97651	60.99467	-1.723898	-148.5944	45.5449	186.9291	0	974.2561
3/24/2013 14:00	13347	333	1.838671	29.9017	38.66106	-0.8502357	-157.9962	46.888	186.7348	0	973.6964
3/24/2013 15:00	13348	333	1.579462	44.70571	51.36005	0.3373083	-153.9287	45.73721	187.6703	0	973.1968
3/24/2013 16:00	13349	333	1.182026	41.01323	53.17265	1.220001	-155.6305	41.85595	188.7057	0	972.8749
3/24/2013 17:00	13350	333	1.585467	26.42529	35.38972	1.175777	-153.6311	43.47683	186.3948	0	972.7921
3/24/2013 18:00	13351	333	1.377388	32.45285	39.4311	0.260589	-155.8823	45.90052	186.1464	0	972.9412
3/24/2013 19:00	13352	333	1.266491	359.549	27.63709	-1.89139	-155.2184	55.42128	185.7126	0	973.1178
3/24/2013 20:00	13353	333	1.406277	341.119	16.77668	-3.836984	-155.1268	64.04613	185.1609	0	973.5125
3/24/2013 21:00	13354	333	1.1049	346.5872	17.00234	-5.665748	-155.0123	72.17191	184.8306	0	973.6382
3/24/2013 22:00	13355	333	1.301444	1.981536	17.50628	-6.236385	-154.2416	75.48082	184.4424	0	973.5849
3/24/2013 23:00	13356	333	1.107988	331.8752	11.98384	-7.799417	-154.8215	82.95793	184.5757	0	973.5931
3/25/2013 0:00	13357	333	1.382814	328.9825	8.348507	-9.450772	-154.2492	86.83767	184.4085	0	973.7509
3/25/2013 1:00	13358	333	1.316475	336.6748	10.61174	-11.17104	-154.211	92.22533	184.2452	0	973.8198
3/25/2013 2:00	13359	333	1.439013	345.5826	12.51952	-11.26482	-153.6921	93.78364	184.1158	0	973.9185
3/25/2013 3:00	13360	333	1.327966	345.2636	14.88858	-11.2191	-153.9058	92.71526	184.0865	0	973.9902
3/25/2013 4:00	13361	333	1.353895	332.0557	14.46866	-12.36517	-153.7684	92.18108	184.0675	0	973.9837
3/25/2013 5:00	13362	333	1.459978	320.8273	8.576951	-13.11787	-153.8142	90.87002	184.0325	0	974.2055
3/25/2013 6:00	13363	333	1.420175	313.7621	4.252679	-14.28316	-153.4632	91.05013	183.8456	0	974.5084
3/25/2013 7:00	13364	333	1.444499	311.3667	4.212905	-14.68998	-153.8142	89.3163	183.9234	0	974.7335
3/25/2013 8:00	13365	333	1.287717	315.5605	7.766331	-12.30348	-154.7224	83.88589	184.3539	0	974.8721
3/25/2013 9:00	13366	333	1.483432	313.7299	11.50523	-8.997664	-155.0886	82.72136	184.8923	0	974.912
3/25/2013 10:00	13367	333	2.095764	326.9233	21.58671	-5.694304	-165.1772	68.21738	184.9885	0	975.0439
3/25/2013 11:00	13368	333	2.261395	334.616	26.90598	-3.669851	-154.8444	66.73692	185.7859	0	975.1612
3/25/2013 12:00	13369	333	2.813493	333.1429	28.72274	-2.209858	-153.3869	60.36024	186.2368	0	974.9825
3/25/2013 13:00	13370	333	2.356279	340.0589	28.18588	-0.6610652	-154.4934	58.04338	185.7323	0	974.8532
3/25/2013 14:00	13371	333	2.084436	331.4892	25.03803	0.1766182	-156.5233	54.47653	187.3234	0	974.6239
3/25/2013 15:00	13372	333	2.30926	343.9237	28.70807	0.8255507	-152.5474	55.81505	186.0622	0	974.3901
3/25/2013 16:00	13373	333	2.52132	329.6176	24.44929	0.7298113	-154.0966	57.27262	185.8337	0	974.265
3/25/2013 17:00	13374	333	2.311695	335.9685	23.84482	0.6459095	-156.1112	63.12733	186.0872	0	974.2921
3/25/2013 18:00	13375	333	2.121518	341.5493	23.9031	-0.2431364	-155.7449	66.80254	185.8694	0	974.4937
3/25/2013 19:00	13376	333	2.17374	343.2838	23.88547	-1.038023	-155.4931	71.93533	185.6031	0	974.7775
3/25/2013 20:00	13377	333	2.226638	351.5118	25.80745	-1.64877	-155.2794	71.92312	185.5319	0	975.1035
3/25/2013 21:00	13378	333	1.647425	3.876787	27.81999	-1.893469	-155.1726	73.04644	185.4908	0	975.3655
3/25/2013 22:00	13379	333	1.301004	348.8971	26.09128	-2.147555	-155.661	75.15725	185.4392	0	975.4131
3/25/2013 23:00	13380	333	1.288064	2.105295	29.00287	-2.380585	-155.867	76.57819	185.4402	0	975.3562
3/26/2013 0:00	13381	333	0.8478286	23.91057	32.30489	-2.524912	-155.867	76.86208	185.595	0	975.4009
3/26/2013 1:00	13382	333	0.8817172	50.2	29.1413	-2.784156	-155.3481	79.80621	185.5911	0	975.5046
3/26/2013 2:00	13383	333	0.7116456	21.01918	29.37186	-3.023904	-155.5541	80.68228	185.6	0	975.5806
3/26/2013 3:00	13384	333	0.4393389	353.6015	23.14729	-3.064298	-155.7907	82.62521	185.5425	0	975.5125
3/26/2013 4:00	13385	333	0.5907796	343.523	18.00766	-3.255087	-155.2718	85.40451	185.5591	0	975.5166

3/26/2013 5:00	13386	333	0.6737313	339.6931	20.63487	-3.584253	-155.1649	88.60964	185.3811	0	975.633
3/26/2013 6:00	13387	333	0.5691044	337.3258	20.14302	-3.743673	-155.577	90.16337	185.4955	0	975.7547
3/26/2013 7:00	13388	333	0.8600146	323.2711	14.20688	-3.916343	-155.6076	94.02936	185.5284	0	975.9343
3/26/2013 8:00	13389	333	1.145685	323.3772	17.17987	-3.634363	-155.8518	85.79218	185.6459	0	976.1168
3/26/2013 9:00	13390	333	1.125094	337.8298	26.34608	-2.79842	-156.6302	76.90328	185.9763	0	976.2407
3/26/2013 10:00	13391	333	1.286169	335.2397	30.7924	-1.910067	-154.1805	70.7998	186.4248	0	976.4165
3/26/2013 11:00	13392	333	1.666769	307.1653	19.97664	-1.161225	-153.3258	69.45212	186.0494	0	976.3806
3/26/2013 12:00	13393	333	1.267289	310.3457	31.62849	-0.1443483	-153.0206	63.47227	187.1217	0	976.2665
3/26/2013 13:00	13394	333	1.554184	308.4698	24.71395	0.7801558	-154.5163	57.93959	186.9494	0	976.1105
3/26/2013 14:00	13395	333	1.23909	294.7705	31.25934	1.64756	-155.1421	55.74484	187.6897	0	975.8375
3/26/2013 15:00	13396	333	1.061063	292.3987	32.68211	2.12698	-159.2935	52.9808	189.3613	0	975.5947
3/26/2013 16:00	13397	333	0.8026217	295.7764	46.76927	2.549669	-160.5068	51.44234	189.6676	0	975.497
3/26/2013 17:00	13398	333	0.7431173	313.2147	44.24817	2.496909	-158.538	50.57543	188.5365	0	975.3989
3/26/2013 18:00	13399	333	0.2905284	309.9399	14.81903	1.961728	-158.2403	53.5211	188.3282	0	975.3868
3/26/2013 19:00	13400	333	0.05532692	245.8383	0.0419647	0.738467	-158.2098	60.01683	188.0521	0	975.3987
3/26/2013 20:00	13401	333	0.1309203	341.4376	10.89966	-0.9737779	-157.5459	69.46891	187.8394	0	975.5621
3/26/2013 21:00	13402	333	0.2195541	8.097986	9.696812	-1.764891	-157.6909	71.9277	187.607	0	975.5974
3/26/2013 22:00	13403	333	0.3205403	333.8562	15.21441	-2.308775	-157.3017	74.51012	187.5895	0	975.6737
3/26/2013 23:00	13404	333	0.3844753	329.8065	14.40784	-2.938016	-157.4849	74.63528	187.4427	0	975.795
3/27/2013 0:00	13405	333	0.1834788	52.78721	44.57613	-2.813671	-157.6299	76.2882	187.5467	0	975.9143
3/27/2013 1:00	13406	333	0.05286737	332.715	6.145355	-2.971548	-157.4696	80.70518	187.5179	0	976.0784
3/27/2013 2:00	13407	333	0.2466733	346.8721	55.13902	-3.488183	-157.7062	79.43991	187.5298	0	976.2232
3/27/2013 3:00	13408	333	0.6239188	353.9309	48.76345	-3.447241	-157.8359	82.12917	187.5737	0	976.1975
3/27/2013 4:00	13409	333	0.2530926	348.6545	39.74883	-3.660053	-157.3704	83.10751	187.5381	0	976.2935
3/27/2013 5:00	13410	333	0.2436308	98.34142	25.08486	-3.744519	-157.4849	84.09194	187.5757	0	976.3901
3/27/2013 6:00	13411	333	0.7858377	53.42861	65.0634	-3.960216	-157.4162	85.63956	187.5493	0	976.5256
3/27/2013 7:00	13412	333	0.3095925	48.37206	68.84311	-3.861063	-157.7596	78.63863	187.5054	0	976.9268
3/27/2013 8:00	13413	333	0.5451987	137.2001	21.34792	-1.914276	-157.6985	66.37825	187.9621	0	977.0894
3/27/2013 9:00	13414	333	0.4923187	108.1568	53.94386	-0.2682306	-159.8582	59.96188	188.3875	0	977.1922
3/27/2013 10:00	13415	333	0.6891521	130.6435	33.06938	1.751193	-157.5688	53.32116	188.9671	0	977.2538
3/27/2013 11:00	13416	333	1.193858	288.415	62.83595	3.1175	-159.1332	47.14747	189.1122	0	977.1879
3/27/2013 12:00	13417	333	1.404866	310.7399	22.92465	3.204652	-165.368	35.86235	190.0996	0	977.08
3/27/2013 13:00	13418	333	1.76565	315.6985	18.50663	3.633656	-155.9891	36.81321	189.1885	0	977.0836
3/27/2013 14:00	13419	333	1.428362	338.7303	37.62583	4.552656	-157.2178	33.55466	190.8175	0	976.7687
3/27/2013 15:00	13420	333	1.579547	336.976	39.03168	5.10795	-158.2098	36.5507	189.8507	0	976.448
3/27/2013 16:00	13421	333	1.187818	335.1209	39.31144	5.22984	-159.1332	35.53879	190.2061	0	976.2672
3/27/2013 17:00	13422	333	1.326997	101.2862	32.08272	4.47829	-160.0566	39.49942	190.0088	0	976.2327
3/27/2013 18:00	13423	333	0.6812922	130.4385	26.31469	3.963097	-159.8506	42.23599	189.8394	0	976.2615
3/27/2013 19:00	13424	333	0.5367961	141.4348	16.3822	1.895297	-159.2782	59.41396	189.5594	0	976.1588
3/27/2013 20:00	13425	333	0.6385225	125.9852	14.52851	-0.6886283	-159.2401	57.07574	189.1843	0	976.2014
3/27/2013 21:00	13426	333	0.6919333	98.49219	38.93224	-1.948655	-159.2477	59.97104	189.0724	0	976.3132
3/27/2013 22:00	13427	333	0.82082	138.3953	12.47245	-3.496402	-158.9806	62.97165	188.9742	0	976.4025
3/27/2013 23:00	13428	333	0.8801291	136.7215	12.12952	-4.560371	-158.7059	72.5382	188.7971	0	976.3642
3/28/2013 0:00	13429	333	0.8139537	140.095	54.6016	-5.846544	-157.9962	79.97411	188.683	0	976.4324
3/28/2013 1:00	13430	333	0.2038865	112.2943	14.19719	-6.988192	-158.7516	81.66061	188.427	0	976.5727
3/28/2013 2:00	13431	333	0.4989564	121.4114	91.77696	-8.321456	-158.599	86.82545	188.5655	0	976.5856

3/28/2013 3:00	13432	333	0.4478985	359.8288	69.55754	-9.417279	-158.4617	87.526	188.3479	0	976.5594
3/28/2013 4:00	13433	333	0.5391187	125.9578	38.91038	-9.984621	-158.0648	88.34407	188.426	0	976.4432
3/28/2013 5:00	13434	333	0.174983	134.5742	4.701411	-11.35123	-158.2938	92.89689	188.2237	0	976.4432
3/28/2013 6:00	13435	333	0.2985242	148.0067	19.27082	-12.1093	-158.309	89.881	188.2663	0	976.4674
3/28/2013 7:00	13436	333	0.4727711	163.7881	81.30421	-12.57438	-158.889	79.79248	188.2739	0	976.5492
3/28/2013 8:00	13437	333	0.6732471	326.1073	8.466885	-9.86081	-160.0719	73.17923	189.1385	0	976.5668
3/28/2013 9:00	13438	333	0.1942271	35.02138	47.07617	-3.434041	-155.5541	49.06597	189.3393	0	976.4449
3/28/2013 10:00	13439	333	0.5088213	317.267	20.46772	0.6113016	-160.1787	40.52505	189.9783	0	976.2672
3/28/2013 11:00	13440	333	1.315885	311.7213	27.4841	4.255308	-159.3774	33.65387	192.1575	0	976.0645
3/28/2013 12:00	13441	333	2.129697	281.1736	40.217	5.676704	-160.3695	30.39379	191.3417	0	975.7434
3/28/2013 13:00	13442	333	1.937733	247.4335	45.0975	6.801445	-160.2703	25.84098	191.1404	0	975.3376
3/28/2013 14:00	13443	333	1.62568	247.8896	51.99877	7.83858	-158.0496	25.26101	192.6327	0	974.8396
3/28/2013 15:00	13444	333	1.841018	272.6032	43.25469	7.7904	-173.7852	24.10716	191.3828	0	974.268
3/28/2013 16:00	13445	333	1.82232	250.8215	37.92247	8.36529	-159.034	25.94019	191.9476	0	973.8832
3/28/2013 17:00	13446	333	2.222371	278.3711	27.95385	7.480018	-166.2761	23.63249	192.8777	0.254	973.751
3/28/2013 18:00	13447	333	1.84407	284.8106	21.36258	6.251658	-161.3844	29.77871	191.6247	0	973.671
3/28/2013 19:00	13448	333	1.30017	261.2123	19.1539	4.03137	-160.6213	30.70209	191.129	0	973.6525
3/28/2013 20:00	13449	333	1.042024	233.4671	16.80308	2.110878	-160.7205	35.24117	190.7292	0	973.7283
3/28/2013 21:00	13450	333	1.254124	237.3772	15.42139	0.4766476	-160.6518	42.25277	190.489	0	973.7614
3/28/2013 22:00	13451	333	1.043872	231.8416	17.36846	-2.176841	-159.6979	70.07483	190.4912	0	973.5796
3/28/2013 23:00	13452	333	0.6312491	211.8167	16.88998	-4.719057	-160.3542	77.34742	190.1495	0	973.3937
3/29/2013 0:00	13453	333	0.5633636	164.7688	11.00734	-6.244003	-159.7666	83.99426	189.9455	0	973.3564
3/29/2013 1:00	13454	333	0.6048905	189.9243	12.3959	-7.654479	-159.1408	87.79462	189.9138	0	973.3678
3/29/2013 2:00	13455	333	0.6750931	194.4351	14.1878	-8.357208	-159.8811	89.04157	189.7606	0	973.3146
3/29/2013 3:00	13456	333	0.8623106	202.5993	8.567751	-9.104507	-159.5911	91.00127	189.7376	0	973.028
3/29/2013 4:00	13457	333	1.040218	196.099	16.30851	-9.996151	-159.5529	91.49578	189.663	0	972.7694
3/29/2013 5:00	13458	333	1.117052	205.5133	11.34001	-10.65848	-159.3011	92.11697	189.5681	0	972.5327
3/29/2013 6:00	13459	333	0.6624502	199.7599	12.87057	-11.03174	-159.614	92.35964	189.5077	0	972.4628
3/29/2013 7:00	13460	333	0.7382833	189.6267	8.661942	-10.58178	-159.8811	80.00311	189.5765	0	972.4948
3/29/2013 8:00	13461	333	0.6755479	176.0844	15.56165	-6.1638	-160.6976	57.14442	190.4279	0	972.1908
3/29/2013 9:00	13462	333	0.8722817	236.4224	41.06303	0.9921235	-159.1485	46.83764	191.499	0	971.8937
3/29/2013 10:00	13463	333	1.612822	233.5969	37.42896	4.392929	-158.1564	40.05497	191.8318	0	971.438
3/29/2013 11:00	13464	333	2.298429	223.2405	37.20901	6.578886	-162.0712	38.20668	192.4967	0	970.8687
3/29/2013 12:00	13465	333	2.463421	228.6514	37.35846	7.796176	-162.2391	39.91608	193.671	0	970.1539
3/29/2013 13:00	13466	333	2.869315	233.2556	35.57974	8.395921	-161.7278	40.75094	191.7339	0	969.4541
3/29/2013 14:00	13467	333	2.572612	232.5549	36.9879	9.194199	-161.6591	36.29734	193.7515	0	968.696
3/29/2013 15:00	13468	333	2.456347	237.6018	35.88034	9.850289	-161.8499	35.73415	195.4133	0	968.0424
3/29/2013 16:00	13469	333	2.345207	225.1656	34.08907	10.15585	-163.8341	34.73293	194.7612	0	967.3351
3/29/2013 17:00	13470	333	2.04634	225.3222	32.77886	9.94513	-163.918	34.88708	195.0001	0	966.9033
3/29/2013 18:00	13471	333	1.680032	216.1219	32.8243	8.721514	-164.4217	40.20759	195.2404	0	966.5637
3/29/2013 19:00	13472	333	1.117175	219.1301	25.75964	6.389543	-164.2919	46.90021	194.5008	0	966.1542
3/29/2013 20:00	13473	333	0.8256398	215.6241	17.29231	3.998842	-163.7654	52.90449	194.1224	0	965.9613
3/29/2013 21:00	13474	333	1.153272	206.318	18.05273	2.707082	-163.8799	56.43624	193.9172	0	965.6332
3/29/2013 22:00	13475	333	1.265783	203.798	18.96439	2.107502	-163.2236	61.48203	193.8988	0	965.141
3/29/2013 23:00	13476	333	1.154531	200.9061	16.48384	0.8127668	-163.2083	65.30987	193.8476	0	964.5598
3/30/2013 0:00	13477	333	1.255391	206.8433	16.58216	0.1270004	-163.6662	66.8178	193.7387	0	964.0172

3/30/2013 1:00	13478	333	0.9383116	196.1099	17.16864	-1.361539	-163.3991	71.90328	193.7381	0	963.4208
3/30/2013 2:00	13479	333	0.8046314	208.1866	17.34047	-2.299264	-163.7348	78.3868	193.6026	0	962.9506
3/30/2013 3:00	13480	333	1.044816	218.188	24.84879	-3.157497	-162.6665	74.10109	193.4952	0	962.2434
3/30/2013 4:00	13481	333	0.8295783	234.8316	20.64929	-2.856633	-163.2388	85.01073	193.5907	0	961.6905
3/30/2013 5:00	13482	333	1.009763	215.7001	22.60701	-4.934804	-163.3609	90.88528	193.5212	0	961.1324
3/30/2013 6:00	13483	333	0.7325577	215.5107	18.69937	-5.611555	-163.5746	90.20763	193.4439	0	960.641
3/30/2013 7:00	13484	333	1.2371	255.9732	21.10311	-3.9053	-163.4296	81.05011	193.4007	0	960.4678
3/30/2013 8:00	13485	333	2.727686	286.2386	17.29919	-1.845727	-164.0477	77.07881	194.1111	0	960.2943
3/30/2013 9:00	13486	333	2.990943	304.5394	14.17752	-0.7115509	-161.7507	65.42892	194.1378	0	960.0167
3/30/2013 10:00	13487	333	2.642972	311.1245	15.78385	1.488663	-163.0328	55.72043	194.6421	0	960.0964
3/30/2013 11:00	13488	333	2.980134	308.5529	18.9853	4.236599	-162.9259	45.56017	196.1111	0	960.0295
3/30/2013 12:00	13489	333	4.20872	312.3287	15.74483	5.576185	-172.1521	40.0916	195.6512	0	959.6575
3/30/2013 13:00	13490	333	4.748259	304.616	15.82135	5.995509	-165.4671	38.88891	196.2435	0	959.2659
3/30/2013 14:00	13491	333	4.974664	305.9139	15.08229	5.812855	-164.5285	39.5452	197.312	0	959.0786
3/30/2013 15:00	13492	333	5.351748	304.417	13.31853	5.100091	-165.3603	45.25949	197.4908	0	959.1082
3/30/2013 16:00	13493	333	5.468201	307.0852	13.29936	4.952282	-165.8335	29.53451	197.7859	0	959.0624
3/30/2013 17:00	13494	333	5.666217	302.9464	13.57588	4.724244	-171.0227	29.02017	198.7164	0	959.0349
3/30/2013 18:00	13495	333	5.355842	303.522	13.23355	3.495165	-167.7489	35.63189	197.4276	0	958.9415
3/30/2013 19:00	13496	333	4.628514	303.7117	12.05952	1.914988	-167.581	34.31168	197.4146	0	958.8798
3/30/2013 20:00	13497	333	3.443214	302.4157	10.72675	0.8360556	-167.4894	46.61328	197.3127	0	958.8188
3/30/2013 21:00	13498	333	1.967387	314.8613	16.01632	-1.133292	-166.7263	47.5214	197.0134	0	958.788
3/30/2013 22:00	13499	333	1.708299	334.3219	19.31606	-1.705385	-166.6347	72.42374	196.8602	0	958.9058
3/30/2013 23:00	13500	333	1.594535	334.5268	19.95336	-2.557733	-166.7339	79.17587	196.8591	0	958.6986
3/31/2013 0:00	13501	333	1.256397	330.7759	20.0872	-3.297475	-166.6882	86.16458	196.8719	0	958.4052
3/31/2013 1:00	13502	333	1.638028	320.598	16.98591	-3.888037	-166.3982	95.23663	196.5412	0	958.0253
3/31/2013 2:00	13503	333	2.775419	335.8681	25.61217	-4.742157	-164.8719	92.53822	196.3225	0	958.0944
3/31/2013 3:00	13504	333	2.489856	334.3744	22.23527	-5.800164	-164.1851	90.63345	194.3748	0	958.4739
3/31/2013 4:00	13505	333	3.234561	349.9479	25.9562	-6.74595	-164.1775	83.4967	194.0359	0	958.9322
3/31/2013 5:00	13506	333	2.66534	347.4651	25.568	-7.951017	-164.1317	83.81263	193.9958	0	959.7496
3/31/2013 6:00	13507	333	2.851299	334.6136	20.80078	-8.810492	-164.0096	82.62521	193.8551	0	960.3181
3/31/2013 7:00	13508	333	2.204953	333.6782	22.33998	-9.535004	-164.1012	80.05804	193.7906	0	961.0231
3/31/2013 8:00	13509	333	3.083505	335.4882	23.361	-9.161076	-164.0706	66.73386	193.9466	0	961.4348
3/31/2013 9:00	13510	333	3.9175	327.1871	20.7457	-9.634885	-167.3673	60.58001	194.9462	0	961.8979
3/31/2013 10:00	13511	333	4.252303	325.9297	23.36761	-8.606412	-173.5944	55.80437	193.8901	0	962.4821
3/31/2013 11:00	13512	333	4.190022	333.026	25.22212	-8.257484	-164.643	54.86115	194.8127	0	963.0118
3/31/2013 12:00	13513	333	4.732549	320.5674	21.49289	-8.026612	-161.5905	54.24149	195.8783	0	963.35
3/31/2013 13:00	13514	333	4.647059	320.1933	21.2534	-7.426342	-159.614	46.48507	195.6342	0	963.6412
3/31/2013 14:00	13515	333	4.437185	317.1853	18.1595	-6.886858	-160.9189	44.76193	195.4639	0	964.0337
3/31/2013 15:00	13516	333	4.478547	317.3619	17.58759	-6.977716	-161.972	45.02292	194.8568	0	964.2164
3/31/2013 16:00	13517	333	4.344843	319.5789	17.22705	-7.239584	-164.7117	45.62427	195.1034	0	964.4915
3/31/2013 17:00	13518	333	5.0224	310.3402	16.47166	-7.162819	-164.8261	47.39319	195.0876	0	964.8716
3/31/2013 18:00	13519	333	4.98424	312.6392	14.93225	-8.426333	-164.7117	51.946	194.9461	0	965.5011
3/31/2013 19:00	13520	333	4.154618	315.2785	14.66704	-9.762568	-164.498	56.60413	194.3874	0	966.2913
3/31/2013 20:00	13521	333	3.930723	317.2376	14.69237	-10.8356	-164.2538	61.83002	194.3752	0	967.1194
3/31/2013 21:00	13522	333	2.359035	318.895	14.79741	-11.37013	-164.2919	63.09681	194.2739	0	967.6606
3/31/2013 22:00	13523	333	2.665599	321.8699	19.10511	-11.06841	-164.0706	63.16243	194.2665	0	967.8914

3/31/2013 23:00	13524	333	2.332632	316.6351	18.24648	-11.13796	-164.4217	64.7131	194.2831	0	967.7188
4/1/2013 0:00	13525	333	2.142926	297.265	12.26888	-11.27549	-164.4446	66.74303	194.2588	0	967.7457
4/1/2013 1:00	13526	333	1.656058	285.1279	16.32578	-11.67055	-164.2767	71.92922	194.3257	0	967.5991
4/1/2013 2:00	13527	333	2.109127	292.4377	14.9452	-12.48378	-164.1241	73.50279	194.1712	0	967.4782
4/1/2013 3:00	13528	333	2.271253	287.4295	14.05764	-13.31144	-164.0935	75.43197	194.1003	0	967.3264
4/1/2013 4:00	13529	333	2.420299	295.5744	12.16346	-14.01766	-164.1012	77.44205	193.9995	0	967.2942
4/1/2013 5:00	13530	333	2.791185	292.6045	12.67782	-14.10538	-164.0096	77.73357	193.9904	0	967.3256
4/1/2013 6:00	13531	333	3.247987	298.6087	11.20441	-14.74109	-163.7807	80.40604	193.923	0	967.7195
4/1/2013 7:00	13532	333	3.565527	302.7773	11.00959	-15.09394	-164.3759	78.62643	193.9734	0	968.1422
4/1/2013 8:00	13533	333	4.460377	305.8374	12.24539	-14.10426	-164.3835	72.34743	194.4561	0	968.3648
4/1/2013 9:00	13534	333	4.293119	310.3834	12.88379	-12.86773	-160.835	61.46524	194.3789	0	968.5375
4/1/2013 10:00	13535	333	4.004034	308.8971	13.98328	-11.01443	-181.0731	51.03941	195.205	0	968.7888
4/1/2013 11:00	13536	333	4.621476	309.4616	13.32043	-9.155043	-162.9641	45.15723	195.2792	0	968.9331
4/1/2013 12:00	13537	333	5.17209	308.2575	14.06046	-7.830013	-164.9559	40.24881	196.7749	0	969.0495
4/1/2013 13:00	13538	333	4.824148	313.7812	16.86811	-6.410751	-161.7431	39.53604	196.1152	0	969.1087
4/1/2013 14:00	13539	333	4.536892	314.7654	18.34786	-5.160331	-160.8502	37.45271	198.2064	0	969.1541
4/1/2013 15:00	13540	333	4.84249	311.6169	15.60657	-4.325784	-177.4711	37.79459	196.8518	0	969.1824
4/1/2013 16:00	13541	333	4.631903	311.536	14.96719	-3.913298	-163.6433	37.09404	198.6379	0	969.2369
4/1/2013 17:00	13542	333	5.168511	307.1438	12.98428	-4.142223	-169.5346	35.56932	195.7206	0	969.5845
4/1/2013 18:00	13543	333	5.055242	305.3186	12.4047	-4.941573	-165.9556	36.13403	195.9092	0	969.7264
4/1/2013 19:00	13544	333	4.139252	310.826	11.74061	-6.198828	-165.6656	39.99392	195.6483	0	969.7585
4/1/2013 20:00	13545	333	1.756379	310.5937	7.878444	-8.686304	-165.078	50.05192	195.4728	0	970.1408
4/1/2013 21:00	13546	333	1.35258	318.4667	10.03542	-10.31402	-164.4675	52.74118	194.8704	0	970.5129
4/1/2013 22:00	13547	333	1.215047	332.8071	12.21762	-11.67875	-164.559	56.62397	194.6499	0	970.8563
4/1/2013 23:00	13548	333	1.144311	333.1239	11.01411	-12.70721	-164.4598	56.97501	194.5796	0	971.0291
4/2/2013 0:00	13549	333	1.221444	327.3712	8.11477	-13.85926	-164.5514	60.20761	194.4211	0	971.1994
4/2/2013 1:00	13550	333	1.644055	323.571	7.826818	-15.34998	-164.7651	63.88893	194.4686	0	971.5378
4/2/2013 2:00	13551	333	1.683625	321.0793	10.52878	-16.28792	-164.002	68.39748	194.3952	0	971.8693
4/2/2013 3:00	13552	333	2.035801	311.8775	6.665818	-17.35743	-164.6201	73.66305	194.4644	0	972.2062
4/2/2013 4:00	13553	333	2.472	312.802	8.253855	-18.06515	-164.1622	76.38894	194.3208	0	972.6522
4/2/2013 5:00	13554	333	2.535478	314.7161	11.424	-18.28266	-163.9409	75.06416	194.3029	0	973.4124
4/2/2013 6:00	13555	333	2.111618	316.6398	14.18914	-19.3005	-164.063	79.49029	194.2247	0	974.1212
4/2/2013 7:00	13556	333	2.894913	309.01	11.33495	-18.9312	-164.6125	76.64077	194.2864	0	974.8619
4/2/2013 8:00	13557	333	2.976002	315.9285	11.90053	-17.10808	-165.3985	69.69938	194.8453	0	975.4224
4/2/2013 9:00	13558	333	2.997735	316.2791	14.40126	-14.22797	-165.9327	56.77659	194.8168	0	975.7632
4/2/2013 10:00	13559	333	2.870412	318.1057	21.11915	-11.14861	-162.3841	53.24026	197.6901	0	975.9983
4/2/2013 11:00	13560	333	2.988636	313.7249	17.11124	-8.669195	-161.0029	48.08459	196.567	0	976.2047
4/2/2013 12:00	13561	333	2.963396	310.1033	20.85035	-6.22401	-161.7507	43.35015	196.6107	0	976.0566
4/2/2013 13:00	13562	333	3.990572	311.8422	18.81407	-4.772919	-166.1158	37.88159	196.7283	0	975.8627
4/2/2013 14:00	13563	333	4.034997	318.5644	19.47005	-3.622444	-177.0285	31.99483	197.7009	0	975.7693
4/2/2013 15:00	13564	333	4.059314	315.4376	17.72482	-2.719009	-164.208	28.43256	196.4586	0	975.8043
4/2/2013 16:00	13565	333	3.288881	318.5071	22.09527	-1.990499	-172.9229	29.45515	197.5776	0	975.8919
4/2/2013 17:00	13566	333	3.116571	319.3799	19.91164	-1.909637	-171.6485	29.26131	195.711	0	975.9674
4/2/2013 18:00	13567	333	2.872939	313.2456	16.72628	-2.698643	-166.5126	31.63158	196.7325	0	976.1513
4/2/2013 19:00	13568	333	1.881809	306.317	9.71869	-4.681503	-165.9632	37.4405	196.2274	0	976.1903
4/2/2013 20:00	13569	333	0.9947039	293.4957	10.7541	-6.891753	-165.6808	39.90387	195.3787	0	976.2438

4/2/2013 21:00	13570	333	0.7291206	288.8183	11.42488	-8.479589	-165.6122	45.52201	195.2345	0	976.4069
4/2/2013 22:00	13571	333	0.01056971	312.873	15.91409	-10.77752	-165.0932	52.95333	195.1265	0	976.2761
4/2/2013 23:00	13572	333	0.206419	162.709	14.37463	-12.54305	-165.5053	67.16427	195.1789	0	976.1031
4/3/2013 0:00	13573	333	0.5751069	161.3318	16.62886	-14.87783	-164.9711	75.99821	195.0395	0	975.941
4/3/2013 1:00	13574	333	0.7575055	151.6535	8.340149	-16.31446	-164.9253	83.51501	194.8973	0	975.7156
4/3/2013 2:00	13575	333	0.3826257	165.5793	9.302269	-17.39323	-164.498	84.34988	194.7419	0	975.5884
4/3/2013 3:00	13576	333	0.8768739	156.1598	9.057241	-18.2806	-164.9024	84.67191	194.6858	0	975.0808
4/3/2013 4:00	13577	333	0.9625509	162.4898	7.107688	-19.13057	-164.4369	86.23174	194.6699	0	974.7708
4/3/2013 5:00	13578	333	0.7771361	167.6474	6.451422	-19.18097	-164.6125	84.52997	194.6098	0	974.4875
4/3/2013 6:00	13579	333	1.033309	162.5482	5.824497	-20.13179	-165.0932	84.74822	194.576	0	974.1352
4/3/2013 7:00	13580	333	1.192006	154.5495	9.205392	-17.77235	-165.1009	73.27691	194.7443	0	973.6209
4/3/2013 8:00	13581	333	1.46997	154.7775	19.68277	-10.97603	-166.2761	45.90357	195.5923	0	972.8881
4/3/2013 9:00	13582	333	2.085936	172.3354	29.10403	-4.161687	-164.4675	34.16516	197.4405	0	971.5974
4/3/2013 10:00	13583	333	2.441035	184.0827	34.67239	-1.533854	-163.132	32.85258	197.6706	0	970.3824
4/3/2013 11:00	13584	333	2.622833	176.5988	31.6136	-0.05739659	-174.7773	28.60197	197.4891	0	969.228
4/3/2013 12:00	13585	333	3.238395	178.1235	29.2771	0.3523104	-166.444	36.14318	198.6594	0	967.5819
4/3/2013 13:00	13586	333	3.198463	177.9966	28.31764	-0.622991	-164.6506	41.41028	197.2587	0	966.079
4/3/2013 14:00	13587	333	3.092232	168.6086	27.42105	0.07643807	-168.7104	40.38464	197.4038	0	963.9888
4/3/2013 15:00	13588	333	2.936352	170.5876	28.19651	0.9106364	-168.2144	36.85747	197.9898	0	962.0995
4/3/2013 16:00	13589	333	3.016084	179.0584	28.38793	1.03257	-167.7794	40.53116	197.781	0	960.4844
4/3/2013 17:00	13590	333	3.050083	185.4816	33.93072	1.142373	-167.5581	56.2012	197.5639	0	959.4636
4/3/2013 18:00	13591	333	2.457031	200.3772	36.99628	0.8227034	-166.7645	64.64748	197.3283	0	958.9553
4/3/2013 19:00	13592	333	2.646626	245.2384	31.75982	0.1383617	-167.7031	96.39811	197.5075	0	959.242
4/3/2013 20:00	13593	333	2.430955	237.5499	37.85723	-0.5243863	-165.6427	94.36208	197.6998	0	959.1877
4/3/2013 21:00	13594	333	3.908574	282.7274	20.16018	-0.4482215	-165.78	88.53944	196.049	0	959.5486
4/3/2013 22:00	13595	333	3.868984	288.3998	17.69036	-1.149614	-165.429	87.76562	195.705	0	959.9923
4/3/2013 23:00	13596	333	2.758153	278.7105	20.46926	-1.659095	-165.5129	87.51532	195.5976	0	960.1315
4/4/2013 0:00	13597	333	2.571442	271.3082	23.14767	-1.452021	-166.0548	85.59377	195.6927	0	960.1202
4/4/2013 1:00	13598	333	3.373202	281.2285	21.5078	-1.427808	-165.8564	84.87643	195.6735	0	960.102
4/4/2013 2:00	13599	333	3.827417	288.3185	17.38599	-1.781645	-165.8564	85.13742	195.644	0	960.2556
4/4/2013 3:00	13600	333	4.514633	290.9232	18.3773	-2.140059	-165.4901	82.05743	195.5451	0	960.4522
4/4/2013 4:00	13601	333	4.315173	291.3117	17.0473	-2.659475	-165.4901	83.31812	195.4561	0	960.7552
4/4/2013 5:00	13602	333	4.907963	298.9936	14.676	-3.062331	-165.4519	91.01349	195.5782	0	961.3588
4/4/2013 6:00	13603	333	6.045088	306.8593	13.22069	-4.625728	-166.1921	74.74975	195.6068	0	962.5815
4/4/2013 7:00	13604	333	6.150856	302.7631	12.64552	-6.843946	-165.0474	86.29126	195.7781	0	964.1876
4/4/2013 8:00	13605	333	5.548538	303.0326	12.79916	-7.862177	-165.8792	76.55072	195.6414	0	965.4355
4/4/2013 9:00	13606	333	5.742917	303.8297	13.50553	-8.173319	-166.1692	76.55988	195.6116	0	966.3802
4/4/2013 10:00	13607	333	6.639544	304.6127	12.51614	-8.417673	-176.6927	70.04736	195.5491	0	967.365
4/4/2013 11:00	13608	333	5.759944	305.3005	13.67631	-7.877813	-163.8799	68.32117	196.3631	0	968.4427
4/4/2013 12:00	13609	333	5.366225	306.1957	13.83678	-6.770307	-164.0706	65.62733	194.8896	0	969.261
4/4/2013 13:00	13610	333	5.470793	309.9372	14.45027	-5.693896	-170.2367	60.94479	196.867	0	969.8206
4/4/2013 14:00	13611	333	5.115946	312.3429	15.53258	-4.827741	-161.6973	60.04125	195.7471	0	970.2266
4/4/2013 15:00	13612	333	5.369956	314.9629	15.45453	-4.737694	-161.3615	58.46005	195.2944	0	970.5421
4/4/2013 16:00	13613	333	4.096785	314.5012	16.63699	-4.341829	-160.9342	56.16151	195.2892	0	970.767
4/4/2013 17:00	13614	333	3.927766	312.3398	17.35833	-4.61378	-165.284	62.57635	195.3525	0	971.2385
4/4/2013 18:00	13615	333	3.865563	310.7528	13.48736	-5.158796	-165.2001	64.01409	195.3482	0	971.6235

4/4/2013 19:00	13616	333	3.068439	313.0417	15.52363	-5.910809	-164.933	65.0962	195.1766	0	971.8412
4/4/2013 20:00	13617	333	2.099727	308.915	8.14418	-7.766162	-164.6811	75.12978	194.9572	0	971.9984
4/4/2013 21:00	13618	333	1.285103	307.7697	5.72568	-9.487881	-164.4064	79.67496	194.5151	0	972.2877
4/4/2013 22:00	13619	333	1.134524	297.0208	7.664576	-10.7886	-164.2156	87.66641	194.1451	0	972.5294
4/4/2013 23:00	13620	333	1.303965	305.5967	11.35962	-12.94542	-164.0401	91.38589	194.0496	0	972.634
4/5/2013 0:00	13621	333	1.055619	311.6821	8.37191	-13.12419	-163.7348	88.76074	193.8391	0	972.9285
4/5/2013 1:00	13622	333	0.321148	323.9097	12.80502	-14.73219	-163.7959	90.17558	193.8054	0	973.1491
4/5/2013 2:00	13623	333	0.3239639	268.9973	20.73725	-16.35049	-163.6433	86.71251	193.7498	0	973.4672
4/5/2013 3:00	13624	333	0.2058857	299.8494	17.73756	-17.82917	-163.1244	86.39505	193.489	0	973.7158
4/5/2013 4:00	13625	333	7.51E-05	305.0586	0	-18.6951	-163.483	82.83125	193.3356	0	973.936
4/5/2013 5:00	13626	333	0	0	0	-20.00884	-163.4525	81.74914	193.3669	0	974.0931
4/5/2013 6:00	13627	333	0.03178422	344.794	0.5993952	-20.8121	-163.0251	81.53698	193.1788	0	974.4029
4/5/2013 7:00	13628	333	0.08238053	64.02993	51.62991	-19.31043	-164.147	75.66854	193.4019	0	974.8327
4/5/2013 8:00	13629	333	0.1789729	351.4306	11.54528	-14.42395	-166.0319	72.4741	194.9683	0	975.0434
4/5/2013 9:00	13630	333	0.6402395	329.8719	20.86836	-9.419623	-163.193	56.4515	196.6487	0	974.7456
4/5/2013 10:00	13631	333	1.226164	315.4814	32.21946	-6.083929	-165.5282	43.26163	198.8174	0	974.3638
4/5/2013 11:00	13632	333	1.074998	301.5315	42.71667	-4.374519	-165.1466	40.32969	195.7519	0	973.7179
4/5/2013 12:00	13633	333	1.045198	112.1656	83.54166	-2.619044	-165.6885	33.88281	198.116	0	973.2101
4/5/2013 13:00	13634	333	1.321077	321.8353	67.99421	-1.625094	-165.4748	35.80741	197.7385	0	972.4612
4/5/2013 14:00	13635	333	2.047983	316.4822	19.17239	-1.701367	-163.6585	30.80283	197.3289	0	971.5344
4/5/2013 15:00	13636	333	1.623479	111.5963	50.09645	-0.2933887	-192.8634	33.138	196.5448	0	970.793
4/5/2013 16:00	13637	333	1.572498	128.8957	24.63637	0.2233751	-165.0627	29.37273	198.0699	0	969.9841
4/5/2013 17:00	13638	333	1.601211	135.456	24.90608	1.514993	-170.2825	28.67523	197.3595	0	969.343
4/5/2013 18:00	13639	333	1.013769	178.0148	39.26889	0.8396521	-166.0319	30.464	197.0322	0	968.8923
4/5/2013 19:00	13640	333	0.2165504	303.4291	60.39181	-1.386959	-165.2229	37.90448	196.0739	0	968.4675
4/5/2013 20:00	13641	333	0.4318977	115.157	31.67739	-3.508425	-165.8716	45.05345	195.7194	0	968.3041
4/5/2013 21:00	13642	333	0.5752347	142.8084	12.15484	-4.606979	-165.6198	52.48477	195.6606	0	968.0689
4/5/2013 22:00	13643	333	0.5880728	145.1284	9.561629	-5.338083	-165.7724	56.09131	195.5936	0	967.5452
4/5/2013 23:00	13644	333	0.6694589	156.5872	11.13633	-6.156349	-165.2916	54.05681	195.552	0	967.0624
4/6/2013 0:00	13645	333	0.5699089	142.0782	13.07609	-6.261819	-165.6274	51.45761	195.4039	0	966.5737
4/6/2013 1:00	13646	333	0.4854792	124.4315	13.17039	-7.224004	-165.1314	55.46402	195.3047	0	966.062
4/6/2013 2:00	13647	333	0.4884119	124.693	12.92189	-7.891294	-164.933	56.39656	195.2212	0	965.4528
4/6/2013 3:00	13648	333	0.3566972	132.8222	5.839105	-6.936799	-165.3222	55.08551	195.3907	0	965.03
4/6/2013 4:00	13649	333	0.414161	135.3147	11.27398	-6.373719	-165.7037	52.77018	195.5032	0	964.619
4/6/2013 5:00	13650	333	0.2104763	102.4737	11.75839	-6.708932	-165.4824	67.74272	195.4814	0	963.9816
4/6/2013 6:00	13651	333	0.1842496	118.3682	13.74355	-6.200044	-165.719	60.15113	195.5625	0	963.4512
4/6/2013 7:00	13652	333	0.289656	113.0866	17.98911	-5.620697	-166.3905	72.77172	196.1024	0	962.8968
4/6/2013 8:00	13653	333	0.4073776	116.8908	19.07334	-4.916935	-166.2227	83.66459	196.2226	0	962.5214
4/6/2013 9:00	13654	333	0.5648166	49.91402	78.0444	-3.369149	-165.5358	79.997	195.9218	0	961.8129
4/6/2013 10:00	13655	333	0.8288042	37.38805	36.38688	-1.693634	-163.9027	76.73997	196.1476	0	961.3499
4/6/2013 11:00	13656	333	1.360107	55.37046	39.34091	0.09878509	-165.5282	72.15664	197.2612	0	960.7789
4/6/2013 12:00	13657	333	1.522474	50.75459	37.6685	0.5283994	-167.7413	72.18564	195.9494	0	960.1122
4/6/2013 13:00	13658	333	1.264915	61.03028	48.51132	1.855251	-166.4592	66.94601	197.0024	0	959.2874
4/6/2013 14:00	13659	333	1.004096	37.7124	56.15446	3.02868	-165.7266	61.11268	197.3415	0	958.6633
4/6/2013 15:00	13660	333	1.279808	333.9071	56.43317	2.868584	-164.5667	60.66549	197.8596	0	958.2041
4/6/2013 16:00	13661	333	1.502221	312.9656	14.9175	2.435502	-168.2984	58.95913	197.6258	0	957.9853

4/6/2013 17:00	13662	333	1.465559	321.8581	20.8091	2.313163	-167.0621	57.11084	197.4671	0	958.0638
4/6/2013 18:00	13663	333	1.337887	332.6526	24.18042	2.013897	-167.5123	58.77293	197.4258	0	958.2587
4/6/2013 19:00	13664	333	0.3197513	327.9502	28.11803	1.648162	-166.6958	61.12489	197.2594	0	958.2139
4/6/2013 20:00	13665	333	0.6298296	296.4886	9.443915	0.4943025	-166.795	69.80621	196.9182	0	958.4215
4/6/2013 21:00	13666	333	1.336988	317.4943	20.68111	-0.4503295	-166.6958	62.87703	196.8704	0	958.77
4/6/2013 22:00	13667	333	1.153219	329.415	14.85596	-0.2349348	-166.8637	64.09192	196.8701	0	958.9685
4/6/2013 23:00	13668	333	1.418571	316.2257	9.574837	-1.058631	-166.7263	67.11086	196.8974	0	958.7925
4/7/2013 0:00	13669	333	1.450228	311.7715	8.684447	-1.540866	-166.8179	70.62887	196.8498	0	958.8558
4/7/2013 1:00	13670	333	1.185448	325.1269	16.21578	-1.898758	-166.5279	65.08398	196.7383	0	958.9383
4/7/2013 2:00	13671	333	1.133487	318.4907	12.51042	-2.850454	-166.6042	66.59345	196.5812	0	958.9773
4/7/2013 3:00	13672	333	1.404012	325.078	17.67908	-3.420456	-166.2913	62.23141	196.5814	0	959.002
4/7/2013 4:00	13673	333	1.23769	325.4685	12.38641	-4.782288	-166.1616	64.69479	196.4053	0	959.4047
4/7/2013 5:00	13674	333	1.310183	316.7791	12.06989	-6.754393	-165.7877	71.10963	196.235	0	959.8957
4/7/2013 6:00	13675	333	1.257354	311.8605	7.571025	-8.175871	-166.2837	83.28302	195.9733	0	960.5232
4/7/2013 7:00	13676	333	1.922132	314.015	6.852616	-9.034237	-166.3371	69.14993	196.0667	0	961.2213
4/7/2013 8:00	13677	333	1.602134	312.6398	12.15286	-6.890421	-167.4971	60.23814	196.7536	0	961.5604
4/7/2013 9:00	13678	333	1.108193	310.0952	24.17092	-4.466476	-166.8637	51.54155	197.8634	0	961.5122
4/7/2013 10:00	13679	333	1.771181	321.165	20.43016	-2.402606	-166.6729	44.31474	197.4199	0	961.4756
4/7/2013 11:00	13680	333	1.872746	293.8267	34.69997	-0.6159073	-179.7071	33.65997	197.7641	0	961.4871
4/7/2013 12:00	13681	333	1.902719	295.4669	32.99364	0.7966912	-167.5352	24.25368	198.5189	0	961.2679
4/7/2013 13:00	13682	333	2.405917	267.7607	34.05196	2.013533	-167.2071	23.4814	198.0875	0	961.1707
4/7/2013 14:00	13683	333	1.925145	271.2444	45.36446	3.061631	-165.0932	24.37883	198.2357	0	960.9623
4/7/2013 15:00	13684	333	2.320395	239.8904	37.89029	3.272106	-179.9894	17.45422	198.4198	0	961.0681
4/7/2013 16:00	13685	333	2.49777	267.6083	30.01911	2.220913	-167.1995	20.53725	198.7315	0	961.3115
4/7/2013 17:00	13686	333	1.831042	274.9206	30.17675	2.208829	-166.6729	25.54184	198.3103	0	961.7028
4/7/2013 18:00	13687	333	1.657564	262.1053	37.43871	1.371073	-167.6115	29.96339	197.7778	0	962.16
4/7/2013 19:00	13688	333	1.396589	277.0369	45.47839	0.3845145	-167.7947	38.20668	197.4588	0	962.4667
4/7/2013 20:00	13689	333	2.062146	307.7384	18.40725	-0.7904551	-167.3597	44.8413	197.3223	0	962.9216
4/7/2013 21:00	13690	333	0.8158188	288.7468	40.67918	-1.156623	-167.3368	48.31505	197.3849	0	963.2476
4/7/2013 22:00	13691	333	1.509754	322.2596	17.88386	-1.971296	-167.001	56.7827	197.3047	0	963.4232
4/7/2013 23:00	13692	333	1.341031	332.9812	19.15553	-2.728885	-167.1918	67.18258	197.2319	0	963.429
4/8/2013 0:00	13693	333	1.147725	333.5379	19.41284	-3.001201	-167.0316	73.04187	197.2099	0	963.5961
4/8/2013 1:00	13694	333	0.7046053	333.4222	17.20868	-3.445973	-167.1537	78.71494	196.9875	0	963.679
4/8/2013 2:00	13695	333	0.4121563	338.7766	20.54222	-3.711873	-166.6958	79.00341	196.9153	0	963.5359
4/8/2013 3:00	13696	333	0.6622643	321.8372	15.3117	-4.061141	-167.0087	77.73968	196.8539	0	963.6639
4/8/2013 4:00	13697	333	0.9245487	329.7556	14.17679	-4.055354	-166.4363	73.3166	196.8218	0	963.9045
4/8/2013 5:00	13698	333	0.8248634	337.0122	21.61855	-4.056643	-166.6118	60.2305	196.8322	0	964.0825
4/8/2013 6:00	13699	333	1.372584	2.466735	23.84267	-4.562352	-167.0697	64.20486	196.9325	0	964.4343
4/8/2013 7:00	13700	333	1.204909	3.211009	28.13632	-5.436751	-167.2758	78.92862	197.2706	0	964.9844
4/8/2013 8:00	13701	333	1.265418	26.64572	32.89318	-4.905826	-167.8634	71.10047	197.4548	0	965.2535
4/8/2013 9:00	13702	333	1.52038	3.269255	41.24223	-3.153144	-165.0627	62.7885	197.486	0	965.2643
4/8/2013 10:00	13703	333	1.679333	349.4882	31.35363	-2.194166	-167.1003	61.38893	197.189	0	965.3199
4/8/2013 11:00	13704	333	1.488048	359.9288	46.39127	-0.7454316	-167.581	53.90113	198.8779	0	965.4788
4/8/2013 12:00	13705	333	1.538534	6.07699	50.43024	1.387371	-167.5123	52.26804	199.7821	0	965.4516
4/8/2013 13:00	13706	333	1.80218	31.33703	48.96919	1.481091	-166.7034	62.48783	199.7115	0	965.7412
4/8/2013 14:00	13707	333	1.744296	27.61442	36.64963	0.6226132	-165.368	59.02476	198.8118	0	966.1871

4/8/2013 15:00	13708	333	1.593327	29.94999	45.09946	0.9518991	-172.4116	59.18044	199.9645	0	966.4905
4/8/2013 16:00	13709	333	1.504469	24.44738	54.50753	0.9435848	-170.4656	57.19326	199.4089	0	966.8981
4/8/2013 17:00	13710	333	1.590726	25.63684	41.04856	0.1328244	-168.4052	71.25463	199.228	0	967.4198
4/8/2013 18:00	13711	333	1.25043	24.42641	37.04185	-0.6637257	-168.3823	72.66183	198.8752	0	968.028
4/8/2013 19:00	13712	333	1.195317	4.818421	28.76752	-1.77099	-168.1915	85.77081	198.489	0	968.676
4/8/2013 20:00	13713	333	1.002905	344.9526	25.58479	-2.304423	-168.5273	81.3569	198.2086	0	969.2402
4/8/2013 21:00	13714	333	1.273679	6.743251	28.89094	-2.691483	-167.9549	84.65054	198.3931	0	969.9286
4/8/2013 22:00	13715	333	1.415368	359.5829	24.02378	-3.225417	-168.4205	84.13619	198.4389	0	970.5718
4/8/2013 23:00	13716	333	1.39908	7.005436	29.05751	-3.472687	-168.512	86.08064	198.3727	0	970.8856
4/9/2013 0:00	13717	333	1.505331	354.6872	25.1932	-4.114129	-168.4586	86.87276	198.3624	0	971.336
4/9/2013 1:00	13718	333	1.744043	335.7364	21.23215	-4.743012	-168.161	75.73723	198.2709	0	972.0283
4/9/2013 2:00	13719	333	1.858884	332.2648	18.26298	-6.780114	-168.4052	66.34772	198.0644	0	972.8022
4/9/2013 3:00	13720	333	1.895673	331.0554	17.2136	-8.178499	-167.4666	65.36634	197.792	0	973.1747
4/9/2013 4:00	13721	333	2.026277	330.8683	18.7094	-8.218124	-167.8634	63.34558	197.8715	0	973.6061
4/9/2013 5:00	13722	333	2.299438	314.7619	11.34294	-9.798578	-167.9321	69.75584	197.7635	0	974.4883
4/9/2013 6:00	13723	333	2.692378	313.584	8.236708	-11.23773	-166.5355	73.64626	197.6249	0	975.203
4/9/2013 7:00	13724	333	2.50813	307.2583	10.56824	-10.82641	-168.0847	59.04461	197.6906	0	975.5812
4/9/2013 8:00	13725	333	2.262961	312.9454	10.62107	-8.772378	-168.9241	48.48751	198.3451	0	975.4427
4/9/2013 9:00	13726	333	2.821199	303.5023	17.77198	-6.235078	-177.5322	42.59618	198.3288	0	975.9366
4/9/2013 10:00	13727	333	3.329355	290.0504	26.53713	-4.64207	-166.3447	41.98416	200.7383	0	976.6805
4/9/2013 11:00	13728	333	4.013682	300.7514	17.92934	-3.518993	-167.2758	41.88647	199.794	0	976.4368
4/9/2013 12:00	13729	333	3.782336	291.8972	23.58138	-2.018769	-193.7944	38.06932	201.0933	0	976.0709
4/9/2013 13:00	13730	333	4.421073	295.3947	20.25002	-0.5390268	-168.6341	33.46919	200.1916	0	975.2726
4/9/2013 14:00	13731	333	4.681694	298.5532	17.95589	0.7544187	-168.2831	33.90112	201.7512	0	974.9666
4/9/2013 15:00	13732	333	4.258091	300.1572	18.1548	2.06845	-167.6802	34.28116	199.5421	0	974.6307
4/9/2013 16:00	13733	333	3.999142	297.3716	19.59632	2.713535	-168.8096	31.42249	200.3884	0	974.4095
4/9/2013 17:00	13734	333	3.712187	299.9226	17.6035	3.126024	-174.3042	32.03146	199.5323	0	974.5021
4/9/2013 18:00	13735	333	3.467236	304.5938	15.24061	2.441896	-169.8475	34.40783	199.8226	0	974.6835
4/9/2013 19:00	13736	333	2.459356	295.0636	13.43192	1.062803	-169.8399	42.7427	199.8296	0	974.3936
4/9/2013 20:00	13737	333	1.254658	293.3069	17.08968	-1.603414	-168.9012	48.04795	199.2274	0	974.7816
4/9/2013 21:00	13738	333	1.156826	299.0999	12.57382	-3.264902	-169.0691	59.82757	198.8779	0	975.5938
4/9/2013 22:00	13739	333	1.756515	303.7288	8.155886	-4.411908	-168.8631	60.2595	199.1324	0	975.428
4/9/2013 23:00	13740	333	1.983164	306.9611	8.10661	-5.110465	-168.8707	68.9973	199.1769	0	975.8986
4/10/2013 0:00	13741	333	2.065227	319.9169	11.7651	-7.895406	-168.947	61.00736	198.7409	0	976.171
4/10/2013 1:00	13742	333	1.523959	345.1524	17.6097	-7.138121	-168.6418	52.8068	198.5891	0	975.8733
4/10/2013 2:00	13743	333	0.9508686	341.3823	16.37201	-8.01177	-168.4968	59.97256	198.6378	0	976.1563
4/10/2013 3:00	13744	333	0.9355481	353.1861	15.13479	-8.981738	-168.0618	65.73722	198.4508	0	976.6083
4/10/2013 4:00	13745	333	0.4689825	316.7372	15.6968	-10.17879	-168.596	69.07666	198.2182	0	977.5382
4/10/2013 5:00	13746	333	1.07772	322.9318	10.88344	-12.48994	-168.1915	82.29248	198.1178	0	977.6877
4/10/2013 6:00	13747	333	0.9563655	330.4858	16.59569	-13.33586	-167.8939	76.90786	197.9958	0	977.2726
4/10/2013 7:00	13748	333	0.9261842	43.06666	34.61858	-10.92502	-169.1073	62.77934	198.5057	0	976.8765
4/10/2013 8:00	13749	333	1.693212	54.76497	28.86061	-9.293857	-171.0609	59.15602	199.5917	0	977.5682
4/10/2013 9:00	13750	333	1.375866	46.58763	40.23324	-7.921131	-168.5807	52.80834	200.5316	0	978.5543
4/10/2013 10:00	13751	333	1.476629	39.5331	40.99885	-6.225341	-166.7339	49.1026	201.2186	0	979.2568
4/10/2013 11:00	13752	333	1.766033	39.51787	41.38284	-4.72761	-167.8557	46.79643	201.4896	0	978.5468
4/10/2013 12:00	13753	333	1.331326	72.24096	57.9014	-2.737754	-170.6106	38.51193	202.2451	0	978.933

4/10/2013 13:00	13754	333	1.096679	27.6957	75.58389	-1.052525	-170.9006	35.493	200.4133	0	978.8816
4/10/2013 14:00	13755	333	2.15003	59.78858	41.16399	-0.8735307	-168.7639	33.65692	201.4441	0	977.9767
4/10/2013 15:00	13756	333	2.205343	46.27917	36.58314	0.1489269	-170.0459	30.91272	200.1166	0	977.0247
4/10/2013 16:00	13757	333	2.421754	53.87874	32.5478	0.550177	-167.6726	27.7839	200.6024	0	976.6644
4/10/2013 17:00	13758	333	1.712035	47.98742	36.7532	1.16593	-176.0975	29.185	201.8795	0	976.6873
4/10/2013 18:00	13759	333	1.330142	55.3662	36.2451	0.9011858	-170.7251	31.99941	201.2997	0	976.41
4/10/2013 19:00	13760	333	1.424343	102.4316	24.70845	-0.7038724	-169.7865	37.67249	200.5131	0	976.2158
4/10/2013 20:00	13761	333	1.221705	88.77477	18.19499	-2.777294	-169.5193	39.70393	199.811	0	976.3777
4/10/2013 21:00	13762	333	1.671259	89.01486	22.80344	-4.007744	-168.7944	43.38678	199.5857	0	976.1445
4/10/2013 22:00	13763	333	1.408722	82.84104	23.3181	-5.232	-169.3744	49.10565	199.4462	0	976.2975
4/10/2013 23:00	13764	333	1.498844	90.62975	21.77241	-6.271508	-169.2523	51.7827	199.3256	0	976.2737
4/11/2013 0:00	13765	333	1.411764	101.5362	21.27453	-7.448455	-169.527	58.92403	199.3059	0	976.0851
4/11/2013 1:00	13766	333	1.53507	109.1828	20.58549	-8.65274	-169.2294	56.87275	199.1686	0	976.7753
4/11/2013 2:00	13767	333	1.895133	95.40241	29.41414	-8.490181	-168.9241	61.29125	199.0985	0	976.3519
4/11/2013 3:00	13768	333	1.301314	122.9347	19.27627	-9.846033	-168.8936	70.57544	199.1159	0	976.4637
4/11/2013 4:00	13769	333	1.073043	107.5135	27.08096	-11.37543	-168.4433	65.94784	198.6727	0	976.3092
4/11/2013 5:00	13770	333	1.514709	94.96741	22.16744	-10.66164	-168.8631	67.00401	198.7677	0	975.9367
4/11/2013 6:00	13771	333	1.777321	97.44624	22.88466	-10.81845	-169.1073	65.77538	198.859	0	975.8437
4/11/2013 7:00	13772	333	2.200585	119.0188	20.15558	-8.750554	-170.0459	53.58825	199.4102	0	975.6497
4/11/2013 8:00	13773	333	2.382364	121.1722	20.97951	-6.073015	-171.1524	46.70638	200.1067	0	975.4186
4/11/2013 9:00	13774	333	2.177485	126.7856	23.92969	-3.338891	-169.5346	42.39319	201.5775	0	975.0011
4/11/2013 10:00	13775	333	2.221624	123.4495	27.19099	-1.48614	-168.657	39.06749	201.3429	0	974.9545
4/11/2013 11:00	13776	333	2.553426	108.2103	27.96594	0.317003	-170.2901	34.28268	202.6995	0	974.803
4/11/2013 12:00	13777	333	2.793059	111.324	30.42159	2.298006	-169.1759	31.84221	201.8452	0	974.3347
4/11/2013 13:00	13778	333	3.259956	100.625	30.81703	3.625398	-168.0389	29.04764	202.6248	0	973.1688
4/11/2013 14:00	13779	333	3.016642	89.55024	34.66473	4.628613	-168.4739	29.214	203.8286	0	972.6698
4/11/2013 15:00	13780	333	3.074197	97.47122	31.45406	5.377961	-171.1372	27.18256	203.0175	0	972.5352
4/11/2013 16:00	13781	333	2.811551	112.3083	27.25799	5.925547	-171.7401	29.5803	202.2657	0	972.3285
4/11/2013 17:00	13782	333	2.936625	95.64034	30.34588	5.722558	-176.8377	31.32633	202.0048	0	971.9496
4/11/2013 18:00	13783	333	3.006076	85.7659	25.51652	4.341741	-171.6714	32.74422	202.5719	0	971.6526
4/11/2013 19:00	13784	333	2.667758	82.66525	22.41376	2.804232	-171.4806	37.8938	201.5861	0	971.2136
4/11/2013 20:00	13785	333	2.335247	97.96895	25.28982	1.183518	-171.038	39.13617	201.2719	0	971.5551
4/11/2013 21:00	13786	333	1.330798	107.8665	19.32511	-0.6882459	-170.7709	47.62518	200.9776	0	972.2728
4/11/2013 22:00	13787	333	2.092833	82.15932	19.16721	-1.560506	-170.9006	43.41578	200.7142	0	971.9474
4/11/2013 23:00	13788	333	2.193725	86.23164	21.72247	-1.955705	-170.8243	44.29032	200.8508	0	970.9865
4/12/2013 0:00	13789	333	1.721626	87.82455	25.49693	-2.981031	-170.6259	46.78727	200.6115	0	971.0322
4/12/2013 1:00	13790	333	2.215784	91.492	24.67553	-3.676915	-170.6411	47.30314	200.5683	0	971.3879
4/12/2013 2:00	13791	333	2.125826	84.65662	26.7143	-4.35983	-170.4733	51.49271	200.5237	0	971.1448
4/12/2013 3:00	13792	333	2.638418	86.36902	24.83234	-4.964064	-170.664	55.02293	200.4767	0	970.9324
4/12/2013 4:00	13793	333	2.598945	86.36484	26.9682	-5.508148	-170.7861	59.76805	200.6589	0	970.6758
4/12/2013 5:00	13794	333	2.972114	80.60741	25.18711	-5.98966	-170.1985	62.1551	200.5806	0	970.1332
4/12/2013 6:00	13795	333	3.133241	81.87092	25.57582	-6.449592	-170.603	63.45242	200.588	0	969.7626
4/12/2013 7:00	13796	333	3.257424	83.22966	25.03796	-6.628105	-170.893	61.5095	200.6878	0	969.9209
4/12/2013 8:00	13797	333	3.24987	87.87952	24.04468	-6.015535	-171.2135	56.9109	200.9589	0	970.1263
4/12/2013 9:00	13798	333	3.252999	83.08482	24.08717	-5.051803	-167.6192	53.65083	201.8732	0	970.0401
4/12/2013 10:00	13799	333	3.216751	79.88175	26.92485	-4.141614	-171.5035	50.20455	201.2426	0	969.7729

4/12/2013 11:00	13800	333	3.270874	86.2729	26.64884	-3.429012	-168.9623	42.71675	201.7975	0	969.5016
4/12/2013 12:00	13801	333	2.765816	67.37227	33.51305	-1.79135	-170.2825	37.69691	202.3533	0	968.9893
4/12/2013 13:00	13802	333	3.700175	77.02556	26.81561	-0.4868212	-170.9693	35.06107	202.6031	0	968.3599
4/12/2013 14:00	13803	333	3.543063	76.20775	29.84046	0.364462	-171.0533	33.02047	201.5982	0	967.9262
4/12/2013 15:00	13804	333	3.114361	70.02721	34.51125	1.150339	-169.3209	33.83244	202.0942	0	967.6458
4/12/2013 16:00	13805	333	2.787032	66.7735	31.31227	0.888761	-174.8231	34.10106	202.3604	0	967.3433
4/12/2013 17:00	13806	333	3.075354	73.51962	27.93245	0.2288633	-172.0835	36.55985	202.2039	0	967.1044
4/12/2013 18:00	13807	333	2.619951	67.12669	28.46125	0.08150391	-172.0758	40.88372	202.022	0	966.8685
4/12/2013 19:00	13808	333	2.362165	57.44823	29.17182	-0.4973138	-171.3509	44.58336	201.7034	0	966.5637
4/12/2013 20:00	13809	333	2.324063	61.08986	26.52084	-1.012966	-172.1369	47.20241	201.7208	0	966.4623
4/12/2013 21:00	13810	333	2.586588	75.2729	25.62491	-1.566003	-171.9995	49.86572	201.8094	0	966.7552
4/12/2013 22:00	13811	333	2.278358	75.89233	22.32342	-2.129405	-171.4195	53.0449	201.8055	0	966.9035
4/12/2013 23:00	13812	333	2.491863	80.13704	24.199	-2.668735	-171.9537	54.43227	201.8807	0	966.8563
4/13/2013 0:00	13813	333	2.083154	76.5025	22.61895	-3.339438	-171.7019	57.47867	201.7348	0	966.8065
4/13/2013 1:00	13814	333	1.790942	65.59908	27.06302	-4.218548	-171.9232	63.19906	201.6628	0	966.7308
4/13/2013 2:00	13815	333	1.69009	54.79701	28.70247	-5.34941	-171.2059	68.67525	201.5288	0	966.5638
4/13/2013 3:00	13816	333	1.341556	47.42434	31.93181	-6.938704	-171.4348	72.92892	201.3975	0	966.4196
4/13/2013 4:00	13817	333	1.070487	34.81899	30.55985	-8.176423	-170.7251	77.36421	201.1491	0	966.429
4/13/2013 5:00	13818	333	0.904318	19.34465	30.81279	-9.160221	-170.9159	81.48052	201.0379	0	966.3411
4/13/2013 6:00	13819	333	1.003512	7.110415	18.90626	-10.3205	-171.1219	82.58553	200.8732	0	966.2126
4/13/2013 7:00	13820	333	0.9811053	19.09101	28.79047	-9.678506	-171.8164	70.4854	201.1162	0	966.1925
4/13/2013 8:00	13821	333	1.396281	12.74164	36.77817	-6.948438	-172.61	57.61298	202.2886	0	966.2309
4/13/2013 9:00	13822	333	1.853635	8.764019	36.10234	-4.12252	-168.451	45.22591	203.7133	0	965.9262
4/13/2013 10:00	13823	333	2.653895	46.56491	32.66157	-1.729474	-171.6943	40.9692	201.7614	0	965.5573
4/13/2013 11:00	13824	333	2.800372	44.9612	35.73233	-0.07157236	-173.2358	37.1032	204.3431	0	965.4885
4/13/2013 12:00	13825	333	2.631731	38.80497	37.00845	1.468644	-188.7501	35.97224	204.5007	0	965.0598
4/13/2013 13:00	13826	333	2.493472	39.34504	38.31002	2.771404	-172.32	34.62151	203.2356	0	964.6741
4/13/2013 14:00	13827	333	2.564777	32.08629	38.7107	3.603396	-171.6256	36.44996	206.4154	0	964.4544
4/13/2013 15:00	13828	333	2.805092	40.20272	37.47902	4.096713	-177.204	37.1093	204.9877	0	964.5557
4/13/2013 16:00	13829	333	2.413678	31.96115	37.73507	4.316025	-173.19	37.66791	204.9888	0	964.7435
4/13/2013 17:00	13830	333	2.20915	22.45998	34.35693	4.343351	-175.3191	39.05833	204.3952	0	965.0548
4/13/2013 18:00	13831	333	2.126149	28.7707	29.24171	3.599506	-174.121	43.04185	204.0718	0	965.3782
4/13/2013 19:00	13832	333	1.408213	21.16923	30.72758	2.366469	-173.3503	50.15571	203.7562	0	965.657
4/13/2013 20:00	13833	333	1.279141	14.63807	25.79071	0.430264	-172.9839	54.42006	203.1648	0	966.2062
4/13/2013 21:00	13834	333	1.001326	19.23299	25.99276	-0.6833329	-172.9534	57.8755	202.8376	0	966.7672
4/13/2013 22:00	13835	333	1.204553	6.035365	23.49526	-1.725259	-172.7779	62.11237	202.8842	0	967.0609
4/13/2013 23:00	13836	333	1.582431	15.40579	26.08793	-2.076001	-173.0221	61.7186	202.8071	0	967.3633
4/14/2013 0:00	13837	333	1.096445	357.7365	24.22096	-3.262819	-172.6329	67.16122	202.6867	0	967.7877
4/14/2013 1:00	13838	333	1.375062	7.33814	17.00064	-4.077317	-172.8466	68.66305	202.53	0	967.8314
4/14/2013 2:00	13839	333	1.401327	4.325106	20.31065	-4.97066	-171.9079	70.47471	202.5181	0	967.7057
4/14/2013 3:00	13840	333	1.398845	355.5536	20.36547	-5.889598	-172.1521	74.49792	202.4156	0	967.9276
4/14/2013 4:00	13841	333	0.868414	335.7197	27.783	-7.464967	-172.0987	82.76867	202.2704	0	968.5726
4/14/2013 5:00	13842	333	1.312158	355.4562	16.46291	-8.498689	-171.9995	82.09255	202.0917	0	968.486
4/14/2013 6:00	13843	333	1.320604	358.6402	21.95908	-8.878769	-172.5642	79.3575	202.0786	0	968.3945
4/14/2013 7:00	13844	333	1.318727	9.926318	33.50296	-7.298461	-173.4037	62.64656	202.6776	0	968.5452
4/14/2013 8:00	13845	333	0.8958705	20.17156	46.50628	-4.686325	-176.3188	53.37458	203.9607	0	969.1586

4/14/2013 9:00	13846	333	1.293103	12.37757	63.52486	-3.112522	-170.1451	52.53971	204.5952	0	969.1927
4/14/2013 10:00	13847	333	1.914135	42.5553	38.87846	-1.757544	-181.5004	50.47012	204.151	0	968.8017
4/14/2013 11:00	13848	333	2.241731	49.43559	34.43891	-0.6736519	-173.5334	52.10779	205.0117	0	968.5547
4/14/2013 12:00	13849	333	2.638079	48.40567	34.56561	1.354717	-170.9769	52.13831	205.2129	0	968.5762
4/14/2013 13:00	13850	333	2.828165	48.24691	34.38467	2.745646	-174.4034	50.60138	203.2142	0	968.4282
4/14/2013 14:00	13851	333	2.621863	51.52017	37.64029	3.875289	-181.0197	46.17372	203.7299	0	968.2288
4/14/2013 15:00	13852	333	3.05501	54.69699	33.68764	4.52031	-173.1366	46.88953	206.0704	0	967.9767
4/14/2013 16:00	13853	333	3.595152	75.2895	29.45158	4.67862	-174.3805	48.96371	206.2558	0	967.5461
4/14/2013 17:00	13854	333	3.734179	64.27761	31.28624	4.03062	-180.2718	56.93685	206.058	0	967.4078
4/14/2013 18:00	13855	333	3.712565	80.46748	25.1322	3.014009	-175.9296	60.63191	205.9721	0	967.4753
4/14/2013 19:00	13856	333	3.323703	69.31937	25.94515	1.993589	-175.8228	64.39107	205.722	0	967.5873
4/14/2013 20:00	13857	333	2.846772	69.14671	26.33584	1.25335	-175.9754	69.5086	205.9619	0	967.6284
4/14/2013 21:00	13858	333	2.604201	70.93407	25.39167	1.024928	-176.8377	73.3578	206.8478	0	967.9592
4/14/2013 22:00	13859	333	3.143662	74.74935	23.13329	0.7824165	-176.3646	73.49212	206.4624	0	967.8691
4/14/2013 23:00	13860	333	3.010998	77.55237	23.36592	0.5475351	-176.0059	70.09315	206.4679	0	967.312
4/15/2013 0:00	13861	333	2.94828	72.0638	26.40618	0.2618685	-176.5935	62.49851	206.3358	0	966.6797
4/15/2013 1:00	13862	333	2.834509	69.5426	24.22763	-0.009342019	-177.0591	63.61726	206.466	0	966.2297
4/15/2013 2:00	13863	333	3.011449	73.99358	24.63818	-0.1976994	-176.7156	63.96982	206.774	0	965.692
4/15/2013 3:00	13864	333	3.319237	69.08794	24.05401	-0.6063217	-176.6164	66.09742	206.7541	0	964.7886
4/15/2013 4:00	13865	333	3.252162	68.06074	25.45437	-1.097284	-176.6393	71.77355	206.696	0	963.8422
4/15/2013 5:00	13866	333	3.072935	66.32062	28.61411	-1.36389	-177.349	75.47319	206.8776	0	962.9283
4/15/2013 6:00	13867	333	3.233478	62.21969	28.19721	-1.646243	-177.3185	75.44572	207.0101	0	962.692
4/15/2013 7:00	13868	333	2.93201	56.43939	31.29604	-1.701273	-176.7996	75.61971	206.9518	0	962.446
4/15/2013 8:00	13869	333	2.95035	51.86234	33.20421	-1.727223	-176.9827	75.54186	206.9316	0	962.2195
4/15/2013 9:00	13870	333	2.842355	52.45994	33.11722	-1.834673	-177.288	83.51043	206.998	0	961.8099
4/15/2013 10:00	13871	333	2.727681	36.66084	34.08727	-2.166247	-175.9754	89.90848	206.9972	0	961.3693
4/15/2013 11:00	13872	333	3.227782	27.19966	30.1593	-2.7985	-176.8606	86.97044	205.9061	0	961.0226
4/15/2013 12:00	13873	333	3.331736	28.60307	32.20623	-2.651371	-170.2977	85.67313	205.466	0	960.6239
4/15/2013 13:00	13874	333	3.105522	27.54243	35.23186	-2.840619	-172.9229	89.9619	205.3892	0	960.2939
4/15/2013 14:00	13875	333	2.804547	26.53101	36.24589	-2.249444	-170.4733	85.5205	204.7888	0	960.1086
4/15/2013 15:00	13876	333	3.21364	29.21956	31.82524	-2.156955	-171.8011	85.17709	203.8509	0	960.3137
4/15/2013 16:00	13877	333	2.89761	22.78946	33.29103	-1.975236	-174.0523	85.45794	203.9153	0	960.4709
4/15/2013 17:00	13878	333	2.902868	22.11215	29.63666	-1.981218	-174.0294	89.72228	203.0504	0	960.9608
4/15/2013 18:00	13879	333	2.869861	16.41682	31.64764	-2.486275	-174.5331	89.45519	203.0594	0	961.5886
4/15/2013 19:00	13880	333	2.537742	16.47812	32.45412	-2.774868	-170.8701	91.76746	201.7858	0	961.9429
4/15/2013 20:00	13881	333	2.50385	9.627625	30.6557	-2.999238	-170.7556	90.43962	201.1236	0	962.4442
4/15/2013 21:00	13882	333	2.751856	10.1255	29.24789	-3.275377	-170.5267	89.97869	200.6734	0	963.1658
4/15/2013 22:00	13883	333	2.79848	5.254489	28.42876	-3.822343	-171.0074	90.5724	200.7204	0	963.5202
4/15/2013 23:00	13884	333	2.780241	4.075026	28.00056	-4.256924	-170.9159	89.4674	200.7235	0	963.8357
4/16/2013 0:00	13885	333	2.380857	6.671307	32.62239	-4.495851	-171.038	88.61117	200.936	0	964.4128
4/16/2013 1:00	13886	333	2.191545	0.6364142	28.03146	-4.755716	-170.7709	87.91214	201.0242	0	965.1257
4/16/2013 2:00	13887	333	2.488207	356.8928	24.83218	-5.099052	-171.1982	87.80683	201.024	0	965.8506
4/16/2013 3:00	13888	333	2.663499	347.702	24.67751	-5.840481	-170.8853	86.35995	201.0432	0	966.3244
4/16/2013 4:00	13889	333	2.830278	350.1929	22.52698	-6.403923	-171.0303	87.66184	201.1067	0	967.1495
4/16/2013 5:00	13890	333	2.45992	337.8951	22.02093	-6.999033	-171.2135	83.97899	201.0801	0	968.0044
4/16/2013 6:00	13891	333	2.40498	343.3012	22.05348	-7.4809	-170.7327	80.9387	201.0937	0	968.9407

4/16/2013 7:00	13892	333	2.486753	345.8203	23.98173	-7.345759	-171.7095	72.83734	201.5088	0	969.9882
4/16/2013 8:00	13893	333	2.220768	334.134	22.5611	-7.488316	-169.8322	67.31384	201.9346	0	971.2354
4/16/2013 9:00	13894	333	2.235112	330.9297	26.01167	-5.602998	-169.0386	58.35931	201.5739	0	972.1452
4/16/2013 10:00	13895	333	2.124256	335.9607	27.46637	-3.849277	-171.824	52.40846	202.1174	0	973.1018
4/16/2013 11:00	13896	333	2.141794	330.7858	28.8622	-2.067648	-171.1753	50.15571	202.9835	0	973.9905
4/16/2013 12:00	13897	333	2.124495	330.5181	29.61461	-0.3488279	-193.0542	46.51865	203.4589	0	974.6221
4/16/2013 13:00	13898	333	2.180223	339.4455	32.42727	1.175966	-172.7474	35.35411	206.8323	0	975.2207
4/16/2013 14:00	13899	333	1.897919	1.072266	34.34745	2.76249	-174.6094	34.05375	206.9147	0	975.7739
4/16/2013 15:00	13900	333	1.91762	359.842	32.42759	3.634251	-176.1891	24.34525	206.7802	0	976.4419
4/16/2013 16:00	13901	333	2.198946	332.8692	29.76549	3.825555	-175.0444	23.26009	206.9518	0	976.9705
4/16/2013 17:00	13902	333	2.027885	356.1556	35.09779	4.204312	-174.7773	21.7781	207.8927	0	977.6358
4/16/2013 18:00	13903	333	1.698266	20.88694	33.73101	3.302962	-177.2346	25.66546	207.4233	0	978.297
4/16/2013 19:00	13904	333	1.643463	16.21213	30.17651	1.294317	-176.7233	30.91424	206.826	0	978.6802
4/16/2013 20:00	13905	333	1.079512	40.65557	29.48945	-1.272955	-176.0288	33.09984	206.1473	0	979.5353
4/16/2013 21:00	13906	333	1.352989	38.85743	32.28365	-2.751313	-175.3344	38.14258	205.9489	0	980.202
4/16/2013 22:00	13907	333	1.50214	66.77797	31.48796	-3.899843	-175.3649	44.18196	205.7776	0	980.9485
4/16/2013 23:00	13908	333	1.346475	106.8464	22.14058	-5.407273	-175.9296	57.39778	205.8862	0	982.0356
4/17/2013 0:00	13909	333	0.7446793	114.4828	18.84332	-8.156933	-175.7007	63.35931	205.5675	0	982.9116
4/17/2013 1:00	13910	333	0.7931813	83.67817	18.00928	-8.898719	-175.4412	64.64442	205.4439	0	983.128
4/17/2013 2:00	13911	333	1.742522	82.9796	19.55131	-8.447219	-176.3035	63.35627	205.4238	0	982.5198
4/17/2013 3:00	13912	333	1.309443	111.5975	21.48356	-9.481477	-175.8609	72.17801	205.7435	0	981.9776
4/17/2013 4:00	13913	333	1.162663	132.7004	16.53386	-10.77416	-175.2428	78.31201	205.5097	0	982.0856
4/17/2013 5:00	13914	333	0.9599145	136.9205	12.19526	-11.9617	-174.8383	81.44083	205.2951	0	982.6298
4/17/2013 6:00	13915	333	0.9982347	136.7748	10.20866	-11.60676	-175.5099	78.43565	205.3139	0	982.5378
4/17/2013 7:00	13916	333	1.372131	132.2834	14.17959	-9.732427	-176.0288	70.00157	205.7484	0	982.5165
4/17/2013 8:00	13917	333	1.747524	128.6918	18.10779	-8.001183	-176.3722	67.55193	206.1896	0	981.8696
4/17/2013 9:00	13918	333	1.659027	126.1555	20.45868	-6.262654	-176.6164	62.92282	206.4843	0	980.4163
4/17/2013 10:00	13919	333	1.749112	124.1231	19.69845	-5.063458	-178.1961	59.61695	206.6941	0	979.8746
4/17/2013 11:00	13920	333	1.612867	129.8063	26.13526	-3.442722	-179.5545	55.32055	206.6822	0	980.275
4/17/2013 12:00	13921	333	1.609526	122.93	21.96491	-2.446299	-176.2196	52.88007	207.7848	0	979.7615
4/17/2013 13:00	13922	333	1.771479	125.8782	22.45616	-0.6976727	-175.281	50.31291	207.7788	0	978.898
4/17/2013 14:00	13923	333	1.59097	125.2383	27.22389	1.176752	-177.1659	54.87488	209.2244	0	978.155
4/17/2013 15:00	13924	333	1.412721	125.1627	31.65797	1.425155	-175.2733	54.66883	208.5954	0	977.4314
4/17/2013 16:00	13925	333	1.212985	109.3692	32.18397	0.8753167	-175.2123	63.01286	208.3692	0	976.4891
4/17/2013 17:00	13926	333	1.217891	124.3713	21.06779	0.229877	-177.9977	71.70334	208.0046	0	975.8035
4/17/2013 18:00	13927	333	1.496638	130.0627	22.09435	-0.2948125	-177.7535	75.60292	207.8623	0	975.4435
4/17/2013 19:00	13928	333	1.364245	131.9668	22.46802	-1.533843	-177.288	87.34438	207.4252	0	975.1542
4/17/2013 20:00	13929	333	1.328376	125.1259	21.20897	-2.70607	-177.0667	92.63132	207.3527	0	974.834
4/17/2013 21:00	13930	333	1.100573	130.124	22.36678	-3.230769	-176.8454	92.10476	206.96	0	975.0257
4/17/2013 22:00	13931	333	0.9411063	118.8106	21.89414	-3.784286	-176.8454	92.57027	206.8436	0	974.5916
4/17/2013 23:00	13932	333	0.6169208	117.2626	20.94796	-4.319199	-176.273	93.06019	206.7274	0	974.2982
4/18/2013 0:00	13933	333	0.3790835	110.1382	20.77039	-5.220227	-176.3722	93.28303	206.5282	0	973.5029
4/18/2013 1:00	13934	333	0.3087858	71.07493	17.63445	-6.479408	-176.3035	94.69939	206.3458	0	972.5243
4/18/2013 2:00	13935	333	0.3888828	81.3848	57.60298	-7.260873	-176.3417	96.49121	206.3447	0	971.6364
4/18/2013 3:00	13936	333	0.1361871	31.45028	18.16121	-7.77015	-176.6622	94.07057	206.2433	0	971.4959
4/18/2013 4:00	13937	333	0.2431147	52.11501	20.54389	-7.834896	-176.5172	94.30104	206.2635	0	970.6974

4/18/2013 5:00	13938	333	0.2555889	354.1758	12.74446	-8.699799	-176.3417	94.07668	206.3428	0	970.0978
4/18/2013 6:00	13939	333	0.2555804	22.63276	28.19931	-8.567283	-176.2501	91.45152	206.316	0	969.6096
4/18/2013 7:00	13940	333	0.4274558	0.4701636	64.95162	-7.173041	-177.1735	91.5721	206.6885	0	969.9601
4/18/2013 8:00	13941	333	0.8947497	315.0205	18.05176	-5.590171	-177.8374	86.9674	206.7125	0	969.7391
4/18/2013 9:00	13942	333	1.462133	353.6408	47.81123	-3.420019	-182.6375	71.88039	207.221	0	969.0945
4/18/2013 10:00	13943	333	2.393209	53.08534	31.65837	-1.471305	-175.6473	62.28789	208.2451	0	968.7305
4/18/2013 11:00	13944	333	2.220411	44.34009	35.54937	-0.03121566	-176.2501	57.90144	207.5149	0	968.4035
4/18/2013 12:00	13945	333	2.461413	48.98922	37.35122	1.267662	-174.4034	52.51987	208.0301	0	967.4667
4/18/2013 13:00	13946	333	2.663086	50.05795	34.57301	1.798218	-175.3573	50.59527	209.5777	0	966.7655
4/18/2013 14:00	13947	333	2.329612	21.68097	41.06935	3.043773	-174.4186	46.41029	209.4699	0	966.0215
4/18/2013 15:00	13948	333	2.665692	25.07017	36.29417	3.63251	-184.6216	43.00369	210.0443	0	965.6741
4/18/2013 16:00	13949	333	2.511809	34.61603	37.80047	3.385406	-180.8594	42.99911	210.1844	0	965.7479
4/18/2013 17:00	13950	333	2.709137	38.76541	34.19875	2.966112	-177.8985	46.85595	210.1163	0	965.8015
4/18/2013 18:00	13951	333	3.179045	52.30833	35.06973	2.144874	-179.3255	48.97287	209.3792	0	965.8007
4/18/2013 19:00	13952	333	2.987066	47.10257	31.93246	1.134373	-178.6387	52.22683	209.0329	0	965.447
4/18/2013 20:00	13953	333	2.489515	51.42035	32.23217	0.03285135	-177.8756	55.01225	208.7885	0	965.8416
4/18/2013 21:00	13954	333	1.978856	38.54655	34.21665	-0.8049768	-178.7227	58.81872	208.5286	0	966.1516
4/18/2013 22:00	13955	333	2.557303	27.63921	34.03047	-1.429861	-178.9135	53.80651	208.619	0	966.0455
4/18/2013 23:00	13956	333	2.517973	18.35467	30.74828	-2.45871	-178.4403	55.86237	208.5844	0	965.5552
4/19/2013 0:00	13957	333	2.842716	21.84712	32.54278	-3.510813	-178.5777	56.23172	208.3464	0	965.3031
4/19/2013 1:00	13958	333	2.717097	22.31512	32.6114	-4.271609	-178.1732	58.47226	208.3329	0	965.6984
4/19/2013 2:00	13959	333	2.675974	9.207821	28.50465	-5.222034	-178.0664	63.13038	208.2466	0	964.9327
4/19/2013 3:00	13960	333	3.372844	1.171241	27.62997	-6.270618	-178.1427	57.39014	208.254	0	963.7818
4/19/2013 4:00	13961	333	3.255522	3.006724	27.74488	-7.302073	-178.2037	52.64961	208.1996	0	963.6528
4/19/2013 5:00	13962	333	2.932727	6.233269	28.95162	-8.303931	-178.3106	51.6957	208.2622	0	964.6344
4/19/2013 6:00	13963	333	2.949839	4.790154	25.70549	-9.210135	-178.3335	53.24179	208.1107	0	965.2324
4/19/2013 7:00	13964	333	3.2489	3.846775	26.28054	-9.669775	-178.0359	50.00766	208.1843	0	965.6295
4/19/2013 8:00	13965	333	3.277134	2.580687	28.17394	-9.653832	-178.4632	47.37946	208.3118	0	965.5469
4/19/2013 9:00	13966	333	3.382808	1.872612	29.30954	-8.97735	-182.5917	44.76041	208.4613	0	965.0241
4/19/2013 10:00	13967	333	3.542071	358.9657	27.94404	-7.659658	-173.7242	40.53269	209.1705	0	964.8591
4/19/2013 11:00	13968	333	3.431534	351.3529	28.54638	-5.818493	-195.9388	35.4579	210.4822	0	964.5701
4/19/2013 12:00	13969	333	3.476534	356.9435	28.39437	-4.414475	-177.4864	38.56077	211.1524	0	964.0392
4/19/2013 13:00	13970	333	3.919014	348.5177	26.30391	-3.675626	-176.357	35.72041	209.6864	0	963.6282
4/19/2013 14:00	13971	333	3.79731	344.2762	28.74519	-3.479796	-176.6927	38.70118	209.8166	0	963.4072
4/19/2013 15:00	13972	333	4.236882	346.407	26.24193	-3.580034	-174.3423	36.04398	210.7992	0	963.4626
4/19/2013 16:00	13973	333	3.76663	349.6542	27.80371	-2.807561	-176.5172	34.88097	210.7655	0	963.4661
4/19/2013 17:00	13974	333	3.721832	345.808	26.95559	-2.577261	-178.654	34.00338	210.345	0	963.6181
4/19/2013 18:00	13975	333	3.228848	343.1787	26.71053	-3.059694	-180.3557	36.88647	209.9695	0	963.9675
4/19/2013 19:00	13976	333	2.681523	342.7375	24.93139	-4.333349	-179.6079	37.38403	209.8229	0	964.2848
4/19/2013 20:00	13977	333	2.402637	343.0102	23.69995	-6.220319	-179.4247	40.52811	209.3652	0	964.8779
4/19/2013 21:00	13978	333	1.864213	339.6476	19.20374	-7.63344	-179.6308	49.2537	209.1284	0	965.6698
4/19/2013 22:00	13979	333	1.762018	329.8903	15.55165	-8.999757	-178.9898	54.43227	209.0099	0	966.1109
4/19/2013 23:00	13980	333	1.759166	322.3351	12.02877	-10.20788	-178.2877	60.95395	208.8677	0	966.4196
4/20/2013 0:00	13981	333	1.76814	321.5804	10.15344	-11.47151	-178.5013	64.10261	208.7702	0	966.8041
4/20/2013 1:00	13982	333	1.290445	330.8574	14.1831	-11.90826	-178.715	67.59467	208.6385	0	967.3077
4/20/2013 2:00	13983	333	1.430871	320.862	9.030003	-13.42506	-178.3716	74.63528	208.4834	0	967.9471

4/20/2013 3:00	13984	333	1.389071	317.2157	6.572188	-14.33893	-178.6692	77.38863	208.3951	0	968.5204
4/20/2013 4:00	13985	333	1.477878	307.9695	7.492227	-15.77162	-178.4098	83.85537	208.417	0	969.1074
4/20/2013 5:00	13986	333	1.357076	305.9669	4.352342	-16.35624	-177.2422	86.17679	208.2864	0	969.8374
4/20/2013 6:00	13987	333	1.007958	301.8887	8.723799	-16.49018	-178.57	79.01562	208.2305	0	970.6232
4/20/2013 7:00	13988	333	1.284118	311.6191	12.03325	-13.78508	-179.6918	65.58613	209.0495	0	971.397
4/20/2013 8:00	13989	333	1.221142	321.2047	11.22662	-10.78556	-182.0117	54.7711	209.6419	0	971.8766
4/20/2013 9:00	13990	333	1.584749	316.3845	23.69316	-8.045023	-197.1903	43.96065	209.6709	0	972.0447
4/20/2013 10:00	13991	333	1.744915	267.0159	35.14091	-5.471667	-179.585	31.53238	211.7355	0	972.356
4/20/2013 11:00	13992	333	1.591342	296.0831	39.44506	-3.439696	-199.6476	30.10075	211.0933	0	972.3778
4/20/2013 12:00	13993	333	1.963806	297.4522	35.34773	-2.058364	-177.8451	27.56717	211.7281	0	972.4817
4/20/2013 13:00	13994	333	1.550108	299.9319	54.99599	-0.2187008	-180.8823	24.06595	211.3445	0	972.3851
4/20/2013 14:00	13995	333	1.514943	238.2154	70.88506	1.481544	-181.592	20.70209	211.816	0	972.2223
4/20/2013 15:00	13996	333	1.436026	231.8818	50.70866	2.711919	-181.0731	20.76314	211.8861	0	972.2131
4/20/2013 16:00	13997	333	1.800411	228.9882	45.45463	3.286211	-180.8518	17.31075	212.7239	0	972.2888
4/20/2013 17:00	13998	333	1.844315	229.2014	43.25141	3.531758	-179.9971	21.11265	212.5136	0	972.3289
4/20/2013 18:00	13999	333	1.440113	227.8339	38.41227	2.867348	-181.4775	25.70972	211.6145	0	972.2746
4/20/2013 19:00	14000	333	1.119703	220.6693	31.2721	1.992695	-180.6228	24.72071	211.2652	0	972.2963
4/20/2013 20:00	14001	333	0.5031702	183.8651	27.13728	-1.245594	-180.1879	42.24667	210.5631	0	972.5974
4/20/2013 21:00	14002	333	0.6489073	168.339	7.813059	-4.043054	-179.791	52.2482	209.9458	0	973.0052
4/20/2013 22:00	14003	333	0.9949988	151.7902	10.16417	-5.567652	-179.8521	62.98386	209.8255	0	973.189
4/20/2013 23:00	14004	333	1.112688	149.8531	11.59344	-6.329863	-179.9055	59.68715	209.8034	0	973.2373
4/21/2013 0:00	14005	333	1.134823	157.549	11.35744	-6.513846	-180.1116	57.60229	209.8298	0	973.118
4/21/2013 1:00	14006	333	0.9237407	160.6995	10.34746	-6.532398	-180.165	61.26225	209.8816	0	973.1548
4/21/2013 2:00	14007	333	1.0113	157.0896	9.251469	-7.113144	-179.6613	60.91579	209.699	0	973.0986
4/21/2013 3:00	14008	333	1.006478	153.2186	9.665879	-7.320674	-179.6689	61.9338	209.6826	0	972.8455
4/21/2013 4:00	14009	333	0.9622142	149.8341	9.097862	-7.512906	-179.6994	63.58521	209.7255	0	972.446
4/21/2013 5:00	14010	333	1.428107	150.3333	9.018373	-8.587282	-179.6613	65.98142	209.7715	0	972.1941
4/21/2013 6:00	14011	333	2.058432	152.4069	12.40834	-6.327937	-179.8597	50.53575	209.8023	0	971.7959
4/21/2013 7:00	14012	333	2.324459	152.5335	15.54383	-3.838095	-181.096	43.79887	210.2914	0	971.5681
4/21/2013 8:00	14013	333	2.164887	155.5856	20.47344	-0.5029401	-181.798	41.45149	211.1994	0	971.1054
4/21/2013 9:00	14014	333	2.497907	155.3351	22.38108	0.9497216	-180.4626	38.35015	211.1453	0	970.2642
4/21/2013 10:00	14015	333	3.013846	156.5004	22.06954	2.13055	-184.2172	41.7949	211.5132	0	969.5945
4/21/2013 11:00	14016	333	3.516129	157.4835	21.74404	2.431899	-187.5368	46.27293	212.3928	0	968.7643
4/21/2013 12:00	14017	333	3.322723	160.9485	23.51492	2.576252	-178.9516	53.47379	212.7486	0	968.0552
4/21/2013 13:00	14018	333	3.133626	160.8145	23.24668	2.354305	-183.6143	68.64778	211.7507	0	967.1484
4/21/2013 14:00	14019	333	2.953109	158.8936	21.57955	1.197476	-184.614	86.92465	211.2715	0	966.6983
4/21/2013 15:00	14020	333	2.19035	155.2386	18.91421	0.8230456	-180.4779	93.98663	210.9208	0	966.0319
4/21/2013 16:00	14021	333	2.386797	153.9628	19.04263	0.7635657	-178.57	96.18901	209.6898	0	965.4017
4/21/2013 17:00	14022	333	2.271824	153.8036	18.17116	0.8108897	-182.1338	96.51105	209.1006	0	964.889
4/21/2013 18:00	14023	333	2.065418	155.0891	17.68499	0.8476335	-176.5325	96.14322	208.7293	0	964.2764
4/21/2013 19:00	14024	333	1.937574	157.9623	18.61015	0.5887226	-178.9058	97.36728	208.6697	0	963.6119
4/21/2013 20:00	14025	333	1.494263	162.0483	20.28112	0.4558175	-178.3869	98.29219	204.4355	0	963.2188
4/21/2013 21:00	14026	333	1.452013	169.3885	22.61888	0.4100293	-176.0517	99.02632	204.4786	0	962.962
4/21/2013 22:00	14027	333	1.282316	191.839	33.0281	0.4133878	-175.0749	98.55623	206.2277	0	962.8723
4/21/2013 23:00	14028	333	1.393525	224.3146	34.39942	0.408296	-174.991	97.14291	205.1937	0	962.7623
4/22/2013 0:00	14029	333	1.090756	229.5791	34.40953	0.3393143	-175.0902	96.91093	205.1556	0	962.7316

4/22/2013 1:00	14030	333	1.298621	233.6192	28.16397	0.2727509	-175.7388	95.56173	205.1985	0	962.6598
4/22/2013 2:00	14031	333	1.294482	232.8262	37.87553	0.1188846	-175.5099	97.79463	205.396	0	962.5239
4/22/2013 3:00	14032	333	3.49889	270.9664	24.50117	-1.016841	-174.3271	87.57331	204.7251	0	963.1522
4/22/2013 4:00	14033	333	3.137976	259.5183	25.1866	-2.584795	-174.2431	90.3633	204.1591	0	964.1835
4/22/2013 5:00	14034	333	3.316803	259.1846	26.52961	-2.671762	-173.7166	91.09591	203.9964	0	964.748
4/22/2013 6:00	14035	333	3.82753	268.954	24.53581	-2.785451	-173.8692	90.66703	203.9443	0	965.8461
4/22/2013 7:00	14036	333	4.153616	281.1723	21.24779	-2.895791	-174.2278	91.392	204.0395	0	967.1604
4/22/2013 8:00	14037	333	4.554068	287.4537	18.85296	-2.882893	-174.0523	85.46098	204.1534	0	968.287
4/22/2013 9:00	14038	333	5.725074	296.7787	15.70266	-2.956321	-173.8158	82.7641	203.8892	0	969.4025
4/22/2013 10:00	14039	333	5.450468	299.5712	15.07918	-2.676781	-174.6018	81.93992	204.4552	0	970.3218
4/22/2013 11:00	14040	333	5.418257	299.269	14.33303	-2.665667	-176.1509	79.98784	205.0936	0	971.7784
4/22/2013 12:00	14041	333	4.955595	299.6171	15.41925	-2.588738	-175.4717	80.16641	203.935	0	972.7977
4/22/2013 13:00	14042	333	3.961748	298.8917	17.40423	-1.784099	-179.9818	70.56476	203.941	0	973.2819
4/22/2013 14:00	14043	333	3.533978	302.5729	17.727	-0.7173402	-171.6866	70.57697	204.9958	0	973.584
4/22/2013 15:00	14044	333	3.174578	300.9205	18.03858	-0.544687	-182.6604	68.62947	206.2953	0	973.8735
4/22/2013 16:00	14045	333	3.050749	301.8505	16.91643	-0.2356035	-181.3783	60.76927	207.775	0	974.051
4/22/2013 17:00	14046	333	2.870314	305.6691	15.09022	-0.4774206	-181.4852	69.54217	209.0487	0	974.3203
4/22/2013 18:00	14047	333	2.117159	299.2474	18.52786	-0.8406157	-177.9672	70.76318	209.8452	0	974.7657
4/22/2013 19:00	14048	333	2.119054	305.2332	11.64023	-1.676487	-178.8371	71.84528	207.921	0	974.8708
4/22/2013 20:00	14049	333	0.7297955	262.7386	29.25304	-3.609807	-177.5093	89.56355	208.2926	0	974.9709
4/22/2013 21:00	14050	333	0.7604394	146.9695	21.0309	-5.714064	-175.7617	92.34743	206.8907	0	975.1663
4/22/2013 22:00	14051	333	0.7762003	156.4153	6.417868	-7.574815	-175.8457	94.04768	206.0253	0	975.1288
4/22/2013 23:00	14052	333	0.4531448	165.0806	6.161601	-8.725423	-175.632	95.24273	205.7329	0	974.8674
4/23/2013 0:00	14053	333	0.2176287	146.1488	8.837178	-10.28565	-174.5712	89.33614	205.0637	0	974.603
4/23/2013 1:00	14054	333	0.3855509	299.7239	29.00149	-11.9672	-174.6857	90.21832	204.8097	0	974.5984
4/23/2013 2:00	14055	333	0.4518668	157.4034	57.01771	-12.87121	-174.5407	92.90452	204.6632	0	974.0294
4/23/2013 3:00	14056	333	0.2518891	130.1326	8.008757	-13.79324	-174.0447	87.00708	204.3948	0	973.5557
4/23/2013 4:00	14057	333	0.2646379	316.3056	49.21676	-15.18907	-173.6479	87.26348	204.2081	0	972.9524
4/23/2013 5:00	14058	333	0	0	0	-15.64603	-174.0294	87.75036	204.0477	0	972.4763
4/23/2013 6:00	14059	333	0.2385055	136.1055	4.00281	-15.45836	-174.3805	85.50982	204.1316	0	972.3132
4/23/2013 7:00	14060	333	0.3318693	135.4147	6.910352	-11.27484	-175.8915	71.91091	205.1338	0	972.1627
4/23/2013 8:00	14061	333	0.306401	126.2235	31.85827	-5.647292	-181.6149	65.44876	206.0644	0	971.6607
4/23/2013 9:00	14062	333	0.7818438	317.7909	35.85365	-2.307353	-175.983	49.43685	207.0582	0	970.9232
4/23/2013 10:00	14063	333	1.582315	267.0486	39.76461	1.300222	-172.2819	47.02231	209.5133	0	970.4053
4/23/2013 11:00	14064	333	1.880041	276.9515	45.69785	2.615633	-195.1375	44.32848	208.0559	0	969.7479
4/23/2013 12:00	14065	333	2.531667	278.9702	31.12896	3.326056	-179.2874	40.22438	209.8553	0	968.787
4/23/2013 13:00	14066	333	2.679144	284.3445	30.7892	4.416077	-175.777	38.20057	211.2498	0	967.6307
4/23/2013 14:00	14067	333	2.201293	284.5031	38.1741	5.349733	-184.469	34.87029	211.6985	0	966.7132
4/23/2013 15:00	14068	333	2.481666	287.424	36.55263	5.640792	-179.5011	30.17706	211.285	0	966.032
4/23/2013 16:00	14069	333	1.937037	265.2482	36.8241	6.228873	-182.3628	29.21095	213.399	0	965.4553
4/23/2013 17:00	14070	333	1.7176	282.4108	38.04093	5.203863	-180.8594	31.01956	211.963	0	965.1428
4/23/2013 18:00	14071	333	1.3649	257.4703	32.12748	5.072161	-181.7523	36.35075	212.0408	0	964.7666
4/23/2013 19:00	14072	333	0.94015	250.1872	29.12397	3.976651	-180.7068	37.30924	211.483	0	964.52
4/23/2013 20:00	14073	333	1.176939	276.2876	21.61462	1.853466	-180.2184	43.60809	210.8889	0	964.4087
4/23/2013 21:00	14074	333	0.6977775	214.6018	11.49971	-0.6798771	-180.4016	64.76347	210.6766	0	964.2459
4/23/2013 22:00	14075	333	0.8971187	208.8763	10.8416	-2.043406	-180.3405	55.83642	210.2806	0	963.8554

4/23/2013 23:00	14076	333	0.9859374	223.4181	19.13464	-1.481221	-180.4473	53.01133	210.5027	0	963.3627
4/24/2013 0:00	14077	333	1.320993	249.6241	18.68621	-1.383836	-179.5087	53.13953	210.3355	0	963.0449
4/24/2013 1:00	14078	333	1.343837	250.8809	16.53281	-2.110056	-180.3481	55.899	210.2492	0	962.7726
4/24/2013 2:00	14079	333	1.71502	271.162	19.23174	-2.021205	-180.4016	56.81322	210.3255	0	962.4295
4/24/2013 3:00	14080	333	1.559495	275.5927	35.28543	-2.379003	-180.455	61.96432	210.3747	0	962.1307
4/24/2013 4:00	14081	333	1.179169	254.0602	19.5682	-2.860618	-180.31	63.91182	210.2643	0	961.9474
4/24/2013 5:00	14082	333	0.6112061	207.8081	45.8289	-4.608058	-179.9131	76.74455	210.105	0	961.7057
4/24/2013 6:00	14083	333	0.4966439	157.6407	22.72811	-5.982307	-180.2489	73.79278	210.0207	0	961.646
4/24/2013 7:00	14084	333	0.5595671	194.3957	37.55082	-2.543041	-181.096	56.48203	210.6733	0	961.704
4/24/2013 8:00	14085	333	0.970452	243.0771	48.54111	-0.3970681	-183.6372	53.12122	211.3958	0	961.7256
4/24/2013 9:00	14086	333	0.792484	192.6573	67.56861	2.972864	-180.7907	44.9405	213.5336	0	961.5123
4/24/2013 10:00	14087	333	1.349977	226.8545	77.76317	4.276054	-180.6305	38.06474	212.2872	0	961.2156
4/24/2013 11:00	14088	333	2.075804	279.7898	45.9722	3.982051	-178.6769	52.84039	212.191	0	960.9699
4/24/2013 12:00	14089	333	1.71407	226.6556	80.56172	3.394485	-180.7755	45.71431	211.6818	0	960.7749
4/24/2013 13:00	14090	333	2.470182	347.1907	83.5733	4.003522	-181.3707	45.60443	212.3386	0	960.377
4/24/2013 14:00	14091	333	2.89421	311.997	19.71774	3.616524	-180.6763	45.56169	211.9207	0	960.4272
4/24/2013 15:00	14092	333	1.754182	260.0055	55.28083	6.119042	-182.7901	39.33916	214.7059	0	960.2473
4/24/2013 16:00	14093	333	1.74918	279.499	40.51912	6.543787	-183.3854	31.68042	214.2861	0	960.1334
4/24/2013 17:00	14094	333	2.529756	281.6173	24.60637	6.107995	-183.9272	40.89594	213.6688	0	960.1558
4/24/2013 18:00	14095	333	2.148591	281.4619	27.1757	4.632294	-183.7669	43.08306	213.7762	0	960.2867
4/24/2013 19:00	14096	333	1.258498	236.8893	27.4077	3.842635	-183.0801	54.64594	213.5734	0	960.4452
4/24/2013 20:00	14097	333	1.341428	243.5319	21.57224	1.405343	-183.0496	72.39321	213.0075	0	960.9123
4/24/2013 21:00	14098	333	1.610542	244.5592	22.98135	0.6694166	-182.8741	79.27966	212.8676	0	961.4911
4/24/2013 22:00	14099	333	1.726817	257.5872	23.60712	0.3707649	-182.5688	83.09071	212.9261	0	961.9697
4/24/2013 23:00	14100	333	2.1309	280.1724	17.07457	-0.5472922	-182.6985	84.49334	212.8715	0	962.1465
4/25/2013 0:00	14101	333	1.686775	284.7533	17.84178	-1.620985	-182.5917	87.65574	212.6946	0	962.1448
4/25/2013 1:00	14102	333	1.754261	287.5281	14.46269	-2.608948	-182.6604	93.26318	212.6016	0	962.4042
4/25/2013 2:00	14103	333	1.495492	300.4495	12.39094	-3.155678	-182.4391	94.72991	212.5771	0	962.6887
4/25/2013 3:00	14104	333	1.555247	311.0345	15.64172	-2.884882	-182.5383	97.22076	212.4735	0	962.9255
4/25/2013 4:00	14105	333	1.751283	307.4948	14.16123	-2.444872	-182.7825	92.7351	212.7721	0	963.503
4/25/2013 5:00	14106	333	1.347847	305.157	19.99389	-2.277811	-182.8741	92.86941	212.8485	0	964.0127
4/25/2013 6:00	14107	333	1.698002	302.5215	11.91524	-2.15976	-183.187	90.22442	212.8586	0	964.5318
4/25/2013 7:00	14108	333	1.732129	307.2484	14.78799	-1.861009	-182.9656	86.73998	212.9388	0	965.0374
4/25/2013 8:00	14109	333	1.429064	314.1535	19.38801	-1.322023	-183.9119	81.46526	213.3435	0	965.547
4/25/2013 9:00	14110	333	1.613216	304.4221	29.15169	-0.2469277	-181.3631	65.85932	213.304	0	965.7759
4/25/2013 10:00	14111	333	1.475612	303.3009	37.94078	1.287492	-182.3322	54.81078	215.5545	0	965.8674
4/25/2013 11:00	14112	333	2.622802	305.3073	33.81431	2.289761	-182.7901	47.07421	215.476	0	965.9656
4/25/2013 12:00	14113	333	2.744493	285.1896	28.34773	2.919655	-183.9195	44.9695	214.8661	0	966.0391
4/25/2013 13:00	14114	333	2.130992	260.8535	38.01165	3.932314	-183.6219	37.8999	214.9599	0	965.8641
4/25/2013 14:00	14115	333	2.216356	274.6874	36.04535	4.381746	-191.2837	33.75613	215.0535	0	965.5819
4/25/2013 15:00	14116	333	2.204537	222.9644	43.35602	6.489652	-183.9195	30.80893	215.3649	0	965.3954
4/25/2013 16:00	14117	333	2.368436	229.9447	38.9523	6.517771	-182.4314	28.68897	216.7484	0	965.0364
4/25/2013 17:00	14118	333	2.078225	240.5323	36.02218	6.666966	-187.4605	32.40081	215.8617	0	964.6863
4/25/2013 18:00	14119	333	1.728223	223.5785	37.68853	5.829302	-185.9876	32.74117	216.4019	0	964.6142
4/25/2013 19:00	14120	333	1.42373	188.6996	26.30602	4.914378	-185.3008	42.88311	216.086	0	964.4778
4/25/2013 20:00	14121	333	1.115805	180.8344	20.47367	2.414846	-185.3619	46.70333	215.4955	0	964.6663

4/25/2013 21:00	14122	333	1.176157	164.6179	16.77653	1.147594	-185.1176	50.812	215.147	0	965.0294
4/25/2013 22:00	14123	333	1.289302	170.5794	21.06004	1.587707	-185.1405	52.48019	215.2241	0	965.0105
4/25/2013 23:00	14124	333	1.1251	169.8911	24.23642	1.838325	-185.4229	55.45944	215.2854	0	964.6421
4/26/2013 0:00	14125	333	1.485015	162.2006	19.25364	1.73687	-185.545	56.31414	215.3853	0	964.0383
4/26/2013 1:00	14126	333	1.450764	164.3445	23.95678	1.818296	-185.3619	54.92219	215.4288	0	963.3234
4/26/2013 2:00	14127	333	1.424135	172.8307	27.76023	2.150435	-185.3695	56.82238	215.621	0	962.8211
4/26/2013 3:00	14128	333	2.030645	159.9656	21.36949	2.186361	-185.8961	56.89564	215.622	0	961.8169
4/26/2013 4:00	14129	333	1.690301	169.3029	28.23611	2.526673	-185.5984	55.77842	215.6685	0	961.2561
4/26/2013 5:00	14130	333	1.715712	185.5731	27.71293	2.48147	-185.5221	59.50553	215.7223	0	961.3091
4/26/2013 6:00	14131	333	1.407464	191.6203	28.29874	2.355618	-186.3005	54.96646	215.7285	0	961.6876
4/26/2013 7:00	14132	333	1.904637	210.5153	38.65891	4.417841	-186.8423	54.55895	216.2713	0	962.0223
4/26/2013 8:00	14133	333	2.343449	219.3681	31.92897	5.737196	-188.6738	55.50217	216.9559	0	962.1046
4/26/2013 9:00	14134	333	2.0915	225.478	35.65809	6.441966	-186.85	52.54124	217.4987	0	962.0641
4/26/2013 10:00	14135	333	2.181747	233.6197	34.58104	7.874531	-185.3466	48.53178	218.5343	0	962.4622
4/26/2013 11:00	14136	333	2.040233	241.2288	37.19947	9.805715	-216.9553	41.58733	219.2761	0	962.9968
4/26/2013 12:00	14137	333	2.135544	236.6982	35.23138	11.95427	-189.4522	37.93501	221.4019	0	963.3484
4/26/2013 13:00	14138	333	2.676069	256.9786	34.41805	12.88802	-189.933	34.77108	221.226	0.254	963.7621
4/26/2013 14:00	14139	333	2.184276	239.81	39.19516	14.38318	-193.947	30.80588	223.4793	0	964.2026
4/26/2013 15:00	14140	333	2.138014	236.2896	34.32411	15.30069	-191.5279	29.43073	223.754	0	964.4386
4/26/2013 16:00	14141	333	2.199291	265.3971	36.77943	15.59919	-197.3277	27.62517	224.8784	0	964.7591
4/26/2013 17:00	14142	333	2.130669	248.4682	37.0109	15.94022	-193.9241	27.79458	225.3902	0	965.1476
4/26/2013 18:00	14143	333	1.669471	241.1435	32.30922	15.31161	-195.954	29.17584	226.2275	0	965.4313
4/26/2013 19:00	14144	333	1.179197	217.9419	28.91531	13.3233	-195.0688	35.36937	225.892	0	965.5616
4/26/2013 20:00	14145	333	0.9372184	195.3133	20.49728	10.95718	-195.0154	39.45821	225.3251	0	965.8857
4/26/2013 21:00	14146	333	0.7826323	173.5232	12.45155	8.073975	-195.2444	52.66792	225.253	0	966.1218
4/26/2013 22:00	14147	333	0.9736339	177.8599	13.96896	6.443607	-195.4046	52.18715	225.0418	0	966.4623
4/26/2013 23:00	14148	333	1.02664	182.3146	17.82738	6.970358	-195.4657	48.33337	225.0313	0	966.4766
4/27/2013 0:00	14149	333	0.9539022	164.5417	22.23755	6.64957	-194.7178	57.66182	225.1733	0	966.1558
4/27/2013 1:00	14150	333	1.049439	155.7242	13.55387	4.973264	-195.5649	60.75248	225.087	0	965.7271
4/27/2013 2:00	14151	333	1.238448	172.2736	21.21625	6.195461	-195.3741	52.97775	225.174	0	965.26
4/27/2013 3:00	14152	333	1.061934	155.3364	17.15999	5.710646	-195.4885	62.69845	225.4873	0	964.5718
4/27/2013 4:00	14153	333	1.246635	161.5576	18.49373	5.011451	-195.0917	62.52903	225.5898	0	964.1239
4/27/2013 5:00	14154	333	1.17039	173.3185	22.43726	5.675789	-196.7553	63.44479	225.8245	0	964.0963
4/27/2013 6:00	14155	333	1.017846	161.8203	16.72494	5.63519	-197.0148	66.86818	226.3788	0	963.9703
4/27/2013 7:00	14156	333	1.09665	161.6962	19.02771	6.673141	-196.7095	64.09497	226.8082	0	963.5798
4/27/2013 8:00	14157	333	1.39803	150.2652	17.54996	7.96456	-198.541	56.51255	226.5595	0	963.0645
4/27/2013 9:00	14158	333	1.052275	139.1618	22.31157	10.00275	-195.9006	49.55437	227.8059	0	962.4826
4/27/2013 10:00	14159	333	1.272599	160.9413	42.49437	13.53143	-204.0585	37.87701	227.968	0	961.6797
4/27/2013 11:00	14160	333	1.659135	187.6125	40.35591	15.78139	-211.9339	34.47957	229.3346	0	961.0555
4/27/2013 12:00	14161	333	2.136659	166.2114	32.58652	17.4861	-199.4339	29.29642	230.9578	0	960.214
4/27/2013 13:00	14162	333	2.141121	189.6938	34.68796	19.70065	-201.9675	26.39043	232.6503	0	959.7126
4/27/2013 14:00	14163	333	2.016834	220.0369	33.77743	18.61665	-205.89	31.65753	232.7803	0	959.6407
4/27/2013 15:00	14164	333	1.525957	186.795	27.99365	15.79219	-203.1122	35.10228	233.1597	0	959.6979
4/27/2013 16:00	14165	333	0.8330394	151.5564	30.54808	14.06782	-202.9061	51.14777	233.4278	0	959.6612
4/27/2013 17:00	14166	333	0.9417618	126.6748	19.51996	12.49318	-202.7611	45.97683	233.3575	0	958.8611
4/27/2013 18:00	14167	333	0.822428	108.9035	21.85739	13.07934	-203.3029	43.86602	233.608	0	958.3353

4/27/2013 19:00	14168	333	0.7080507	75.51506	27.1415	12.37463	-204.1042	48.96676	233.6419	0	957.8313
4/27/2013 20:00	14169	333	1.116126	93.75728	21.08863	10.80964	-204.0661	55.31444	233.8099	0	957.0946
4/27/2013 21:00	14170	333	1.095839	124.074	13.13663	8.627049	-203.2572	59.30864	233.8426	0	956.467
4/27/2013 22:00	14171	333	0.8106098	110.4751	13.40004	8.450986	-203.799	60.63191	233.6143	0	956.241
4/27/2013 23:00	14172	333	0.6523979	138.974	11.45155	7.591335	-203.1885	59.22165	233.4469	0	955.5759
4/28/2013 0:00	14173	333	0.865813	150.0708	12.47239	6.326309	-203.1885	69.54064	233.4555	0	954.9104
4/28/2013 1:00	14174	333	1.275054	166.3584	9.341011	3.952332	-202.9214	72.32911	233.3406	0	954.4253
4/28/2013 2:00	14175	333	1.479208	186.5043	19.56884	6.787411	-202.8832	69.65359	233.1449	0	954.0364
4/28/2013 3:00	14176	333	1.168965	174.8098	17.39782	6.476535	-203.2419	77.14291	233.3429	0	953.5652
4/28/2013 4:00	14177	333	1.487066	180.5607	18.73444	5.673203	-203.1122	75.58919	233.0713	0	953.3711
4/28/2013 5:00	14178	333	1.158535	168.9097	14.39416	4.879175	-202.9366	81.04095	233.0913	0	953.1876
4/28/2013 6:00	14179	333	1.36917	166.6161	14.76388	4.82886	-203.715	70.50218	233.2086	0	952.8228
4/28/2013 7:00	14180	333	1.507829	158.4679	17.58666	8.63734	-204.2187	57.87244	233.9214	0	952.377
4/28/2013 8:00	14181	333	1.624827	159.1507	21.54744	11.53455	-201.563	53.86755	234.599	0	952.0049
4/28/2013 9:00	14182	333	2.022259	167.1537	26.74697	14.12404	-201.9751	44.30101	235.3625	0	951.6006
4/28/2013 10:00	14183	333	2.202851	165.755	26.39565	14.92966	-203.1809	42.59771	236.9328	0	950.8841
4/28/2013 11:00	14184	333	2.500032	162.8121	21.66415	15.57614	-205.0734	37.19783	237.1754	0	950.3188
4/28/2013 12:00	14185	333	2.100071	156.4753	29.55818	18.30939	-206.6912	31.40417	238.3405	0	950.0121
4/28/2013 13:00	14186	333	2.578596	161.4493	26.95942	19.71202	-207.7367	30.29306	238.0368	0	949.3171
4/28/2013 14:00	14187	333	2.810482	206.0402	36.23232	20.08226	-208.3548	32.76864	242.2391	0	949.5887
4/28/2013 15:00	14188	333	2.663169	232.8676	35.59911	20.40157	-211.0945	31.68958	240.7902	0	949.5886
4/28/2013 16:00	14189	333	3.770004	253.2997	32.04896	19.12622	-225.2734	35.53116	243.9518	0	950.0621
4/28/2013 17:00	14190	333	4.709897	283.8688	21.83634	16.55849	-215.6961	29.52535	244.0645	0	951.1805
4/28/2013 18:00	14191	333	4.823452	290.4359	19.23298	14.40853	-213.9486	30.51589	244.0463	0	952.4432
4/28/2013 19:00	14192	333	4.174222	299.8774	12.70456	11.84641	-213.8723	36.58122	243.675	0	953.4143
4/28/2013 20:00	14193	333	4.676137	299.5834	11.62982	9.543893	-213.5136	43.85077	243.5292	0	954.4862
4/28/2013 21:00	14194	333	3.483593	298.9694	11.6966	7.399152	-213.4678	53.17311	243.2936	0	955.7516
4/28/2013 22:00	14195	333	1.638897	294.5509	11.60769	5.324235	-212.6436	55.57391	242.9473	0	956.3062
4/28/2013 23:00	14196	333	3.154137	297.7113	11.16966	4.633981	-212.4529	58.30437	242.7533	0	956.9895
4/29/2013 0:00	14197	333	2.650857	288.9896	15.46264	3.993453	-213.1625	63.30285	242.7565	0	957.6376
4/29/2013 1:00	14198	333	2.406544	290.3889	13.50295	2.756661	-212.2392	65.9631	242.6115	0	957.9655
4/29/2013 2:00	14199	333	3.220863	297.8714	11.60339	1.980392	-212.0255	66.2821	242.4752	0	958.28
4/29/2013 3:00	14200	333	2.408759	287.5428	15.25597	1.509254	-212.0942	66.14015	242.3569	0	958.6332
4/29/2013 4:00	14201	333	2.056394	274.1388	17.02456	0.8424876	-212.5978	66.05163	242.3028	0	959.1909
4/29/2013 5:00	14202	333	1.943213	268.448	18.90326	0.4746466	-212.0636	66.80102	242.1737	0	959.564
4/29/2013 6:00	14203	333	1.523701	260.5934	19.42991	0.4985914	-212.5292	61.26377	242.2063	0	959.8605
4/29/2013 7:00	14204	333	1.409932	255.3037	27.9739	2.631343	-213.1168	51.19051	242.9534	0	960.2711
4/29/2013 8:00	14205	333	1.809554	254.328	31.57926	4.762409	-215.9632	41.07756	243.4582	0	960.3091
4/29/2013 9:00	14206	333	1.776203	257.6543	40.97708	6.439075	-212.346	34.22926	243.7505	0	960.1203
4/29/2013 10:00	14207	333	1.412769	231.1156	45.50257	8.277297	-214.3607	31.21797	244.8909	0	959.9436
4/29/2013 11:00	14208	333	1.865622	236.6028	45.86926	9.72046	-214.9406	27.75185	246.3196	0	959.8981
4/29/2013 12:00	14209	333	1.853681	245.6249	39.71574	10.70251	-214.2691	26.70637	245.2615	0	959.533
4/29/2013 13:00	14210	333	1.645686	236.778	44.42245	11.69502	-215.6427	23.28603	247.2086	0	959.1547
4/29/2013 14:00	14211	333	1.500233	213.0399	61.19159	12.4935	-227.8832	23.75612	249.5623	0	958.582
4/29/2013 15:00	14212	333	1.53216	117.973	38.31725	12.39235	-216.3524	25.14959	248.0819	0	957.5264
4/29/2013 16:00	14213	333	1.517776	140.9899	25.43485	13.19694	-214.8033	27.819	248.8704	0	956.7223

4/29/2013 17:00	14214	333	1.218213	136.2302	23.5175	12.77098	-219.9009	23.4936	248.8002	0	956.1749
4/29/2013 18:00	14215	333	1.289467	146.0496	18.47462	10.50295	-218.8936	31.79794	249.616	0	955.8137
4/29/2013 19:00	14216	333	1.533996	154.3932	18.64294	8.714144	-218.5579	34.63678	249.1175	0	955.8872
4/29/2013 20:00	14217	333	0.8717073	132.9364	36.98929	7.402332	-218.5655	35.72041	248.8567	0	956.069
4/29/2013 21:00	14218	333	0.6471707	352.8997	34.07716	6.503992	-218.6876	38.3532	248.4695	0	956.5405
4/29/2013 22:00	14219	333	0.6722677	37.96579	32.85737	5.647958	-219.0844	36.04092	248.4543	0	956.4092
4/29/2013 23:00	14220	333	0.9451578	102.9502	16.71173	6.068374	-218.3442	36.39196	248.6093	0	955.843
4/30/2013 0:00	14221	333	0.4792913	78.40659	18.31859	5.220588	-218.0084	39.4231	248.3055	0	955.6153
4/30/2013 1:00	14222	333	0.6685708	102.5904	15.99257	4.945792	-218.39	43.17921	248.321	0	955.3536
4/30/2013 2:00	14223	333	0.7203739	129.2969	15.20506	4.589588	-218.657	48.71951	248.5528	0	955.2016
4/30/2013 3:00	14224	333	0.5852676	121.0515	22.30085	4.446609	-218.5579	50.01529	248.393	0	955.3129
4/30/2013 4:00	14225	333	0.7763755	85.91648	23.27902	4.432068	-218.6342	48.49057	248.3275	0	954.622
4/30/2013 5:00	14226	333	0.9087053	56.27884	56.24736	3.988971	-218.8097	60.84863	248.4619	0	954.0462
4/30/2013 6:00	14227	333	1.508795	53.3737	36.48438	4.156503	-218.4129	56.72623	248.3232	0	953.3491
4/30/2013 7:00	14228	333	1.284213	36.45961	35.27475	4.00196	-219.2905	59.63984	248.7197	0	953.468
4/30/2013 8:00	14229	333	2.170077	35.9908	33.93347	4.261174	-218.6342	59.28575	248.9261	0	953.1826
4/30/2013 9:00	14230	333	2.988176	14.76702	29.62397	3.826184	-218.4357	63.18075	248.875	0	950.9325
4/30/2013 10:00	14231	333	2.432783	37.6587	34.16201	2.012489	-218.8478	91.12796	248.5629	0	950.6534
4/30/2013 11:00	14232	333	3.304363	17.01314	29.73451	0.8455717	-219.321	95.87308	248.9782	0	948.0573
4/30/2013 12:00	14233	333	3.569394	40.1499	36.44644	0.8064364	-219.0844	97.37797	248.8479	0	944.9932
4/30/2013 13:00	14234	333	4.13581	60.35814	28.79665	1.02735	-219.1607	97.2635	249.2657	0.254	943.5906
4/30/2013 14:00	14235	333	3.187687	48.8229	34.50431	1.212333	-219.2828	97.66643	249.1727	1.27	942.1486
4/30/2013 15:00	14236	333	1.65569	50.22083	46.89677	1.777883	-220.2444	97.45428	249.9065	1.016	941.8912
4/30/2013 16:00	14237	333	1.461438	308.3924	58.37041	2.476268	-220.2215	97.00861	250.4876	0.254	942.5999
4/30/2013 17:00	14238	333	3.214601	262.5524	24.77335	1.656041	-219.6491	95.05653	249.8693	0.254	946.1129
4/30/2013 18:00	14239	333	3.240215	274.1965	23.36605	0.2148898	-219.1912	94.90391	249.4106	0.254	949.3664
4/30/2013 19:00	14240	333	4.03761	289.4038	17.97229	-0.8639579	-219.4889	92.80073	249.1964	0	951.3666
4/30/2013 20:00	14241	333	3.981078	295.4693	16.35403	-2.030782	-218.6418	92.3978	249.1377	0.254	953.7072
4/30/2013 21:00	14242	333	4.041757	297.7586	14.37256	-2.948333	-218.9547	89.93137	248.935	0	955.4628
4/30/2013 22:00	14243	333	3.016444	290.1055	17.96843	-3.412206	-218.5579	94.34072	248.8866	0	956.9287
4/30/2013 23:00	14244	333	3.076775	294.2225	16.63736	-3.922634	-218.8402	96.09286	248.6652	0	957.9216
5/1/2013 0:00	14245	333	4.04008	292.6398	16.44374	-4.068962	-218.5197	92.82821	248.5977	0	959.1004
5/1/2013 1:00	14246	333	3.765285	294.1933	16.94544	-4.427428	-218.7944	91.14017	248.4489	0.254	960.4153
5/1/2013 2:00	14247	333	3.906537	294.7812	15.96101	-4.902779	-218.1076	86.9155	248.4722	0.254	961.4405
5/1/2013 3:00	14248	333	3.667809	297.1679	14.20256	-5.618657	-218.3594	84.66733	248.3018	0.254	962.6935
5/1/2013 4:00	14249	333	3.216753	293.2113	15.9601	-6.084684	-218.2297	87.43443	248.2066	0.254	964.303
5/1/2013 5:00	14250	333	4.750643	300.5274	12.35671	-7.082981	-218.5044	83.44633	248.3652	0	966.0208
5/1/2013 6:00	14251	333	4.45038	297.0948	13.76345	-8.066187	-218.2144	78.37917	248.3029	0.254	968.0142
5/1/2013 7:00	14252	333	4.195695	295.3406	15.71895	-7.919145	-218.7868	76.98875	248.258	0	969.4678
5/1/2013 8:00	14253	333	5.067214	301.3316	13.39613	-7.558343	-216.7111	70.60597	248.8048	0	970.8849
5/1/2013 9:00	14254	333	4.304746	299.2923	17.71911	-6.685066	-215.8716	64.71768	248.4883	0.254	972.2505
5/1/2013 10:00	14255	333	4.509758	295.2828	18.11434	-6.030515	-217.0316	65.79827	249.1073	0	973.5654
5/1/2013 11:00	14256	333	4.580815	298.9067	16.97247	-5.345812	-221.534	65.88375	249.3801	0	975.095
5/1/2013 12:00	14257	333	4.368466	301.8411	16.13596	-4.716712	-217.3979	63.7653	249.1451	0	976.1642
5/1/2013 13:00	14258	333	4.133348	304.8467	16.62867	-4.416531	-221.4119	65.07635	249.8365	0	977.3506
5/1/2013 14:00	14259	333	3.70445	305.4513	15.03226	-3.868921	-214.7727	70.18015	249.5636	0	978.5544

5/1/2013 15:00	14260	333	4.128216	305.109	13.98413	-3.224455	-227.6925	61.55835	249.5608	0	979.6935
5/1/2013 16:00	14261	333	4.307777	305.7219	13.48164	-2.966402	-219.9696	62.80682	249.9353	0	980.6102
5/1/2013 17:00	14262	333	3.668883	311.0504	14.81208	-3.005748	-219.817	65.18472	249.7194	0	981.5381
5/1/2013 18:00	14263	333	2.256882	322.7943	21.44408	-3.094234	-219.3896	69.63374	249.574	0	982.4777
5/1/2013 19:00	14264	333	1.716206	334.5487	23.99469	-3.293501	-219.5346	72.04828	249.5215	0	983.4316
5/1/2013 20:00	14265	333	1.420546	347.8636	23.79567	-3.495118	-219.0233	74.94357	249.347	0	984.3237
5/1/2013 21:00	14266	333	1.538563	352.4695	25.22747	-3.873387	-219.1684	76.83461	249.2925	0	984.8638
5/1/2013 22:00	14267	333	1.501672	359.0529	27.3069	-4.080425	-219.321	74.98021	249.2044	0	985.2322
5/1/2013 23:00	14268	333	1.392967	7.882311	26.83549	-4.310384	-219.0997	76.02569	249.2557	0	985.7813
5/2/2013 0:00	14269	333	1.151488	6.782283	27.65442	-4.71642	-218.9776	82.73663	249.2522	0	986.0615
5/2/2013 1:00	14270	333	1.376954	5.232429	25.74874	-4.905633	-219.0844	84.23693	249.1477	0	986.3142
5/2/2013 2:00	14271	333	1.343172	4.794022	26.03809	-5.234323	-219.3057	85.86086	248.9938	0	986.4947
5/2/2013 3:00	14272	333	1.159345	4.13851	26.40409	-5.416441	-219.2294	85.84865	249.1629	0	986.9565
5/2/2013 4:00	14273	333	1.207184	22.4752	30.36917	-5.608671	-219.4126	80.07026	249.1026	0	987.3528
5/2/2013 5:00	14274	333	1.15087	6.195932	25.78843	-5.891024	-218.9013	81.96281	249.0715	0	987.8741
5/2/2013 6:00	14275	333	1.210655	358.4768	25.84224	-5.940607	-219.1607	81.02264	249.065	0	988.3956
5/2/2013 7:00	14276	333	1.525324	0.3060637	27.35	-5.527749	-219.5346	76.56293	249.3578	0	989.0009
5/2/2013 8:00	14277	333	1.79184	18.37613	33.3158	-4.797427	-220.168	70.16793	249.733	0	989.4698
5/2/2013 9:00	14278	333	1.600094	30.97636	45.49026	-3.277493	-223.6097	58.22653	250.5876	0	989.4448
5/2/2013 10:00	14279	333	1.77503	54.39557	47.82976	-1.400821	-219.6491	40.4289	251.2955	0	989.08
5/2/2013 11:00	14280	333	1.973142	26.05624	44.62381	-0.03261239	-240.9709	35.96309	250.5151	0	988.5714
5/2/2013 12:00	14281	333	2.010274	63.1619	41.39156	0.6656106	-221.0075	39.55742	253.217	0	988.3424
5/2/2013 13:00	14282	333	1.97317	91.06699	39.80731	1.719501	-220.1223	34.75735	251.9268	0	987.9106
5/2/2013 14:00	14283	333	1.625939	59.33186	50.24556	2.649976	-227.8909	34.18348	252.1601	0	987.3993
5/2/2013 15:00	14284	333	1.459779	44.19414	56.36371	3.556233	-216.0395	36.02414	254.2423	0	986.873
5/2/2013 16:00	14285	333	1.391504	45.97665	61.93281	4.24452	-233.5457	31.83916	252.1873	0	986.3401
5/2/2013 17:00	14286	333	1.242994	55.62649	59.92915	4.567829	-223.6403	33.09373	253.366	0	986.0451
5/2/2013 18:00	14287	333	1.165637	38.88491	45.96534	4.338605	-223.0298	32.82359	253.2479	0	985.7244
5/2/2013 19:00	14288	333	1.215141	39.14919	28.73676	3.529352	-222.7245	37.2024	252.911	0	985.7637
5/2/2013 20:00	14289	333	0.9579118	14.99722	31.36123	1.360934	-221.0609	43.75919	252.0188	0	986.0101
5/2/2013 21:00	14290	333	0.8915001	9.381419	22.49925	-0.642561	-220.6946	45.90815	251.3063	0	986.3762
5/2/2013 22:00	14291	333	0.96864	19.7253	23.62012	-1.44039	-220.5572	48.39442	251.263	0	986.1912
5/2/2013 23:00	14292	333	1.058016	66.64809	25.77116	-2.220632	-221.2975	48.9286	251.0814	0	985.7954
5/3/2013 0:00	14293	333	1.25649	87.38179	20.50655	-2.934517	-220.8549	48.6432	251.0337	0	985.6267
5/3/2013 1:00	14294	333	0.7837179	96.40163	18.7742	-4.192904	-220.6107	57.62824	251.0925	0	985.3466
5/3/2013 2:00	14295	333	0.7031884	80.97571	17.57609	-5.157458	-220.5343	58.07238	250.8128	0	985.0228
5/3/2013 3:00	14296	333	0.4462369	40.44078	21.96338	-5.99989	-220.6259	69.72379	250.6669	0	984.9026
5/3/2013 4:00	14297	333	0.4886769	63.29357	23.86487	-7.145673	-220.5191	74.35902	250.5725	0	984.9038
5/3/2013 5:00	14298	333	0.1378486	41.40813	10.53256	-8.054416	-219.9009	79.15145	250.2712	0	984.9103
5/3/2013 6:00	14299	333	0.4728976	63.68969	25.66002	-6.946354	-220.9922	58.82483	250.3997	0	984.9347
5/3/2013 7:00	14300	333	1.040876	84.0184	23.93936	-2.948316	-222.6558	45.06565	251.9428	0	985.0239
5/3/2013 8:00	14301	333	1.340844	93.30456	39.5497	-0.8110087	-231.4699	39.27964	252.6677	0	984.8315
5/3/2013 9:00	14302	333	1.777293	41.61765	37.32012	0.1878208	-220.3588	31.36296	252.9893	0	984.283
5/3/2013 10:00	14303	333	2.131199	35.57993	32.4558	1.575084	-229.3561	25.7143	253.2599	0	983.7016
5/3/2013 11:00	14304	333	2.097424	39.14428	33.97019	2.977461	-219.1836	25.52199	254.5095	0	983.2482
5/3/2013 12:00	14305	333	2.027519	50.79064	37.78603	3.570723	-228.1504	32.99148	253.9332	0	982.4194

5/3/2013 13:00	14306	333	2.04511	73.04234	43.80627	4.252631	-221.9156	36.25308	254.5058	0	981.7971
5/3/2013 14:00	14307	333	1.897736	42.78585	40.99646	4.876236	-234.0722	38.35931	254.7984	0	981.2764
5/3/2013 15:00	14308	333	1.981609	36.06299	39.59782	5.389356	-220.9693	37.59007	254.2189	0	980.9029
5/3/2013 16:00	14309	333	1.705441	45.96621	34.69216	5.839938	-223.0679	37.1902	256.4575	0	980.2704
5/3/2013 17:00	14310	333	1.537059	42.41005	32.13375	6.276958	-228.9516	37.96706	258.8839	0	979.8546
5/3/2013 18:00	14311	333	1.404404	48.17066	37.65927	6.425473	-229.028	38.60961	258.3436	0	979.7256
5/3/2013 19:00	14312	333	1.287041	73.09531	31.95713	6.284135	-228.8295	41.18745	259.4147	0	979.5388
5/3/2013 20:00	14313	333	1.183581	78.48316	19.90528	4.701838	-228.8829	46.75674	259.5868	0	979.4053
5/3/2013 21:00	14314	333	1.019523	82.20772	15.78608	2.997978	-229.4629	52.80375	259.274	0	979.4203
5/3/2013 22:00	14315	333	1.161343	89.0318	17.92138	1.796165	-229.5698	55.52048	259.1738	0	979.3876
5/3/2013 23:00	14316	333	0.7197703	49.29417	21.01743	1.153454	-229.089	60.45333	259.1047	0	979.2122
5/4/2013 0:00	14317	333	0.8245785	50.21041	19.87799	0.4120798	-228.5548	71.16	259.0188	0	979.1242
5/4/2013 1:00	14318	333	0.7150994	26.48051	30.01621	-0.7015167	-228.7227	81.23479	258.9563	0	978.9631
5/4/2013 2:00	14319	333	0.4887317	5.62713	23.04742	-1.048615	-228.4556	76.44999	258.7438	0	978.5861
5/4/2013 3:00	14320	333	0.6196361	348.7176	28.33867	-1.461982	-229.1348	77.33064	258.7098	0	978.5526
5/4/2013 4:00	14321	333	0.5297912	7.674609	25.71497	-1.646678	-228.7151	83.13192	258.5238	0	978.6238
5/4/2013 5:00	14322	333	0.7389624	338.4015	19.38952	-2.007395	-228.4632	82.08492	258.3836	0	978.909
5/4/2013 6:00	14323	333	0.3449357	332.3053	22.69497	-1.446118	-228.5319	78.48601	258.3822	0	979.1929
5/4/2013 7:00	14324	333	0.660073	356.4109	24.24704	-0.03065063	-229.2111	66.4454	258.6168	0	979.3962
5/4/2013 8:00	14325	333	1.251571	17.68099	37.02159	2.221572	-230.0276	57.59924	259.5281	0	979.5148
5/4/2013 9:00	14326	333	1.913732	49.08199	35.07751	3.700167	-232.6528	53.29979	260.2877	0	979.6412
5/4/2013 10:00	14327	333	1.830731	40.86575	37.72005	5.147343	-226.708	48.84313	261.1766	0	979.4498
5/4/2013 11:00	14328	333	2.008734	64.32521	38.51088	6.095199	-248.7929	45.97683	262.4972	0	979.363
5/4/2013 12:00	14329	333	1.688876	45.51413	40.56438	7.65034	-230.6	42.68928	263.8742	0	979.2781
5/4/2013 13:00	14330	333	1.574364	32.76538	50.76408	8.642203	-240.6351	41.33245	264.4323	0	979.1476
5/4/2013 14:00	14331	333	1.436151	12.60888	54.5513	9.952435	-230.6381	38.02048	262.7466	0	978.8095
5/4/2013 15:00	14332	333	1.770471	40.09446	42.65562	10.25557	-229.3026	38.18074	263.5016	0	978.3422
5/4/2013 16:00	14333	333	1.667258	39.54657	35.55007	10.29829	-234.4995	34.98934	264.2848	0	978.0699
5/4/2013 17:00	14334	333	1.568516	32.06076	34.5393	10.4364	-233.4388	34.3941	263.2342	0	977.8314
5/4/2013 18:00	14335	333	1.19529	70.21058	39.41964	10.38028	-232.9352	39.36663	263.1448	0	977.8414
5/4/2013 19:00	14336	333	1.012523	101.8087	25.64134	9.417897	-233.0114	41.34465	262.9035	0	977.7881
5/4/2013 20:00	14337	333	0.8804643	86.63345	15.72605	7.884115	-232.0576	48.42036	262.6675	0	977.8287
5/4/2013 21:00	14338	333	0.9744418	80.03844	14.69441	5.561836	-231.5615	51.02567	261.9111	0	977.8642
5/4/2013 22:00	14339	333	0.8344214	104.0179	23.81808	4.158391	-231.3402	61.27598	261.9209	0	977.8557
5/4/2013 23:00	14340	333	0.9083236	138.1054	14.54508	1.369666	-231.3173	78.48448	261.5637	0	978.1132
5/5/2013 0:00	14341	333	0.6910255	139.6687	14.63013	0.3040718	-230.9434	79.03851	261.1046	0	978.2711
5/5/2013 1:00	14342	333	0.6116908	129.5938	15.59246	-0.8597712	-230.8594	87.88315	261.1568	0	978.0292
5/5/2013 2:00	14343	333	0.3022984	143.0253	7.931313	-1.291494	-230.9205	92.729	260.8087	0	977.4512
5/5/2013 3:00	14344	333	0.1022248	143.8312	3.184725	-1.758065	-230.7602	94.65818	260.9089	0	977.1996
5/5/2013 4:00	14345	333	0.2396784	321.0049	11.2936	-2.674412	-230.951	95.69604	260.847	0	977.0062
5/5/2013 5:00	14346	333	0.3671142	325.7997	4.452982	-3.131455	-230.2642	95.51135	260.7395	0	976.7791
5/5/2013 6:00	14347	333	0.4174796	317.415	53.72704	-2.509855	-231.2181	87.47106	260.9547	0	976.638
5/5/2013 7:00	14348	333	0.07431683	346.204	13.2546	2.360564	-233.0038	60.34955	262.1135	0	976.6818
5/5/2013 8:00	14349	333	0.9837816	323.0259	14.19187	4.88177	-233.187	58.37763	262.6885	0	976.5084
5/5/2013 9:00	14350	333	1.049076	319.7443	20.61712	6.700943	-229.1272	48.85382	263.1791	0	976.1968
5/5/2013 10:00	14351	333	1.392437	319.7854	18.81108	8.301076	-227.9367	44.10412	263.7057	0	975.6806

5/5/2013 11:00	14352	333	1.283758	312.8903	19.05919	9.926993	-229.4629	36.5858	263.4162	0	974.9873
5/5/2013 12:00	14353	333	1.119331	328.6164	50.00099	11.58508	-231.6302	24.14532	264.2669	0	974.3611
5/5/2013 13:00	14354	333	1.072741	317.0756	89.60318	13.03337	-245.8243	26.12639	263.7898	0	973.5925
5/5/2013 14:00	14355	333	1.15775	130.6196	62.6493	14.20797	-237.3307	25.85625	263.9837	0	972.6956
5/5/2013 15:00	14356	333	1.435679	132.2461	31.95977	15.24559	-232.1949	23.66302	263.8915	0	971.8368
5/5/2013 16:00	14357	333	1.141557	221.3475	63.84439	16.60015	-226.3646	24.92981	263.7855	0	971.1047
5/5/2013 17:00	14358	333	1.547067	236.8031	42.71627	16.81431	-233.973	23.25704	263.9813	0	970.6528
5/5/2013 18:00	14359	333	1.649696	244.7314	32.60967	16.22568	-234.0417	23.97437	263.9729	0	970.241
5/5/2013 19:00	14360	333	1.192047	238.1126	28.19827	15.74587	-233.7899	29.49788	264.0055	0	969.8198
5/5/2013 20:00	14361	333	0.806205	202.4973	16.27123	12.87247	-233.2633	36.99636	263.3333	0	969.4737
5/5/2013 21:00	14362	333	0.8697861	188.9422	11.99732	9.264532	-232.9504	45.51285	262.8251	0	969.2215
5/5/2013 22:00	14363	333	1.113162	193.3871	13.32069	7.312171	-232.7596	44.74362	262.5726	0	968.9493
5/5/2013 23:00	14364	333	1.354958	192.5012	16.39825	6.977968	-231.821	49.58337	262.1807	0	969.02
5/6/2013 0:00	14365	333	1.668816	195.9902	20.42631	6.845436	-231.9126	49.64899	262.0115	0	968.7537
5/6/2013 1:00	14366	333	1.157335	184.8435	19.07749	6.137035	-232.2712	54.78483	262.0703	0	968.5034
5/6/2013 2:00	14367	333	1.108936	181.3946	14.35648	4.948987	-232.1491	57.22073	262.0938	0	968.1907
5/6/2013 3:00	14368	333	1.438541	195.3105	17.40887	4.780492	-231.5692	56.22409	261.86	0	967.7787
5/6/2013 4:00	14369	333	1.525119	204.2373	21.53377	5.208988	-231.5615	58.02354	261.8384	0	967.5756
5/6/2013 5:00	14370	333	1.453816	204.6983	22.78679	5.594686	-231.8286	58.06475	261.9012	0	967.5933
5/6/2013 6:00	14371	333	1.719476	201.3302	23.58831	6.350998	-232.5994	53.75919	261.9872	0	967.5074
5/6/2013 7:00	14372	333	1.817684	216.8282	33.71318	9.393807	-233.1259	46.7079	262.6375	0	967.3628
5/6/2013 8:00	14373	333	2.287978	235.6729	36.25821	11.39398	-233.4236	42.9518	263.1458	0	967.0791
5/6/2013 9:00	14374	333	2.221135	231.6794	35.243	13.43858	-229.1729	37.67096	263.8097	0	966.7389
5/6/2013 10:00	14375	333	2.368726	230.3916	36.51894	15.98527	-230.5466	32.45118	263.1687	0	966.3063
5/6/2013 11:00	14376	333	2.377759	222.9409	34.608	18.11461	-248.0527	30.25032	263.8579	0	965.8217
5/6/2013 12:00	14377	333	2.500795	241.8477	35.49317	19.81807	-231.6378	28.62181	264.9918	0	965.5472
5/6/2013 13:00	14378	333	2.893889	239.2206	33.55648	21.13793	-232.2483	25.06412	264.1758	0	965.1324
5/6/2013 14:00	14379	333	2.679455	244.3091	32.17519	22.20944	-229.9895	24.03085	264.0624	0	964.9412
5/6/2013 15:00	14380	333	2.762156	260.6364	30.52388	22.80609	-229.875	24.13768	264.6597	0	964.8686
5/6/2013 16:00	14381	333	2.913409	252.5519	29.06205	23.03448	-237.1171	23.3013	263.0175	0	964.6984
5/6/2013 17:00	14382	333	2.46058	251.8322	31.23983	23.34104	-234.6827	23.17156	264.9264	0	964.5586
5/6/2013 18:00	14383	333	2.16066	246.4818	29.42437	22.88767	-235.049	24.22163	264.6333	0	964.4724
5/6/2013 19:00	14384	333	1.284851	222.3812	29.50378	21.62962	-233.5304	28.68439	264.5035	0	964.5317
5/6/2013 20:00	14385	333	1.253839	206.4887	19.04685	18.43925	-232.8665	32.36724	263.7711	0	964.569
5/6/2013 21:00	14386	333	0.9320787	187.6066	13.61025	16.11183	-233.2175	38.6035	263.5785	0	964.8079
5/6/2013 22:00	14387	333	1.35848	190.7015	19.84765	14.4294	-233.248	43.63251	263.079	0	965.0941
5/6/2013 23:00	14388	333	1.481309	200.3611	17.51776	13.35563	-232.6681	48.73172	263.0192	0	965.3793
5/7/2013 0:00	14389	333	1.424752	204.8457	15.4195	12.23949	-232.172	51.95668	262.8585	0	965.561
5/7/2013 1:00	14390	333	1.293437	196.1892	14.82632	10.43772	-232.3094	60.6258	263.0905	0	965.6452
5/7/2013 2:00	14391	333	1.024718	209.6267	19.4215	9.198764	-232.5154	71.01501	262.652	0	965.8179
5/7/2013 3:00	14392	333	1.223626	194.2952	15.71927	6.007644	-232.7215	66.91549	262.6176	0	965.9459
5/7/2013 4:00	14393	333	1.30422	198.2057	16.74866	6.972734	-233.4312	68.31049	262.6702	0	966.14
5/7/2013 5:00	14394	333	1.227946	199.658	13.91219	4.942327	-232.1873	76.80103	262.5821	0	966.1465
5/7/2013 6:00	14395	333	0.913021	168.0618	12.03295	4.054486	-231.9431	73.16091	262.0962	0	966.2472
5/7/2013 7:00	14396	333	1.198124	198.7813	28.46862	9.940755	-232.8436	43.91945	262.6295	0	966.2435
5/7/2013 8:00	14397	333	1.461354	239.812	29.23966	16.00117	-233.9043	36.86205	263.5518	0	966.1685

5/7/2013 9:00	14398	333	1.903076	230.9634	35.53553	18.61458	-226.7538	33.27688	264.0197	0	965.9136
5/7/2013 10:00	14399	333	2.042274	227.8579	38.74498	20.53637	-227.8298	31.27139	263.9562	0	965.5428
5/7/2013 11:00	14400	333	2.510029	226.3761	36.93407	22.00406	-244.5499	27.90447	264.4852	0	965.1454
5/7/2013 12:00	14401	333	2.573767	227.1971	36.19892	23.06227	-231.9126	24.90081	264.4181	0	964.7561
5/7/2013 13:00	14402	333	2.688076	219.4019	37.05337	23.97324	-233.5533	23.33488	264.617	0	964.1092
5/7/2013 14:00	14403	333	2.624608	223.701	40.3867	24.49214	-229.4477	22.5168	264.7549	0	963.5084
5/7/2013 15:00	14404	333	2.263582	228.3868	41.36861	24.58115	-229.5927	26.39654	264.492	0	962.9578
5/7/2013 16:00	14405	333	2.888247	231.5458	35.4571	24.02096	-235.6748	28.06778	264.7684	0	962.6774
5/7/2013 17:00	14406	333	2.640949	214.4412	32.82088	23.79378	-234.9269	28.45545	264.8835	0	962.438
5/7/2013 18:00	14407	333	2.265664	241.7271	36.619	22.92466	-234.4156	25.07785	264.5168	0	962.3942
5/7/2013 19:00	14408	333	2.109082	234.7726	32.51583	21.50686	-234.4461	30.88677	264.3504	0	962.5699
5/7/2013 20:00	14409	333	1.582586	205.3103	25.43875	19.03242	-232.401	47.95943	263.7994	0	962.6295
5/7/2013 21:00	14410	333	1.200701	194.9501	23.87674	16.45641	-232.7902	54.75278	263.1561	0	962.9981
5/7/2013 22:00	14411	333	1.114146	192.2812	20.852	14.88364	-232.8817	60.1893	263.1067	0	963.1091
5/7/2013 23:00	14412	333	1.412385	202.1177	18.82353	13.74535	-232.4544	60.49607	262.9647	0	963.0675
5/8/2013 0:00	14413	333	2.666352	256.3556	63.61885	12.51755	-232.3628	59.26896	262.8631	0	963.5766
5/8/2013 1:00	14414	333	1.834669	337.4307	19.90885	9.2601	-232.0499	64.15755	262.5922	0	964.7764
5/8/2013 2:00	14415	333	1.857522	344.5135	19.42374	7.229233	-232.0499	68.43259	262.194	0	965.5549
5/8/2013 3:00	14416	333	1.567774	343.0684	20.85262	6.043755	-232.6757	71.36451	262.0197	0	966.3041
5/8/2013 4:00	14417	333	1.914381	347.0897	22.24519	5.309273	-231.2334	70.71738	261.9903	0	967.1353
5/8/2013 5:00	14418	333	2.619664	349.5909	23.4663	4.475521	-232.111	70.90054	261.8514	0	968.1088
5/8/2013 6:00	14419	333	2.872638	358.0259	27.05364	3.943985	-232.0042	70.65176	261.8701	0	969.369
5/8/2013 7:00	14420	333	2.324421	359.841	29.06504	3.688354	-232.111	67.59162	261.9994	0	970.6793
5/8/2013 8:00	14421	333	2.705585	359.3004	27.42891	3.125971	-232.172	65.0672	261.8719	0	971.6971
5/8/2013 9:00	14422	333	2.464986	4.797143	32.10506	3.811136	-231.7294	59.67952	262.0961	0	972.3808
5/8/2013 10:00	14423	333	2.337015	5.391034	38.13691	5.589853	-223.4724	51.44997	262.4732	0	972.7735
5/8/2013 11:00	14424	333	2.673916	354.4354	28.85181	6.752641	-232.2865	49.12244	263.6148	0	973.2252
5/8/2013 12:00	14425	333	2.249015	12.61906	40.99255	8.290837	-241.4745	44.09801	263.0806	0	973.4635
5/8/2013 13:00	14426	333	2.489686	358.8188	35.76559	9.249156	-229.7376	43.3242	262.852	0	973.4946
5/8/2013 14:00	14427	333	2.122507	1.803151	37.50121	10.27199	-232.256	38.24026	263.9836	0	973.6722
5/8/2013 15:00	14428	333	2.214384	12.83843	41.1296	10.69294	-239.5285	31.62548	262.4397	0	973.6668
5/8/2013 16:00	14429	333	2.385395	0.8907118	31.2058	10.93384	-235.0185	27.40234	263.4193	0	973.6266
5/8/2013 17:00	14430	333	2.296695	356.6581	28.05384	10.73462	-233.3549	27.14593	263.3511	0	973.7833
5/8/2013 18:00	14431	333	1.835688	10.93301	34.22707	10.19695	-233.1107	30.24117	263.2648	0	974.0896
5/8/2013 19:00	14432	333	2.016893	357.8039	27.01417	8.690766	-233.1641	34.75887	262.9164	0	974.4556
5/8/2013 20:00	14433	333	1.591854	358.6075	21.20413	5.851317	-231.6378	41.19508	262.14	0	974.9606
5/8/2013 21:00	14434	333	1.147928	357.3196	16.92672	3.37359	-231.3021	48.99575	261.6732	0	975.5593
5/8/2013 22:00	14435	333	1.210877	4.238837	19.90352	2.054452	-231.3784	48.93013	261.41	0	975.9905
5/8/2013 23:00	14436	333	1.301756	13.77929	27.60083	1.411297	-231.4089	52.37489	261.1864	0	976.1923
5/9/2013 0:00	14437	333	1.299379	20.65313	26.55794	0.4904252	-230.951	58.05101	261.1146	0	976.4828
5/9/2013 1:00	14438	333	1.448682	11.8827	21.77604	-0.5648614	-230.5542	62.31994	261.1298	0	976.8013
5/9/2013 2:00	14439	333	1.143838	12.76774	25.88278	-1.290273	-231.241	65.78606	260.9322	0	977.2241
5/9/2013 3:00	14440	333	1.119039	10.81261	22.09607	-1.958938	-230.9129	69.35902	260.9007	0	977.52
5/9/2013 4:00	14441	333	1.03277	7.942174	19.22	-2.65499	-230.7984	72.29552	260.8482	0	977.9505
5/9/2013 5:00	14442	333	0.9430505	6.80993	19.37316	-3.142022	-230.0887	73.1136	260.7133	0	978.2814
5/9/2013 6:00	14443	333	0.8047729	14.81773	25.29634	-2.457058	-231.4165	65.52355	260.9647	0	978.757

5/9/2013 7:00	14444	333	1.084567	15.07811	32.55894	-0.4203503	-232.4925	54.45517	261.7841	0	979.1259
5/9/2013 8:00	14445	333	1.521183	357.3272	44.93031	1.662955	-232.5612	43.71798	262.2397	0	979.3125
5/9/2013 9:00	14446	333	2.121457	30.36919	38.13985	2.822168	-238.1396	40.35107	262.5483	0	979.5077
5/9/2013 10:00	14447	333	2.076623	54.54026	40.33174	3.902383	-241.9095	36.78574	262.6274	0	979.5019
5/9/2013 11:00	14448	333	1.843894	74.18317	52.66385	5.029109	-242.0011	35.8822	262.3318	0	979.4967
5/9/2013 12:00	14449	333	1.708361	24.67312	55.24482	6.502088	-227.868	31.49727	263.881	0	979.145
5/9/2013 13:00	14450	333	1.845836	356.4875	48.23759	7.400465	-241.6195	26.9002	263.2154	0	978.8162
5/9/2013 14:00	14451	333	1.72005	8.054543	50.55902	8.443981	-234.1256	24.93439	263.832	0	978.5226
5/9/2013 15:00	14452	333	1.765865	3.922075	57.00263	9.201343	-236.1632	27.31076	263.1016	0	978.0557
5/9/2013 16:00	14453	333	1.436661	333.3959	48.75318	9.805079	-232.7215	24.76803	263.0524	0	977.5102
5/9/2013 17:00	14454	333	1.610463	359.1019	46.91689	9.599588	-232.9809	22.49696	263.4862	0	977.1027
5/9/2013 18:00	14455	333	1.529915	352.5561	33.51717	9.564813	-233.0114	23.12272	263.2301	0	976.8
5/9/2013 19:00	14456	333	1.464871	35.63558	47.68449	8.646811	-232.6375	29.83824	263.1225	0	976.6614
5/9/2013 20:00	14457	333	1.14634	85.93855	17.63945	5.848658	-231.9355	37.69691	262.3718	0	976.5308
5/9/2013 21:00	14458	333	0.8159317	82.42273	12.85072	3.017566	-231.8362	38.72255	261.7372	0	976.5768
5/9/2013 22:00	14459	333	0.9708343	103.6167	18.74741	1.519468	-231.8668	44.88708	261.7605	0	976.5662
5/9/2013 23:00	14460	333	1.096778	128.6117	17.1407	-0.07890034	-231.4165	57.56261	261.5746	0	976.4249
5/10/2013 0:00	14461	333	1.015381	148.4899	7.269374	-0.912636	-231.2029	53.24026	261.2655	0	976.225
5/10/2013 1:00	14462	333	0.860818	142.6628	8.094786	-0.5058612	-231.4089	59.65205	261.2565	0	976.1068
5/10/2013 2:00	14463	333	1.009467	140.8317	10.41576	-1.34696	-230.951	61.35229	261.2032	0	975.2836
5/10/2013 3:00	14464	333	1.027989	138.0499	8.674486	-1.640604	-230.9663	67.07574	261.0947	0	974.666
5/10/2013 4:00	14465	333	1.365078	143.0213	9.944218	-1.375991	-231.0044	67.95029	261.1784	0	974.0159
5/10/2013 5:00	14466	333	1.606863	150.5773	10.78184	-1.629082	-231.5386	64.28881	261.0785	0	973.452
5/10/2013 6:00	14467	333	2.099717	153.6327	13.82909	-0.3072495	-231.3555	56.1493	261.2125	0	972.9963
5/10/2013 7:00	14468	333	2.562043	156.1166	18.1794	2.347107	-232.401	44.87793	261.8188	0	972.1185
5/10/2013 8:00	14469	333	2.423386	157.1211	22.43177	5.13495	-232.7444	40.36328	262.3939	0	971.1949
5/10/2013 9:00	14470	333	2.914309	157.234	20.79017	6.182648	-232.1033	40.86847	262.4474	0	969.8977
5/10/2013 10:00	14471	333	2.516444	155.9678	22.4285	6.293962	-232.2483	39.10412	262.2497	0	968.8155
5/10/2013 11:00	14472	333	2.399049	147.6206	22.71575	7.025586	-231.9889	41.10045	262.5272	0	967.8179
5/10/2013 12:00	14473	333	3.151742	151.8653	23.81624	7.866259	-232.0042	36.32328	262.6121	0	966.2086
5/10/2013 13:00	14474	333	3.233943	155.4331	21.31068	8.117319	-233.6067	35.84251	262.4761	0	964.7715
5/10/2013 14:00	14475	333	3.257532	158.7493	24.42014	9.412643	-232.4391	37.28482	262.9347	0	963.3628
5/10/2013 15:00	14476	333	3.142623	173.596	31.33766	9.681334	-232.6604	45.70668	262.6994	0	962.4002
5/10/2013 16:00	14477	333	2.362293	203.1508	35.90484	7.064698	-232.2788	64.13007	262.462	0	961.914
5/10/2013 17:00	14478	333	2.592879	231.0696	40.26354	5.71737	-232.0576	92.68474	262.0944	0	961.5122
5/10/2013 18:00	14479	333	2.944473	268.964	29.76173	4.484086	-231.9812	90.42283	261.9336	0	961.5302
5/10/2013 19:00	14480	333	4.128348	293.7981	16.183	3.719608	-231.9736	83.04187	261.9321	0	961.8558
5/10/2013 20:00	14481	333	5.190994	295.5005	15.00397	2.121005	-231.4012	92.89841	261.684	0	962.033
5/10/2013 21:00	14482	333	5.193438	295.2821	15.23398	1.298834	-231.6226	86.91702	261.6515	0	962.2224
5/10/2013 22:00	14483	333	5.795131	296.8081	14.59019	0.9262976	-231.2639	90.91428	261.4536	0	962.4216
5/10/2013 23:00	14484	333	5.543212	295.9907	14.88461	0.6267279	-231.6607	92.52753	261.4183	0	962.0721
5/11/2013 0:00	14485	333	5.260207	294.8197	14.91006	0.1550114	-231.737	94.49029	261.3973	0	961.8154
5/11/2013 1:00	14486	333	6.176209	297.7648	12.63078	-0.1027278	-231.531	97.04219	261.3325	0	961.6462
5/11/2013 2:00	14487	333	6.144921	298.3129	11.99901	-0.1825614	-231.2334	93.68291	261.3095	0	961.5656
5/11/2013 3:00	14488	333	5.844476	302.1601	13.09923	-0.2788356	-231.4471	93.97289	261.3158	0	961.8434
5/11/2013 4:00	14489	333	6.767211	308.6659	13.78183	-0.5817265	-231.0807	94.4323	261.2853	0	962.3815

5/11/2013 5:00	14490	333	6.808872	311.0719	12.95162	-0.8925945	-230.8518	91.37216	261.2401	0	962.8867
5/11/2013 6:00	14491	333	6.619714	315.5436	14.9334	-0.9559786	-231.5005	91.56905	261.243	0	963.7449
5/11/2013 7:00	14492	333	4.978981	326.1278	20.53798	-0.9797962	-231.5157	85.67924	261.3055	0	965.141
5/11/2013 8:00	14493	333	5.328206	328.883	21.65027	-0.9402844	-231.157	81.85598	261.3503	0	966.4244
5/11/2013 9:00	14494	333	4.948084	332.4891	21.80933	-0.8168758	-231.3707	81.66367	261.3233	0	967.7058
5/11/2013 10:00	14495	333	5.829327	331.0602	22.40391	-0.2914908	-231.4165	74.70243	261.4651	0	968.5365
5/11/2013 11:00	14496	333	5.024927	333.3891	23.39988	-0.14031	-231.2639	75.12672	261.5113	0	969.523
5/11/2013 12:00	14497	333	4.849168	336.3752	24.03086	-0.3920263	-231.6913	76.35994	261.4352	0	970.5453
5/11/2013 13:00	14498	333	4.467016	331.4895	23.36483	-0.005163279	-232.0957	65.52508	261.7659	0	971.1773
5/11/2013 14:00	14499	333	3.832835	335.1034	24.63245	0.421331	-232.607	65.67159	261.3674	0	971.6956
5/11/2013 15:00	14500	333	3.425676	330.478	25.48457	0.9994718	-232.0042	84.09805	261.4211	0	971.9137
5/11/2013 16:00	14501	333	4.240749	324.7523	19.88684	0.9280335	-231.5234	67.53362	261.6788	0	972.0983
5/11/2013 17:00	14502	333	3.977883	327.6572	20.90044	0.5627964	-231.8668	65.93563	261.6129	0	972.6985
5/11/2013 18:00	14503	333	3.430165	325.9741	20.88615	0.224138	-231.531	68.35169	261.4691	0	973.0828
5/11/2013 19:00	14504	333	3.378134	326.9654	21.3054	-0.4449437	-231.1723	66.91244	261.363	0	973.4932
5/11/2013 20:00	14505	333	2.958577	328.7015	21.21184	-0.8859476	-231.2181	63.08307	261.3508	0	973.8766
5/11/2013 21:00	14506	333	2.867857	336.2367	23.29788	-1.175976	-231.3173	65.42739	261.2644	0	974.267
5/11/2013 22:00	14507	333	2.249163	346.4998	24.75282	-1.443506	-231.325	71.41335	261.3192	0	974.0681
5/11/2013 23:00	14508	333	2.004578	329.3149	23.3463	-1.821411	-231.1113	75.0321	261.1144	0	973.8577
5/12/2013 0:00	14509	333	2.080152	335.2963	23.19008	-2.098749	-231.0197	69.68411	261.0711	0	973.7039
5/12/2013 1:00	14510	333	1.515988	336.8261	22.72819	-2.82683	-230.8518	73.47074	261.0993	0	973.6052
5/12/2013 2:00	14511	333	1.324395	329.1358	17.76731	-3.898611	-230.6839	79.65665	260.7907	0	973.3035
5/12/2013 3:00	14512	333	1.389356	322.4695	14.02793	-4.728981	-230.9586	84.62612	260.7908	0	973.1409
5/12/2013 4:00	14513	333	2.240987	316.9178	12.08191	-5.167808	-230.8671	86.92924	260.7897	0	972.8727
5/12/2013 5:00	14514	333	2.07821	306.9137	12.68089	-5.608196	-230.4168	89.997	260.7732	0	972.9338
5/12/2013 6:00	14515	333	2.283405	306.0598	12.06469	-5.204906	-230.7755	82.11391	260.7625	0	973.4027
5/12/2013 7:00	14516	333	2.18877	303.9205	12.16404	-3.84295	-231.3707	69.47959	260.935	0	973.7438
5/12/2013 8:00	14517	333	2.16681	307.6388	14.61423	-1.678903	-232.2941	54.3117	261.558	0	973.689
5/12/2013 9:00	14518	333	2.295895	308.7245	18.15751	0.885011	-229.7834	47.38098	261.7718	0	973.2472
5/12/2013 10:00	14519	333	3.568064	307.7416	18.27078	3.066628	-238.7044	43.23568	263.7549	0	972.538
5/12/2013 11:00	14520	333	3.374148	317.4281	20.12481	4.541693	-233.6449	43.54856	262.5157	0	972.1287
5/12/2013 12:00	14521	333	3.154625	314.6378	22.66914	5.561049	-236.0487	37.1963	261.5731	0	971.8149
5/12/2013 13:00	14522	333	3.111263	323.4249	22.47924	6.574348	-226.9751	37.56108	262.174	0	971.5497
5/12/2013 14:00	14523	333	2.782672	337.7256	33.09169	7.59063	-233.3167	32.33366	262.4024	0	971.1724
5/12/2013 15:00	14524	333	2.835086	322.1285	21.26819	7.770529	-229.73	32.93806	262.8727	0	970.9684
5/12/2013 16:00	14525	333	2.115192	333.6943	30.61019	8.159271	-232.8283	34.29642	263.0193	0	970.7283
5/12/2013 17:00	14526	333	2.043765	330.9288	27.51115	8.99106	-233.4083	30.3709	262.7511	0	970.5519
5/12/2013 18:00	14527	333	1.598552	349.5398	34.18246	9.36815	-233.6754	30.44568	263.1472	0	970.0917
5/12/2013 19:00	14528	333	0.5769619	3.318617	41.7969	8.438102	-232.9428	33.39593	263.0429	0	969.7756
5/12/2013 20:00	14529	333	0.347967	123.6807	41.72543	6.718389	-232.4086	43.47989	262.7418	0	969.5753
5/12/2013 21:00	14530	333	0.753702	146.8729	17.64382	2.420043	-231.592	62.39473	262.0384	0	969.6326
5/12/2013 22:00	14531	333	0.834596	146.9233	12.07897	0.2505472	-231.5081	63.95303	261.5198	0	969.4561
5/12/2013 23:00	14532	333	0.727589	156.5869	10.04567	-1.032694	-230.7373	82.77477	261.2464	0	969.2069
5/13/2013 0:00	14533	333	0.9799126	146.8246	9.99861	-2.113707	-231.2334	88.67221	260.9611	0	968.9297
5/13/2013 1:00	14534	333	1.148434	148.5187	7.351478	-2.909736	-231.035	92.58553	260.8911	0	968.5038
5/13/2013 2:00	14535	333	1.242225	157.7412	6.668901	-3.494028	-230.6839	91.65756	260.8299	0	968.2144

5/13/2013 3:00	14536	333	1.391839	156.4857	8.141129	-3.400539	-230.4321	87.33064	260.9119	0	967.7815
5/13/2013 4:00	14537	333	1.598189	156.56	10.31883	-2.100764	-231.592	73.95303	261.1249	0	967.2377
5/13/2013 5:00	14538	333	1.732987	153.3565	11.71881	-0.7296506	-231.4012	68.00676	261.2805	0	966.7193
5/13/2013 6:00	14539	333	1.965867	152.1979	13.10227	0.5727971	-232.0042	61.39961	261.3457	0	966.5467
5/13/2013 7:00	14540	333	2.009507	153.9597	17.00985	2.569746	-231.6302	51.31108	261.6356	0	966.1651
5/13/2013 8:00	14541	333	2.492952	156.7419	22.02204	5.619256	-232.4544	42.32908	262.1903	0	965.6376
5/13/2013 9:00	14542	333	2.868162	158.5994	21.1828	6.092881	-232.1415	40.0504	262.2571	0	964.8787
5/13/2013 10:00	14543	333	2.82799	159.2596	22.21663	7.041635	-232.4544	37.36113	262.4429	0	964.1031
5/13/2013 11:00	14544	333	3.292514	159.304	22.26074	7.963424	-232.6375	36.57206	262.7129	0	962.9797
5/13/2013 12:00	14545	333	3.619171	152.8209	19.7042	7.581499	-232.462	35.80589	262.48	0	961.4063
5/13/2013 13:00	14546	333	2.648386	154.9386	21.23094	8.139357	-232.6299	38.76529	262.5494	0	960.991
5/13/2013 14:00	14547	333	2.805747	162.1022	23.56965	8.195915	-232.3628	55.55712	262.594	0	960.4167
5/13/2013 15:00	14548	333	3.976281	154.7923	20.08921	6.070599	-232.256	59.62458	262.1836	0	958.574
5/13/2013 16:00	14549	333	3.59475	151.7825	21.89853	7.3401	-236.1326	52.83123	262.5358	0	958.1209
5/13/2013 17:00	14550	333	2.848711	155.6428	21.9161	9.595176	-232.7825	41.59954	262.5447	0	957.4476
5/13/2013 18:00	14551	333	2.781058	159.2215	22.37495	9.753197	-232.7138	43.60046	262.8078	0	956.731
5/13/2013 19:00	14552	333	2.204471	159.2158	22.26244	9.858962	-232.958	43.10748	262.8327	0	956.4445
5/13/2013 20:00	14553	333	2.060165	157.6852	16.23403	8.066415	-232.1415	54.98477	262.7867	0	955.9806
5/13/2013 21:00	14554	333	1.207294	154.7685	14.03604	5.034222	-232.111	65.32207	262.1562	0	955.9376
5/13/2013 22:00	14555	333	1.440567	151.423	11.19486	3.01602	-231.6455	72.09711	261.8962	0	955.5606
5/13/2013 23:00	14556	333	1.466556	149.063	11.20108	2.080226	-231.6149	74.69174	261.7545	0	955.2098
5/14/2013 0:00	14557	333	1.367618	151.2073	9.66944	1.351624	-231.8057	80.23204	261.6595	0	954.8654
5/14/2013 1:00	14558	333	1.231752	152.3809	11.5005	0.8793331	-231.325	81.35384	261.5483	0	954.3173
5/14/2013 2:00	14559	333	1.190249	151.6423	10.89101	0.712352	-231.6226	81.65451	261.3818	0	953.8109
5/14/2013 3:00	14560	333	1.08964	148.8613	9.101131	0.8962429	-231.8591	84.13773	261.6282	0	953.485
5/14/2013 4:00	14561	333	1.004564	138.117	9.122917	0.5072399	-231.325	89.37124	261.5883	0	953.5677
5/14/2013 5:00	14562	333	1.129715	143.1969	7.458868	-0.05196519	-231.5844	86.30195	261.3759	0	953.6649
5/14/2013 6:00	14563	333	1.235072	148.8056	9.728798	2.617842	-231.821	75.05041	261.5534	0	953.4874
5/14/2013 7:00	14564	333	1.424869	149.857	13.70855	5.071751	-232.172	67.71066	261.9573	0	953.079
5/14/2013 8:00	14565	333	1.398726	144.6407	17.02242	6.441237	-232.1491	64.72073	262.1763	0	952.8089
5/14/2013 9:00	14566	333	1.586116	144.4535	17.64543	8.424155	-232.5917	59.75278	262.5403	0	952.2379
5/14/2013 10:00	14567	333	1.679744	141.338	21.70529	10.41523	-232.4773	52.95486	262.7346	0	951.0877
5/14/2013 11:00	14568	333	2.161533	137.7709	16.66778	12.00104	-232.6375	51.87122	262.7895	0	949.9265
5/14/2013 12:00	14569	333	2.017599	150.4434	15.66687	11.1449	-232.7291	90.83797	262.9239	0	949.2497
5/14/2013 13:00	14570	333	1.947739	151.9232	12.73123	8.791134	-232.2941	96.18138	262.4597	0	947.9577
5/14/2013 14:00	14571	333	2.032812	150.7255	14.55332	8.393164	-232.2331	96.17986	262.4011	3.048	946.849
5/14/2013 15:00	14572	333	1.463227	138.4767	83.1367	8.384575	-232.2941	98.72717	262.3174	3.048	946.6231
5/14/2013 16:00	14573	333	1.695573	146.0702	52.85144	8.090151	-231.9049	100	262.2496	4.826	946.5102
5/14/2013 17:00	14574	333	1.857651	147.0895	28.51513	8.981499	-232.3933	96.94146	262.3441	1.778	945.7547
5/14/2013 18:00	14575	333	2.225899	149.3537	16.45672	9.407624	-232.7367	97.67711	262.3911	0	945.1081
5/14/2013 19:00	14576	333	1.802637	162.0223	19.9041	9.72255	-232.6833	99.18962	262.4672	1.778	945.2776
5/14/2013 20:00	14577	333	2.71534	234.1898	66.17924	9.922325	-232.7978	96.49274	262.3986	0.508	945.8763
5/14/2013 21:00	14578	333	5.907367	303.0553	13.07369	8.775232	-232.1491	98.14261	262.3579	0.254	947.4181
5/14/2013 22:00	14579	333	5.390177	301.0939	12.06198	8.525151	-232.1339	97.06813	262.2289	0	948.6359
5/14/2013 23:00	14580	333	4.317954	294.0828	14.14393	8.409975	-232.3399	98.15177	262.2275	0.254	949.397
5/15/2013 0:00	14581	333	3.997561	291.6564	15.68275	8.575482	-231.7141	96.52631	262.3709	0	950.1075

5/15/2013 1:00	14582	333	4.364008	296.6487	12.74918	8.095506	-231.9965	94.78638	262.3378	0	950.801
5/15/2013 2:00	14583	333	5.45327	298.0509	12.08928	7.729492	-231.8439	92.58401	262.2665	0	951.5787
5/15/2013 3:00	14584	333	5.249854	299.9802	11.08422	6.913363	-232.172	93.08004	262.1816	0.254	952.6229
5/15/2013 4:00	14585	333	4.161546	297.9994	11.44908	5.787844	-231.9126	94.39719	261.9917	0	953.6647
5/15/2013 5:00	14586	333	3.430245	291.6945	13.43969	4.764493	-232.1339	94.92833	261.918	0	954.6357
5/15/2013 6:00	14587	333	4.101973	296.192	13.27734	4.740558	-232.0499	88.01134	261.888	0	955.463
5/15/2013 7:00	14588	333	4.729767	301.3229	12.76679	5.294652	-232.0576	83.71648	262.1156	0	956.2428
5/15/2013 8:00	14589	333	5.68956	302.5345	12.84339	5.80465	-232.3628	72.55347	262.2316	0	956.8483
5/15/2013 9:00	14590	333	5.212047	301.2281	13.7087	6.572063	-231.6378	68.0205	262.2202	0	957.3601
5/15/2013 10:00	14591	333	5.529157	302.8282	14.39888	7.77316	-232.7978	62.8694	262.3092	0	957.7062
5/15/2013 11:00	14592	333	5.380989	305.1061	14.19422	9.018211	-225.7999	59.29338	262.2078	0	958.0494
5/15/2013 12:00	14593	333	5.688617	303.3108	15.75799	10.66252	-230.3329	54.09497	263.5902	0	958.3605
5/15/2013 13:00	14594	333	5.743668	302.9147	15.99157	11.48521	-239.9712	51.64838	263.1945	0	958.6909
5/15/2013 14:00	14595	333	5.527476	305.8992	14.26429	12.38294	-235.7816	47.52597	263.0416	0	958.9721
5/15/2013 15:00	14596	333	5.364064	305.6436	13.87672	13.3749	-238.9257	43.91639	262.3206	0	959.076
5/15/2013 16:00	14597	333	5.453614	305.8754	14.43184	13.8583	-234.1562	43.14716	262.4488	0	959.3401
5/15/2013 17:00	14598	333	4.438704	312.7599	15.74812	13.32495	-233.0725	47.21615	262.8969	0.508	959.8911
5/15/2013 18:00	14599	333	2.41364	335.605	23.42483	13.06287	-233.7746	47.84192	263.2656	0	960.6252
5/15/2013 19:00	14600	333	2.056919	346.2061	28.3021	11.61379	-232.6681	54.82605	263.4223	0	961.4564
5/15/2013 20:00	14601	333	1.73287	2.058414	27.58267	8.762549	-231.9736	64.31017	262.7603	0	962.2772
5/15/2013 21:00	14602	333	1.231408	5.675875	23.59907	6.238036	-231.6302	71.44846	262.0095	0	963.1335
5/15/2013 22:00	14603	333	0.971383	23.29122	20.9774	4.744946	-231.7523	74.2934	261.5408	0	963.8485
5/15/2013 23:00	14604	333	0.6261594	8.938704	31.65431	3.654416	-231.4242	79.33308	261.5059	0	964.1638
5/16/2013 0:00	14605	333	0.597515	333.7679	24.81792	1.837465	-231.4929	88.79737	261.3107	0	964.6119
5/16/2013 1:00	14606	333	0.7505998	308.4419	11.45257	0.4176541	-231.3631	90.6014	261.1759	0	965.0991
5/16/2013 2:00	14607	333	0.1947241	285.1227	27.5588	-0.93351	-231.1494	96.91704	261.1004	0	965.321
5/16/2013 3:00	14608	333	0.4832815	313.9904	18.18048	-1.516677	-230.7602	97.81905	260.9069	0	966.0026
5/16/2013 4:00	14609	333	0.2726545	324.1192	10.64638	-1.842025	-231.1265	96.63621	260.9422	0	966.4539
5/16/2013 5:00	14610	333	0.1688534	292.7043	18.76817	-2.098427	-230.9739	97.71221	260.9783	0	967.2899
5/16/2013 6:00	14611	333	0.9454846	322.4762	7.078858	-0.6955182	-231.6226	89.32851	261.2814	0	967.733
5/16/2013 7:00	14612	333	1.088051	320.3033	8.186783	2.409524	-231.7905	77.39779	261.9169	0	968.2545
5/16/2013 8:00	14613	333	1.092689	318.3091	12.43278	5.166101	-232.7062	65.9921	262.4983	0	968.6571
5/16/2013 9:00	14614	333	1.312983	312.3206	20.06722	7.276975	-233.4312	55.87305	263.0044	0	968.9816
5/16/2013 10:00	14615	333	1.307126	304.4839	28.71592	9.080156	-239.2691	49.17128	263.6803	0	968.9123
5/16/2013 11:00	14616	333	1.620579	306.1851	23.48831	10.75686	-230.2337	44.27048	261.6164	0	969.0837
5/16/2013 12:00	14617	333	1.505905	301.3765	35.43858	12.39307	-243.0008	39.6612	263.3978	0	968.9384
5/16/2013 13:00	14618	333	1.753354	301.2378	23.34453	13.61844	-240.4519	36.08671	263.5159	0	968.7598
5/16/2013 14:00	14619	333	1.779526	296.6348	33.85032	14.60792	-237.0713	32.99605	263.774	0	968.4213
5/16/2013 15:00	14620	333	1.418795	327.2672	38.03693	15.56596	-238.0557	30.38921	263.8808	0	968.572
5/16/2013 16:00	14621	333	1.375877	292.1037	31.06386	16.51601	-235.5756	27.70911	263.7668	0	968.436
5/16/2013 17:00	14622	333	1.254031	302.6126	35.11259	16.88163	-234.2325	27.28329	264.2061	0	968.5239
5/16/2013 18:00	14623	333	0.7095215	315.6792	66.98335	17.19282	-234.5301	27.15814	264.6821	0.508	968.6553
5/16/2013 19:00	14624	333	0.4623449	161.6972	32.04836	18.05435	-234.3164	30.26101	264.6255	0	968.9229
5/16/2013 20:00	14625	333	0.7830037	106.3192	18.99963	14.55208	-233.1946	44.27811	263.8566	0	969.0455
5/16/2013 21:00	14626	333	0.6676676	86.0443	21.67059	10.24938	-232.6223	52.13374	262.9573	0	969.3366
5/16/2013 22:00	14627	333	0.5882763	113.1723	36.33675	7.749486	-232.2178	58.81261	262.489	0	969.5655

5/16/2013 23:00	14628	333	0.3445663	147.9936	10.79227	5.750428	-231.5386	67.91671	262.2743	0	969.8329
5/17/2013 0:00	14629	333	0.4079881	88.2768	19.20802	4.777809	-231.5157	68.65847	261.6999	0	970.0504
5/17/2013 1:00	14630	333	0.8832166	128.8048	20.81155	4.359617	-231.9965	72.79308	261.9144	0	970.5906
5/17/2013 2:00	14631	333	0.7681906	142.8038	6.402908	3.522517	-231.4776	79.31324	261.7606	0	970.8936
5/17/2013 3:00	14632	333	0.85705	142.3585	6.037781	2.530518	-231.531	87.44358	261.7513	0	971.1396
5/17/2013 4:00	14633	333	0.7844109	136.2301	13.88503	1.927777	-231.9889	87.83126	261.5782	0	971.4578
5/17/2013 5:00	14634	333	0.8900614	138.8519	12.47244	1.298878	-231.5005	90.64871	261.4597	0	971.8532
5/17/2013 6:00	14635	333	1.023053	135.944	10.29008	3.242806	-232.2102	74.49181	261.8619	0	972.1608
5/17/2013 7:00	14636	333	1.027233	148.3957	17.56308	8.312436	-233.4388	56.66365	262.6004	0	972.4515
5/17/2013 8:00	14637	333	1.030181	136.3463	24.7423	11.85083	-233.1259	48.35931	263.3152	0	972.5689
5/17/2013 9:00	14638	333	1.443787	140.6681	25.66571	14.88258	-233.9806	39.22622	263.7523	0	972.4682
5/17/2013 10:00	14639	333	1.627653	156.5521	31.9071	17.55846	-229.7834	30.62731	263.9571	0	972.3889
5/17/2013 11:00	14640	333	1.899351	153.3529	30.65167	18.55098	-243.8173	30.33885	263.4153	0	972.1028
5/17/2013 12:00	14641	333	1.995032	161.9414	32.34385	19.64801	-232.4925	27.70911	264.5267	0	971.7488
5/17/2013 13:00	14642	333	1.991579	134.4955	27.92474	19.83534	-230.9815	26.61937	264.3997	0	971.2427
5/17/2013 14:00	14643	333	2.214744	129.5211	27.42182	20.69969	-236.9568	25.01223	263.8911	0	970.7536
5/17/2013 15:00	14644	333	1.93166	139.9834	29.81083	21.14896	-242.6574	25.36326	264.4286	0	970.3467
5/17/2013 16:00	14645	333	1.950373	145.2729	26.00771	21.48352	-235.7282	24.25368	264.6911	0	970.0535
5/17/2013 17:00	14646	333	1.603353	146.7246	25.37998	21.28593	-234.2477	27.0864	264.4252	0	969.9073
5/17/2013 18:00	14647	333	1.211621	150.5524	18.56781	18.64044	-233.6296	34.66425	263.9239	0	969.6162
5/17/2013 19:00	14648	333	0.8790377	147.5542	16.08946	16.18306	-233.5991	37.77322	263.5493	0	969.5963
5/17/2013 20:00	14649	333	0.8093451	139.9948	13.73784	14.51954	-233.1183	40.80589	263.363	0	969.6286
5/17/2013 21:00	14650	333	0.860488	133.4943	11.46927	13.51197	-233.1336	47.48172	263.2465	0	969.7501
5/17/2013 22:00	14651	333	0.9585283	139.4092	12.75865	12.25669	-233.7059	50.09924	263.114	0	969.6768
5/17/2013 23:00	14652	333	1.036015	141.7779	13.04756	11.6179	-233.1564	52.47561	263.0212	0	969.5981
5/18/2013 0:00	14653	333	0.8750116	159.9287	17.58675	11.35869	-232.5536	53.11206	262.7979	0	969.9204
5/18/2013 1:00	14654	333	1.023108	167.5977	16.02374	11.31581	-232.7902	57.41304	262.8301	0	970.185
5/18/2013 2:00	14655	333	1.007519	144.4162	20.14775	10.54441	-233.1946	81.83156	262.8018	0	970.3931
5/18/2013 3:00	14656	333	1.314598	154.2178	13.7586	8.858447	-232.401	93.74396	262.5123	0	970.2135
5/18/2013 4:00	14657	333	1.384135	154.0028	13.9131	8.513357	-232.7825	91.74151	262.4065	0	969.983
5/18/2013 5:00	14658	333	1.314449	151.0258	13.52608	8.317095	-232.7902	95.65635	262.3854	0	969.7403
5/18/2013 6:00	14659	333	0.7554048	143.6635	21.40304	7.708711	-232.3399	90.05959	262.3357	0	969.6718
5/18/2013 7:00	14660	333	0.9114238	114.5214	19.15612	8.863664	-232.6528	78.42191	262.2695	0	969.275
5/18/2013 8:00	14661	333	1.035627	122.7069	18.73433	10.47283	-232.5688	76.57209	262.5871	0	968.7144
5/18/2013 9:00	14662	333	0.9747112	135.5173	16.2249	9.994492	-232.1491	71.84834	262.5468	0	968.422
5/18/2013 10:00	14663	333	1.321205	121.1489	19.32862	11.11689	-232.5459	60.54338	262.6956	0	967.8929
5/18/2013 11:00	14664	333	1.567368	116.7836	31.23867	14.09128	-234.0035	52.64808	263.4663	0	967.2374
5/18/2013 12:00	14665	333	2.006538	77.01469	29.58734	14.83641	-233.3472	53.40663	263.5857	0	966.7424
5/18/2013 13:00	14666	333	1.509216	69.56646	37.94375	15.75976	-233.1717	51.4515	263.7112	0	966.55
5/18/2013 14:00	14667	333	1.645649	58.86386	30.87525	15.97823	-233.3015	55.97073	263.7935	0	966.1418
5/18/2013 15:00	14668	333	1.426146	82.90968	27.98198	15.7095	-233.5075	57.81598	263.5966	0	965.9438
5/18/2013 16:00	14669	333	1.466629	60.31867	26.98661	16.00918	-233.6525	57.00858	263.6263	0	965.723
5/18/2013 17:00	14670	333	1.154588	39.03676	34.14422	15.34564	-233.3396	57.89839	263.5706	0	965.6162
5/18/2013 18:00	14671	333	1.016605	24.33793	40.15877	15.12696	-233.2099	63.6493	263.4314	0	965.3533
5/18/2013 19:00	14672	333	0.7009995	309.9936	16.106	13.53991	-232.9123	71.43015	263.2097	0	965.2897
5/18/2013 20:00	14673	333	0.9047337	324.6554	12.11315	12.38054	-233.1412	76.03027	263.1987	0	965.2863

5/18/2013 21:00	14674	333	0.7964738	350.9498	26.54366	11.89507	-232.7673	78.07545	262.9581	0	965.4119
5/18/2013 22:00	14675	333	0.9984035	335.0483	20.00844	11.01315	-233.0344	80.83033	262.8967	0	965.5458
5/18/2013 23:00	14676	333	0.5987225	351.0479	30.89025	10.80991	-232.7062	84.03394	262.836	0	965.5353
5/19/2013 0:00	14677	333	0.7515686	351.4118	22.96918	9.869977	-232.7444	86.75982	262.6924	0	965.5012
5/19/2013 1:00	14678	333	0.6236454	11.29314	39.4167	9.987551	-232.7825	85.80439	262.6887	0	965.6233
5/19/2013 2:00	14679	333	0.9000978	335.2909	19.57723	9.107592	-233.0573	91.38589	262.7455	0	966.0027
5/19/2013 3:00	14680	333	0.8492621	7.123714	31.54792	9.110969	-232.6681	87.78088	262.5396	0	966.4711
5/19/2013 4:00	14681	333	1.113857	23.49777	26.849	9.579455	-233.0114	87.89536	262.5682	0	966.3386
5/19/2013 5:00	14682	333	0.6156814	10.39913	38.64841	8.418898	-232.607	93.13956	262.4826	0	966.5575
5/19/2013 6:00	14683	333	0.5028886	346.6559	18.02738	8.114575	-233.0725	85.54798	262.503	0	967.5199
5/19/2013 7:00	14684	333	1.437054	32.96414	29.79206	10.78222	-232.9046	79.51928	263.05	0	967.5196
5/19/2013 8:00	14685	333	1.35391	39.68013	36.17361	12.07435	-233.8051	71.15847	263.0939	0	968.0101
5/19/2013 9:00	14686	333	2.182888	47.74809	32.39325	14.48489	-233.7364	63.09834	263.5946	0	968.2383
5/19/2013 10:00	14687	333	2.303345	58.53415	31.88746	16.20307	-235.4916	57.07574	264.0663	0	968.1146
5/19/2013 11:00	14688	333	2.706911	59.9942	31.69883	17.38978	-238.9333	51.93837	263.7542	0	968.3945
5/19/2013 12:00	14689	333	3.454144	62.81794	31.21564	18.87593	-239.8796	45.07634	263.9111	0	968.2029
5/19/2013 13:00	14690	333	3.457111	63.02779	32.1841	19.97977	-239.643	42.0391	263.8185	0	967.8932
5/19/2013 14:00	14691	333	3.491235	58.8214	31.85537	20.01311	-233.6219	41.66211	264.4998	0.254	968.0433
5/19/2013 15:00	14692	333	3.152023	59.49771	32.64776	20.59428	-230.1726	39.77261	264.4005	0	967.8925
5/19/2013 16:00	14693	333	3.144009	72.76431	31.99081	20.65325	-234.0951	40.32969	264.3485	0.254	967.4878
5/19/2013 17:00	14694	333	3.094769	71.51949	27.75727	19.8515	-233.5609	42.79765	264.0786	0	967.2684
5/19/2013 18:00	14695	333	2.774509	69.56388	27.65339	19.05458	-233.0878	44.48263	263.6958	0	967.6617
5/19/2013 19:00	14696	333	2.429047	59.7862	35.80946	17.92789	-233.4922	57.38557	263.6736	0	968.1107
5/19/2013 20:00	14697	333	2.213336	37.10833	34.96642	15.51078	-233.4312	63.13343	263.1893	0	968.8044
5/19/2013 21:00	14698	333	2.205554	28.96289	33.06634	14.00392	-232.6299	68.18686	262.9614	0	969.414
5/19/2013 22:00	14699	333	2.729293	56.40032	30.44942	13.1191	-232.7596	67.79308	262.7784	0	969.9152
5/19/2013 23:00	14700	333	3.293525	63.7619	28.24129	12.19083	-232.5688	72.49394	262.7372	0	969.91
5/20/2013 0:00	14701	333	3.245696	66.71555	26.04055	11.02085	-232.0576	76.18595	262.5727	0	970.2054
5/20/2013 1:00	14702	333	2.721605	64.92674	27.40098	9.997203	-232.2712	77.66946	262.472	0	970.4359
5/20/2013 2:00	14703	333	2.677634	63.52692	27.51196	9.158667	-232.3323	78.45396	262.357	0	970.2333
5/20/2013 3:00	14704	333	2.950455	67.42653	25.27418	8.578505	-232.2178	77.98845	262.3549	0	970.2966
5/20/2013 4:00	14705	333	2.983822	68.38058	26.50771	8.109709	-232.1339	77.46189	262.2622	0	970.6907
5/20/2013 5:00	14706	333	3.037195	65.70133	24.644	7.522522	-232.2483	76.24395	262.2075	0	970.4481
5/20/2013 6:00	14707	333	2.639127	68.16465	25.20575	7.307582	-231.8744	75.14809	262.2183	0	970.5201
5/20/2013 7:00	14708	333	2.815596	62.7068	28.77488	7.239357	-232.2636	70.79828	262.2558	0	970.1276
5/20/2013 8:00	14709	333	3.109504	67.7166	28.39031	7.637273	-232.6451	66.83459	262.3737	0	969.6482
5/20/2013 9:00	14710	333	3.127592	66.43492	25.74516	8.621088	-232.5612	53.36694	262.6146	0	969.5098
5/20/2013 10:00	14711	333	3.679745	69.43855	26.97629	9.843431	-233.4007	37.52597	262.8979	0	969.6542
5/20/2013 11:00	14712	333	3.949447	76.64478	25.5371	10.23744	-232.4086	37.3184	262.9676	0	970.4694
5/20/2013 12:00	14713	333	3.786185	72.07346	27.94523	10.66885	-232.5688	32.40539	262.9311	0	970.526
5/20/2013 13:00	14714	333	3.951123	79.33688	26.56103	11.22221	-233.042	31.66974	262.8968	0	970.1705
5/20/2013 14:00	14715	333	3.800367	78.01853	26.72075	11.83053	-232.6681	33.59435	263.084	0	969.7667
5/20/2013 15:00	14716	333	3.645539	81.82832	27.87551	11.90426	-233.3549	36.15997	262.9546	0	969.8919
5/20/2013 16:00	14717	333	3.805021	71.12657	26.88357	12.273	-233.5991	37.4695	263.0891	0	969.9348
5/20/2013 17:00	14718	333	4.100907	76.49043	26.56268	12.68505	-233.2022	35.56779	263.0909	0	969.8857
5/20/2013 18:00	14719	333	3.573476	76.18827	26.69031	13.08496	-233.5533	37.64349	263.2347	0	969.8404

5/20/2013 19:00	14720	333	2.866839	64.16541	27.01999	11.95424	-232.5765	42.28788	263.0768	0	970.0255
5/20/2013 20:00	14721	333	2.329571	67.1469	28.40587	10.62636	-232.4696	41.44691	262.5357	0	970.1401
5/20/2013 21:00	14722	333	2.723142	67.55676	26.26014	10.01593	-232.5154	43.3471	262.5211	0	970.4946
5/20/2013 22:00	14723	333	2.655122	72.9803	24.63508	9.222972	-232.4849	47.26957	262.3925	0	970.5513
5/20/2013 23:00	14724	333	2.79038	67.54765	27.24549	8.590582	-232.3246	51.50492	262.356	0	970.5397
5/21/2013 0:00	14725	333	2.712846	67.18382	27.44595	8.050445	-232.0423	54.56047	262.279	0	970.5624
5/21/2013 1:00	14726	333	3.050469	73.95674	24.8846	7.696688	-232.462	55.20761	262.1917	0	970.2736
5/21/2013 2:00	14727	333	2.907541	65.44497	27.25068	7.253265	-231.7218	57.091	262.1997	0	969.8539
5/21/2013 3:00	14728	333	2.370116	56.61253	31.34204	6.613138	-231.7218	60.76927	262.0065	0	969.6738
5/21/2013 4:00	14729	333	2.592494	60.31065	27.72843	6.229008	-231.9049	62.63893	261.99	0	969.7913
5/21/2013 5:00	14730	333	2.233394	56.17747	30.29059	5.79572	-232.2788	65.8578	261.9667	0	969.9065
5/21/2013 6:00	14731	333	2.401607	62.96861	28.07238	5.689395	-232.0576	61.92923	261.994	0	969.7739
5/21/2013 7:00	14732	333	2.273122	74.94105	26.91367	6.48317	-232.6681	53.48294	262.2754	0	969.8198
5/21/2013 8:00	14733	333	2.457329	78.06146	30.65557	8.957781	-233.0191	41.98416	262.9687	0	970.1714
5/21/2013 9:00	14734	333	2.93689	55.36613	32.0202	11.44838	-234.9422	32.84953	263.3145	0	970.118
5/21/2013 10:00	14735	333	3.807206	63.53853	30.22903	13.81002	-228.3945	22.65569	263.7906	0	969.8198
5/21/2013 11:00	14736	333	4.201512	67.63573	28.56598	15.47968	-230.3787	22.69232	264.4518	0	969.5652
5/21/2013 12:00	14737	333	3.565691	55.00541	34.5473	16.98338	-231.7218	19.30099	266.3989	0	969.3296
5/21/2013 13:00	14738	333	3.393745	50.02884	34.93525	17.94628	-244.0615	19.58792	265.6455	0	968.9643
5/21/2013 14:00	14739	333	3.421571	56.35316	36.88868	18.94619	-237.6284	17.40538	266.0172	0	968.501
5/21/2013 15:00	14740	333	3.495853	58.32557	33.27433	19.47866	-242.2911	17.6679	265.7604	0	968.1584
5/21/2013 16:00	14741	333	3.92647	63.14735	32.16734	19.85646	-230.8289	16.94751	265.3091	0	968.0567
5/21/2013 17:00	14742	333	3.210419	53.62362	34.80046	20.12698	-236.3158	18.74543	266.0802	0	968.0026
5/21/2013 18:00	14743	333	2.793987	59.17581	34.36307	19.75019	-236.5981	19.79244	266.3352	0	967.8516
5/21/2013 19:00	14744	333	2.415201	66.25925	28.36283	19.14726	-236.2776	24.44751	266.3356	0	967.8055
5/21/2013 20:00	14745	333	1.967134	67.92475	25.90291	17.50956	-235.1177	28.86449	265.6657	0	967.933
5/21/2013 21:00	14746	333	1.167475	28.87003	25.08851	15.1139	-232.3933	38.12732	263.2213	0	968.1434
5/21/2013 22:00	14747	333	0.8828406	31.97289	20.63418	13.84706	-232.7062	42.74118	262.5525	0	968.2495
5/21/2013 23:00	14748	333	0.6705142	7.527527	18.07522	11.35159	-234.2706	54.55895	263.4234	0	968.1174
5/22/2013 0:00	14749	333	0.7124677	357.0484	17.23526	8.852159	-233.9043	66.84376	264.5057	0	967.9883
5/22/2013 1:00	14750	333	0.8504991	330.9197	13.60791	6.726118	-234.4003	79.2232	264.1113	0	967.9838
5/22/2013 2:00	14751	333	1.138432	341.3772	17.72381	5.733059	-231.8897	70.93259	262.9186	0	968.3867
5/22/2013 3:00	14752	333	1.470911	7.195081	20.32722	7.566054	-232.1186	78.11361	261.9122	0	968.8335
5/22/2013 4:00	14753	333	1.615338	11.77438	20.5321	7.612005	-231.9965	86.22869	262.089	0	969.2556
5/22/2013 5:00	14754	333	1.539982	5.1609	26.11546	7.597545	-232.111	89.85506	262.1429	0	969.5633
5/22/2013 6:00	14755	333	2.210545	23.5622	35.467	7.93652	-232.2483	86.52936	262.2647	0	970.176
5/22/2013 7:00	14756	333	2.402033	23.38732	32.59722	7.358967	-232.256	84.92222	262.3091	0	971.0429
5/22/2013 8:00	14757	333	2.359697	21.54861	34.20327	6.9989	-232.027	80.56629	262.3343	0	971.9246
5/22/2013 9:00	14758	333	2.724653	26.62648	34.57799	6.055563	-232.1873	78.62948	262.2989	0	972.6477
5/22/2013 10:00	14759	333	2.782168	18.89784	35.37994	6.184626	-231.8668	75.74334	262.3631	0	973.2379
5/22/2013 11:00	14760	333	3.013225	29.23132	38.1229	7.059359	-227.6848	65.88375	262.4498	0	973.7321
5/22/2013 12:00	14761	333	2.589717	50.27386	37.5321	9.728539	-239.5285	53.21127	263.5363	0	973.5236
5/22/2013 13:00	14762	333	2.818619	37.40822	39.96371	12.0615	-230.5923	45.33428	262.7236	0	973.1757
5/22/2013 14:00	14763	333	2.709031	41.3061	40.8009	13.42432	-233.8051	40.4289	264.1048	0	973.019
5/22/2013 15:00	14764	333	2.979201	30.47742	37.23723	13.78326	-238.6815	28.83091	263.7054	0	973.1775
5/22/2013 16:00	14765	333	2.9888	15.22786	38.24905	13.74366	-233.5151	24.9756	263.1556	0	973.3937

5/22/2013 17:00	14766	333	2.627821	13.2379	39.04694	13.62127	-233.973	27.87548	263.5895	0	973.8646
5/22/2013 18:00	14767	333	2.96989	2.700284	30.38041	12.53185	-233.7669	29.98476	263.5445	0	974.3888
5/22/2013 19:00	14768	333	2.173121	37.774	39.52053	11.09833	-233.0344	36.18287	263.5175	0	975.0457
5/22/2013 20:00	14769	333	2.149793	39.26301	31.45946	8.862595	-232.111	46.7308	262.7892	0	975.6149
5/22/2013 21:00	14770	333	2.279444	43.18396	33.26697	6.33528	-231.6836	54.05834	262.0417	0	976.475
5/22/2013 22:00	14771	333	2.325583	31.23402	34.10328	4.304887	-232.0194	57.39167	261.9363	0	977.3694
5/22/2013 23:00	14772	333	1.950386	19.27182	31.50086	2.712682	-231.6683	64.24149	261.6629	0	978.1282
5/23/2013 0:00	14773	333	1.76092	36.76765	33.3773	1.816733	-231.8057	66.47593	261.4125	0	978.5991
5/23/2013 1:00	14774	333	1.330967	33.31351	31.87975	1.190153	-231.3173	69.58338	261.3633	0	978.8885
5/23/2013 2:00	14775	333	1.028677	21.14825	24.36908	0.5667135	-231.1342	75.2412	261.1315	0	979.0621
5/23/2013 3:00	14776	333	1.00749	356.9272	16.82332	-0.3783977	-230.7984	84.28577	261.0521	0	979.2449
5/23/2013 4:00	14777	333	0.8632411	356.2045	16.46852	-1.056292	-231.0426	86.47594	260.8752	0	979.6894
5/23/2013 5:00	14778	333	0.9113405	352.052	17.14308	-1.240129	-230.455	86.70488	260.8907	0	980.2045
5/23/2013 6:00	14779	333	1.054767	353.9371	20.32449	0.1417928	-231.7828	71.7705	261.3109	0	980.6694
5/23/2013 7:00	14780	333	1.422951	353.213	28.92298	2.478536	-232.5841	62.00401	262.1166	0	981.2313
5/23/2013 8:00	14781	333	1.654501	352.2683	35.42937	4.357389	-232.8817	54.14381	262.537	0	981.4696
5/23/2013 9:00	14782	333	1.598184	341.8675	39.12981	5.516587	-231.7294	49.8764	262.6664	0	981.6346
5/23/2013 10:00	14783	333	2.092014	313.8589	26.11452	7.005726	-233.538	40.28849	262.5915	0	981.5163
5/23/2013 11:00	14784	333	2.168436	332.5766	32.46441	8.760146	-242.1385	33.79886	262.7151	0	981.0494
5/23/2013 12:00	14785	333	2.311298	324.145	31.43652	10.20116	-240.2764	30.13128	262.6469	0	980.4899
5/23/2013 13:00	14786	333	2.095566	322.8054	36.51861	11.37385	-237.7123	27.50765	263.6696	0	980.1157
5/23/2013 14:00	14787	333	1.938185	322.7485	37.21878	12.68102	-232.4467	24.75734	263.7882	0	979.7141
5/23/2013 15:00	14788	333	1.491326	332.1597	44.83584	13.65601	-236.9721	23.83243	263.8687	0	979.2949
5/23/2013 16:00	14789	333	1.323324	315.9228	55.63094	14.42665	-233.0267	21.84067	264.172	0	978.9473
5/23/2013 17:00	14790	333	1.120015	339.4845	64.31145	14.90461	-234.759	20.38768	264.2929	0	978.7126
5/23/2013 18:00	14791	333	1.105259	359.3177	44.53274	15.00593	-234.1638	20.60593	264.2336	0	978.4226
5/23/2013 19:00	14792	333	0.8220515	26.87089	54.66768	14.64197	-234.5988	23.01284	264.3289	0	978.2773
5/23/2013 20:00	14793	333	0.4241123	25.76533	26.82529	13.11957	-233.4388	32.34282	263.7467	0	978.1296
5/23/2013 21:00	14794	333	0.4079163	92.38792	26.12279	8.897022	-232.2178	40.09923	262.7739	0	978.1351
5/23/2013 22:00	14795	333	0.3071435	343.7206	39.1402	6.077095	-232.0804	63.32879	262.1777	0	978.2316
5/23/2013 23:00	14796	333	0.2482115	348.1588	18.17094	4.238631	-231.4089	82.71832	261.8396	0	978.3503
5/24/2013 0:00	14797	333	0.05072715	359.898	18.81287	3.375453	-231.676	88.805	261.745	0	978.5591
5/24/2013 1:00	14798	333	0.08354419	337.8166	17.34304	2.750614	-231.2868	92.42375	261.708	0	978.5683
5/24/2013 2:00	14799	333	0.1704405	58.41369	10.48189	2.158594	-231.592	85.13742	261.4177	0	978.5482
5/24/2013 3:00	14800	333	0.2420359	70.8162	10.36491	1.830608	-231.0655	79.80164	261.4438	0	978.6234
5/24/2013 4:00	14801	333	0.3328072	76.74358	12.95365	1.313111	-231.1342	87.45733	261.2835	0	978.683
5/24/2013 5:00	14802	333	0.4259183	74.73287	17.82982	0.9305082	-231.5539	86.75829	261.5452	0	978.7147
5/24/2013 6:00	14803	333	0.6505095	122.9822	17.45112	3.846767	-232.2407	50.10229	261.983	0	978.7114
5/24/2013 7:00	14804	333	1.051316	127.4735	17.0139	7.922471	-233.6449	42.35504	262.9781	0	978.6985
5/24/2013 8:00	14805	333	0.8254552	4.503454	96.9082	10.37022	-232.8283	44.36663	263.4445	0	978.8193
5/24/2013 9:00	14806	333	1.445379	302.4276	16.40334	12.07894	-233.2938	26.74605	263.2532	0	978.7578
5/24/2013 10:00	14807	333	1.622715	296.1186	22.04375	14.00378	-241.7111	23.31046	264.1071	0	978.5017
5/24/2013 11:00	14808	333	1.658781	311.8541	38.78183	15.07401	-228.6693	22.3245	263.7646	0	978.3612
5/24/2013 12:00	14809	333	1.529663	307.788	44.00742	15.99068	-232.0042	21.482	264.146	0	978.2316
5/24/2013 13:00	14810	333	1.599325	347.8511	76.30595	16.57556	-232.027	21.48506	264.7271	0	977.9351
5/24/2013 14:00	14811	333	1.717862	0.82117	92.17068	17.27005	-235.0032	21.13402	265.2182	0	977.5361

5/24/2013 15:00	14812	333	1.883007	49.88752	46.63748	17.57082	-238.8646	20.27779	265.9145	0	977.3256
5/24/2013 16:00	14813	333	1.773542	47.15388	44.54794	17.89515	-236.4455	20.76925	265.8972	0	977.1513
5/24/2013 17:00	14814	333	1.957447	40.43389	40.84654	17.75933	-236.2318	20.54336	265.9417	0	976.9904
5/24/2013 18:00	14815	333	1.86591	61.2867	35.99435	17.42948	-236.0945	22.94873	265.8108	0	976.6726
5/24/2013 19:00	14816	333	1.946013	87.25602	34.66698	16.65261	-234.0112	24.81229	265.1835	0	976.5299
5/24/2013 20:00	14817	333	1.958826	92.67147	23.02332	14.36866	-232.8512	31.66669	263.7009	0	976.7891
5/24/2013 21:00	14818	333	1.716105	86.23725	20.57482	12.00802	-232.3705	35.638	262.6877	0	977.3603
5/24/2013 22:00	14819	333	1.734962	96.57062	20.97448	10.40511	-233.0191	42.18104	263.618	0	977.9575
5/24/2013 23:00	14820	333	1.48101	100.3226	24.38654	8.438122	-231.8362	47.24057	262.4811	0	978.1647
5/25/2013 0:00	14821	333	2.037856	108.6306	23.24899	8.127789	-231.7218	48.73782	262.131	0	978.2473
5/25/2013 1:00	14822	333	2.060572	113.4771	22.4438	7.701999	-231.6531	52.74118	262.2185	0	978.1821
5/25/2013 2:00	14823	333	1.746455	115.4764	24.38652	6.924409	-232.752	56.49729	262.127	0	978.2114
5/25/2013 3:00	14824	333	0.9553845	130.069	22.80019	5.876902	-231.8439	63.05407	262.0639	0	978.4494
5/25/2013 4:00	14825	333	1.130405	121.8077	16.75209	5.330927	-231.5386	66.18288	262.0847	0	978.5828
5/25/2013 5:00	14826	333	1.202573	128.1361	17.94051	4.86222	-232.0194	67.09559	261.8889	0	978.6039
5/25/2013 6:00	14827	333	1.471839	132.448	19.41748	6.447126	-232.4162	54.81689	262.0082	0	978.6631
5/25/2013 7:00	14828	333	1.825578	128.789	23.1226	9.714956	-232.7444	45.79063	262.7294	0	978.8539
5/25/2013 8:00	14829	333	1.926152	128.3309	23.949	12.35807	-233.3701	43.6554	263.0921	0	979.1136
5/25/2013 9:00	14830	333	1.832818	125.8817	25.84437	14.76695	-233.4083	33.8477	263.8662	0	979.155
5/25/2013 10:00	14831	333	2.023624	125.7257	27.64203	17.45753	-230.371	29.60167	264.281	0	978.7245
5/25/2013 11:00	14832	333	2.518363	125.4433	26.92601	18.5645	-233.7822	27.47713	264.7375	0	978.5012
5/25/2013 12:00	14833	333	2.347862	125.3016	28.41672	18.68919	-236.4837	26.72621	264.6696	0	978.2313
5/25/2013 13:00	14834	333	1.931914	130.5967	30.84457	20.06084	-240.4367	26.25154	264.4063	0	977.9575
5/25/2013 14:00	14835	333	2.040661	146.8661	33.79029	21.16979	-237.636	21.76131	265.5154	0	977.796
5/25/2013 15:00	14836	333	1.90473	152.8652	34.3857	21.30408	-236.1021	21.99788	265.1808	0	977.5804
5/25/2013 16:00	14837	333	1.6061	160.1611	34.05411	21.20252	-236.0258	22.46949	265.3379	0	977.4589
5/25/2013 17:00	14838	333	1.368805	160.0284	42.61533	21.85537	-235.8121	24.16363	265.5202	0	977.1689
5/25/2013 18:00	14839	333	1.32375	177.7868	43.54353	21.13984	-235.5832	25.43958	265.4658	0	976.8004
5/25/2013 19:00	14840	333	1.082586	159.5874	25.93105	20.65117	-235.3542	30.36784	265.3992	0	976.494
5/25/2013 20:00	14841	333	0.3229519	150.8652	14.05592	17.62979	-234.0493	36.11572	264.2708	0	976.4472
5/25/2013 21:00	14842	333	0.4052439	231.2357	16.00095	15.81327	-233.7899	43.15174	263.6413	0	976.9503
5/25/2013 22:00	14843	333	0.2907259	79.35545	49.08478	13.21978	-233.0878	48.94234	263.0352	0	976.7971
5/25/2013 23:00	14844	333	0.2639058	149.362	12.24903	11.14633	-232.3933	63.30896	263.034	0	976.9236
5/26/2013 0:00	14845	333	0.5623177	123.4677	16.62925	9.128179	-231.8973	71.67892	262.4981	0	976.9809
5/26/2013 1:00	14846	333	1.570302	142.9155	11.6531	8.740577	-232.8817	55.34497	262.8179	0	977.1799
5/26/2013 2:00	14847	333	1.30922	144.1048	9.731762	9.922584	-233.0114	63.7882	263.0471	0	977.4845
5/26/2013 3:00	14848	333	0.9074489	138.056	9.271149	9.672792	-233.2404	61.21799	262.8791	0	977.451
5/26/2013 4:00	14849	333	0.4848976	139.5404	6.22576	9.39023	-233.2022	62.44357	262.9512	0	977.5313
5/26/2013 5:00	14850	333	0.6403766	134.394	16.09781	8.580461	-232.9657	70.10841	262.8517	0	977.3856
5/26/2013 6:00	14851	333	0.7022642	130.748	12.69781	9.753819	-232.7673	60.08703	262.8619	0	977.1586
5/26/2013 7:00	14852	333	1.142215	149.5839	19.78057	12.39796	-233.4388	47.97775	263.0183	0	977.3771
5/26/2013 8:00	14853	333	1.475399	163.1147	31.24665	16.19628	-234.6293	39.58794	263.8176	0	977.9963
5/26/2013 9:00	14854	333	1.334533	170.3163	38.67511	17.89624	-234.8124	39.2659	264.7236	0	978.1069
5/26/2013 10:00	14855	333	1.726008	140.6466	32.82167	19.12864	-238.0023	31.44385	264.103	0	977.696
5/26/2013 11:00	14856	333	1.790283	162.3239	36.47772	20.85147	-228.5395	28.7256	265.0592	0	976.8707
5/26/2013 12:00	14857	333	2.021331	148.6221	32.98439	21.8518	-232.027	22.46033	267.1687	0	976.1534

5/26/2013 13:00	14858	333	2.186976	137.4743	29.80496	22.33985	-241.0243	21.37669	265.2741	0	975.4516
5/26/2013 14:00	14859	333	2.106301	141.8635	36.26619	22.90126	-236.8423	19.98017	265.6184	0	974.7357
5/26/2013 15:00	14860	333	2.053344	140.7333	28.60798	23.00533	-238.1702	18.81869	265.3088	0	974.3134
5/26/2013 16:00	14861	333	1.808736	143.4852	32.45468	23.5521	-235.6977	17.42675	265.877	0	973.8223
5/26/2013 17:00	14862	333	1.731471	155.4054	29.18882	23.26572	-235.484	16.37822	265.6214	0.254	973.1854
5/26/2013 18:00	14863	333	1.328575	146.5452	27.23299	22.63449	-235.2322	19.00184	265.5427	0	972.7253
5/26/2013 19:00	14864	333	1.08638	162.1185	26.50558	21.46489	-234.8124	22.16577	265.1054	0	972.5595
5/26/2013 20:00	14865	333	0.4617607	152.9763	16.02711	19.49883	-235.0414	24.97712	264.8093	0	972.452
5/26/2013 21:00	14866	333	0.5302055	142.3852	9.650982	16.09974	-233.4159	37.29398	263.8863	0	972.4074
5/26/2013 22:00	14867	333	0.7198239	123.5932	9.6742	13.63884	-233.0954	46.64991	263.231	0	972.1949
5/26/2013 23:00	14868	333	0.940441	140.5107	8.79044	11.08082	-233.0954	46.6377	262.9495	0	971.871
5/27/2013 0:00	14869	333	1.021489	147.5821	5.375651	10.56854	-232.9962	51.54612	263.0968	0	971.4314
5/27/2013 1:00	14870	333	1.22627	143.8362	10.41602	9.801266	-233.5151	61.16762	263.2498	0	970.9447
5/27/2013 2:00	14871	333	1.404301	145.1164	10.2454	8.818405	-233.5227	67.08796	263.1382	0	970.7273
5/27/2013 3:00	14872	333	1.201863	147.7312	10.35208	8.644793	-232.8665	69.68105	262.975	0	970.6346
5/27/2013 4:00	14873	333	1.083506	153.3528	10.36205	8.24244	-232.9428	74.87795	262.924	0	970.9134
5/27/2013 5:00	14874	333	1.356606	151.4487	9.584715	8.329323	-232.9046	70.43808	262.8869	0	971.0192
5/27/2013 6:00	14875	333	1.362007	156.2168	14.94977	10.59721	-232.4849	61.71097	262.6351	0	971.1269
5/27/2013 7:00	14876	333	1.120654	183.6963	31.65921	14.34936	-234.1104	42.21614	263.0921	0	971.0191
5/27/2013 8:00	14877	333	1.212755	171.113	37.30574	16.53549	-234.4003	40.02597	264.3997	0	970.7156
5/27/2013 9:00	14878	333	1.345332	155.6868	33.33974	17.58431	-234.7819	35.14044	264.511	0	970.455
5/27/2013 10:00	14879	333	1.96681	145.6978	28.58772	19.56161	-239.1623	30.78909	264.3402	0	969.8998
5/27/2013 11:00	14880	333	1.77559	154.4104	40.53022	20.88472	-242.7184	27.73201	265.3571	0	968.9882
5/27/2013 12:00	14881	333	1.461878	150.048	48.22525	22.09352	-245.3741	22.51833	264.4228	0	968.0956
5/27/2013 13:00	14882	333	1.928374	144.1606	32.94463	22.77919	-239.8185	21.51253	264.4787	0	967.3406
5/27/2013 14:00	14883	333	2.024964	133.7979	28.14082	23.94349	-235.7129	20.51131	265.5613	0	966.604
5/27/2013 15:00	14884	333	2.169365	151.9264	30.12871	24.9996	-239.2996	20.40294	265.261	0	965.8109
5/27/2013 16:00	14885	333	2.017054	147.7287	29.31421	25.0947	-236.2776	19.84891	265.2683	0	965.0709
5/27/2013 17:00	14886	333	1.919307	154.7379	28.75536	25.3221	-235.3924	17.96552	265.342	0	964.7247
5/27/2013 18:00	14887	333	1.704474	158.2164	25.82824	23.74704	-235.194	22.04672	265.0888	0	964.311
5/27/2013 19:00	14888	333	1.364412	153.6051	20.51632	22.06113	-234.6674	28.89654	264.7788	0	964.125
5/27/2013 20:00	14889	333	0.5369181	179.2513	22.99911	18.98231	-233.6906	30.29764	264.2851	0	963.9863
5/27/2013 21:00	14890	333	0.5642856	129.4893	11.16274	16.7699	-233.7822	44.57573	263.8842	0	963.5626
5/27/2013 22:00	14891	333	0.8847096	140.1495	10.82116	13.62572	-232.6757	53.89503	263.2293	0	963.1789
5/27/2013 23:00	14892	333	1.192705	150.9234	6.74947	11.08704	-233.0344	74.95731	262.7744	0	962.9233
5/28/2013 0:00	14893	333	1.220798	153.7822	8.866019	10.13149	-233.0191	54.52537	262.6058	0	962.8651
5/28/2013 1:00	14894	333	1.183048	150.9515	9.958819	10.31422	-232.5002	84.01714	262.6628	0	962.9456
5/28/2013 2:00	14895	333	1.564491	152.2844	11.07471	9.1967	-232.6604	63.8233	262.4643	0	962.7671
5/28/2013 3:00	14896	333	1.515602	150.4406	11.79238	10.17867	-232.7062	71.16152	262.5817	0	962.7189
5/28/2013 4:00	14897	333	1.24861	150.1198	11.20668	9.55689	-232.111	76.3172	262.5447	0	962.5953
5/28/2013 5:00	14898	333	1.238928	151.3191	10.12612	8.590359	-231.9049	77.65115	262.3484	0	962.5943
5/28/2013 6:00	14899	333	1.445199	151.1025	15.00681	10.93179	-232.8207	60.67311	262.5023	0	962.4054
5/28/2013 7:00	14900	333	1.173145	143.2672	23.97106	14.46612	-233.4312	50.91426	263.2147	0	961.8298
5/28/2013 8:00	14901	333	1.131946	146.163	30.18901	17.62659	-234.6674	42.74423	263.9382	0	961.3069
5/28/2013 9:00	14902	333	1.317705	147.3051	30.91957	19.41217	-234.8201	39.79704	264.6706	0	960.8984
5/28/2013 10:00	14903	333	1.648085	160.8504	35.54974	21.14653	-229.4171	34.0339	264.4953	0	960.2256

5/28/2013 11:00	14904	333	2.010977	157.8629	31.04356	22.78192	-229.9055	30.89288	264.147	0	959.8599
5/28/2013 12:00	14905	333	2.195969	163.0245	31.13251	24.2017	-240.3833	28.98506	264.7411	0	959.171
5/28/2013 13:00	14906	333	1.993077	160.5797	37.27718	25.25154	-247.0148	28.06473	266.62	0	958.6108
5/28/2013 14:00	14907	333	2.071413	159.7517	35.80264	25.2202	-235.049	30.10075	265.3872	0	957.9679
5/28/2013 15:00	14908	333	2.046219	158.2795	29.27295	24.88488	-235.2703	29.45667	264.8659	0	957.4548
5/28/2013 16:00	14909	333	1.933519	160.7998	31.54648	25.2709	-234.8124	27.848	265.1669	0	956.9301
5/28/2013 17:00	14910	333	1.605817	152.5293	27.99033	25.13369	-235.2856	27.4466	265.2378	0	956.5567
5/28/2013 18:00	14911	333	1.183	157.9246	28.57165	23.60102	-235.0261	31.76742	264.8564	0	956.3872
5/28/2013 19:00	14912	333	0.9455734	154.2246	26.56355	22.84611	-235.3314	38.06474	264.7607	0	956.2424
5/28/2013 20:00	14913	333	0.7561189	179.3528	28.23178	21.4501	-234.0264	45.20913	264.3192	0	956.2623
5/28/2013 21:00	14914	333	0.5574575	175.0007	19.30503	19.49522	-233.2251	52.37489	263.8531	0	956.1389
5/28/2013 22:00	14915	333	0.8702185	178.0484	27.85641	18.93484	-233.2709	57.88771	263.9572	0	956.3312
5/28/2013 23:00	14916	333	0.7469189	201.5308	38.93022	18.31335	-233.9577	61.51561	263.7147	0	956.0139
5/29/2013 0:00	14917	333	1.166813	275.1133	24.57563	17.40635	-233.5304	66.8697	263.7944	0	955.9333
5/29/2013 1:00	14918	333	1.065696	316.1912	14.42011	15.68034	-233.2022	75.08093	263.6085	0	955.835
5/29/2013 2:00	14919	333	0.3674541	108.3134	32.36121	14.86754	-232.5765	89.0782	263.306	0	955.7211
5/29/2013 3:00	14920	333	0.7608984	152.4742	52.25616	13.83179	-232.1415	92.14139	262.8937	0	955.8849
5/29/2013 4:00	14921	333	0.4670578	145.4749	34.88349	13.62529	-232.7902	94.78181	262.7094	0	955.7499
5/29/2013 5:00	14922	333	0.771288	142.201	9.323612	13.56634	-232.9657	94.68108	262.7087	0	955.5731
5/29/2013 6:00	14923	333	0.7870801	156.6536	19.80474	14.27864	-232.3475	87.13375	262.8509	0	955.2044
5/29/2013 7:00	14924	333	0.9315335	181.4609	33.43423	15.41999	-233.9425	80.02905	263.3201	0	955.1838
5/29/2013 8:00	14925	333	1.421992	197.6662	42.91178	16.45835	-233.6983	78.23418	263.6497	0	955.3572
5/29/2013 9:00	14926	333	1.631147	221.0199	37.89388	17.27389	-232.7825	74.02325	263.6682	0	955.5535
5/29/2013 10:00	14927	333	1.732958	227.7898	46.86988	19.19266	-224.5102	57.64961	263.9136	0	955.526
5/29/2013 11:00	14928	333	2.153416	233.086	40.94134	20.1339	-234.2859	60.04125	263.744	0	955.6409
5/29/2013 12:00	14929	333	1.893437	253.6501	34.58418	18.53143	-233.8814	57.91365	263.8806	0	956.1647
5/29/2013 13:00	14930	333	2.204545	277.7053	28.52562	18.73792	-232.8893	61.6316	263.815	0	956.6952
5/29/2013 14:00	14931	333	2.177708	271.152	32.28811	20.54071	-233.8586	53.05712	263.545	0	957.1139
5/29/2013 15:00	14932	333	1.916331	276.4104	38.30483	20.6534	-234.553	52.13525	264.0949	0	957.3681
5/29/2013 16:00	14933	333	1.780258	258.9758	30.18585	20.20196	-234.034	56.26225	264.0379	0	957.7931
5/29/2013 17:00	14934	333	2.000768	286.7219	25.14836	18.84329	-233.6754	59.2308	263.8537	0	958.4219
5/29/2013 18:00	14935	333	2.373627	297.5525	19.25626	20.5582	-234.3469	59.0034	263.8658	0	958.5922
5/29/2013 19:00	14936	333	1.954357	313.6384	18.93571	18.5138	-233.2786	72.78393	263.7327	0	959.0203
5/29/2013 20:00	14937	333	1.554593	347.2282	28.53566	16.4897	-233.2022	81.93076	263.3011	0	959.3996
5/29/2013 21:00	14938	333	1.573366	17.59688	37.87233	15.68203	-233.1488	85.63802	263.2073	0	959.8716
5/29/2013 22:00	14939	333	1.831231	4.956176	35.80238	14.39242	-232.6451	88.77295	262.9503	0	960.879
5/29/2013 23:00	14940	333	1.417881	35.31652	41.59785	13.00982	-232.8512	91.48815	262.7973	0	961.6927
5/30/2013 0:00	14941	333	1.500483	34.5767	39.46741	11.9027	-232.7825	94.98174	262.5638	0	962.2845
5/30/2013 1:00	14942	333	1.339577	40.27305	38.26979	11.55634	-232.7825	91.97808	262.6195	0	962.4215
5/30/2013 2:00	14943	333	1.319468	39.1868	39.2897	11.34168	-232.9504	90.88834	262.6306	0	962.4169
5/30/2013 3:00	14944	333	1.529429	61.84433	35.91288	10.75104	-231.7981	92.95641	262.3366	0	962.4237
5/30/2013 4:00	14945	333	1.596134	58.53471	35.29599	10.36712	-232.1949	94.44604	262.132	0	962.7067
5/30/2013 5:00	14946	333	1.578851	51.59032	39.11897	9.963898	-232.462	94.18198	262.3952	0	962.9303
5/30/2013 6:00	14947	333	1.475925	40.2949	42.45803	9.813214	-232.5612	92.53516	262.4602	0	962.714
5/30/2013 7:00	14948	333	1.824509	42.3262	37.19318	9.694176	-233.0801	87.96404	262.6104	0	963.1468
5/30/2013 8:00	14949	333	1.83078	49.33376	38.26216	10.40039	-232.9199	82.28484	262.7481	0	963.4777

5/30/2013 9:00	14950	333	2.230732	56.53011	37.28375	11.41614	-232.607	75.8059	262.9041	0	963.9813
5/30/2013 10:00	14951	333	2.187212	61.21165	36.40818	12.24378	-232.9123	74.04613	263.1606	0	963.8585
5/30/2013 11:00	14952	333	2.110895	55.29131	42.4707	13.42035	-233.9806	69.78179	263.4018	0	963.7603
5/30/2013 12:00	14953	333	2.409954	65.40594	36.38315	13.21846	-232.9428	69.32239	263.2907	0	963.7681
5/30/2013 13:00	14954	333	2.597204	63.33813	33.63466	13.37753	-233.0496	71.37978	263.2571	0	963.4883
5/30/2013 14:00	14955	333	2.853601	59.64165	36.07234	13.11276	-232.7825	71.64535	263.1741	0	963.2747
5/30/2013 15:00	14956	333	2.711124	63.70214	34.79422	12.99063	-232.9886	73.82026	263.1339	0	963.3804
5/30/2013 16:00	14957	333	2.609516	63.42511	36.65958	12.70597	-232.6909	74.92984	262.9375	0	963.3481
5/30/2013 17:00	14958	333	2.914592	64.32508	32.77733	12.1328	-232.6986	79.22014	262.9099	0	963.0802
5/30/2013 18:00	14959	333	2.658174	63.22364	36.5701	11.9498	-232.5459	77.76104	262.6645	0	962.918
5/30/2013 19:00	14960	333	2.726343	58.40658	37.73539	11.91922	-232.8359	77.01775	262.7489	0	962.8906
5/30/2013 20:00	14961	333	2.665139	56.93578	37.74441	11.9001	-232.6909	75.68686	262.793	0	962.759
5/30/2013 21:00	14962	333	2.819133	64.57241	37.9884	11.82909	-232.607	76.84682	262.6288	0	962.5914
5/30/2013 22:00	14963	333	2.732508	65.13753	35.18226	11.31373	-232.8665	80.45946	262.6441	0	962.5204
5/30/2013 23:00	14964	333	2.777301	66.96204	32.90641	10.79031	-232.607	85.45335	262.6319	0	962.517
5/31/2013 0:00	14965	333	2.887489	66.17927	35.54727	10.73425	-232.6375	82.1597	262.4562	0	962.2385
5/31/2013 1:00	14966	333	2.821402	66.01785	34.27717	10.48337	-232.6223	89.47655	262.4495	0	961.9067
5/31/2013 2:00	14967	333	2.449528	67.58122	36.72854	9.740182	-232.1186	92.17192	262.4044	0	961.7528
5/31/2013 3:00	14968	333	2.960879	71.92789	32.03629	9.437715	-232.0499	93.15329	262.3428	1.27	961.5123
5/31/2013 4:00	14969	333	3.220466	71.61429	31.89577	9.262046	-232.1415	93.36544	262.3033	0.762	960.9423
5/31/2013 5:00	14970	333	3.195078	67.47021	33.34605	9.065865	-232.0804	93.4326	262.4442	0	960.5146
5/31/2013 6:00	14971	333	3.415773	65.74613	32.91396	8.543132	-232.0881	94.34988	262.4458	0.762	960.1538
5/31/2013 7:00	14972	333	3.238433	63.78832	34.42504	8.123813	-232.0804	94.88254	262.2765	0	959.7927
5/31/2013 8:00	14973	333	2.954278	57.36443	36.69098	7.847339	-232.256	95.16948	262.334	1.016	959.4941
5/31/2013 9:00	14974	333	3.24048	58.1571	36.41878	7.869941	-232.2636	93.91948	262.4629	0	959.4042
5/31/2013 10:00	14975	333	3.644568	60.53155	34.63921	7.713565	-232.401	94.58035	262.313	0	959.41
5/31/2013 11:00	14976	333	3.316464	61.41174	37.41843	7.36771	-232.2788	94.70702	262.3129	1.778	959.7123
5/31/2013 12:00	14977	333	3.2946	53.28283	40.77736	7.067348	-232.1644	95.22137	262.286	2.54	959.3924
5/31/2013 13:00	14978	333	3.302525	55.05725	39.12658	6.850967	-231.7141	94.94511	262.0768	3.809999	959.5981
5/31/2013 14:00	14979	333	3.280152	62.27974	34.78063	6.660992	-232.1568	95.44115	261.8475	3.048	960.1786
5/31/2013 15:00	14980	333	3.039379	64.83554	36.04663	6.675697	-232.0652	93.72869	261.803	1.524	960.4761
5/31/2013 16:00	14981	333	2.49606	61.54506	37.66803	6.62573	-232.3705	93.60659	262.0467	1.524	960.8031
5/31/2013 17:00	14982	333	2.32549	58.22871	40.65667	6.496566	-231.5157	93.42497	262.1593	0	961.2366
5/31/2013 18:00	14983	333	2.257978	53.80535	40.63209	6.319253	-231.7675	96.06844	261.9462	1.016	961.5839
5/31/2013 19:00	14984	333	2.189715	43.16581	41.10449	6.122861	-232.1568	95.03517	262.0795	1.27	962.0813
5/31/2013 20:00	14985	333	2.592811	45.16203	40.14848	6.022676	-232.4315	94.79555	262.1056	0.254	962.3437
5/31/2013 21:00	14986	333	2.61781	44.42402	41.29836	5.498199	-232.0117	95.75861	262.082	1.27	962.6769
5/31/2013 22:00	14987	333	2.605688	43.25066	40.00893	5.430906	-231.8362	94.59713	261.9582	0	962.6933
5/31/2013 23:00	14988	333	2.60185	51.6089	36.67051	5.551716	-232.0194	94.94207	262.0793	1.016	962.8341
6/1/2013 0:00	14989	333	2.490582	45.7534	39.24517	5.647243	-232.1644	94.51624	262.1123	0	962.8506
6/1/2013 1:00	14990	333	1.996867	39.21027	39.73724	5.706258	-232.2102	94.76196	262.0878	0.254	963.2078
6/1/2013 2:00	14991	333	1.857033	30.22234	42.14614	5.72143	-232.0957	97.73815	262.0859	0.508	963.566
6/1/2013 3:00	14992	333	1.897337	16.75749	40.3539	5.381238	-232.0652	97.48632	262.0109	0	963.6628
6/1/2013 4:00	14993	333	2.307194	7.664629	36.23418	5.148595	-231.7675	96.90025	261.9283	0	963.6938
6/1/2013 5:00	14994	333	2.680402	7.779595	36.06606	4.912125	-232.1415	95.30378	262.0387	0.762	963.9922
6/1/2013 6:00	14995	333	2.793278	6.356846	35.49935	4.885484	-232.2025	93.96221	262.083	0	964.2526

6/1/2013 7:00	14996	333	2.835342	3.88291	35.60851	4.80782	-232.0652	94.80012	262.0279	0	964.7479
6/1/2013 8:00	14997	333	2.978392	1.699405	31.20102	4.380562	-232.1339	93.18993	261.9941	0	965.4083
6/1/2013 9:00	14998	333	2.680735	355.2411	33.89679	3.902442	-232.1033	92.49242	262.0634	0	965.871
6/1/2013 10:00	14999	333	2.51092	351.7955	31.04113	4.169536	-232.5765	87.65574	262.0445	0	966.3209
6/1/2013 11:00	15000	333	2.850826	341.5008	28.99953	5.037402	-232.5612	79.37276	262.2068	0	966.6773
6/1/2013 12:00	15001	333	2.269796	352.9522	35.60816	6.619512	-232.4391	73.18381	262.4934	0	966.7319
6/1/2013 13:00	15002	333	2.770011	357.3444	35.35213	8.800099	-236.9721	59.19418	262.4623	0	966.6356
6/1/2013 14:00	15003	333	2.745859	354.4821	33.89829	10.4095	-232.7749	55.61664	262.7988	0	966.6952
6/1/2013 15:00	15004	333	2.690606	354.6578	33.9745	11.35349	-225.2276	54.93135	263.0395	0	966.8743
6/1/2013 16:00	15005	333	2.705888	345.959	31.22908	11.74433	-232.6909	52.22836	263.3131	0	967.1339
6/1/2013 17:00	15006	333	2.472947	349.64	31.83068	11.88825	-233.7975	51.92006	263.3877	0	967.5883
6/1/2013 18:00	15007	333	2.460343	358.5621	34.02386	11.23185	-233.3091	53.97134	263.2975	0.254	967.9575
6/1/2013 19:00	15008	333	1.8727	358.8065	35.64273	9.154016	-233.0267	63.84314	262.8583	0	968.6121
6/1/2013 20:00	15009	333	2.004542	357.4006	30.19041	7.42077	-232.1568	67.26805	262.2878	0	968.9861
6/1/2013 21:00	15010	333	1.7677	10.85315	36.08406	6.478664	-232.2483	68.6722	262.1291	0	969.4095
6/1/2013 22:00	15011	333	1.478608	3.254188	32.29631	5.991302	-232.3705	65.33582	262.0675	0	969.6212
6/1/2013 23:00	15012	333	1.211764	357.9463	30.87795	5.597625	-231.9889	70.69449	262.0621	0	969.6242
6/2/2013 0:00	15013	333	1.597302	341.8339	30.0341	5.144314	-231.9965	78.1014	261.945	0	969.7185
6/2/2013 1:00	15014	333	1.47696	340.2907	25.98799	4.871089	-232.0117	79.43228	261.8936	0	969.6116
6/2/2013 2:00	15015	333	1.740551	338.9798	24.31718	4.389327	-232.0499	78.53027	261.8524	0	969.5109
6/2/2013 3:00	15016	333	1.320419	347.5419	26.14837	3.726931	-231.6226	80.36636	261.776	0	969.5912
6/2/2013 4:00	15017	333	0.9994829	347.0652	21.73351	2.500163	-231.7752	84.03546	261.5834	0	969.5349
6/2/2013 5:00	15018	333	0.8557972	342.515	20.86163	1.642639	-230.9663	92.39932	261.3765	0	969.5809
6/2/2013 6:00	15019	333	1.060164	337.0717	24.56547	2.449594	-231.9355	78.74242	261.4816	0	969.6468
6/2/2013 7:00	15020	333	1.537597	336.3875	28.51011	4.552441	-232.7673	69.16518	262.2647	0	969.769
6/2/2013 8:00	15021	333	2.146838	335.1794	29.36586	5.290197	-232.4544	55.89289	262.2329	0	970.0186
6/2/2013 9:00	15022	333	2.611322	333.7286	29.64552	5.930417	-232.9352	53.25248	262.5044	0	970.0924
6/2/2013 10:00	15023	333	2.390214	332.557	30.84449	6.416334	-228.1274	50.42128	262.4724	0	970.1879
6/2/2013 11:00	15024	333	2.428473	333.6213	31.63626	7.376105	-225.7007	47.75491	263.0541	0	970.1135
6/2/2013 12:00	15025	333	2.647704	327.3923	29.25789	8.206367	-233.973	46.65449	262.8545	0	969.9805
6/2/2013 13:00	15026	333	2.323078	325.7092	31.27499	9.150187	-240.2154	44.67494	263.9239	0	969.8815
6/2/2013 14:00	15027	333	2.138003	344.483	36.98665	10.2457	-233.7517	43.62335	263.0876	0	969.8657
6/2/2013 15:00	15028	333	2.26668	339.2991	37.05043	10.96876	-234.7361	38.93317	263.4941	0	969.6815
6/2/2013 16:00	15029	333	2.205067	338.4592	33.21244	11.69666	-232.9123	39.09343	263.4832	0	969.306
6/2/2013 17:00	15030	333	2.131935	335.9424	33.48956	11.99867	-233.0038	41.90479	263.4532	0	969.0069
6/2/2013 18:00	15031	333	1.908534	337.2935	30.71966	12.39915	-233.9806	39.71767	263.4837	0	968.8447
6/2/2013 19:00	15032	333	2.018162	328.1813	26.63616	11.7371	-233.5609	40.16486	263.5424	0	969.0001
6/2/2013 20:00	15033	333	1.492361	336.8257	27.87707	10.10612	-232.401	45.98446	262.7053	0	969.0709
6/2/2013 21:00	15034	333	0.6720847	349.4033	19.73669	7.469378	-231.241	61.59497	262.0135	0	969.3502
6/2/2013 22:00	15035	333	0.7677194	343.7225	14.298	5.30166	-231.5157	67.66793	261.6086	0	969.7306
6/2/2013 23:00	15036	333	0.7181628	334.1973	15.04778	4.187099	-231.6683	73.26012	261.2373	0	969.9082
6/3/2013 0:00	15037	333	0.7370868	333.8164	8.467957	2.975691	-231.7752	81.81783	261.2632	0	970.079
6/3/2013 1:00	15038	333	0.785694	331.3734	9.329172	2.170578	-231.8439	87.34438	261.2415	0	970.0861
6/3/2013 2:00	15039	333	0.9175066	346.2563	10.15219	2.303251	-231.7523	82.86483	261.2701	0	970.1484
6/3/2013 3:00	15040	333	0.6117962	342.2939	14.39618	1.961255	-230.6152	90.2992	261.2657	0	970.298
6/3/2013 4:00	15041	333	0.8172262	323.5604	10.21273	0.996682	-231.2105	94.68565	260.9732	0	970.4341

6/3/2013 5:00	15042	333	1.398712	314.9655	5.152713	0.689151	-231.4623	91.62399	261.3255	0	970.6907
6/3/2013 6:00	15043	333	1.173731	318.4188	10.93207	2.231102	-231.5386	73.24486	261.3257	0	971.0723
6/3/2013 7:00	15044	333	1.41974	313.1774	15.15652	5.434524	-232.4315	61.72928	262.0457	0	971.4081
6/3/2013 8:00	15045	333	1.674398	322.0877	24.86369	8.001039	-233.0267	50.9982	262.5406	0	971.6943
6/3/2013 9:00	15046	333	1.737642	314.8288	23.57568	9.815082	-232.6757	42.05284	262.998	0	971.6254
6/3/2013 10:00	15047	333	1.724122	313.295	24.86601	11.92465	-227.6543	34.64898	263.3488	0	971.4639
6/3/2013 11:00	15048	333	1.743751	315.0378	29.14077	13.74988	-228.4403	31.19355	264.072	0	971.3199
6/3/2013 12:00	15049	333	1.746613	302.9502	32.32625	15.66221	-229.3561	25.72193	263.6774	0	971.0734
6/3/2013 13:00	15050	333	1.506662	308.9866	36.03458	17.15156	-240.4214	22.06045	264.0217	0.254	970.7938
6/3/2013 14:00	15051	333	1.87622	304.6755	30.811	18.50636	-233.2328	22.23139	263.5844	0	970.7419
6/3/2013 15:00	15052	333	1.445809	300.0754	27.64261	19.46256	-237.9184	19.96491	263.6052	0	970.4313
6/3/2013 16:00	15053	333	1.747476	306.8555	29.70029	20.2672	-234.1867	18.94385	264.9038	0.508	969.9388
6/3/2013 17:00	15054	333	1.503284	324.7703	32.49648	20.7662	-234.4232	19.09037	264.515	0	969.8934
6/3/2013 18:00	15055	333	1.691374	326.5684	27.24114	20.60308	-235.0032	20.73567	264.4059	0	969.9709
6/3/2013 19:00	15056	333	1.336387	336.8275	31.44606	19.86303	-235.339	29.10563	264.716	0	970.2305
6/3/2013 20:00	15057	333	0.6503383	339.7264	25.83736	17.67416	-233.4617	31.24239	264.293	0	970.3777
6/3/2013 21:00	15058	333	0.4000608	16.98743	16.12904	13.82651	-232.958	35.57084	263.1982	0	970.6829
6/3/2013 22:00	15059	333	0.431877	32.00099	22.2226	11.13761	-232.752	43.52872	262.6228	0	971.065
6/3/2013 23:00	15060	333	0.2235988	45.87678	14.1255	9.557372	-232.6757	50.13892	262.5511	0	971.5175
6/4/2013 0:00	15061	333	0.03124916	292.3424	11.22657	7.088598	-232.5536	59.74668	262.2813	0	972.0135
6/4/2013 1:00	15062	333	0.1353981	343.3815	8.030056	6.17892	-231.9965	79.62002	261.836	0	972.4314
6/4/2013 2:00	15063	333	0.2286683	295.0534	57.29162	5.49037	-231.8973	87.31233	261.6533	0	972.5317
6/4/2013 3:00	15064	333	0.3188859	337.0993	22.59659	4.951398	-231.5997	97.70153	261.6615	0	972.5483
6/4/2013 4:00	15065	333	0.147864	309.607	53.09624	4.8398	-232.027	98.95611	261.8625	0	972.8335
6/4/2013 5:00	15066	333	0.1155444	338.456	24.88219	5.031664	-232.3018	98.71343	261.7933	0	973.0474
6/4/2013 6:00	15067	333	0.1525573	1.158165	45.23467	6.022192	-232.0499	98.56539	261.9322	0	973.1897
6/4/2013 7:00	15068	333	0.1636812	137.8528	5.82776	7.554709	-231.5615	89.15604	261.9447	0	973.576
6/4/2013 8:00	15069	333	0.2895708	125.7076	40.19596	11.89903	-233.3091	53.08764	262.5583	0	973.7487
6/4/2013 9:00	15070	333	0.5728976	24.5929	80.33165	16.43757	-233.9806	40.57389	263.93	0	973.7327
6/4/2013 10:00	15071	333	1.014751	351.2997	25.9875	16.86366	-234.2019	37.84801	263.7913	0	973.97
6/4/2013 11:00	15072	333	0.9757724	336.7109	44.21331	18.37037	-240.2764	26.74605	264.5067	0	974.0974
6/4/2013 12:00	15073	333	1.221713	327.4714	36.58027	19.44075	-234.4156	28.67218	264.3627	0	974.1691
6/4/2013 13:00	15074	333	1.192613	305.8669	22.86831	19.19012	-234.7972	27.19629	264.0786	0	974.1257
6/4/2013 14:00	15075	333	1.10736	134.8127	48.59922	21.20246	-237.0637	24.82602	264.2864	0	973.6849
6/4/2013 15:00	15076	333	1.389113	152.3717	49.06135	22.16994	-235.0872	25.90203	264.2972	0	973.2933
6/4/2013 16:00	15077	333	1.008553	121.1279	46.25648	21.81575	-235.8884	25.25643	264.5528	0	972.9835
6/4/2013 17:00	15078	333	0.9274392	137.8584	39.48956	20.99519	-234.0798	34.13769	264.7833	0	972.8436
6/4/2013 18:00	15079	333	0.6113752	140.4649	22.10799	20.09427	-234.3393	32.77475	264.2057	0	972.7269
6/4/2013 19:00	15080	333	0.2368352	146.1142	11.26729	18.41676	-233.8586	42.73812	264.2018	0	972.6653
6/4/2013 20:00	15081	333	0.4160971	319.2773	72.43054	16.25962	-233.5838	45.41822	263.5996	0	972.7164
6/4/2013 21:00	15082	333	0.5647187	261.7184	44.39716	15.27541	-233.1717	50.73416	263.3852	0	973.0167
6/4/2013 22:00	15083	333	0.4666546	182.9054	25.69509	13.30714	-232.7367	74.67801	263.1844	0	973.1403
6/4/2013 23:00	15084	333	0.4325447	161.4652	16.80602	11.75899	-232.7825	82.50921	262.7715	0	973.0139
6/5/2013 0:00	15085	333	0.4023265	145.9659	7.172592	10.96807	-232.5917	86.27905	262.5464	0	973.009
6/5/2013 1:00	15086	333	0.5519894	147.2924	5.133758	10.48089	-232.607	92.68626	262.4925	0	973.012
6/5/2013 2:00	15087	333	0.7117258	135.407	19.2311	8.811867	-232.6833	95.79981	262.4322	0	973.0054

6/5/2013 3:00	15088	333	0.5787807	134.4753	7.538398	7.682818	-231.7294	94.62918	262.2447	0	972.9777
6/5/2013 4:00	15089	333	0.1605371	107.8637	51.00227	7.406817	-232.1949	85.30225	261.8633	0	972.9372
6/5/2013 5:00	15090	333	0.5080804	50.75674	45.58853	7.605349	-232.1491	79.76653	262.0513	0	973.1084
6/5/2013 6:00	15091	333	0.5579906	122.9161	24.53902	9.057253	-232.9428	74.25524	262.265	0	973.3196
6/5/2013 7:00	15092	333	0.9002801	142.243	20.49217	13.11661	-233.5304	51.15998	262.9842	0	973.4528
6/5/2013 8:00	15093	333	0.8967837	120.3015	25.31612	16.55303	-234.8277	48.86145	264.002	0	973.332
6/5/2013 9:00	15094	333	1.315552	104.2733	35.64434	16.82722	-234.2325	45.8761	264.2089	0	973.2861
6/5/2013 10:00	15095	333	0.8879981	320.5072	36.48177	19.40034	-231.6455	34.59556	263.7636	0	973.1036
6/5/2013 11:00	15096	333	1.070809	162.944	55.00518	21.13989	-234.1943	29.43836	264.9218	0	972.7629
6/5/2013 12:00	15097	333	0.8255757	148.3934	39.32128	20.37757	-230.1116	28.00673	263.9234	0	972.363
6/5/2013 13:00	15098	333	1.037354	127.4954	43.007	21.54797	-228.0053	27.83885	263.9258	0	971.9683
6/5/2013 14:00	15099	333	1.128143	120.9521	54.09261	22.52993	-235.1711	26.07755	265.0998	0	971.5844
6/5/2013 15:00	15100	333	1.429974	113.0343	33.536	22.48879	-230.2337	24.61693	265.3611	0	971.1461
6/5/2013 16:00	15101	333	1.14748	138.1965	51.70033	23.69674	-235.0948	24.35136	265.2479	0	970.8164
6/5/2013 17:00	15102	333	0.9961172	119.9266	38.09806	23.1053	-235.339	24.80771	265.0434	0	970.6831
6/5/2013 18:00	15103	333	1.252232	141.8714	32.65152	24.06541	-234.759	24.94355	265.1632	0.508	970.3912
6/5/2013 19:00	15104	333	1.073867	145.2809	26.94427	22.79906	-234.7056	34.04001	265.128	0	970.3002
6/5/2013 20:00	15105	333	0.4555214	171.6091	21.71268	17.02633	-233.2328	42.61602	263.9215	0	970.3651
6/5/2013 21:00	15106	333	0.506662	167.0814	19.35937	14.96545	-233.248	48.39747	263.3519	0	970.5657
6/5/2013 22:00	15107	333	0.49094	173.0015	20.45793	13.6771	-232.9886	49.80315	263.0958	0	970.6713
6/5/2013 23:00	15108	333	0.5106025	177.5627	27.67837	12.79206	-233.0191	56.32483	262.9221	0	970.675
6/6/2013 0:00	15109	333	0.465333	176.4063	23.8626	11.6242	-232.5307	54.98477	262.8618	0	970.6907
6/6/2013 1:00	15110	333	0.5055865	171.4829	21.69125	10.70459	-232.4315	60.46096	262.7602	0	970.7057
6/6/2013 2:00	15111	333	0.2941142	180.3799	22.82684	10.41802	-233.103	62.12153	262.7258	0	970.8738
6/6/2013 3:00	15112	333	0.2076325	177.2202	24.33502	9.439116	-232.7444	82.78241	262.7221	0	970.843
6/6/2013 4:00	15113	333	0.2074153	227.6379	29.72902	8.293317	-232.4239	75.82269	262.4563	0	970.9428
6/6/2013 5:00	15114	333	0.5580346	179.3811	33.51231	7.93736	-232.1797	95.56477	262.3246	0	970.97
6/6/2013 6:00	15115	333	0.8044804	164.7896	29.72832	9.580243	-231.8897	76.86361	262.433	0	970.895
6/6/2013 7:00	15116	333	0.5709542	180.9936	48.70736	15.10178	-233.4922	44.64289	263.2444	0	970.9084
6/6/2013 8:00	15117	333	0.9357875	218.6964	40.21455	19.12211	-234.9116	37.90906	264.153	0	970.8438
6/6/2013 9:00	15118	333	1.334518	246.701	46.92667	20.83557	-234.1409	29.28879	264.3539	0	970.6691
6/6/2013 10:00	15119	333	1.321227	224.1761	59.45421	22.80113	-241.1311	24.65508	265.2306	0	970.3783
6/6/2013 11:00	15120	333	1.440422	164.6323	58.14893	23.94779	-232.256	24.85807	264.4989	0	969.9549
6/6/2013 12:00	15121	333	1.570179	161.6782	61.51627	24.62229	-244.5042	22.84342	264.2209	0	969.7358
6/6/2013 13:00	15122	333	1.280593	209.009	65.07106	24.92596	-234.6445	22.98994	265.9963	0	969.4807
6/6/2013 14:00	15123	333	1.28595	121.3566	37.79146	24.31691	-233.2556	22.61601	263.0997	0	969.0778
6/6/2013 15:00	15124	333	1.52278	125.8046	36.10289	24.66734	-230.2566	20.81198	264.6543	0	968.6163
6/6/2013 16:00	15125	333	1.520082	130.6633	34.54101	25.50093	-233.2328	19.78481	264.7576	0	968.2916
6/6/2013 17:00	15126	333	1.083611	166.6049	67.05054	25.74546	-234.8811	20.58304	264.6302	0	967.9858
6/6/2013 18:00	15127	333	1.184707	184.9641	57.61353	24.99553	-235.3008	23.10594	264.8267	0	967.7402
6/6/2013 19:00	15128	333	1.008101	150.8719	28.01571	23.96324	-234.5453	27.12914	265.3237	0	967.5581
6/6/2013 20:00	15129	333	0.4037226	163.0422	22.59807	20.4467	-234.0722	37.04978	264.4462	0	967.4533
6/6/2013 21:00	15130	333	0.2039517	187.8818	21.01177	17.07227	-232.8741	40.97378	263.7329	0	967.563
6/6/2013 22:00	15131	333	0.6494091	199.0129	29.10394	15.74187	-233.2938	43.225	263.1278	0	967.7906
6/6/2013 23:00	15132	333	0.2229608	205.0932	17.03761	14.45207	-233.1412	50.0214	262.8884	0	967.8754
6/7/2013 0:00	15133	333	0.2283957	165.7611	11.23523	12.40017	-232.6299	60.18013	262.6887	0	967.8366

6/7/2013 1:00	15134	333	0.4124925	189.9294	25.71387	11.63819	-232.8207	49.47348	262.4765	0	967.8041
6/7/2013 2:00	15135	333	0.6951813	190.0825	31.5069	11.20601	-231.9431	55.95242	262.508	0	967.7395
6/7/2013 3:00	15136	333	1.223102	230.9296	26.036	11.70275	-231.6683	61.93074	262.2805	0	967.8765
6/7/2013 4:00	15137	333	1.035708	247.6919	22.60645	11.65313	-233.0954	66.29583	262.6057	0	967.9136
6/7/2013 5:00	15138	333	0.483502	233.6038	34.34548	10.78581	-232.4544	73.29217	262.5653	0	967.9466
6/7/2013 6:00	15139	333	0.4724652	211.0302	34.82482	11.7467	-232.7673	62.17343	262.5965	0	968.1268
6/7/2013 7:00	15140	333	0.8850687	260.423	34.94448	15.40134	-234.1562	52.48019	263.4056	0	968.29
6/7/2013 8:00	15141	333	0.9431455	288.1595	37.96955	18.26923	-234.5453	45.34649	264.1162	0	968.1838
6/7/2013 9:00	15142	333	0.6826389	311.6159	51.36559	20.32097	-234.4614	40.25796	264.5693	0	968.0819
6/7/2013 10:00	15143	333	0.9833418	340.2628	78.8777	21.81162	-239.1699	31.74147	264.4234	0	967.886
6/7/2013 11:00	15144	333	1.140318	137.7333	53.6178	23.17819	-226.3417	27.13982	265.8356	0	967.4091
6/7/2013 12:00	15145	333	1.576289	132.6068	40.09885	24.10246	-229.8597	26.26528	263.9152	0	966.9525
6/7/2013 13:00	15146	333	1.577066	148.0921	49.28259	24.87583	-235.629	22.80374	264.5716	0	966.4861
6/7/2013 14:00	15147	333	1.60933	150.4616	45.58825	24.85395	-235.1024	22.74879	264.1897	0	965.9752
6/7/2013 15:00	15148	333	1.461814	142.3097	44.61	24.765	-233.2786	27.46186	264.7039	0	965.6828
6/7/2013 16:00	15149	333	0.9717456	146.7534	53.55254	24.67343	-232.7138	20.86998	263.6382	0	965.3553
6/7/2013 17:00	15150	333	1.152127	182.168	64.46172	25.6603	-235.1253	23.13799	263.4341	0	965.1097
6/7/2013 18:00	15151	333	1.015067	178.7054	45.46806	25.60493	-235.8655	22.5107	265.2684	0	964.8284
6/7/2013 19:00	15152	333	0.8841199	209.1723	45.35226	24.72471	-235.133	24.31625	265.4889	0	964.9114
6/7/2013 20:00	15153	333	0.5175428	201.7686	35.65157	21.52554	-234.0417	35.02749	264.2367	0	964.8991
6/7/2013 21:00	15154	333	0.6348523	224.7791	16.06187	17.9496	-233.3701	39.89014	263.6048	0	965.0435
6/7/2013 22:00	15155	333	0.8662848	220.3973	27.23226	16.01624	-232.8588	49.26133	263.1795	0	965.5427
6/7/2013 23:00	15156	333	0.9786695	253.109	18.62385	15.3286	-232.7902	60.01225	262.6689	0	965.7301
6/8/2013 0:00	15157	333	0.7198784	238.9219	15.78844	12.85865	-232.607	68.78515	262.4065	0	965.8605
6/8/2013 1:00	15158	333	0.9228389	232.2048	17.87305	12.51276	-233.042	66.76286	262.5442	0	965.9894
6/8/2013 2:00	15159	333	0.625961	258.7061	37.72365	11.36957	-231.9507	79.66732	262.3883	0	966.0037
6/8/2013 3:00	15160	333	0.1707037	261.8542	17.90041	10.68407	-232.172	84.58339	262.2583	0	966.0829
6/8/2013 4:00	15161	333	0.1378952	342.1982	7.588242	10.00971	-232.4773	97.34286	262.2189	0	966.1926
6/8/2013 5:00	15162	333	0.3662145	346.5486	15.60734	10.06186	-232.2025	97.22533	262.1789	0	966.4911
6/8/2013 6:00	15163	333	0.2532434	345.4731	20.2455	11.89513	-232.5994	68.50279	262.2165	0	966.7688
6/8/2013 7:00	15164	333	0.4499193	319.5748	22.94088	16.30484	-233.6067	57.04674	263.0423	0	966.9729
6/8/2013 8:00	15165	333	0.45924	321.4294	27.7682	19.44551	-235.0566	45.54643	264.1849	0	967.0333
6/8/2013 9:00	15166	333	0.5824422	319.7307	48.19481	21.45105	-235.4229	34.77719	264.7094	0	966.9658
6/8/2013 10:00	15167	333	0.7369618	95.72192	64.94722	23.19787	-239.5743	30.75704	265.0415	0	966.8885
6/8/2013 11:00	15168	333	1.168818	327.335	78.25484	23.65721	-234.7209	30.40142	263.968	0	966.5913
6/8/2013 12:00	15169	333	0.8724242	86.69798	55.07748	23.92198	-233.9577	27.71216	263.656	0	966.3371
6/8/2013 13:00	15170	333	0.9273016	132.1242	55.09473	25.02642	-234.5682	23.29977	264.2575	0	965.9987
6/8/2013 14:00	15171	333	1.092304	119.676	66.17366	24.96337	-235.1635	27.52291	264.5982	0	965.7392
6/8/2013 15:00	15172	333	0.9714932	153.9653	68.64383	26.46762	-233.9043	26.90783	264.7977	0	965.4078
6/8/2013 16:00	15173	333	1.224905	117.6336	51.32645	26.14374	-234.6598	25.11448	264.7264	0	965.2267
6/8/2013 17:00	15174	333	0.7352623	130.9169	36.89391	25.60794	-235.8121	24.18194	264.7249	0	965.3164
6/8/2013 18:00	15175	333	0.7606533	133.9237	44.89367	26.85665	-235.774	24.14532	265.4629	0.762	965.1307
6/8/2013 19:00	15176	333	0.7349529	139.2982	37.90552	26.12584	-234.7896	32.0803	265.4851	0	965.1123
6/8/2013 20:00	15177	333	0.3241245	136.5587	25.7079	22.1643	-234.5072	37.78085	264.2314	0	965.3461
6/8/2013 21:00	15178	333	0.3626949	136.8879	7.435295	18.8145	-232.5383	58.09375	263.846	0	965.6985
6/8/2013 22:00	15179	333	0.1685911	154.9441	6.151621	16.50786	-233.2786	60.89289	263.3872	0	966.1389

6/8/2013 23:00	15180	333	0.08422004	156.6633	2.581097	14.74842	-232.7291	64.73753	263.1424	0	966.3652
6/9/2013 0:00	15181	333	0.5701851	58.40508	47.2642	13.53462	-232.8741	67.65115	262.5672	0	966.5442
6/9/2013 1:00	15182	333	0.6294808	139.5516	16.20459	12.59718	-232.4467	81.88192	262.745	0	966.8456
6/9/2013 2:00	15183	333	0.1887259	159.2807	5.609062	12.55021	-232.7749	74.51012	262.7214	0	966.9479
6/9/2013 3:00	15184	333	0.2227722	159.5406	3.214848	11.76449	-232.4849	95.09469	262.6534	0	967.119
6/9/2013 4:00	15185	333	0.2772373	155.8223	4.669091	11.27683	-232.5536	97.20245	262.4129	0	967.276
6/9/2013 5:00	15186	333	0.2595527	161.1378	7.523041	11.11547	-232.2483	98.97594	262.326	0	967.2704
6/9/2013 6:00	15187	333	0.6106199	153.6031	7.653491	12.43043	-232.8359	88.35934	262.6222	0	967.4092
6/9/2013 7:00	15188	333	0.630842	124.5742	13.40711	17.86583	-233.6219	56.80559	262.3806	0	967.4865
6/9/2013 8:00	15189	333	0.9365733	124.5751	16.20612	21.65364	-234.408	41.5568	263.8195	0	967.3848
6/9/2013 9:00	15190	333	0.9440461	126.1734	33.83389	24.03073	-235.4535	27.24819	264.8936	0	967.2611
6/9/2013 10:00	15191	333	1.491683	147.6669	37.37069	26.06031	-230.5084	24.36662	264.4758	0	966.9971
6/9/2013 11:00	15192	333	1.988545	149.9063	35.92371	26.6471	-229.6155	25.07022	263.6673	0	966.8492
6/9/2013 12:00	15193	333	2.379831	150.1758	32.88513	26.45964	-239.498	22.91058	263.87	0	966.7679
6/9/2013 13:00	15194	333	2.181039	147.8791	31.79219	26.02606	-236.125	24.74208	265.894	0	966.3771
6/9/2013 14:00	15195	333	2.059256	151.2301	34.63938	26.47154	-229.959	21.73536	264.3234	0	966.084
6/9/2013 15:00	15196	333	2.034296	148.649	32.45762	25.95315	-234.4919	24.61387	264.3528	0	965.7778
6/9/2013 16:00	15197	333	1.64181	157.8858	34.91914	25.67969	-235.0032	31.00124	264.7864	0	965.5458
6/9/2013 17:00	15198	333	1.387407	158.788	37.4292	24.83296	-234.7132	34.17737	264.8201	0	965.4695
6/9/2013 18:00	15199	333	1.105557	151.9	36.30449	23.67833	-234.553	39.43531	264.6283	0	965.2148
6/9/2013 19:00	15200	333	1.041575	154.7379	32.73463	22.10534	-232.9809	41.53543	263.9641	0	965.0989
6/9/2013 20:00	15201	333	0.7048777	152.0957	19.78585	20.0809	-233.1259	48.0739	263.3839	0	965.0385
6/9/2013 21:00	15202	333	0.1588192	135.6554	15.14941	18.00416	-232.7673	56.93838	262.7324	0	964.841
6/9/2013 22:00	15203	333	0.5370314	128.0152	14.76402	16.47975	-232.897	69.94815	262.6352	0	964.7642
6/9/2013 23:00	15204	333	1.037493	165.9514	35.02135	15.85769	-233.4312	68.67679	262.4722	0	965.0302
6/10/2013 0:00	15205	333	1.736987	207.3799	43.17563	15.52481	-232.6299	74.09499	262.8884	0	965.8989
6/10/2013 1:00	15206	333	1.251272	185.7491	44.75411	14.45967	-231.5081	83.26776	262.5388	0	966.0002
6/10/2013 2:00	15207	333	0.87795	158.7148	31.945	12.69205	-230.9358	94.40177	262.0415	0	965.8038
6/10/2013 3:00	15208	333	1.285074	131.0773	29.84658	12.06544	-232.6223	92.01013	262.1762	0	965.1907
6/10/2013 4:00	15209	333	1.746184	109.1087	29.15266	11.53734	-231.882	92.85567	261.9621	0	964.3398
6/10/2013 5:00	15210	333	1.241087	88.68253	29.08098	11.49967	-231.0579	92.08797	261.1872	0	963.9099
6/10/2013 6:00	15211	333	1.437341	79.68686	30.90648	11.69976	-232.5307	92.73052	261.8965	0	963.0998
6/10/2013 7:00	15212	333	1.468894	90.69494	35.29262	12.26982	-232.256	93.0144	262.2333	0	961.918
6/10/2013 8:00	15213	333	1.690527	103.5208	32.09322	12.6159	-232.2178	92.51379	262.2691	0	961.3246
6/10/2013 9:00	15214	333	1.516418	102.1866	35.67427	13.36669	-231.5615	91.21038	262.5472	0	960.5573
6/10/2013 10:00	15215	333	1.191442	116.6334	32.46004	13.73969	-233.3396	89.71159	261.8925	0	960.2773
6/10/2013 11:00	15216	333	0.6167904	163.5151	51.40962	15.07875	-233.5151	84.02936	262.0577	0.508	959.9919
6/10/2013 12:00	15217	333	0.9200165	226.6168	44.28297	15.1031	-230.6	82.2589	262.2453	0	959.6697
6/10/2013 13:00	15218	333	1.104703	257.037	36.18222	14.79119	-231.0197	78.28455	261.4432	0	959.5483
6/10/2013 14:00	15219	333	1.071692	244.943	34.64045	16.60301	-232.0728	73.69205	262.5633	0	959.2022
6/10/2013 15:00	15220	333	1.072723	247.2545	41.27123	16.27347	-232.3628	69.68869	262.0699	0	959.1559
6/10/2013 16:00	15221	333	1.285692	223.7013	46.6503	17.43856	-233.8738	71.19968	263.2604	0	958.9847
6/10/2013 17:00	15222	333	1.454474	198.267	52.66722	18.45921	-234.2248	60.99973	263.913	0	958.6848
6/10/2013 18:00	15223	333	1.051741	201.2908	49.81298	17.88275	-233.4388	68.99272	263.9738	0	958.5067
6/10/2013 19:00	15224	333	0.659839	184.3049	39.27729	17.81446	-234.2172	73.27691	263.6733	0	958.3199
6/10/2013 20:00	15225	333	0.4409627	186.8817	31.37336	16.13449	-233.4922	79.78942	263.4429	0	958.0023

6/10/2013 21:00	15226	333	0.167061	158.8685	19.34955	15.25716	-232.7444	87.80683	263.1837	0	958.0515
6/10/2013 22:00	15227	333	0.5163224	170.5115	32.88133	14.54661	-232.4391	95.63345	262.5673	0	958.3639
6/10/2013 23:00	15228	333	0.4744827	176.4216	31.09997	13.63273	-231.8057	97.52448	262.2133	0	958.4296
6/11/2013 0:00	15229	333	0.8453622	228.9064	37.87384	13.62176	-231.5844	93.99579	262.056	0	958.8211
6/11/2013 1:00	15230	333	1.348259	274.0675	26.02394	12.58134	-232.6757	97.83736	262.0995	2.032	958.7809
6/11/2013 2:00	15231	333	1.022934	263.3358	28.12457	12.16974	-232.9199	97.80532	262.6483	0	958.7484
6/11/2013 3:00	15232	333	1.00312	264.5848	23.92655	11.573	-231.0502	98.23571	261.5744	0	959.166
6/11/2013 4:00	15233	333	0.4430377	226.3982	37.16433	11.31691	-231.3173	98.98205	261.5976	0	959.6501
6/11/2013 5:00	15234	333	1.043404	275.9165	22.10824	11.58829	-232.256	98.38529	261.8821	0	959.8734
6/11/2013 6:00	15235	333	0.5284844	247.7677	27.62194	12.24545	-232.2636	95.90665	262.0125	0	960.2784
6/11/2013 7:00	15236	333	0.6008611	234.8735	39.06486	13.32921	-231.6989	89.67802	261.6013	0	960.8462
6/11/2013 8:00	15237	333	0.7068388	245.1544	38.56934	14.63876	-231.2639	89.06293	261.1379	0	961.1385
6/11/2013 9:00	15238	333	1.028058	222.4527	37.97302	15.74872	-231.9431	88.50127	261.6442	0	961.2177
6/11/2013 10:00	15239	333	1.312197	234.345	41.3019	15.83848	-232.5231	70.01836	262.4001	0	961.4315
6/11/2013 11:00	15240	333	1.916517	246.006	40.12798	18.15599	-235.8808	61.00889	262.104	0	961.4573
6/11/2013 12:00	15241	333	1.74636	237.6588	46.73234	19.80443	-238.9257	54.78636	262.1213	0	961.3681
6/11/2013 13:00	15242	333	1.987497	249.3827	38.65353	20.45884	-234.0112	56.70333	264.1217	0	961.2346
6/11/2013 14:00	15243	333	1.814766	260.9995	36.34692	20.55805	-233.7059	44.23538	263.0465	0	961.3723
6/11/2013 15:00	15244	333	2.260279	251.0854	39.36298	22.06952	-238.3533	44.18043	262.9791	0.762	961.2943
6/11/2013 16:00	15245	333	2.195112	258.0633	37.20052	22.25411	-231.3173	41.10656	264.0172	0	961.0759
6/11/2013 17:00	15246	333	1.432695	264.1135	35.43643	21.60155	-234.4538	51.28209	263.7303	0	961.0341
6/11/2013 18:00	15247	333	0.9493139	290.9208	22.10599	19.85992	-229.9971	54.06903	263.0847	0	961.0222
6/11/2013 19:00	15248	333	0.976806	276.7879	27.44743	18.69767	-233.9577	65.47318	261.6337	0	961.1412
6/11/2013 20:00	15249	333	0.6555765	272.3832	42.05695	15.93516	-233.3015	76.85751	263.3489	0	961.402
6/11/2013 21:00	15250	333	1.148224	293.0667	50.97378	15.48347	-230.7373	80.03362	261.9211	0	961.9545
6/11/2013 22:00	15251	333	1.99349	307.4625	18.32706	15.1246	-229.2798	77.26806	261.8804	0	962.9092
6/11/2013 23:00	15252	333	1.313236	321.1006	21.60659	14.60346	-231.531	78.04034	261.2683	0	963.3536
6/12/2013 0:00	15253	333	0.2585644	316.3599	13.83257	13.08841	-233.0114	83.26928	261.704	0	963.483
6/12/2013 1:00	15254	333	0.6852081	317.532	20.55297	13.21528	-230.8747	84.61849	261.673	0	963.7352
6/12/2013 2:00	15255	333	0.5984035	296.8291	32.60951	13.48112	-232.5994	88.41428	260.5195	0	963.738
6/12/2013 3:00	15256	333	0.7431741	292.0684	12.0979	12.966	-232.1415	90.29462	262.8775	0	963.8011
6/12/2013 4:00	15257	333	0.7464406	281.196	18.62367	12.56386	-231.3555	92.2818	261.4962	0	964.0642
6/12/2013 5:00	15258	333	0.6461047	261.9048	17.56539	12.31823	-229.8369	94.49335	259.8658	0	964.2834
6/12/2013 6:00	15259	333	0.7258011	281.4085	18.61393	12.30472	-231.0884	92.17802	260.7588	0	964.5441
6/12/2013 7:00	15260	333	1.990339	302.1758	16.48167	13.70319	-230.3176	73.34254	261.4383	0	965.0345
6/12/2013 8:00	15261	333	1.618727	306.1821	20.18542	15.08148	-232.752	69.05987	261.8009	0	965.6617
6/12/2013 9:00	15262	333	1.614089	322.7474	29.02565	17.31998	-231.2486	59.4689	262.7742	0	965.8043
6/12/2013 10:00	15263	333	1.664994	331.8677	40.78544	18.98007	-227.3109	53.99271	262.2632	0	965.9517
6/12/2013 11:00	15264	333	1.539258	315.1547	42.77459	19.8066	-225.6015	51.9109	261.6502	0	966.1897
6/12/2013 12:00	15265	333	1.71376	327.0737	39.21782	20.1566	-225.2581	52.95028	261.8994	0	966.1779
6/12/2013 13:00	15266	333	2.419237	7.668869	40.65187	18.88019	-232.9809	67.04369	262.3023	0	966.7046
6/12/2013 14:00	15267	333	2.140389	29.29322	45.1725	17.86486	-232.2407	78.72868	262.3353	0	967.5788
6/12/2013 15:00	15268	333	1.954564	56.25573	42.65901	17.65674	-232.3857	59.77568	262.1933	0	968.104
6/12/2013 16:00	15269	333	2.634087	60.85217	40.09115	18.09022	-234.3393	57.47409	263.0465	0	968.425
6/12/2013 17:00	15270	333	2.346487	50.79563	40.23267	18.5326	-230.8442	51.63159	263.4512	0	969.0474
6/12/2013 18:00	15271	333	2.325366	52.16722	41.14426	17.96055	-232.2102	54.58184	262.9478	0	969.6392

6/12/2013 19:00	15272	333	1.750343	28.49179	41.97961	16.43221	-232.0347	55.55254	263.0099	0	970.4103
6/12/2013 20:00	15273	333	1.29969	28.66379	41.83427	15.24202	-232.6528	55.9341	262.6228	0	970.9448
6/12/2013 21:00	15274	333	1.348016	15.01455	36.09538	14.51126	-231.9278	60.63954	261.8528	0	971.0417
6/12/2013 22:00	15275	333	1.018578	21.20585	37.23132	13.28564	-230.7526	66.48966	261.9517	0	971.2682
6/12/2013 23:00	15276	333	0.9024421	18.36761	29.4654	12.39525	-231.0121	69.58185	261.2948	0	971.5504
6/13/2013 0:00	15277	333	0.7723974	4.753903	24.08746	11.22311	-231.1342	75.87917	260.9088	0	972.0326
6/13/2013 1:00	15278	333	0.8871328	3.143205	23.99422	10.65067	-231.3402	75.97838	261.2604	0	972.6765
6/13/2013 2:00	15279	333	1.05529	2.236203	26.50072	9.916237	-230.89	81.01348	260.8417	0	973.1468
6/13/2013 3:00	15280	333	1.069013	2.154348	26.48104	9.305762	-230.7984	84.94358	260.7817	0	973.598
6/13/2013 4:00	15281	333	0.80983	5.385361	25.52351	8.336005	-230.8137	88.863	260.677	0	974.0579
6/13/2013 5:00	15282	333	0.777363	29.33801	35.94791	7.86941	-230.8213	77.53973	261.0883	0	974.4212
6/13/2013 6:00	15283	333	1.199897	68.92063	38.12312	8.643771	-231.5005	67.6603	261.1905	0	974.6834
6/13/2013 7:00	15284	333	1.308269	59.57961	37.64412	10.66173	-232.7749	51.6377	261.6894	0	975.1506
6/13/2013 8:00	15285	333	1.333822	56.57983	41.56264	12.48792	-232.6909	46.77964	263.1154	0	975.4656
6/13/2013 9:00	15286	333	1.158108	50.70445	58.49284	14.58652	-233.4541	36.48812	262.4151	0	975.4988
6/13/2013 10:00	15287	333	1.066968	39.80157	58.35646	16.16903	-238.1168	28.64929	261.8519	0	975.4446
6/13/2013 11:00	15288	333	1.235617	46.81434	60.52917	17.82993	-227.7154	25.7433	263.377	0	975.3449
6/13/2013 12:00	15289	333	1.420193	68.61555	52.80195	18.75009	-224.5026	22.41302	262.3811	0	975.1796
6/13/2013 13:00	15290	333	1.381237	53.95219	59.63391	20.26181	-237.9641	19.6734	262.561	0	974.9595
6/13/2013 14:00	15291	333	1.24746	18.29066	55.88311	21.20306	-235.0108	16.86509	263.5753	0	974.658
6/13/2013 15:00	15292	333	1.392974	48.55388	56.11563	21.94549	-224.9071	16.44537	263.2609	0	974.2283
6/13/2013 16:00	15293	333	1.317919	31.34125	55.44048	22.38862	-232.1262	16.36295	262.948	0.254	973.862
6/13/2013 17:00	15294	333	1.098442	62.17124	59.40214	22.85578	-234.8277	16.93988	263.1149	0	973.5471
6/13/2013 18:00	15295	333	1.155169	76.23023	54.19051	22.66231	-230.4092	16.56747	263.0192	0	973.2493
6/13/2013 19:00	15296	333	0.8638615	120.6345	28.33158	22.88189	-233.8967	20.28848	263.6473	0	973.105
6/13/2013 20:00	15297	333	0.544785	108.4496	25.67292	19.22921	-229.9742	25.28543	262.6623	0	972.9538
6/13/2013 21:00	15298	333	0.7675444	96.1026	21.57042	15.01847	-229.4019	34.56657	259.4404	0	972.634
6/13/2013 22:00	15299	333	0.5288335	96.38853	24.83339	12.63005	-231.5615	36.59037	259.9194	0	972.6896
6/13/2013 23:00	15300	333	0.8039733	123.4184	18.6673	11.21198	-231.9812	48.22653	262.4421	0	972.7261
6/14/2013 0:00	15301	333	0.5189673	131.3559	12.10849	10.44697	-231.5463	60.12672	261.2851	0	972.6941
6/14/2013 1:00	15302	333	0.5055233	130.1971	6.799799	9.465657	-231.3784	64.86268	261.3114	0	972.2639
6/14/2013 2:00	15303	333	0.4640404	111.8816	17.53414	9.185622	-230.3558	60.32208	261.1209	0	972.2693
6/14/2013 3:00	15304	333	0.6461769	126.9964	11.92209	7.873126	-231.2639	83.42496	261.0867	0	972.1879
6/14/2013 4:00	15305	333	0.6918175	128.2777	12.6612	7.229014	-230.6534	88.20061	260.7817	0	971.9943
6/14/2013 5:00	15306	333	0.782976	137.789	10.45823	6.958183	-229.9131	88.17466	260.0405	0	971.8091
6/14/2013 6:00	15307	333	0.8427132	133.4918	21.62734	9.369235	-231.2257	65.01836	260.3712	0	971.861
6/14/2013 7:00	15308	333	0.7283928	148.3302	23.86943	13.73883	-231.8591	46.22409	261.2165	0	971.7349
6/14/2013 8:00	15309	333	0.672116	134.6194	32.73446	18.05815	-229.5316	41.59496	260.9675	0	971.358
6/14/2013 9:00	15310	333	0.9808318	119.2964	30.49668	20.0217	-230.3787	37.44355	260.1834	0	970.9532
6/14/2013 10:00	15311	333	0.9137256	121.4563	35.53211	22.07047	-229.4706	31.83305	262.0834	0	970.1468
6/14/2013 11:00	15312	333	1.32209	128.5739	41.03625	23.80226	-231.5157	26.79184	261.1344	0	969.6773
6/14/2013 12:00	15313	333	1.324295	129.2036	45.06853	24.86482	-227.8069	24.97865	262.1136	0	968.9226
6/14/2013 13:00	15314	333	1.446078	117.1138	37.3799	25.69234	-229.5927	27.3596	262.4563	0	968.142
6/14/2013 14:00	15315	333	1.375998	132.1801	33.55845	26.55827	-229.8063	27.93653	264.3119	0	967.4774
6/14/2013 15:00	15316	333	0.9639049	121.7597	34.5173	26.16054	-231.882	32.97469	263.6942	0	966.7589
6/14/2013 16:00	15317	333	1.088727	142.4366	56.12623	27.30662	-234.5453	30.65784	263.9377	0.762	966.105

6/14/2013 17:00	15318	333	0.9523495	130.2429	23.53358	25.04073	-232.2178	41.73843	262.9405	0	965.7453
6/14/2013 18:00	15319	333	0.6714224	157.7508	44.84245	23.65468	-233.3854	41.2485	263.8584	0	965.5717
6/14/2013 19:00	15320	333	0.4686541	200.6609	33.28929	22.65749	-233.9348	48.65388	264.0427	0	965.0604
6/14/2013 20:00	15321	333	0.4398654	184.5034	35.11926	21.16859	-234.0417	50.89747	262.8504	0	964.7673
6/14/2013 21:00	15322	333	0.4050283	186.4618	31.22478	19.98045	-234.6064	59.56659	263.7668	0	964.8654
6/14/2013 22:00	15323	333	0.2955125	140.3949	8.470695	18.0765	-233.5151	64.04766	263.1507	0	964.4437
6/14/2013 23:00	15324	333	0.3419986	139.3634	8.001729	17.53229	-233.0801	77.36117	263.3535	0	964.1478
6/15/2013 0:00	15325	333	0.6493289	143.6046	7.808155	16.09581	-231.7523	82.32912	261.9479	0	963.7212
6/15/2013 1:00	15326	333	0.9690228	149.5693	13.13193	14.93688	-232.317	75.22593	261.4389	0	963.4922
6/15/2013 2:00	15327	333	1.075539	148.8651	16.41028	15.78771	-230.6076	71.87733	261.8877	0	962.7195
6/15/2013 3:00	15328	333	1.029023	147.7309	16.75425	15.79396	-232.3399	72.88619	261.6516	0	962.462
6/15/2013 4:00	15329	333	1.083075	149.4754	17.26307	15.29747	-232.9352	76.55072	261.2611	0	961.8684
6/15/2013 5:00	15330	333	1.317845	149.7819	19.05471	14.67904	-231.8057	91.41183	262.1514	0	961.5702
6/15/2013 6:00	15331	333	1.583957	147.9647	21.09583	13.85716	-232.8436	95.18626	262.2227	0	961.1031
6/15/2013 7:00	15332	333	1.484931	149.2163	24.25671	13.62109	-232.3399	97.41306	261.8149	1.016	960.9821
6/15/2013 8:00	15333	333	1.138392	155.0091	33.3208	13.93906	-231.8134	96.42406	261.8277	0	960.6979
6/15/2013 9:00	15334	333	1.017987	158.4161	33.41994	14.68931	-229.1729	93.34255	260.2762	0	960.4288
6/15/2013 10:00	15335	333	1.01516	156.1234	33.36736	16.52316	-229.6613	85.94328	261.5318	0	959.8711
6/15/2013 11:00	15336	333	1.017275	155.5781	41.07489	18.77778	-224.6934	71.68198	260.4007	1.27	959.5173
6/15/2013 12:00	15337	333	1.570543	240.3178	42.77318	20.93052	-227.3872	59.71768	261.6261	0	959.4766
6/15/2013 13:00	15338	333	1.590895	247.1519	41.12994	22.22535	-232.1873	47.11541	262.4139	0	959.1505
6/15/2013 14:00	15339	333	1.871114	245.6415	45.64448	23.42621	-231.3784	37.0803	262.9669	0	958.5192
6/15/2013 15:00	15340	333	2.392917	248.9372	37.47448	24.42856	-237.2315	36.6148	262.4288	0	958.0187
6/15/2013 16:00	15341	333	2.193091	237.5418	42.73449	23.50376	-234.6522	40.66242	264.1534	0	957.848
6/15/2013 17:00	15342	333	1.943548	264.5208	34.48451	22.39292	-234.1409	43.12426	264.6488	0	958.0554
6/15/2013 18:00	15343	333	2.711404	283.8389	25.20338	21.7938	-230.0429	51.83764	263.1487	0	957.8535
6/15/2013 19:00	15344	333	0.9849077	234.9132	54.4175	20.17308	-234.4232	63.27537	261.4743	0	957.8855
6/15/2013 20:00	15345	333	1.238356	264.1632	37.12155	16.43392	-230.1268	86.49731	262.6195	0.508	958.2143
6/15/2013 21:00	15346	333	1.593582	290.4169	39.88486	13.59303	-230.9892	97.03761	261.3067	2.794	959.2186
6/15/2013 22:00	15347	333	1.059314	228.9033	85.55683	12.48357	-232.3857	98.05562	262.0473	2.54	958.549
6/15/2013 23:00	15348	333	0.439376	147.2883	29.33575	12.14685	-231.6455	98.41582	261.8529	0	958.6711
6/16/2013 0:00	15349	333	0.2871775	155.9725	20.22811	11.90229	-230.9052	97.4268	260.6871	0	958.6169
6/16/2013 1:00	15350	333	0.07508672	137.8434	5.615523	11.0612	-230.9358	98.98053	261.1979	0	958.3798
6/16/2013 2:00	15351	333	0.4927128	296.5162	40.48283	11.58361	-230.806	97.71679	260.016	0	958.5451
6/16/2013 3:00	15352	333	0.7016841	333.5295	27.18871	11.28942	-230.0276	99.2232	261.0612	0	958.7306
6/16/2013 4:00	15353	333	0.2066655	56.77002	35.31616	10.82449	-233.2099	99.32241	261.1305	0	958.7733
6/16/2013 5:00	15354	333	0.3572218	37.47895	29.95404	11.22961	-234.4232	99.30105	263.8228	0	958.9869
6/16/2013 6:00	15355	333	0.8878286	41.78821	37.16773	11.78133	-233.5762	99.14842	262.5855	0	959.7418
6/16/2013 7:00	15356	333	0.8626143	32.84037	36.8637	12.10436	-233.9959	98.1243	263.2673	0	960.2623
6/16/2013 8:00	15357	333	1.219403	20.12923	40.99932	11.86299	-232.8054	95.26715	260.1747	0	960.813
6/16/2013 9:00	15358	333	1.463915	34.53175	46.11334	11.62437	-228.5548	92.87399	261.5573	0	961.472
6/16/2013 10:00	15359	333	1.349948	44.43059	38.91621	11.82594	-233.4922	90.64108	261.7139	0	961.8463
6/16/2013 11:00	15360	333	1.831181	64.81847	37.7659	11.75344	-229.8292	87.64505	261.7407	0	962.6132
6/16/2013 12:00	15361	333	1.913046	58.61751	40.29744	12.07917	-229.4324	81.4271	260.7186	0	963.0187
6/16/2013 13:00	15362	333	1.838962	78.00445	43.19154	13.47424	-230.0811	79.46587	259.8187	0	963.2516
6/16/2013 14:00	15363	333	1.776926	66.00036	39.46133	13.81948	-232.7825	69.91457	260.7395	0	963.476

6/16/2013 15:00	15364	333	1.751533	61.13533	41.09517	14.2503	-229.8445	70.94479	259.845	0	963.7836
6/16/2013 16:00	15365	333	1.789513	67.31808	38.61652	13.95972	-232.8893	70.14809	260.4831	0	964.3912
6/16/2013 17:00	15366	333	1.728423	69.38337	39.06387	13.75445	-232.5688	68.95914	260.3697	0	964.6257
6/16/2013 18:00	15367	333	1.255458	99.3672	36.4846	14.63201	-232.5231	56.27598	262.9651	0	964.8447
6/16/2013 19:00	15368	333	1.090641	100.1037	35.1683	16.07483	-232.9809	58.95303	262.486	0	965.1385
6/16/2013 20:00	15369	333	0.7122254	113.6635	26.01336	14.41901	-229.9055	73.91488	262.5198	0	965.4015
6/16/2013 21:00	15370	333	0.3950492	133.1788	16.31667	11.03077	-234.263	89.94817	262.9656	0	965.7584
6/16/2013 22:00	15371	333	0.03728494	137.8109	1.804949	9.364754	-233.683	95.92954	264.0885	0	966.1363
6/16/2013 23:00	15372	333	0.02911836	311.2244	0.7146339	8.714445	-229.4782	96.67284	261.8701	0	966.29
6/17/2013 0:00	15373	333	0.2359154	283.6759	37.78644	8.364884	-233.8738	96.66673	259.9913	0	966.4808
6/17/2013 1:00	15374	333	0.4256108	320.1122	14.50656	8.112934	-235.3466	98.85232	265.2378	0	966.5634
6/17/2013 2:00	15375	333	0.5821722	311.5859	6.851516	7.974311	-234.3774	98.91489	264.9825	0	966.8155
6/17/2013 3:00	15376	333	0.8240332	311.908	8.417429	7.62344	-232.6146	98.73327	263.593	0	967.0734
6/17/2013 4:00	15377	333	0.9661842	305.4697	9.104178	6.991501	-231.1342	98.58065	261.8727	0	967.472
6/17/2013 5:00	15378	333	1.143989	315.1186	8.239833	7.096848	-233.6601	99.57577	261.7874	0	967.9999
6/17/2013 6:00	15379	333	1.322785	312.9441	12.88524	8.670221	-235.4763	95.21526	264.6462	0	968.3062
6/17/2013 7:00	15380	333	0.9112035	309.7767	22.18975	11.44815	-233.4617	80.50677	264.8675	0	968.6026
6/17/2013 8:00	15381	333	1.568684	309.1357	19.0817	13.99199	-233.332	75.01684	264.7418	0	968.8863
6/17/2013 9:00	15382	333	1.593628	312.1208	21.09608	16.16978	-230.0811	56.55986	262.8212	0	969.0751
6/17/2013 10:00	15383	333	1.525195	318.3147	32.64145	17.83239	-239.6049	42.8938	263.5434	0	969.0391
6/17/2013 11:00	15384	333	1.519143	312.0233	30.56362	19.16372	-227.3414	39.86877	264.638	0.508	969.2312
6/17/2013 12:00	15385	333	1.657588	322.6137	39.01692	19.81919	-230.8824	35.07634	263.79	0	969.2133
6/17/2013 13:00	15386	333	1.225814	10.4756	66.76961	20.45715	-237.8573	33.23568	264.0609	0	969.1323
6/17/2013 14:00	15387	333	1.265072	316.9769	50.06434	21.15543	-232.8741	30.01528	262.6375	0	969.0519
6/17/2013 15:00	15388	333	1.459326	316.8	54.44597	22.04162	-222.7856	27.57938	262.9354	0	969.1373
6/17/2013 16:00	15389	333	1.203869	321.6422	51.86913	23.10383	-228.3488	27.24971	261.8765	0.762	969.0005
6/17/2013 17:00	15390	333	1.139565	3.047411	50.55323	22.88561	-230.5771	25.19843	261.3949	0	968.9943
6/17/2013 18:00	15391	333	0.7314709	12.76667	52.63838	21.2427	-230.5618	33.90112	261.5078	0	969.0158
6/17/2013 19:00	15392	333	0.5883018	10.4631	30.02783	18.7092	-231.0731	36.80711	262.5095	0	969.1292
6/17/2013 20:00	15393	333	0.6594343	11.10699	27.07007	19.27106	-229.1577	39.35289	260.3757	0	969.2291
6/17/2013 21:00	15394	333	0.5549294	86.69203	41.39334	15.75806	-232.4925	45.8181	260.4213	0	969.5504
6/17/2013 22:00	15395	333	0.3531119	91.07823	25.18538	13.55791	-231.7065	54.84436	261.7225	0	969.954
6/17/2013 23:00	15396	333	0.7728747	87.95128	27.17736	12.13841	-232.607	63.30896	260.3564	0	970.2228
6/18/2013 0:00	15397	333	0.6363255	127.7219	20.2803	10.60086	-238.9333	70.61208	264.1602	0	970.5413
6/18/2013 1:00	15398	333	0.5653202	126.6762	18.89086	9.524226	-238.3457	67.79461	268.4857	0	970.6901
6/18/2013 2:00	15399	333	0.5502214	131.5433	15.96906	8.79272	-238.8417	73.88131	268.2142	0	970.7151
6/18/2013 3:00	15400	333	1.11514	131.0486	11.63976	8.857376	-238.5746	83.00982	268.4106	0	970.6221
6/18/2013 4:00	15401	333	0.9630138	141.9021	11.24355	7.828213	-237.9641	88.97137	268.1119	0	970.7266
6/18/2013 5:00	15402	333	1.007808	144.5547	12.06807	7.813826	-237.9794	87.9793	267.5849	0	970.88
6/18/2013 6:00	15403	333	1.144201	150.3845	16.45013	10.15516	-236.3311	67.40847	267.7793	0	971.0295
6/18/2013 7:00	15404	333	0.6194558	145.3456	19.58762	14.64161	-234.614	57.96249	266.1424	0	970.9687
6/18/2013 8:00	15405	333	0.6104347	211.8981	57.03327	18.00788	-235.8961	50.62885	263.2341	0	970.7549
6/18/2013 9:00	15406	333	0.8401319	233.3737	55.96934	19.95404	-236.0487	41.92006	263.3042	0	970.6194
6/18/2013 10:00	15407	333	1.214298	245.0325	48.70192	21.58125	-227.8832	34.69935	262.6739	0	970.1497
6/18/2013 11:00	15408	333	0.800914	278.1996	50.87466	21.7719	-239.3912	50.02751	262.89	0	969.598
6/18/2013 12:00	15409	333	1.129006	306.3189	37.73037	21.92025	-230.5771	35.92951	261.2999	0	969.2111

6/18/2013 13:00	15410	333	2.488081	295.9653	26.23042	22.55094	-238.2465	33.90265	263.3906	0	968.8199
6/18/2013 14:00	15411	333	2.143636	284.2328	34.26913	23.06138	-230.9739	37.62212	260.8613	0	968.3363
6/18/2013 15:00	15412	333	1.797827	277.2756	41.90256	22.83082	-229.1042	35.63952	260.4459	0	967.9025
6/18/2013 16:00	15413	333	1.328902	230.848	42.92302	21.7936	-234.8506	37.17341	262.6575	0	967.4789
6/18/2013 17:00	15414	333	1.69634	274.4479	34.43064	23.02179	-230.2489	33.95607	261.6114	0	966.9031
6/18/2013 18:00	15415	333	1.197681	244.939	34.87425	22.77473	-231.966	39.04612	261.2393	0	966.5113
6/18/2013 19:00	15416	333	1.048559	235.442	30.29319	21.01027	-231.5539	41.43623	260.7209	0	966.2346
6/18/2013 20:00	15417	333	0.7609337	232.7953	32.08166	20.12022	-231.6378	46.31566	260.2169	0	966.0569
6/18/2013 21:00	15418	333	0.9954112	219.8334	36.8987	18.97488	-235.2627	45.58764	260.9713	0	966.011
6/18/2013 22:00	15419	333	0.9460825	213.4465	37.07638	18.49315	-229.2569	48.21127	261.9281	0	966.0516
6/18/2013 23:00	15420	333	1.013716	208.3868	39.38223	17.66449	-227.2422	50.50827	259.1314	0	965.7672
6/19/2013 0:00	15421	333	0.9646333	221.3163	39.02125	17.09428	-229.2645	55.61511	260.0367	0	965.6724
6/19/2013 1:00	15422	333	1.094734	227.3555	35.61308	16.14896	-226.1738	60.53727	258.0189	0	965.4279
6/19/2013 2:00	15423	333	0.9308113	219.236	30.42678	15.11799	-236.476	63.24943	260.4671	0	965.1841
6/19/2013 3:00	15424	333	0.8871869	220.6531	30.69715	15.13354	-232.6681	62.97318	263.0164	0	965.1757
6/19/2013 4:00	15425	333	0.7744253	164.7685	32.22625	14.21055	-238.1855	77.62826	266.0971	0	964.8361
6/19/2013 5:00	15426	333	0.8044445	195.9742	34.23376	13.4769	-235.2245	71.19357	265.0655	0	964.6953
6/19/2013 6:00	15427	333	1.139832	232.8899	38.3191	14.92115	-226.2273	67.81139	261.2521	0	964.9344
6/19/2013 7:00	15428	333	1.002753	241.2986	33.96777	16.68954	-229.5774	64.61543	259.7416	0	965.0674
6/19/2013 8:00	15429	333	1.351454	266.4756	29.25974	17.59067	-230.0353	66.10658	260.3982	0	964.9079
6/19/2013 9:00	15430	333	1.386299	252.4624	37.87471	19.76513	-228.4632	59.57574	259.8067	0	964.8062
6/19/2013 10:00	15431	333	1.016438	247.5853	42.68765	20.72852	-240.9938	50.3297	261.4789	0	964.6104
6/19/2013 11:00	15432	333	1.33033	250.3425	48.60139	22.72608	-241.1617	57.82513	262.2982	0	964.3848
6/19/2013 12:00	15433	333	2.589856	301.3016	24.21504	23.5815	-229.5087	41.0684	262.8514	0	964.1376
6/19/2013 13:00	15434	333	3.302563	306.8275	20.33424	24.6064	-222.5414	40.19538	260.6779	0	963.8318
6/19/2013 14:00	15435	333	3.196199	311.6497	21.76659	24.82331	-223.0298	41.03177	259.7904	0	963.8774
6/19/2013 15:00	15436	333	3.580954	310.6608	20.52359	24.76129	-223.4495	38.27841	259.7906	0	963.9535
6/19/2013 16:00	15437	333	2.767311	324.7373	27.31862	24.63035	-229.0814	36.86968	259.6308	0	964.2496
6/19/2013 17:00	15438	333	2.605798	324.0314	26.86432	24.51395	-231.3631	34.49941	262.4201	0	964.6128
6/19/2013 18:00	15439	333	2.396879	324.4992	28.81191	23.95677	-230.2413	38.08153	262.3827	0.254	964.9212
6/19/2013 19:00	15440	333	2.05169	334.5627	28.82691	23.00611	-230.9129	36.78879	261.2019	0	965.4678
6/19/2013 20:00	15441	333	1.837362	354.3419	30.88324	21.15524	-231.9812	44.46126	261.7484	0	966.2304
6/19/2013 21:00	15442	333	1.006599	20.39647	36.10605	19.04798	-229.9513	48.77445	261.7716	0	967.0545
6/19/2013 22:00	15443	333	0.9629058	34.34552	30.94292	17.36667	-230.31	52.63282	260.5272	0	967.9683
6/19/2013 23:00	15444	333	1.423948	19.78542	35.43704	16.29448	-229.028	58.3578	259.6822	0	968.6545
6/20/2013 0:00	15445	333	1.111641	31.84326	35.77553	14.94925	-230.3253	66.83307	260.2101	0	969.2526
6/20/2013 1:00	15446	333	1.156868	42.13309	37.05746	13.7823	-229.3103	73.35627	259.9158	0	969.7602
6/20/2013 2:00	15447	333	1.108505	75.0719	40.43742	12.42355	-229.2874	81.39962	258.8446	0	970.1411
6/20/2013 3:00	15448	333	1.364761	67.3205	36.80297	11.18011	-228.1656	83.46922	259.2806	0	970.4094
6/20/2013 4:00	15449	333	1.916331	63.00894	40.44921	10.77105	-228.0511	82.79309	259.4169	0	970.5617
6/20/2013 5:00	15450	333	1.816107	66.25925	39.15908	10.48528	-227.8756	80.6655	261.5117	0	971.3629
6/20/2013 6:00	15451	333	1.483861	72.9625	38.3883	10.57721	-230.1955	79.81384	261.0311	0	972.026
6/20/2013 7:00	15452	333	1.176231	86.37309	38.73476	11.19441	-226.1815	77.19938	259.2297	0	972.0655
6/20/2013 8:00	15453	333	1.644516	104.6412	34.11476	11.66598	-235.6519	75.08399	263.6104	0	972.1464
6/20/2013 9:00	15454	333	1.702139	78.88249	48.64783	13.50208	-230.0811	64.71616	263.7834	0	972.2832
6/20/2013 10:00	15455	333	1.601381	41.05653	46.72081	15.26564	-236.644	58.8233	262.4076	0	972.6425

6/20/2013 11:00	15456	333	1.710044	35.75678	48.02975	16.29711	-239.5591	56.15998	262.0832	0	972.628
6/20/2013 12:00	15457	333	1.661556	49.67031	48.70442	17.57655	-237.1247	54.78025	261.7749	0	972.6238
6/20/2013 13:00	15458	333	1.564875	45.00379	51.65942	18.78021	-235.8198	47.47561	262.0056	0	972.2833
6/20/2013 14:00	15459	333	1.746756	38.90978	46.79557	20.22871	-231.6531	45.94783	260.2803	0	971.4916
6/20/2013 15:00	15460	333	1.888306	64.62362	42.84869	20.98682	-233.973	46.58886	260.6395	0	971.1331
6/20/2013 16:00	15461	333	1.456673	32.6812	45.54398	21.71202	-232.8436	43.7195	260.8679	0	971.2797
6/20/2013 17:00	15462	333	1.484492	73.3441	46.70559	22.09637	-229.7987	43.97897	260.9019	0	970.8594
6/20/2013 18:00	15463	333	1.232726	106.8991	34.67537	21.0963	-228.7151	42.19478	260.6082	0	970.7125
6/20/2013 19:00	15464	333	0.9787682	83.42376	36.76149	20.37527	-232.6909	53.83093	261.9658	0	970.856
6/20/2013 20:00	15465	333	1.032405	81.32635	30.48171	18.88533	-232.317	54.48874	261.7271	0	970.8622
6/20/2013 21:00	15466	333	1.308132	82.21719	28.86732	17.21935	-231.2563	55.30071	261.5805	0	971.1639
6/20/2013 22:00	15467	333	1.528018	83.68567	30.72878	16.43583	-230.6076	58.4051	259.8367	0	971.4846
6/20/2013 23:00	15468	333	1.541605	81.86894	33.35471	15.60015	-228.2801	63.64167	259.4577	0	971.22
6/21/2013 0:00	15469	333	1.105303	103.2575	33.00257	14.11697	-230.6458	71.5324	259.8629	0	971.1358
6/21/2013 1:00	15470	333	1.200246	96.10641	32.26873	13.19168	-232.3399	75.27935	260.813	0	970.8032
6/21/2013 2:00	15471	333	1.249094	113.4056	26.78085	12.76565	-227.4483	83.2006	260.4069	0	970.2095
6/21/2013 3:00	15472	333	1.133071	112.7091	29.2858	12.74988	-225.8991	85.88528	257.2779	0	970.2493
6/21/2013 4:00	15473	333	1.239023	114.4664	25.9134	12.57428	-227.4864	87.35354	257.2825	0	970.0175
6/21/2013 5:00	15474	333	1.382749	116.0278	29.71008	13.26811	-227.6009	82.28484	259.2242	0	969.9052
6/21/2013 6:00	15475	333	1.597416	120.3926	28.55339	14.37662	-226.6928	78.83858	257.3206	0	969.8668
6/21/2013 7:00	15476	333	1.56568	115.8226	30.08098	15.80381	-227.4712	71.23326	256.8856	0	969.3205
6/21/2013 8:00	15477	333	1.376178	117.4817	31.50601	17.92729	-231.4471	68.55773	259.6985	0	969.6238
6/21/2013 9:00	15478	333	1.528105	84.42741	37.66872	18.85136	-227.3719	63.17617	258.934	0	969.5379
6/21/2013 10:00	15479	333	1.65632	77.99841	43.71805	21.20634	-230.6381	55.11755	258.3693	0	969.7274
6/21/2013 11:00	15480	333	1.922552	117.1296	34.12366	23.22199	-233.4312	52.41609	258.1163	0	969.5803
6/21/2013 12:00	15481	333	2.363785	119.9169	30.96474	24.21682	-226.9675	53.45546	260.5563	0	969.2556
6/21/2013 13:00	15482	333	1.423419	126.8888	33.32889	24.21982	-232.3705	51.18288	261.1045	0	969.2557
6/21/2013 14:00	15483	333	1.228603	124.1842	34.09832	24.98927	-233.8356	49.93898	260.5759	0	969.0381
6/21/2013 15:00	15484	333	0.9267082	120.7399	32.09763	25.81231	-229.295	47.63587	261.2774	0	969.3182
6/21/2013 16:00	15485	333	0.9455945	125.5064	32.69403	25.97131	-229.6079	46.42555	261.4729	0	969.2241
6/21/2013 17:00	15486	333	0.4983921	71.41589	42.85238	25.22489	-232.172	54.0034	262.2512	0	969.0634
6/21/2013 18:00	15487	333	0.4646733	93.86191	53.44385	25.2765	-231.9126	46.28971	261.4313	0	969.2734
6/21/2013 19:00	15488	333	0.8234141	61.87202	43.15459	25.92605	-233.8814	47.54277	260.75	0	969.3699
6/21/2013 20:00	15489	333	0.4233328	99.3403	18.8371	24.18287	-233.2556	61.45609	263.2787	0	969.5289
6/21/2013 21:00	15490	333	0.4175536	85.40313	19.02914	20.37343	-227.8451	65.81964	261.6567	0	969.9724
6/21/2013 22:00	15491	333	0.7407436	82.81651	25.1671	19.63416	-227.6161	66.4744	257.5992	0	970.0433
6/21/2013 23:00	15492	333	0.7074848	81.29918	31.07172	19.12953	-227.2422	71.66518	256.9678	0	969.7161
6/22/2013 0:00	15493	333	0.680481	136.4012	20.38956	17.6926	-227.7001	82.43595	256.8401	0	969.9564
6/22/2013 1:00	15494	333	0.6222359	144.4421	10.12469	16.21374	-226.0288	88.47839	256.3889	0	969.9423
6/22/2013 2:00	15495	333	0.2526514	118.1824	57.11803	15.89986	-226.5096	91.70794	256.0992	0	969.8275
6/22/2013 3:00	15496	333	0.1169337	116.9151	16.13304	15.26384	-225.922	94.96343	256.0432	0	969.7444
6/22/2013 4:00	15497	333	0.3977148	80.21121	64.03848	14.47478	-225.5252	97.33828	255.8187	0	969.7299
6/22/2013 5:00	15498	333	0.3826677	133.0908	17.71184	14.45541	-225.3878	97.71984	255.5386	0	970.1984
6/22/2013 6:00	15499	333	0.09206791	120.2845	12.08681	15.74177	-225.3039	93.63559	255.4748	0	970.9506
6/22/2013 7:00	15500	333	0.4726432	137.2906	19.4683	18.62979	-226.4181	75.58765	255.4701	0	971.1813
6/22/2013 8:00	15501	333	0.9184849	134.1861	27.46659	22.05422	-228.2114	63.80041	258.32	0	971.2054

6/22/2013 9:00	15502	333	1.236441	150.2143	33.81689	23.78882	-228.7761	59.31933	259.3908	0	970.7706
6/22/2013 10:00	15503	333	1.775329	145.8347	30.54536	24.01566	-228.8219	58.2479	259.1374	0	970.1542
6/22/2013 11:00	15504	333	1.572492	142.5057	31.3941	24.15337	-228.3945	54.76347	259.3027	0	969.531
6/22/2013 12:00	15505	333	1.380906	137.003	34.58397	25.49794	-227.8375	50.77995	260.9617	0	968.9001
6/22/2013 13:00	15506	333	1.808734	140.8835	35.11506	26.9562	-224.7926	45.9402	258.2123	0	968.3024
6/22/2013 14:00	15507	333	1.709525	140.7211	31.66887	26.8186	-229.8292	46.92921	259.3692	0	968.2877
6/22/2013 15:00	15508	333	1.825398	147.5456	32.05441	26.8115	-233.6219	40.29459	259.0289	0	968.1387
6/22/2013 16:00	15509	333	1.764318	147.9314	34.44046	26.51587	-228.0435	46.44081	258.5346	0	967.736
6/22/2013 17:00	15510	333	1.573529	155.0965	33.87979	24.17854	-228.3869	54.54522	258.5408	0	967.5201
6/22/2013 18:00	15511	333	1.307565	155.0551	29.29316	22.68904	-227.9443	55.41212	257.7088	0	967.2717
6/22/2013 19:00	15512	333	1.337586	146.6709	28.5662	22.09012	-231.1876	59.07513	257.3694	0	966.9474
6/22/2013 20:00	15513	333	1.028509	143.9156	26.85128	21.97611	-226.9751	63.25096	259.2323	0	966.0707
6/22/2013 21:00	15514	333	0.5297833	146.5193	14.50465	19.51249	-226.9904	76.48357	256.6676	0	965.6599
6/22/2013 22:00	15515	333	0.9621915	148.8072	16.51645	17.29831	-230.951	77.35201	256.941	0	965.6323
6/22/2013 23:00	15516	333	0.6845451	146.0895	14.36134	16.62061	-228.2419	82.91824	257.7954	0	965.4934
6/23/2013 0:00	15517	333	0.5109074	148.4348	10.61782	15.49334	-226.0288	86.99181	258.2919	0	965.2719
6/23/2013 1:00	15518	333	0.6277837	134.8217	9.479691	14.81611	-230.6076	92.46038	260.2505	0	964.4719
6/23/2013 2:00	15519	333	0.3066446	124.7104	7.970649	14.32215	-225.571	95.29005	256.4738	0	963.9982
6/23/2013 3:00	15520	333	0.3918867	100.0684	24.25409	14.60378	-227.1964	91.38742	256.6849	0	963.5895
6/23/2013 4:00	15521	333	0.5631354	128.5348	19.27147	14.89784	-227.4177	88.60354	256.7036	0	963.1337
6/23/2013 5:00	15522	333	0.1703086	133.0461	26.74604	16.11563	-226.5096	87.42985	257.8958	0	963.2569
6/23/2013 6:00	15523	333	0.6232022	128.5202	30.67959	17.11786	-226.7843	85.8746	256.097	0	963.3683
6/23/2013 7:00	15524	333	0.8878946	124.2898	26.4102	18.28551	-225.6702	83.96373	256.5008	0	962.1105
6/23/2013 8:00	15525	333	1.235655	123.6127	30.34016	19.28285	-228.2038	80.71129	257.0345	0	961.4883
6/23/2013 9:00	15526	333	1.340316	127.3644	32.26252	19.54008	-232.7291	76.37673	260.9827	0	961.6753
6/23/2013 10:00	15527	333	1.824197	120.7875	32.6394	21.18429	-229.5698	67.85413	260.5246	0	960.9153
6/23/2013 11:00	15528	333	1.819983	125.3785	34.61184	23.15708	-233.5762	60.37397	259.3402	0	959.9353
6/23/2013 12:00	15529	333	1.891059	129.3244	35.018	24.07139	-241.4287	57.79766	259.4659	0	959.1257
6/23/2013 13:00	15530	333	1.631672	134.9613	34.74188	25.68693	-228.3335	53.42342	261.3048	0	958.2105
6/23/2013 14:00	15531	333	1.906259	124.2852	32.83826	25.91111	-228.8295	53.68441	259.8856	0	957.2009
6/23/2013 15:00	15532	333	1.818979	128.7715	30.77507	25.48399	-228.4937	53.93624	259.1859	0	956.7322
6/23/2013 16:00	15533	333	2.001966	123.4692	28.99186	24.75471	-231.7905	58.99882	258.9254	0	955.6543
6/23/2013 17:00	15534	333	1.858904	136.5474	28.60855	23.35197	-227.143	63.01744	260.8333	0	954.8041
6/23/2013 18:00	15535	333	1.855016	140.404	33.15615	21.62041	-226.1052	83.80958	259.6907	0	954.165
6/23/2013 19:00	15536	333	1.746174	123.4142	30.0575	19.19533	-225.0063	90.22137	255.9413	0	953.2795
6/23/2013 20:00	15537	333	1.826128	121.3745	28.6622	18.44679	-225.5099	97.35659	256.5371	0	952.756
6/23/2013 21:00	15538	333	1.585767	144.0303	30.99015	17.83803	-225.281	97.67253	256.3239	0	952.2554
6/23/2013 22:00	15539	333	1.388378	174.0481	48.64913	17.85973	-225.281	95.38009	257.2435	0	952.5748
6/23/2013 23:00	15540	333	1.17288	171.8521	44.61797	17.35839	-227.1354	95.84408	257.0833	0	953.0328
6/24/2013 0:00	15541	333	1.161298	180.4178	50.41402	16.79237	-228.0969	90.59072	257.9185	0	952.9484
6/24/2013 1:00	15542	333	1.494612	191.8728	48.81432	15.67386	-224.5255	90.43962	256.6826	0	953.2392
6/24/2013 2:00	15543	333	1.353682	209.3825	49.41363	15.18116	-230.4397	95.65788	258.6609	0	953.6274
6/24/2013 3:00	15544	333	1.729472	225.7569	46.92902	14.99946	-226.7157	94.21404	259.2011	0	954.1736
6/24/2013 4:00	15545	333	2.259264	232.1538	44.9542	14.5623	-225.3573	92.17192	257.4604	0	954.8679
6/24/2013 5:00	15546	333	1.777292	218.0343	49.9493	14.17084	-224.0981	92.12307	254.8467	0	955.2609
6/24/2013 6:00	15547	333	1.099861	186.6675	48.70815	14.1682	-225.3191	86.47137	254.7512	0	955.3851

6/24/2013 7:00	15548	333	1.269494	169.7648	45.15971	14.93107	-225.5328	85.75249	255.0541	0	954.9772
6/24/2013 8:00	15549	333	1.454962	168.8864	48.93258	15.66792	-231.0121	84.51166	258.5156	0	954.7956
6/24/2013 9:00	15550	333	1.72922	178.7942	45.93524	16.92827	-228.1732	75.72502	259.472	0	954.4391
6/24/2013 10:00	15551	333	2.046679	201.6576	51.67763	18.02269	-227.1583	71.67587	259.3403	0	954.5709
6/24/2013 11:00	15552	333	2.164721	215.6531	47.05655	18.33612	-225.4107	66.99791	257.2419	0	954.5231
6/24/2013 12:00	15553	333	2.333872	235.6707	41.23507	18.0708	-226.1128	81.13558	257.0788	0	954.5881
6/24/2013 13:00	15554	333	1.543145	226.8163	43.77826	16.71576	-228.2572	87.63895	258.1444	0	954.9057
6/24/2013 14:00	15555	333	1.620188	235.014	42.62236	16.64326	-231.3478	86.02112	258.3423	0	955.0696
6/24/2013 15:00	15556	333	1.620735	269.7865	28.94518	16.11563	-226.6012	91.29127	260.642	0	955.6588
6/24/2013 16:00	15557	333	2.512928	303.0039	15.95147	15.8816	-231.1113	95.62277	258.0592	0.508	956.1867
6/24/2013 17:00	15558	333	2.93946	301.7796	17.23736	15.99472	-225.9449	95.27631	258.0947	0.508	956.7759
6/24/2013 18:00	15559	333	1.867302	291.1385	19.9963	16.54971	-231.3326	93.79279	259.8939	0	957.2618
6/24/2013 19:00	15560	333	1.641225	286.3632	19.01362	16.63284	-232.3933	94.72686	262.0522	0.508	957.9055
6/24/2013 20:00	15561	333	1.735876	292.0074	17.25575	16.18867	-231.4929	96.25464	261.4511	0	958.3815
6/24/2013 21:00	15562	333	1.718753	293.72	17.0657	15.89739	-229.1882	96.4149	258.3561	0	958.7776
6/24/2013 22:00	15563	333	1.087032	289.3271	16.46859	15.22768	-231.9431	96.32485	261.163	0	959.1564
6/24/2013 23:00	15564	333	0.900422	275.9521	14.00922	14.72228	-232.2712	98.35018	261.9369	0	959.3172
6/25/2013 0:00	15565	333	0.9232058	237.0997	23.45333	14.68236	-228.6845	98.44482	260.4893	0	959.5209
6/25/2013 1:00	15566	333	1.09175	252.4962	21.23279	14.53761	-229.4706	98.75311	259.6822	0	959.5146
6/25/2013 2:00	15567	333	0.5849022	238.5964	24.20495	14.15387	-225.2276	98.68596	256.9789	0	959.6995
6/25/2013 3:00	15568	333	0.1748896	242.7125	14.86974	13.69849	-225.4336	99.14994	255.3752	0	959.9338
6/25/2013 4:00	15569	333	0.2066842	138.7387	14.21812	13.38828	-227.0743	98.58218	256.0443	0	960.1077
6/25/2013 5:00	15570	333	0.1381949	144.3521	3.362948	13.51919	-226.1967	98.56996	257.2905	0	960.3948
6/25/2013 6:00	15571	333	0.1938234	145.0518	10.19969	14.14142	-226.3494	98.74548	256.3484	0	960.9131
6/25/2013 7:00	15572	333	0.3827263	289.3121	42.08702	16.85004	-232.8665	84.23693	259.4686	0	961.1693
6/25/2013 8:00	15573	333	0.6002403	213.0889	46.52843	19.99279	-228.2953	73.82178	260.5169	0	961.3608
6/25/2013 9:00	15574	333	0.8397965	110.3391	54.85812	21.11588	-227.3338	71.4393	259.3664	0.254	961.1785
6/25/2013 10:00	15575	333	0.7267296	77.21062	52.38469	22.45167	-224.1287	62.9335	258.3565	0	961.1267
6/25/2013 11:00	15576	333	0.7656949	315.7588	58.1531	24.12777	-231.6149	57.57483	259.6077	0.508	961.0082
6/25/2013 12:00	15577	333	1.564752	314.4849	27.99417	25.10698	-224.1363	53.51957	260.2281	0	960.9205
6/25/2013 13:00	15578	333	1.617298	304.6003	32.3276	25.68236	-236.3158	52.04979	260.0949	0.254	960.9313
6/25/2013 14:00	15579	333	1.071802	259.0798	55.24339	27.57943	-236.0182	40.71584	261.2737	0	960.9711
6/25/2013 15:00	15580	333	1.153876	322.3799	81.24142	27.31823	-229.0966	59.63527	261.8813	0	960.84
6/25/2013 16:00	15581	333	1.673459	66.95755	39.51671	25.47545	-228.7151	49.446	258.4679	0	960.6396
6/25/2013 17:00	15582	333	1.476009	46.33247	39.87549	25.55926	-231.6073	55.86542	259.4586	0	960.5396
6/25/2013 18:00	15583	333	1.402252	59.59157	41.80701	26.04242	-230.0276	50.51743	260.5393	0	960.4926
6/25/2013 19:00	15584	333	1.524827	92.27155	36.53307	24.91599	-229.2187	59.39412	259.2969	0	960.1736
6/25/2013 20:00	15585	333	1.577632	99.367	30.87998	22.37268	-232.4315	68.11818	259.7838	0	960.1785
6/25/2013 21:00	15586	333	1.58846	104.2871	30.32685	20.86512	-229.5316	73.81873	260.5049	0	960.1607
6/25/2013 22:00	15587	333	1.657814	107.3378	28.64365	19.87169	-230.2871	74.2354	259.4868	0	960.6376
6/25/2013 23:00	15588	333	1.576983	103.7911	29.50342	19.25147	-234.1562	78.71342	261.286	0	960.9083
6/26/2013 0:00	15589	333	1.623132	106.8376	30.83498	18.60011	-233.187	80.14962	260.847	0	960.5807
6/26/2013 1:00	15590	333	1.592923	114.3996	27.6057	17.87727	-233.187	83.74242	263.5621	0	959.8218
6/26/2013 2:00	15591	333	1.472915	110.1517	29.42053	17.99668	-227.8527	80.80134	258.2878	0	960.0167
6/26/2013 3:00	15592	333	1.623356	103.2623	32.1032	17.70822	-234.3546	86.69115	258.3174	0	959.5068
6/26/2013 4:00	15593	333	1.705857	106.7187	30.48676	16.83491	-231.2792	88.95916	261.7766	0	958.7797

6/26/2013 5:00	15594	333	1.64133	99.18484	33.86781	16.66423	-228.5853	88.38681	259.0612	0	958.6438
6/26/2013 6:00	15595	333	1.731361	111.7299	31.57405	16.27822	-227.8222	97.01167	258.2347	4.318	959.1162
6/26/2013 7:00	15596	333	1.554942	103.7873	33.32871	15.85895	-226.8683	95.68383	256.9817	0	959.1071
6/26/2013 8:00	15597	333	2.00229	100.6871	33.36072	16.59879	-232.3552	90.07942	259.0795	0.762	958.716
6/26/2013 9:00	15598	333	2.330466	109.7597	32.2598	17.37985	-228.3106	90.28547	261.6624	0	958.4456
6/26/2013 10:00	15599	333	1.705818	114.7974	31.61095	16.95884	-228.5472	91.36452	258.4338	0	958.3854
6/26/2013 11:00	15600	333	1.456453	104.1135	32.71929	16.40782	-227.723	97.2467	257.4769	6.604002	958.6376
6/26/2013 12:00	15601	333	1.66202	86.82373	34.1873	16.07664	-227.3567	95.81356	257.2599	2.032	958.1384
6/26/2013 13:00	15602	333	2.093097	110.0434	33.49014	16.31686	-227.6085	96.32485	257.1468	1.27	958.1492
6/26/2013 14:00	15603	333	2.336668	115.3647	29.39457	16.60649	-228.9135	95.73571	259.7334	1.27	958.1208
6/26/2013 15:00	15604	333	1.922469	111.6987	29.60551	16.35772	-228.9211	96.74457	260.087	3.048	957.9622
6/26/2013 16:00	15605	333	1.664674	115.246	30.57961	16.47791	-229.5621	96.60567	262.566	0	957.7496
6/26/2013 17:00	15606	333	1.753289	123.4703	30.0715	16.59419	-226.7462	96.21954	257.738	0	957.5388
6/26/2013 18:00	15607	333	0.7731097	146.3333	36.20752	16.94265	-227.082	95.9555	256.8124	0	957.2328
6/26/2013 19:00	15608	333	1.266826	123.785	31.60759	17.17016	-227.9748	95.88376	257.4183	0	957.0398
6/26/2013 20:00	15609	333	1.265834	121.3298	28.59705	17.07761	-230.2184	97.0956	258.8769	0	956.9719
6/26/2013 21:00	15610	333	0.9135363	138.6796	24.42651	17.02506	-228.0664	97.65269	258.0611	1.016	957.0093
6/26/2013 22:00	15611	333	1.030196	142.6581	18.4698	16.91724	-227.4101	98.72259	257.4754	0	957.2622
6/26/2013 23:00	15612	333	0.8638138	141.5295	20.58114	17.10564	-226.3188	98.56386	258.4245	0	957.1066
6/27/2013 0:00	15613	333	0.7755405	140.7385	21.87608	17.24169	-226.0975	98.48754	256.0767	0	957.0873
6/27/2013 1:00	15614	333	0.5494005	147.2947	24.59766	17.18395	-226.7233	98.41887	256.0022	0	957.216
6/27/2013 2:00	15615	333	0.6918473	144.388	20.89635	17.20228	-228.2648	98.42955	257.7003	0	957.1055
6/27/2013 3:00	15616	333	0.5069163	131.481	28.37533	17.14284	-229.7453	98.42802	259.3691	0	957.1624
6/27/2013 4:00	15617	333	0.5142837	141.8141	20.00476	17.04615	-228.2267	98.27234	259.0397	0	957.2531
6/27/2013 5:00	15618	333	0.3582454	126.2657	19.99372	16.86443	-228.1274	97.91367	258.599	0	957.3021
6/27/2013 6:00	15619	333	0.4286003	128.6039	25.79807	17.24934	-227.433	94.03548	260.6457	0	957.4038
6/27/2013 7:00	15620	333	0.8868312	105.2412	29.53346	17.92129	-229.8903	94.08278	258.4188	0	957.4171
6/27/2013 8:00	15621	333	0.7810502	127.9137	30.53234	18.43939	-233.0878	85.19695	260.2928	0	957.4473
6/27/2013 9:00	15622	333	0.755961	144.748	34.73894	20.96132	-230.1039	72.24974	262.6436	0.508	957.29
6/27/2013 10:00	15623	333	0.9806633	147.8938	37.72393	23.09801	-234.759	73.18991	261.5201	0	957.0995
6/27/2013 11:00	15624	333	1.238799	114.6713	37.02874	23.15264	-221.2364	71.04705	258.468	0	957.0466
6/27/2013 12:00	15625	333	1.672693	86.025	33.93488	22.78893	-229.6308	73.0556	259.7178	0.508	956.8868
6/27/2013 13:00	15626	333	2.11209	79.33134	35.0498	22.06172	-229.6385	70.0321	260.2212	0	956.9526
6/27/2013 14:00	15627	333	1.333025	108.8001	46.78581	22.22669	-229.1653	73.70579	259.4849	0	957.1334
6/27/2013 15:00	15628	333	1.587062	304.7527	99.29739	21.7187	-230.3863	64.81841	259.4117	0	957.2769
6/27/2013 16:00	15629	333	1.751875	59.96262	45.62108	23.01011	-230.2794	61.20425	259.6596	0	957.6743
6/27/2013 17:00	15630	333	2.276019	71.53458	39.07043	21.14757	-231.4471	76.65298	260.5701	0	958.3329
6/27/2013 18:00	15631	333	2.198794	74.17248	35.46706	17.90863	-227.4559	85.27478	260.6997	0	958.9543
6/27/2013 19:00	15632	333	1.695727	71.7654	34.30415	17.0533	-228.0511	86.03638	258.0633	0	959.4973
6/27/2013 20:00	15633	333	0.7412494	28.67113	38.70071	17.23849	-227.7383	87.58247	258.0689	0	959.5197
6/27/2013 21:00	15634	333	0.8248129	356.5353	23.01088	16.26953	-226.3723	92.81142	257.6524	0	959.4973
6/27/2013 22:00	15635	333	1.011981	342.0211	26.28079	15.72498	-227.4559	90.72808	257.1348	0	959.7419
6/27/2013 23:00	15636	333	1.292343	27.02936	40.65292	16.66283	-229.524	82.36422	258.9794	0	960.0443
6/28/2013 0:00	15637	333	1.043868	24.23884	42.42688	17.17639	-228.8448	84.24151	259.1653	0	960.3083
6/28/2013 1:00	15638	333	1.373067	14.41603	44.2553	16.86994	-227.9519	85.23357	259.6324	0	960.3434
6/28/2013 2:00	15639	333	1.585198	34.20562	43.52821	16.61139	-232.1033	86.31721	260.3597	0	960.5478

6/28/2013 3:00	15640	333	1.396182	33.76332	42.83714	16.20263	-230.7221	88.5608	260.3658	0	960.9152
6/28/2013 4:00	15641	333	1.474422	32.0212	39.78732	16.10956	-229.669	88.26929	260.0525	0	961.2505
6/28/2013 5:00	15642	333	1.677694	43.34102	41.59491	16.14013	-227.5933	87.32454	259.1589	0	961.7911
6/28/2013 6:00	15643	333	2.183149	58.65937	36.86008	16.39841	-228.8143	83.75005	258.18	0	962.4691
6/28/2013 7:00	15644	333	1.567878	65.45114	39.2418	17.02853	-229.5316	75.71586	259.8199	0	962.8697
6/28/2013 8:00	15645	333	2.060834	56.3919	43.74503	18.8065	-234.8048	68.79736	261.4795	0	963.202
6/28/2013 9:00	15646	333	2.388833	74.71244	39.27766	18.69607	-230.226	73.573	261.1001	0	963.5966
6/28/2013 10:00	15647	333	1.864298	66.9824	39.87247	19.06593	-229.2798	69.76195	260.9569	0	964.1396
6/28/2013 11:00	15648	333	2.117136	78.99892	45.77209	20.87714	-231.882	61.6835	261.0354	0	964.4228
6/28/2013 12:00	15649	333	1.393834	68.30895	44.58161	21.60199	-231.4318	54.58947	261.0691	0	964.6421
6/28/2013 13:00	15650	333	1.293252	48.80148	40.31301	22.61189	-236.0792	55.77537	261.6599	0	964.686
6/28/2013 14:00	15651	333	1.416906	58.9649	40.98404	22.93386	-230.6	51.34771	262.95	0	964.9026
6/28/2013 15:00	15652	333	1.442239	69.12739	42.41944	24.52075	-234.9956	47.7305	263.532	0	964.8743
6/28/2013 16:00	15653	333	1.432386	99.87915	42.17112	24.2673	-230.8824	51.21035	262.0502	0	964.8251
6/28/2013 17:00	15654	333	0.7693058	106.8872	33.01653	23.64073	-233.0344	50.15571	264.1118	0	964.7908
6/28/2013 18:00	15655	333	0.4051886	115.4663	33.67818	24.82526	-238.2007	46.21035	266.6864	0	964.509
6/28/2013 19:00	15656	333	0.6724073	84.1767	54.13963	25.51091	-237.5292	46.47897	266.0731	0	964.5515
6/28/2013 20:00	15657	333	0.6649455	40.96308	29.64257	23.25194	-237.201	49.05375	265.783	0	964.7512
6/28/2013 21:00	15658	333	0.7246826	17.52765	24.41554	21.03271	-233.7135	55.49607	265.6667	0	965.2111
6/28/2013 22:00	15659	333	0.4925553	16.93825	20.33962	18.92534	-233.538	59.31627	263.2422	0	965.5734
6/28/2013 23:00	15660	333	0.4434787	14.75042	18.89907	17.17055	-235.7587	69.98021	261.3743	0	965.6985
6/29/2013 0:00	15661	333	0.5833646	12.08679	22.93023	15.78975	-234.1867	65.84559	262.1651	0	966.0178
6/29/2013 1:00	15662	333	0.8211701	17.48094	20.73772	15.37716	-227.3491	64.99393	259.2976	0	966.3166
6/29/2013 2:00	15663	333	0.8144209	26.38677	25.36644	15.0417	-230.5923	61.40267	257.5524	0	966.619
6/29/2013 3:00	15664	333	0.6781708	22.37111	26.18755	14.27505	-227.3948	66.88496	258.6669	0	966.8639
6/29/2013 4:00	15665	333	0.5020066	19.76869	30.69655	13.51903	-232.3094	68.94235	259.9928	0	967.3462
6/29/2013 5:00	15666	333	0.421654	70.99451	25.56304	12.73837	-231.4776	73.5791	260.8048	0	967.8027
6/29/2013 6:00	15667	333	0.3015014	16.55314	29.57421	13.51761	-229.1882	70.32514	260.3586	0	968.1912
6/29/2013 7:00	15668	333	0.4596705	12.33154	28.54617	17.00772	-233.6143	55.92189	263.4407	0	968.5935
6/29/2013 8:00	15669	333	0.5329628	7.553634	48.33387	19.62986	-235.0185	54.95272	264.2065	0	968.9052
6/29/2013 9:00	15670	333	1.017375	300.2531	20.36556	20.85737	-231.6683	53.75614	265.2777	0	968.9983
6/29/2013 10:00	15671	333	1.44318	347.8956	36.64011	23.02054	-228.6006	36.36602	262.8713	0	968.8973
6/29/2013 11:00	15672	333	1.665454	342.6237	34.76173	24.0186	-230.8442	31.47133	263.7032	0	968.9278
6/29/2013 12:00	15673	333	1.657704	341.3464	41.48324	24.86562	-223.709	31.15692	261.9639	0.254	968.9099
6/29/2013 13:00	15674	333	1.800012	346.9742	38.82197	25.68784	-236.7431	25.57847	260.7485	0	968.9384
6/29/2013 14:00	15675	333	1.623831	347.8359	41.841	26.41702	-230.1192	23.92706	260.4645	0.254	968.8417
6/29/2013 15:00	15676	333	1.702393	338.3166	44.73316	26.86654	-234.0951	26.60869	260.8393	0.254	968.6829
6/29/2013 16:00	15677	333	1.826291	346.5277	41.05846	27.16231	-231.4852	30.07633	262.0597	0	968.5203
6/29/2013 17:00	15678	333	1.706081	340.5578	34.4388	26.7828	-237.7581	35.30985	262.9203	0	968.3716
6/29/2013 18:00	15679	333	1.374712	350.7751	37.78789	26.20268	-237.0484	37.18256	264.5771	0	968.1424
6/29/2013 19:00	15680	333	1.366556	334.0047	27.69968	24.83232	-233.1107	42.24362	264.6	0	968.0762
6/29/2013 20:00	15681	333	1.088423	323.196	20.74802	22.32057	-231.7294	52.58245	262.9601	0	968.163
6/29/2013 21:00	15682	333	0.7682416	322.1656	13.93322	19.71614	-234.3622	59.42464	263.9944	0	968.3181
6/29/2013 22:00	15683	333	1.260982	316.0571	10.06067	17.40786	-231.8057	66.18137	263.7255	0	968.7411
6/29/2013 23:00	15684	333	1.248395	318.8799	7.304634	17.29077	-231.8668	64.08582	262.3722	0	969.0366
6/30/2013 0:00	15685	333	0.9588624	321.4172	7.962559	16.10767	-232.2636	71.66061	262.844	0	969.3984

6/30/2013 1:00	15686	333	0.8078887	323.9757	7.988573	14.90794	-232.1491	81.13863	262.4254	0	969.7339
6/30/2013 2:00	15687	333	1.26257	314.6426	10.76046	13.95707	-232.3933	78.72411	262.4011	0	969.8787
6/30/2013 3:00	15688	333	1.063508	303.1289	19.7458	13.74943	-230.9815	69.33612	261.2982	0	970.0472
6/30/2013 4:00	15689	333	1.395948	306.065	11.74706	13.63957	-229.5927	75.0672	260.7585	0	970.4734
6/30/2013 5:00	15690	333	1.553798	303.27	12.03879	13.75076	-229.6995	74.05071	259.301	0	970.942
6/30/2013 6:00	15691	333	1.222959	322.2445	15.53444	14.72758	-228.2724	72.61299	260.0755	0	971.3453
6/30/2013 7:00	15692	333	1.207593	324.3105	22.00885	16.5393	-229.585	66.90022	259.6682	0	971.832
6/30/2013 8:00	15693	333	1.160645	325.3352	26.85747	19.26436	-233.5304	58.28605	261.8045	0	972.1594
6/30/2013 9:00	15694	333	1.700771	316.6143	23.83405	20.957	-233.6525	51.76591	262.1971	0	972.2785
6/30/2013 10:00	15695	333	1.955875	325.5692	27.86047	22.79567	-227.1659	44.03696	261.364	0	972.266
6/30/2013 11:00	15696	333	2.27311	322.3711	27.2383	24.16748	-227.3109	39.48262	260.3458	0	972.2695
6/30/2013 12:00	15697	333	2.303935	327.2148	30.67019	24.8941	-236.2242	28.74697	261.7041	0	972.2698
6/30/2013 13:00	15698	333	2.076604	343.3883	39.04058	25.55685	-236.3539	24.15142	262.9677	0	972.4708
6/30/2013 14:00	15699	333	2.029554	342.0299	37.70396	26.13338	-227.7993	24.34373	260.7185	0	972.5039
6/30/2013 15:00	15700	333	1.982932	349.1276	34.07659	26.35396	-228.2801	22.28329	259.9973	0	972.6515
6/30/2013 16:00	15701	333	1.788186	343.7389	37.48574	26.59477	-228.0282	20.62272	259.9845	0	972.8148
6/30/2013 17:00	15702	333	1.770973	350.9552	34.53849	26.06687	-233.3243	26.598	259.6437	0	973.1018
6/30/2013 18:00	15703	333	1.400133	1.077326	35.04207	25.85093	-233.9425	25.0687	261.4407	0.254	973.3048
6/30/2013 19:00	15704	333	1.286728	19.12405	41.76629	24.7241	-233.3015	29.00795	263.4241	0	973.5356
6/30/2013 20:00	15705	333	0.9844558	31.72886	34.90436	22.51682	-232.2865	33.51498	262.1968	0	973.7693
6/30/2013 21:00	15706	333	0.772302	33.55621	25.48342	19.94653	-234.0569	34.63983	262.0732	0	974.0815
6/30/2013 22:00	15707	333	0.6610022	36.30938	24.22881	18.04518	-231.6455	40.98751	262.3377	0	974.5236
6/30/2013 23:00	15708	333	0.6256143	63.23866	24.75229	16.37925	-232.4086	47.73507	262.9704	0	975.0076
7/1/2013 0:00	15709	333	0.4535885	75.23194	23.42618	14.43937	-233.4159	60.61053	262.5763	0	975.377
7/1/2013 1:00	15710	333	0.3693307	113.0831	23.26622	12.39735	-232.027	67.49394	262.2739	0	975.6912
7/1/2013 2:00	15711	333	0.06309924	91.79174	5.600687	12.01063	-231.5844	67.06506	261.3792	0	976.0519
7/1/2013 3:00	15712	333	0.3440336	126.2775	16.27423	11.36849	-231.6531	74.90237	260.8529	0	976.2733
7/1/2013 4:00	15713	333	0.2837528	109.9529	12.05906	10.83155	-231.6607	73.64931	260.8416	0	976.5291
7/1/2013 5:00	15714	333	0.1607151	354.9018	15.07081	9.861749	-231.0273	84.26592	261.2007	0	976.8502
7/1/2013 6:00	15715	333	0.1697268	103.7791	23.30383	11.57349	-231.6302	68.39138	261.0142	0	977.2507
7/1/2013 7:00	15716	333	0.3678479	110.7691	18.75848	16.1343	-229.2035	56.43776	259.8439	0	977.4183
7/1/2013 8:00	15717	333	0.7024725	108.9514	23.20721	19.20997	-228.1046	53.65693	259.3533	0	977.5252
7/1/2013 9:00	15718	333	0.6197754	313.9812	50.29704	21.3599	-231.2029	40.50369	259.6661	0	977.5214
7/1/2013 10:00	15719	333	1.136444	324.9974	53.98818	22.707	-228.4327	31.83	261.2596	0	977.2317
7/1/2013 11:00	15720	333	0.8858899	93.88548	54.83337	23.86273	-224.6552	30.67767	261.657	0	976.9681
7/1/2013 12:00	15721	333	0.698109	79.50749	63.11855	24.95625	-223.19	30.25796	260.2874	0	976.6086
7/1/2013 13:00	15722	333	1.094984	310.288	75.68082	26.16734	-237.5978	27.7259	261.0694	0	976.0649
7/1/2013 14:00	15723	333	0.8843265	303.095	64.40836	27.04478	-231.9355	25.14959	259.9337	0	975.4882
7/1/2013 15:00	15724	333	1.170337	290.7547	42.17632	27.6205	-233.2251	25.54031	259.2005	0	974.9643
7/1/2013 16:00	15725	333	0.9171799	48.36051	60.65407	28.03495	-228.3182	21.67584	259.4778	0	974.5495
7/1/2013 17:00	15726	333	0.600777	105.17	44.25403	28.64206	-232.7138	23.45392	259.2187	0	974.1608
7/1/2013 18:00	15727	333	0.4516466	101.0932	78.84746	28.84193	-229.028	24.5223	260.4094	0	973.8527
7/1/2013 19:00	15728	333	0.4467735	112.4553	34.2892	27.44706	-232.9046	38.09679	260.6194	0	973.5553
7/1/2013 20:00	15729	333	0.468894	132.881	7.828714	23.36479	-232.9733	47.98385	262.5224	0	973.0739
7/1/2013 21:00	15730	333	0.03558593	169.4227	5.56973	19.9665	-232.4315	64.83826	262.7176	0	972.8524
7/1/2013 22:00	15731	333	0.3066816	149.7581	12.14411	17.61007	-229.7071	77.46037	261.454	0	972.8311

7/1/2013 23:00	15732	333	0.5869452	151.7652	8.646643	15.88277	-227.082	73.67374	258.7966	0	972.7669
7/2/2013 0:00	15733	333	0.4467593	150.5315	12.22979	15.80229	-226.3188	57.08184	258.1757	0	972.7449
7/2/2013 1:00	15734	333	0.1646294	152.2174	15.85315	15.87729	-226.4257	55.9051	257.4399	0	972.701
7/2/2013 2:00	15735	333	0.4471307	148.6997	8.627253	14.93525	-228.8372	61.93533	256.6803	0	972.5634
7/2/2013 3:00	15736	333	0.2808593	152.7274	9.630552	14.13299	-226.563	62.9976	256.6976	0	972.2725
7/2/2013 4:00	15737	333	0.4833251	152.6974	7.670387	13.69467	-226.2196	65.928	256.6078	0	972.1959
7/2/2013 5:00	15738	333	0.3388706	154.5977	16.06866	13.34317	-226.502	74.70243	256.7838	0	972.1339
7/2/2013 6:00	15739	333	0.2970227	153.2068	13.47733	14.31334	-227.578	70.58154	257.2353	0	972.2021
7/2/2013 7:00	15740	333	0.4373958	224.3795	43.88857	18.71201	-228.3106	53.86145	257.7037	0	972.2627
7/2/2013 8:00	15741	333	0.2574009	112.9865	29.80228	22.40429	-229.2492	53.14564	259.7013	0	972.2601
7/2/2013 9:00	15742	333	0.327926	48.15316	74.01997	24.6877	-229.1577	50.07634	263.2698	0	972.2188
7/2/2013 10:00	15743	333	1.102432	316.0043	42.13081	26.41232	-228.4632	44.70393	261.3494	0	971.9501
7/2/2013 11:00	15744	333	1.286896	298.349	42.0906	27.73758	-228.1351	38.62487	262.3763	0	971.4926
7/2/2013 12:00	15745	333	1.245912	299.7634	51.67909	28.30408	-229.3484	38.43714	261.7009	0	971.1575
7/2/2013 13:00	15746	333	2.047982	293.2332	30.43762	28.06232	-225.8991	39.89471	261.4146	0	970.8058
7/2/2013 14:00	15747	333	1.459924	252.1628	55.05694	29.33733	-229.4477	36.03635	261.9095	0	970.3221
7/2/2013 15:00	15748	333	1.331549	258.7546	49.08077	28.68727	-230.6152	45.42585	260.5315	0	970.0396
7/2/2013 16:00	15749	333	4.182152	309.6895	18.71803	21.99343	-225.922	71.30804	257.6005	0	970.6389
7/2/2013 17:00	15750	333	1.531144	260.8295	29.69643	17.44098	-227.2193	90.40147	257.841	2.032	970.3728
7/2/2013 18:00	15751	333	1.01086	208.0039	33.55874	18.26872	-226.8378	85.78455	257.4686	0	969.4847
7/2/2013 19:00	15752	333	0.2709199	88.64743	73.13068	20.65369	-226.8454	86.49883	257.1638	0	969.3904
7/2/2013 20:00	15753	333	0.6088777	282.1823	32.27625	20.51395	-227.3872	88.57149	257.0405	0	969.017
7/2/2013 21:00	15754	333	0.310371	252.6923	33.65851	18.55679	-230.7526	94.23693	259.4649	0	968.8639
7/2/2013 22:00	15755	333	0.1782592	331.0537	41.39423	17.48746	-230.2642	97.58706	259.8189	0	968.8377
7/2/2013 23:00	15756	333	0.06072444	152.1198	0.3220775	16.96305	-226.5325	98.71954	257.8455	0	968.6118
7/3/2013 0:00	15757	333	0.1221813	151.9167	32.86543	16.79746	-225.5328	98.07393	256.1115	0	968.3226
7/3/2013 1:00	15758	333	0.4765269	145.371	7.042804	16.22005	-226.0899	99.5544	255.7367	0	968.2184
7/3/2013 2:00	15759	333	0.3292206	186.7155	70.00313	16.32245	-225.8304	98.34713	255.6687	0	968.2197
7/3/2013 3:00	15760	333	0.2403361	137.7567	24.72424	15.73652	-225.3191	98.95153	255.4968	0	968.1125
7/3/2013 4:00	15761	333	0.3756007	147.2099	16.18418	15.43395	-224.9834	99.47961	255.2471	0	967.7866
7/3/2013 5:00	15762	333	0.1970799	142.8987	7.488189	15.57757	-225.6626	99.45367	255.3787	0	967.6914
7/3/2013 6:00	15763	333	0.3842361	148.292	7.638857	16.5916	-231.2105	97.77631	256.6263	0	967.7282
7/3/2013 7:00	15764	333	0.283394	152.3688	35.61264	19.86955	-233.1641	79.6307	263.3097	0	967.4262
7/3/2013 8:00	15765	333	0.6623062	186.8041	74.336	22.67516	-231.6302	70.53423	261.8262	0	967.5184
7/3/2013 9:00	15766	333	0.4353966	192.1696	81.27893	24.78553	-232.2483	61.21188	262.8623	0	967.5705
7/3/2013 10:00	15767	333	0.7544467	215.3557	70.02602	26.64158	-223.7929	57.5672	260.9481	0	967.0889
7/3/2013 11:00	15768	333	0.9902772	217.9653	62.71879	28.19039	-223.7929	52.9808	259.7725	0.254	966.353
7/3/2013 12:00	15769	333	1.145397	241.9779	55.03818	29.54115	-222.6024	47.74118	260.0155	0	965.7416
7/3/2013 13:00	15770	333	1.673632	267.9911	43.03202	30.14086	-226.7615	42.05131	263.2118	0.508	965.0843
7/3/2013 14:00	15771	333	2.060015	274.5549	34.49086	30.81901	-230.9663	33.16394	262.8266	0	964.5365
7/3/2013 15:00	15772	333	1.711378	261.0299	42.53589	31.70923	-239.0554	31.64684	262.1852	0	963.9672
7/3/2013 16:00	15773	333	1.641885	250.2799	41.04066	31.61273	-230.951	30.77993	262.1348	0.508	963.3491
7/3/2013 17:00	15774	333	1.54947	247.0456	41.28433	31.66975	-229.5011	31.60564	263.6058	0	962.8668
7/3/2013 18:00	15775	333	1.71472	237.4946	38.55036	30.99479	-235.98	33.17463	264.4716	0	962.2543
7/3/2013 19:00	15776	333	1.380754	234.6394	42.09682	29.63129	-235.1253	42.42066	264.1645	0	962.0421
7/3/2013 20:00	15777	333	1.171836	240.778	30.23033	26.85554	-230.2719	50.98141	261.6532	0	961.9916

7/3/2013 21:00	15778	333	0.4828107	200.09	31.91376	24.73993	-229.028	55.68227	259.7202	0	961.9293
7/3/2013 22:00	15779	333	0.4895031	174.4252	38.18545	23.37131	-228.2038	60.5968	259.4103	0	961.8432
7/3/2013 23:00	15780	333	0.4228179	171.1516	40.28521	22.41921	-227.7993	64.59864	258.0555	0	961.6703
7/4/2013 0:00	15781	333	0.6664461	177.9309	36.02639	21.6283	-234.0493	67.92739	257.3362	0	961.4371
7/4/2013 1:00	15782	333	0.4688596	173.1243	35.29343	20.90628	-228.3716	72.67404	258.092	0	961.3543
7/4/2013 2:00	15783	333	0.4933991	177.3882	35.5394	20.08818	-227.2804	74.14993	258.8714	0	961.2704
7/4/2013 3:00	15784	333	0.5629936	177.8776	42.41925	19.5748	-231.1342	74.13619	259.6311	0	961.2132
7/4/2013 4:00	15785	333	0.7236139	181.5985	47.63114	19.46088	-232.3399	77.27264	260.8318	0	960.8979
7/4/2013 5:00	15786	333	0.5626376	175.1317	42.47964	19.06446	-226.1815	77.79614	257.2275	0	960.6954
7/4/2013 6:00	15787	333	0.8153419	181.3544	40.80814	19.68102	-225.0063	71.34773	255.5907	0	960.4492
7/4/2013 7:00	15788	333	1.117191	207.6619	46.65829	22.04717	-229.44	60.37855	256.9377	0	960.2586
7/4/2013 8:00	15789	333	2.002445	240.9154	40.48407	24.26846	-232.317	53.93471	258.5906	0	960.1923
7/4/2013 9:00	15790	333	1.881541	237.0811	45.07511	26.16235	-233.4312	45.73111	259.2412	0	959.8449
7/4/2013 10:00	15791	333	2.465336	242.1444	41.36727	27.83713	-225.7541	40.50827	261.6317	0	959.5471
7/4/2013 11:00	15792	333	2.262629	232.0043	47.7448	29.5267	-227.143	37.85411	260.3167	0	959.2675
7/4/2013 12:00	15793	333	2.168766	227.9341	48.72014	29.45122	-225.1207	38.71645	262.2	0	958.9021
7/4/2013 13:00	15794	333	2.263913	238.1055	43.95517	29.23115	-234.3851	42.50918	262.6573	0	958.6458
7/4/2013 14:00	15795	333	1.715823	232.5353	58.88001	26.78308	-231.2105	50.34802	259.3408	0	958.931
7/4/2013 15:00	15796	333	2.258681	273.8808	27.07887	22.95641	-227.0591	76.02111	260.7127	0	959.4877
7/4/2013 16:00	15797	333	1.031579	238.8103	41.16097	22.48028	-230.2642	70.17556	259.5671	0	959.7566
7/4/2013 17:00	15798	333	0.8137635	177.8384	46.06907	22.75611	-228.5548	72.05895	259.4696	0	959.4402
7/4/2013 18:00	15799	333	0.5894265	158.6246	49.39256	23.18526	-228.0893	66.16305	260.0002	0	959.1559
7/4/2013 19:00	15800	333	0.3891745	184.6442	42.34311	23.45389	-226.9904	70.9799	258.637	0	959.0331
7/4/2013 20:00	15801	333	0.4758913	149.8234	19.21355	21.96426	-231.2639	79.74059	258.3078	0	958.9585
7/4/2013 21:00	15802	333	0.5968263	151.1383	12.26819	20.90531	-229.0737	84.19725	260.4518	0	959.1484
7/4/2013 22:00	15803	333	0.8098058	146.7269	10.90587	19.91986	-230.4245	87.46954	259.892	0	959.3011
7/4/2013 23:00	15804	333	1.09498	164.6106	70.36341	19.50015	-224.9834	95.92802	259.4511	1.016	959.4579
7/5/2013 0:00	15805	333	0.9722857	132.5687	27.91981	18.66675	-225.3573	97.51685	255.1236	1.27	959.3526
7/5/2013 1:00	15806	333	0.8251624	143.8859	13.81456	18.26924	-226.1738	97.84042	255.3117	0	959.0677
7/5/2013 2:00	15807	333	0.3755916	142.4612	11.23637	17.95785	-225.136	98.11667	256.6936	0	958.752
7/5/2013 3:00	15808	333	0.5572968	339.1529	77.69157	17.79425	-225.6549	98.04799	254.7885	0	958.7858
7/5/2013 4:00	15809	333	0.3359985	74.07449	25.03204	17.52477	-227.5551	98.09072	255.5056	0	958.796
7/5/2013 5:00	15810	333	0.6804323	124.7285	17.02827	17.33558	-227.0209	97.9854	257.0406	0	958.6946
7/5/2013 6:00	15811	333	0.5555898	112.6878	17.64041	17.69417	-227.0362	97.51074	257.1103	0	958.8934
7/5/2013 7:00	15812	333	0.7025018	133.2465	18.14964	20.30034	-233.332	83.77905	257.6476	0	958.6709
7/5/2013 8:00	15813	333	0.7637482	128.1052	29.23501	23.09256	-226.8988	75.20457	258.6681	0	958.661
7/5/2013 9:00	15814	333	0.5821066	117.5428	32.42198	24.00856	-228.4098	69.17739	257.5275	0	958.7647
7/5/2013 10:00	15815	333	0.6370287	148.7007	36.69547	25.39009	-228.6769	65.986	258.9404	0	958.6883
7/5/2013 11:00	15816	333	0.372813	151.2872	19.29781	23.92402	-226.6393	77.6603	260.3441	0	958.8051
7/5/2013 12:00	15817	333	0.5538236	114.6885	33.71199	23.75312	-225.2505	79.15908	258.1251	0	958.5549
7/5/2013 13:00	15818	333	1.10647	73.74207	71.71796	25.429	-232.1568	72.35047	259.5003	0	957.7474
7/5/2013 14:00	15819	333	0.9920491	129.3883	50.38628	26.31949	-226.1052	88.24639	258.9879	3.048	957.8599
7/5/2013 15:00	15820	333	1.383381	147.2511	26.36685	20.66982	-229.524	93.94238	258.7042	2.032	958.1251
7/5/2013 16:00	15821	333	1.257301	331.0202	74.40878	19.05224	-230.2108	96.25159	259.1739	4.064	959.4218
7/5/2013 17:00	15822	333	0.9980207	82.09447	54.87749	18.38193	-232.0652	91.84225	260.1869	2.54	959.09
7/5/2013 18:00	15823	333	0.998879	136.9956	25.29397	20.72866	-229.8597	83.25249	258.128	0	959.0665

7/5/2013 19:00	15824	333	0.2143248	145.3222	19.40556	22.21982	-227.2117	78.54248	260.4408	0	959.0464
7/5/2013 20:00	15825	333	0.3424936	326.528	24.05902	20.6299	-226.6165	92.27417	256.6532	0	958.9811
7/5/2013 21:00	15826	333	0.3616238	320.7389	17.22229	18.39401	-226.7767	96.84988	257.4323	0	959.004
7/5/2013 22:00	15827	333	0.4804448	301.6669	38.3234	17.42345	-225.8076	99.28426	255.8075	0	959.8628
7/5/2013 23:00	15828	333	0.7655155	0.7473423	26.82397	17.76688	-229.3866	96.08523	256.6917	0	960.9968
7/6/2013 0:00	15829	333	1.08793	14.04829	32.32519	17.70779	-225.487	89.71465	259.6073	0	961.1905
7/6/2013 1:00	15830	333	1.391354	9.468909	34.41293	17.11494	-232.0881	92.7	260.4099	0	961.6653
7/6/2013 2:00	15831	333	1.124249	22.08339	36.92551	16.37189	-230.9586	94.72076	261.1844	0	961.8668
7/6/2013 3:00	15832	333	1.082832	21.04375	39.0587	15.85214	-229.1958	94.72533	258.3419	0	962.3454
7/6/2013 4:00	15833	333	1.405278	40.66662	44.8701	15.98756	-231.5615	95.60903	259.7867	0	962.8656
7/6/2013 5:00	15834	333	1.451488	24.48418	42.78998	15.74104	-226.7157	95.70977	259.3933	0	963.5673
7/6/2013 6:00	15835	333	1.607501	52.28423	41.75977	15.03658	-232.3705	96.03638	260.76	0	964.3994
7/6/2013 7:00	15836	333	1.350889	54.45999	40.9337	14.76082	-230.806	93.70274	261.6602	0	965.2391
7/6/2013 8:00	15837	333	2.025754	59.76385	43.99313	13.77851	-228.0435	93.20518	260.7689	0	965.8925
7/6/2013 9:00	15838	333	2.172256	63.11586	43.79012	13.00894	-231.6989	90.66397	260.3539	0	966.4691
7/6/2013 10:00	15839	333	2.360305	78.01089	39.1814	13.23263	-226.8607	76.83765	259.2241	0	966.8264
7/6/2013 11:00	15840	333	2.076537	83.58656	39.52707	15.38698	-229.2492	64.93747	258.1767	0	967.3201
7/6/2013 12:00	15841	333	1.805094	71.21283	44.00813	16.93171	-227.4177	63.07849	256.7319	0	967.7026
7/6/2013 13:00	15842	333	1.760068	72.324	43.2165	18.19847	-228.799	56.68959	257.5339	0	967.514
7/6/2013 14:00	15843	333	1.904418	72.24164	46.70136	19.55664	-227.2117	50.82726	257.7847	0	967.2472
7/6/2013 15:00	15844	333	1.828097	92.42515	42.55439	20.76025	-227.3796	49.6551	257.5459	0	967.1882
7/6/2013 16:00	15845	333	1.771751	77.3569	42.70918	21.30418	-228.7074	50.95547	258.2212	0	967.0145
7/6/2013 17:00	15846	333	1.852215	75.18829	38.0271	20.86405	-228.5472	53.61572	259.2573	0	967.0332
7/6/2013 18:00	15847	333	1.838848	77.45009	36.43181	20.21645	-228.7685	51.84375	259.3944	0	966.6452
7/6/2013 19:00	15848	333	1.771275	80.90639	35.97359	19.11554	-228.2343	55.62274	258.2944	0	966.7073
7/6/2013 20:00	15849	333	1.569163	95.10097	32.66646	18.32593	-230.5466	58.9454	258.6577	0	966.9775
7/6/2013 21:00	15850	333	1.063579	104.9751	25.11422	16.81296	-228.6387	67.48936	259.5042	0	967.3121
7/6/2013 22:00	15851	333	1.451292	101.281	27.2179	15.66519	-228.0664	65.89138	258.1367	0	967.5352
7/6/2013 23:00	15852	333	1.725552	105.4308	35.00755	15.87997	-227.1506	62.96402	258.0154	0	967.4324
7/7/2013 0:00	15853	333	1.558678	109.4563	31.14734	15.34607	-227.6391	67.54888	257.738	0	967.3998
7/7/2013 1:00	15854	333	1.429607	109.5905	28.41758	14.74891	-228.5548	73.33033	257.7958	0	967.0525
7/7/2013 2:00	15855	333	1.470141	108.656	28.95048	14.43648	-227.7993	73.42953	257.9016	0	967.0433
7/7/2013 3:00	15856	333	1.485929	105.3386	32.43716	14.42328	-227.4483	71.88344	257.8436	0	966.8502
7/7/2013 4:00	15857	333	1.619419	106.6744	30.6431	13.92747	-226.0975	74.57423	257.429	0	966.4025
7/7/2013 5:00	15858	333	1.692946	112.0006	30.73424	13.57747	-227.2728	74.41244	256.1759	0	966.7119
7/7/2013 6:00	15859	333	1.987765	112.7111	29.70459	13.97793	-224.5789	72.44052	255.5358	0	966.8183
7/7/2013 7:00	15860	333	2.228026	111.8983	31.66425	14.4725	-224.6781	71.99639	254.7177	0	966.76
7/7/2013 8:00	15861	333	2.067413	111.5837	29.93929	14.71593	-225.1894	71.55225	254.7988	0	966.8771
7/7/2013 9:00	15862	333	2.217603	111.1964	30.93848	15.19272	-228.0053	68.26012	256.6829	0	966.7087
7/7/2013 10:00	15863	333	2.69523	116.7526	30.55105	16.04179	-226.2196	68.62642	257.4382	0	966.612
7/7/2013 11:00	15864	333	2.572781	115.7791	31.72067	17.25092	-226.1204	68.60963	257.4298	0	966.4468
7/7/2013 12:00	15865	333	2.330783	113.927	30.09732	16.55403	-227.3033	66.50951	257.4191	0	966.5515
7/7/2013 13:00	15866	333	2.212745	118.8338	31.59305	17.30462	-228.7303	67.15969	257.9925	0	966.446
7/7/2013 14:00	15867	333	2.189286	124.1036	33.86637	17.79594	-227.929	68.75768	258.518	0	966.2219
7/7/2013 15:00	15868	333	2.194045	123.7694	32.02061	18.28355	-227.0896	65.95242	257.9544	0	966.0391
7/7/2013 16:00	15869	333	1.742848	124.8864	31.8932	19.20851	-228.1809	67.62672	258.1033	0	965.9008

7/7/2013 17:00	15870	333	1.619524	129.495	30.6862	19.08913	-228.4174	68.87367	257.0205	0	965.6181
7/7/2013 18:00	15871	333	1.529877	132.7127	31.45771	19.82748	-230.9281	70.00615	257.5922	0	965.1332
7/7/2013 19:00	15872	333	1.281867	139.1018	29.82893	19.43324	-227.0743	75.12521	257.2586	0	964.9283
7/7/2013 20:00	15873	333	1.256185	145.2966	28.59205	18.84843	-225.9602	75.59376	256.2385	0	965.0337
7/7/2013 21:00	15874	333	1.214229	149.4017	24.38012	17.15782	-227.5169	95.36636	257.2166	2.032	965.342
7/7/2013 22:00	15875	333	0.9825507	130.6374	23.61932	16.35887	-231.2105	94.62766	256.964	0.254	965.5676
7/7/2013 23:00	15876	333	0.5656781	138.0487	29.53493	16.1269	-229.5621	95.10079	256.9137	0	965.601
7/8/2013 0:00	15877	333	1.129347	147.0237	20.53925	15.83152	-227.0972	90.85781	256.3378	0	965.5134
7/8/2013 1:00	15878	333	1.415068	150.5389	20.94618	15.9731	-226.0746	92.46801	254.7544	0	965.4014
7/8/2013 2:00	15879	333	1.390812	150.4013	20.07437	16.06874	-223.9684	91.9674	255.999	0	965.2897
7/8/2013 3:00	15880	333	0.6684369	150.6095	22.4592	16.2139	-223.5487	92.48937	254.0326	0	965.436
7/8/2013 4:00	15881	333	0.4436491	148.1879	20.53475	16.4292	-224.1516	93.21893	254.7746	0	965.6014
7/8/2013 5:00	15882	333	0.3107665	149.8925	18.12196	16.58501	-226.0441	93.32729	255.492	0	965.6335
7/8/2013 6:00	15883	333	0.2990239	156.9622	24.43174	17.0217	-224.121	90.76166	254.519	0	965.9058
7/8/2013 7:00	15884	333	0.577253	238.0584	31.175	18.3462	-228.3793	89.84438	255.6233	0	966.0987
7/8/2013 8:00	15885	333	0.9003051	275.1272	31.54565	19.27652	-226.2883	74.22929	259.0832	0	966.4031
7/8/2013 9:00	15886	333	1.718217	307.9697	21.25008	20.40876	-230.2719	71.27447	258.2991	0	966.2297
7/8/2013 10:00	15887	333	1.597947	310.3078	31.93467	22.20982	-222.6329	60.27781	259.6781	0	966.2885
7/8/2013 11:00	15888	333	1.036827	266.1434	59.33124	23.62157	-219.6873	50.94936	258.4993	0	966.3491
7/8/2013 12:00	15889	333	1.250437	241.9564	57.18135	25.14079	-225.2886	46.5568	258.099	0	966.245
7/8/2013 13:00	15890	333	1.364471	253.5791	48.04967	25.8678	-225.4336	47.60992	261.0073	0	965.9885
7/8/2013 14:00	15891	333	1.196032	236.5136	49.04591	26.3363	-228.9669	47.08031	260.625	0	965.6287
7/8/2013 15:00	15892	333	1.319563	236.7237	55.26834	26.64751	-229.7758	46.64381	259.8384	0	965.3597
7/8/2013 16:00	15893	333	1.776531	247.9326	45.30796	26.44714	-230.5008	44.42158	261.0146	0	965.1035
7/8/2013 17:00	15894	333	1.585796	249.1172	38.74023	26.27218	-227.5399	43.26773	260.9842	0	964.6943
7/8/2013 18:00	15895	333	1.640741	232.7039	41.90514	25.71134	-226.8607	54.44296	260.7036	0	964.5074
7/8/2013 19:00	15896	333	1.109507	197.0103	50.09672	24.77164	-227.7306	52.6435	258.0327	0	964.2643
7/8/2013 20:00	15897	333	0.9220613	179.1645	48.66281	23.1088	-224.556	59.4048	256.7011	0	963.6176
7/8/2013 21:00	15898	333	0.714309	170.7569	40.81201	20.95661	-225.9525	64.69631	256.6089	0	963.6481
7/8/2013 22:00	15899	333	0.5696113	156.58	30.85469	19.45311	-228.0435	67.5321	256.8119	0	963.5214
7/8/2013 23:00	15900	333	1.035047	204.941	72.42612	18.32748	-228.425	75.46861	256.2285	0	963.6075
7/9/2013 0:00	15901	333	2.52007	299.133	13.5923	17.95211	-227.9138	82.64657	258.132	0	964.1994
7/9/2013 1:00	15902	333	2.111887	300.1583	17.50676	17.70264	-226.9446	86.60567	257.4814	0	964.2521
7/9/2013 2:00	15903	333	2.419799	303.638	16.58824	17.16101	-226.1662	77.13223	256.5417	0	964.235
7/9/2013 3:00	15904	333	2.017646	308.1037	17.77409	16.84658	-227.2422	71.21799	256.6682	0	964.0247
7/9/2013 4:00	15905	333	2.336539	305.3886	18.95961	16.32068	-228.074	69.24608	256.4844	0	963.7256
7/9/2013 5:00	15906	333	2.317478	304.6685	17.71154	15.38406	-226.502	71.5614	255.5874	0	963.825
7/9/2013 6:00	15907	333	2.047435	308.4281	20.12481	14.77418	-226.3188	73.54401	255.9362	0	963.5204
7/9/2013 7:00	15908	333	1.303506	316.6435	23.55273	15.48279	-227.0209	72.20701	255.5096	0	963.4507
7/9/2013 8:00	15909	333	1.215024	324.9985	28.84516	15.99494	-223.3961	72.49394	255.0157	0	963.5647
7/9/2013 9:00	15910	333	1.95305	299.5066	17.99517	16.12638	-225.1665	74.25982	254.7258	0	963.6214
7/9/2013 10:00	15911	333	1.438212	295.752	17.88775	15.56549	-224.3729	76.8865	254.921	0	963.1478
7/9/2013 11:00	15912	333	0.7332426	301.8309	32.35143	15.55204	-224.6476	77.27264	254.4166	0	962.9164
7/9/2013 12:00	15913	333	1.61527	313.3873	22.2274	16.635	-227.1964	69.58491	254.9071	0	962.6279
7/9/2013 13:00	15914	333	1.739448	301.4967	24.80484	19.12872	-225.0826	65.33276	255.6668	0	962.7694
7/9/2013 14:00	15915	333	1.802137	307.5199	29.12771	19.90004	-230.2184	60.82269	256.7157	0	962.6298

7/9/2013 15:00	15916	333	2.889319	306.6833	17.70665	20.65567	-224.9376	66.09589	257.3069	0	962.1778
7/9/2013 16:00	15917	333	3.755582	303.5338	17.28463	18.45732	-227.6543	63.43869	257.2667	0	961.9742
7/9/2013 17:00	15918	333	2.48179	308.5986	20.03895	18.93286	-225.8228	64.56964	257.1746	0	961.696
7/9/2013 18:00	15919	333	3.389884	302.076	17.01822	17.36581	-224.5865	71.51562	254.7089	0	961.9163
7/9/2013 19:00	15920	333	2.961112	301.4857	17.40182	16.61542	-225.3115	76.66976	255.0494	0	961.9928
7/9/2013 20:00	15921	333	2.908452	303.147	18.27607	16.37004	-225.9525	77.32148	256.2547	0	961.9282
7/9/2013 21:00	15922	333	2.802243	298.8107	17.75556	15.65076	-228.8219	76.81019	258.0108	0	962.1696
7/9/2013 22:00	15923	333	3.280158	298.2432	16.41335	15.22309	-228.0969	81.0028	258.0909	0	962.4719
7/9/2013 23:00	15924	333	2.244072	295.9276	16.1199	14.94873	-228.5472	80.83033	258.8924	0	962.5328
7/10/2013 0:00	15925	333	3.70829	303.6443	18.03848	14.10034	-231.8286	96.08523	257.0551	0	962.699
7/10/2013 1:00	15926	333	2.727806	303.4908	18.23705	13.50568	-230.89	95.8456	261.0664	0	962.7872
7/10/2013 2:00	15927	333	3.201985	298.2115	16.72405	13.10935	-232.317	94.63528	260.6256	0	962.8169
7/10/2013 3:00	15928	333	3.220165	297.7813	16.38964	12.90409	-224.5179	93.15939	260.4023	0	962.801
7/10/2013 4:00	15929	333	3.265289	297.4328	16.80334	13.24271	-223.1137	92.48479	254.045	0	962.857
7/10/2013 5:00	15930	333	3.393215	299.0393	15.81039	12.76036	-223.4266	91.40421	253.2505	0	963.1097
7/10/2013 6:00	15931	333	3.269916	297.0677	17.39375	13.12319	-223.8539	86.44389	253.6064	0	963.4126
7/10/2013 7:00	15932	333	3.603478	300.2992	17.68855	14.49157	-223.419	79.56355	256.269	0	963.7839
7/10/2013 8:00	15933	333	4.01941	303.6943	17.42697	16.43195	-226.0136	72.24822	254.9825	0	963.9197
7/10/2013 9:00	15934	333	4.808046	303.4319	16.66764	18.23153	-226.6546	61.46982	255.3788	0	964.0145
7/10/2013 10:00	15935	333	5.219194	302.5721	16.24933	19.88221	-226.4104	56.98569	255.435	0	964.0425
7/10/2013 11:00	15936	333	5.010836	307.7148	19.18121	21.42337	-226.6088	47.87701	254.7027	1.016	964.2623
7/10/2013 12:00	15937	333	4.838964	309.9917	19.52835	22.48322	-224.5255	46.85137	255.154	0	964.5679
7/10/2013 13:00	15938	333	3.959868	309.2429	21.34063	23.05457	-226.212	43.72255	255.4106	0	964.808
7/10/2013 14:00	15939	333	3.456787	310.9096	21.79701	23.00448	-226.0823	42.24209	257.4088	0	964.8453
7/10/2013 15:00	15940	333	3.235328	311.2171	21.09162	24.10943	-233.0801	39.73904	259.3434	0	964.7171
7/10/2013 16:00	15941	333	2.515427	316.7001	24.39771	24.61105	-227.1583	37.03299	261.7857	0	964.6238
7/10/2013 17:00	15942	333	2.881709	306.2645	21.06122	24.06729	-229.7376	37.88006	261.6356	0	964.5524
7/10/2013 18:00	15943	333	2.949501	301.2356	19.45919	25.15767	-229.6461	42.84954	259.6673	0	964.4828
7/10/2013 19:00	15944	333	1.975743	297.8536	16.38967	23.592	-228.013	53.02964	259.6009	0	964.582
7/10/2013 20:00	15945	333	1.192922	284.0028	16.26419	21.46308	-227.2346	50.18165	258.0141	0	964.7651
7/10/2013 21:00	15946	333	1.135071	257.3843	17.8569	19.79843	-226.3112	55.10687	256.9	0	965.0888
7/10/2013 22:00	15947	333	1.036648	241.3941	17.82102	18.78169	-223.976	65.35719	255.3096	0	965.4192
7/10/2013 23:00	15948	333	0.9868306	236.0831	21.41729	16.94436	-224.1592	66.37062	253.8089	0	965.691
7/11/2013 0:00	15949	333	1.006808	227.6302	23.71872	16.27112	-223.7242	65.52966	254.3474	0	966.0499
7/11/2013 1:00	15950	333	1.438395	258.8002	21.04355	16.81093	-228.158	73.09071	257.3014	0	966.3105
7/11/2013 2:00	15951	333	1.238372	260.1855	22.16867	16.26525	-227.4177	77.74273	257.4158	0	966.4222
7/11/2013 3:00	15952	333	1.234855	249.8194	23.26076	15.79325	-226.708	79.36971	256.2857	0	966.4863
7/11/2013 4:00	15953	333	1.174617	255.1714	23.86563	15.42332	-227.4788	85.33278	257.3878	0	966.7723
7/11/2013 5:00	15954	333	0.7252811	219.3095	27.99262	15.01925	-224.93	89.61544	257.6929	0	966.8621
7/11/2013 6:00	15955	333	0.7218181	208.7254	31.59288	15.52743	-225.6778	82.80377	255.4396	0	967.0163
7/11/2013 7:00	15956	333	0.6498873	213.749	41.56142	17.78686	-225.7083	72.41	257.3514	0	967.1006
7/11/2013 8:00	15957	333	1.4178	213.5582	44.87507	20.74757	-225.8381	64.36665	255.6125	0	966.8998
7/11/2013 9:00	15958	333	1.601841	212.648	50.24273	22.8332	-228.2419	59.01408	259.9515	0	966.3313
7/11/2013 10:00	15959	333	2.138754	220.1312	45.87016	24.21426	-222.5643	51.88953	258.2245	0	965.8692
7/11/2013 11:00	15960	333	2.034985	224.8205	47.70766	25.2827	-218.1915	53.32268	258.5206	0	965.3226
7/11/2013 12:00	15961	333	2.536443	236.142	42.65288	26.12081	-228.4022	48.67677	260.7071	0	964.9353

7/11/2013 13:00	15962	333	2.313944	238.8837	42.56596	27.48117	-234.1714	44.41242	260.4645	0	964.4907
7/11/2013 14:00	15963	333	2.359593	245.6212	41.20406	28.20896	-233.7517	45.27323	261.2184	0	963.9469
7/11/2013 15:00	15964	333	2.054583	239.0132	42.14982	27.70797	-230.0811	38.39135	261.5138	0	963.7341
7/11/2013 16:00	15965	333	2.181082	220.7744	45.01471	28.62759	-233.6678	40.43959	261.9961	0	963.2783
7/11/2013 17:00	15966	333	2.029868	233.3493	43.26126	28.11112	-227.8298	39.34984	260.5084	0	962.828
7/11/2013 18:00	15967	333	1.562634	224.2452	47.18916	27.17471	-227.3414	44.58794	258.5328	0	962.453
7/11/2013 19:00	15968	333	0.8920974	193.0634	46.09694	24.76289	-226.8454	50.70669	259.1418	0	962.1698
7/11/2013 20:00	15969	333	0.853451	178.8822	44.04732	23.52069	-227.2957	51.86359	259.0874	0	962.3702
7/11/2013 21:00	15970	333	0.4150715	164.2461	31.28618	21.5334	-227.2346	57.81292	257.2424	0	962.4488
7/11/2013 22:00	15971	333	0.3673895	156.3667	22.73	19.73652	-225.4641	63.03728	256.4587	0	962.3052
7/11/2013 23:00	15972	333	0.8093271	153.1183	24.54481	19.15761	-224.7086	69.81232	255.4833	0	962.1153
7/12/2013 0:00	15973	333	0.8994192	149.2625	23.69112	18.83363	-227.7611	72.72288	256.0426	0	962.0015
7/12/2013 1:00	15974	333	1.15695	149.5674	22.47692	18.54893	-232.3475	71.23784	259.9267	0	961.7906
7/12/2013 2:00	15975	333	1.066067	156.7785	32.34206	18.99704	-225.3344	73.573	259.7602	0	961.5188
7/12/2013 3:00	15976	333	0.9633282	161.0511	34.83957	18.83696	-224.5789	76.52172	257.3891	0	961.3865
7/12/2013 4:00	15977	333	1.112561	154.4689	25.39129	18.81798	-225.0673	78.17771	255.0376	0	960.8948
7/12/2013 5:00	15978	333	1.45421	157.4939	28.16379	19.40179	-226.1052	75.43197	255.7275	0	960.2768
7/12/2013 6:00	15979	333	1.200317	159.6397	35.90125	20.06067	-226.3417	75.21526	255.8239	0	960.2398
7/12/2013 7:00	15980	333	1.131992	169.3936	43.56229	20.76596	-226.9294	73.73174	256.4544	0	960.4033
7/12/2013 8:00	15981	333	0.9138666	158.578	36.07564	21.5235	-226.6852	72.31995	257.8652	0	960.116
7/12/2013 9:00	15982	333	1.18941	171.9083	40.32949	22.83311	-227.1964	75.7586	259.8876	0	959.9453
7/12/2013 10:00	15983	333	0.848693	163.0336	43.38427	22.7612	-226.0975	76.73235	259.3798	0	959.6707
7/12/2013 11:00	15984	333	0.7608407	145.0319	29.07645	22.38871	-223.5182	89.1011	254.5448	0	959.3649
7/12/2013 12:00	15985	333	1.212627	174.3645	42.55399	23.14503	-224.8231	70.26257	254.1982	0	959.5984
7/12/2013 13:00	15986	333	1.250569	204.2352	54.4835	24.45358	-226.4333	67.61909	255.3243	0	960.0279
7/12/2013 14:00	15987	333	1.071426	253.3389	64.5301	23.65005	-230.3787	93.76074	256.5423	1.27	959.739
7/12/2013 15:00	15988	333	0.9888865	170.3322	51.06098	21.49192	-227.2117	94.01563	259.041	1.524	960.1855
7/12/2013 16:00	15989	333	1.101231	164.1515	36.17312	22.09235	-231.1647	91.08522	258.5522	0.508	959.856
7/12/2013 17:00	15990	333	1.036854	157.8815	32.24895	21.77248	-231.3173	94.77418	258.5414	0	959.6196
7/12/2013 18:00	15991	333	0.8661417	184.7195	46.33336	21.12988	-227.1125	95.07943	259.4086	0.254	960.3932
7/12/2013 19:00	15992	333	0.4306008	167.7141	35.01611	21.39618	-224.5637	94.41704	258.3168	0.254	960.2183
7/12/2013 20:00	15993	333	0.5711223	195.1239	37.18231	21.88205	-229.1272	94.98327	255.4879	0	960.3392
7/12/2013 21:00	15994	333	0.3646189	189.7145	34.52576	21.03614	-226.9599	96.88194	256.8165	0	960.7455
7/12/2013 22:00	15995	333	0.1770113	163.1151	23.68952	20.0159	-228.0817	98.17925	257.1606	0	961.2078
7/12/2013 23:00	15996	333	0.3535616	156.0087	26.5154	19.49274	-224.8765	98.94848	256.3118	0	961.5615
7/13/2013 0:00	15997	333	0.6648985	205.4881	48.77751	19.73871	-226.067	98.82027	256.8871	0	961.9861
7/13/2013 1:00	15998	333	1.271202	272.5014	27.2275	20.26087	-229.5469	97.88926	257.3233	0	962.5543
7/13/2013 2:00	15999	333	1.019236	260.8407	29.36048	19.92469	-231.737	97.32455	260.5575	0	962.7304
7/13/2013 3:00	16000	333	0.5864988	226.4743	31.6879	19.45933	-232.1797	98.0892	261.5771	0	962.9651
7/13/2013 4:00	16001	333	0.5390001	246.4157	28.99552	19.26115	-231.9355	97.67253	262.2492	0	963.4393
7/13/2013 5:00	16002	333	0.2172157	198.0057	31.8851	18.85256	-232.4467	99.08736	262.9699	0	963.9544
7/13/2013 6:00	16003	333	0.3957258	238.3312	26.69643	19.49123	-231.3555	97.49091	261.8206	0	964.4794
7/13/2013 7:00	16004	333	0.574511	275.8744	30.68396	20.67496	-233.3778	88.44176	263.0848	0	965.0892
7/13/2013 8:00	16005	333	0.9617152	271.3878	39.33985	21.91888	-230.7221	81.218	259.7722	0	965.8323
7/13/2013 9:00	16006	333	1.233785	276.8573	33.02855	23.28083	-232.8054	72.02386	261.8921	0	966.286
7/13/2013 10:00	16007	333	1.319853	276.2149	37.95985	24.90693	-232.5994	57.48935	261.8625	0	966.525

7/13/2013 11:00	16008	333	0.9854336	255.0778	54.84589	26.37929	-238.3915	50.21218	257.8896	0	966.644
7/13/2013 12:00	16009	333	1.421321	281.8643	43.72678	27.92918	-230.7221	46.56596	262.3548	0	966.7573
7/13/2013 13:00	16010	333	1.856414	249.0849	43.06873	29.20476	-227.9519	43.02506	264.5829	0	966.7795
7/13/2013 14:00	16011	333	2.200683	273.0274	38.41162	29.55295	-235.0261	39.99697	262.0518	0	966.8766
7/13/2013 15:00	16012	333	1.710082	249.5975	42.24127	29.95959	-232.3933	38.75002	262.886	0	967.0549
7/13/2013 16:00	16013	333	1.525473	243.3987	43.76067	30.41662	-232.2331	40.19996	262.9406	0	967.1628
7/13/2013 17:00	16014	333	1.402948	237.1647	40.74518	30.38832	-231.2257	40.09618	263.0397	0	967.1395
7/13/2013 18:00	16015	333	1.104412	224.1741	47.48093	30.30843	-227.5551	40.59679	260.8515	1.27	966.9615
7/13/2013 19:00	16016	333	0.7658346	204.7549	44.90308	29.54939	-233.3091	50.14503	262.4617	0.254	966.8501
7/13/2013 20:00	16017	333	0.1744765	173.0571	24.70208	25.82816	-230.0124	52.46341	258.4868	0	966.9096
7/13/2013 21:00	16018	333	0.3171111	278.5968	20.00166	22.66986	-232.1339	61.00126	260.8191	0	967.6639
7/13/2013 22:00	16019	333	0.9371156	262.4954	50.36768	22.03024	-229.1729	76.63924	259.0027	0	968.3251
7/13/2013 23:00	16020	333	0.3699582	178.1833	28.41805	20.31903	-224.2813	77.71372	255.6995	0	968.0872
7/14/2013 0:00	16021	333	0.6200746	306.7275	49.54999	18.97266	-224.5179	91.35384	254.4294	0	968.535
7/14/2013 1:00	16022	333	1.557944	318.1979	48.38589	18.34816	-224.7697	60.98752	257.2012	0	968.5005
7/14/2013 2:00	16023	333	1.596469	352.8642	30.14108	18.26351	-224.2813	57.3703	256.8943	0	968.6423
7/14/2013 3:00	16024	333	0.8636833	1.811513	44.46432	17.55298	-224.1363	56.93227	254.2274	0	968.5654
7/14/2013 4:00	16025	333	0.8277783	20.26968	40.5224	17.13796	-223.3197	54.46585	253.583	0	968.785
7/14/2013 5:00	16026	333	0.8244675	40.34947	48.41393	16.57242	-223.8845	60.51439	253.7523	0	968.5026
7/14/2013 6:00	16027	333	1.787258	330.1491	24.00976	16.15517	-225.052	65.60749	254.4108	0	969.4041
7/14/2013 7:00	16028	333	2.178472	348.1729	32.3961	17.08254	-224.7086	66.52477	254.702	0	969.7883
7/14/2013 8:00	16029	333	2.877065	336.3711	28.78774	16.62882	-225.0139	86.37826	255.4937	0	970.5589
7/14/2013 9:00	16030	333	2.247071	343.7822	33.73609	14.16546	-224.3652	88.76379	255.3204	0	971.533
7/14/2013 10:00	16031	333	1.49234	10.40441	44.88227	16.19267	-225.0444	73.24639	254.6057	0	971.9754
7/14/2013 11:00	16032	333	1.424827	58.31314	45.76805	19.62718	-232.0194	55.44265	256.4537	0.762	971.8507
7/14/2013 12:00	16033	333	1.262267	352.0335	67.26607	21.99854	-227.494	56.79949	254.911	0.254	972.1712
7/14/2013 13:00	16034	333	1.549223	312.9626	29.02881	22.89101	-220.8167	49.54368	258.1224	0.254	972.3938
7/14/2013 14:00	16035	333	1.528738	320.739	36.73479	24.26317	-226.5859	43.69814	258.408	0.254	972.3491
7/14/2013 15:00	16036	333	1.535294	299.5038	31.57318	25.49097	-226.6775	47.31688	257.3617	0.254	972.3199
7/14/2013 16:00	16037	333	2.157519	307.5362	27.10775	26.52328	-229.234	42.8938	258.598	0.254	972.4379
7/14/2013 17:00	16038	333	2.33326	304.4618	20.22543	26.02637	-228.6158	48.03422	260.7247	0.254	972.5969
7/14/2013 18:00	16039	333	2.329165	304.6269	18.37447	25.6994	-234.4614	44.69325	260.1538	0	972.7905
7/14/2013 19:00	16040	333	1.489936	323.9182	32.09301	24.88664	-228.1274	45.83947	261.5154	0	973.1573
7/14/2013 20:00	16041	333	0.9051832	348.7408	26.93694	22.26558	-232.5917	55.23965	258.9311	0	973.58
7/14/2013 21:00	16042	333	0.4911598	329.5882	18.26305	18.98922	-230.6305	72.04369	260.7165	0	974.0978
7/14/2013 22:00	16043	333	0.3632186	338.7953	8.243532	17.0767	-230.6687	84.67649	260.4307	0	974.5027
7/14/2013 23:00	16044	333	0.3252775	343.1017	15.51582	16.03782	-226.0136	87.80225	257.9148	0	974.793
7/15/2013 0:00	16045	333	0.2008915	55.80617	31.87322	15.52434	-226.1662	73.24486	256.3521	0	974.9198
7/15/2013 1:00	16046	333	0.309536	105.0598	41.8147	15.22757	-229.8903	74.48112	257.6461	0	975.0686
7/15/2013 2:00	16047	333	0.1932886	122.9965	10.38087	15.15428	-225.5023	73.12886	257.2449	0	975.1502
7/15/2013 3:00	16048	333	0.2271579	121.8265	15.98605	15.01267	-223.5334	77.13985	255.2213	0	975.3099
7/15/2013 4:00	16049	333	0.2404669	120.8258	11.01048	14.49017	-225.4031	84.58949	253.5753	0	975.2608
7/15/2013 5:00	16050	333	0.4948546	117.2798	18.50584	13.77425	-226.3112	89.56507	255.9791	0	975.1985
7/15/2013 6:00	16051	333	0.4449153	121.7257	37.8276	14.52339	-227.2041	84.67343	256.902	0	975.4821
7/15/2013 7:00	16052	333	0.7811837	132.897	23.06818	18.45127	-228.6998	67.31384	257.9443	0	975.7574
7/15/2013 8:00	16053	333	0.6628985	157.185	26.49952	22.11967	-225.9602	60.18777	257.9768	0	975.7206

7/15/2013 9:00	16054	333	0.7035078	151.8864	41.18723	24.75027	-231.9431	53.39899	260.4787	0	975.5005
7/15/2013 10:00	16055	333	1.012076	143.7261	41.19478	26.00552	-229.6308	47.87701	260.4547	0	975.2781
7/15/2013 11:00	16056	333	0.9941894	157.0401	69.14001	27.06982	-225.922	44.01712	261.0285	0	975.0309
7/15/2013 12:00	16057	333	1.264689	140.3816	42.0187	27.61913	-220.7938	42.98996	259.2901	0	974.6221
7/15/2013 13:00	16058	333	1.386259	131.3008	32.38247	28.35663	-224.6629	39.69477	258.848	0	974.2731
7/15/2013 14:00	16059	333	1.378561	142.8896	33.89601	28.91366	-235.6061	36.21034	261.6031	0	973.7537
7/15/2013 15:00	16060	333	1.121646	151.7474	50.01614	30.16568	-233.1564	36.53696	261.4757	0	973.1458
7/15/2013 16:00	16061	333	1.41197	145.7764	36.85418	30.08888	-234.8277	34.93897	262.6928	0	972.6296
7/15/2013 17:00	16062	333	1.226658	151.6826	38.79282	30.39827	-232.9428	36.58427	263.8367	0	972.0881
7/15/2013 18:00	16063	333	1.209921	157.6663	41.18147	29.65433	-235.4229	39.5162	263.355	0	971.5743
7/15/2013 19:00	16064	333	1.028537	162.2957	43.22027	28.15736	-225.8686	46.60717	262.5625	0	971.2359
7/15/2013 20:00	16065	333	0.8010923	161.7463	35.16313	25.24294	-226.7767	58.03117	256.3225	0	970.6733
7/15/2013 21:00	16066	333	0.7308514	152.0246	22.51797	22.81275	-228.448	69.68259	258.7364	0	970.512
7/15/2013 22:00	16067	333	1.048654	146.6439	10.7972	20.93942	-223.8539	78.20975	256.952	0	970.2903
7/15/2013 23:00	16068	333	1.369453	149.0267	18.08008	21.13251	-223.6097	78.39748	254.4915	0	969.8307
7/16/2013 0:00	16069	333	1.422304	149.2752	25.85157	21.98439	-232.6681	82.53821	255.2777	0	969.3428
7/16/2013 1:00	16070	333	1.280195	154.7799	30.19034	21.71137	-224.5179	85.52203	255.4791	0	968.8169
7/16/2013 2:00	16071	333	1.338421	156.7956	33.51085	21.52552	-223.274	86.27448	254.2263	0	968.0512
7/16/2013 3:00	16072	333	1.533532	158.0349	37.17416	21.46873	-232.8283	85.83644	257.2133	0	967.4249
7/16/2013 4:00	16073	333	1.532592	159.8693	35.97148	20.7455	-223.2206	91.80866	255.0979	0	966.9988
7/16/2013 5:00	16074	333	1.148418	164.6098	40.01719	20.00338	-232.0347	94.60018	255.1203	0	966.4513
7/16/2013 6:00	16075	333	0.9830389	206.7602	54.39227	19.46695	-230.8747	96.7873	257.2709	4.318	966.87
7/16/2013 7:00	16076	333	0.8870682	160.7787	45.26094	19.63758	-226.0899	96.69726	255.6004	0	966.192
7/16/2013 8:00	16077	333	1.078878	194.1796	49.36787	20.19862	-227.7306	95.5953	257.6512	2.032	966.1112
7/16/2013 9:00	16078	333	1.379443	175.3549	43.67612	21.50247	-226.9217	88.95457	257.9576	0.254	965.3108
7/16/2013 10:00	16079	333	1.781638	206.7699	49.11047	23.55607	-233.8127	80.7006	258.5436	0	964.9211
7/16/2013 11:00	16080	333	2.019662	229.172	46.30297	24.80381	-239.1699	73.55011	260.7517	0	964.894
7/16/2013 12:00	16081	333	2.230908	253.2725	37.32167	25.41081	-227.5627	66.72166	259.3434	0	965.2657
7/16/2013 13:00	16082	333	3.305862	250.8183	36.64141	26.9254	-236.3234	59.7772	261.4438	0	965.4594
7/16/2013 14:00	16083	333	3.422232	260.3401	33.67888	27.11803	-228.6235	57.53514	260.2815	0	965.8696
7/16/2013 15:00	16084	333	4.365335	287.2691	26.68232	27.38792	-232.5002	48.58825	260.4789	1.016	966.3503
7/16/2013 16:00	16085	333	4.554223	292.4517	22.38897	26.3963	-232.4849	50.13282	261.9612	0	967.1814
7/16/2013 17:00	16086	333	4.172909	293.4946	21.92639	25.92746	-232.027	47.38556	261.8731	0	967.9908
7/16/2013 18:00	16087	333	4.220195	291.3765	21.9041	25.06093	-226.9828	45.77995	260.9814	0	968.6502
7/16/2013 19:00	16088	333	3.447938	292.7038	22.62334	23.69543	-225.1284	46.54307	258.5847	0	968.9642
7/16/2013 20:00	16089	333	3.956903	299.6605	16.17052	21.37197	-224.3958	53.30742	256.0112	0	969.4095
7/16/2013 21:00	16090	333	2.974598	299.653	16.23407	19.52439	-232.2254	56.85596	259.1764	0	970.2933
7/16/2013 22:00	16091	333	2.970613	300.6463	15.33605	18.07815	-232.8817	59.73905	261.725	0	971.0154
7/16/2013 23:00	16092	333	1.876538	295.4294	15.61171	16.59796	-226.4486	62.77019	260.2441	0	971.4736
7/17/2013 0:00	16093	333	1.335455	269.325	22.06033	16.15159	-224.06	65.18166	258.2415	0	972.1398
7/17/2013 1:00	16094	333	1.223954	252.44	22.80099	15.72997	-225.3115	70.39535	255.7759	0	972.439
7/17/2013 2:00	16095	333	0.936263	237.825	21.83295	15.31612	-224.1897	72.29552	254.7055	0	972.6025
7/17/2013 3:00	16096	333	1.425636	272.3034	26.22416	15.6603	-224.7315	72.66946	254.1227	0	972.8408
7/17/2013 4:00	16097	333	1.550969	283.7563	17.40138	15.11622	-224.0905	77.97318	254.6803	0	973.131
7/17/2013 5:00	16098	333	1.819512	289.1392	15.3526	14.18556	-223.9608	79.50402	254.0496	0	973.4806
7/17/2013 6:00	16099	333	2.163949	294.1148	17.26871	14.76745	-225.2505	73.03881	255.0309	0	974.0366

7/17/2013 7:00	16100	333	2.534659	298.7703	19.12698	16.51555	-225.3039	65.13893	254.6186	0	974.493
7/17/2013 8:00	16101	333	2.371249	304.7419	20.06433	18.76485	-224.3423	53.9225	255.0431	0	974.6058
7/17/2013 9:00	16102	333	3.132914	303.9761	19.36546	19.85984	-224.9757	43.167	254.5107	0	974.811
7/17/2013 10:00	16103	333	2.995473	297.6144	22.59071	21.07945	-218.3289	40.4228	255.049	0	974.608
7/17/2013 11:00	16104	333	3.903062	303.1747	19.86562	22.11985	-232.4086	38.13494	253.9311	0	974.3506
7/17/2013 12:00	16105	333	3.232649	303.1763	25.89585	23.23185	-216.7798	33.18836	255.1939	0	974.0903
7/17/2013 13:00	16106	333	2.749542	289.0201	29.98244	24.17686	-217.7566	33.26468	256.9001	0	973.6279
7/17/2013 14:00	16107	333	2.456572	288.4135	33.63243	24.77168	-224.6705	33.3593	255.9147	0	972.9907
7/17/2013 15:00	16108	333	2.247605	278.8809	36.54146	25.25104	-226.5936	31.68805	255.8039	0	972.3378
7/17/2013 16:00	16109	333	2.215044	272.9534	35.18359	25.6935	-225.7618	32.90753	255.9648	0	971.955
7/17/2013 17:00	16110	333	1.827566	268.9201	38.21337	25.42443	-224.991	35.23049	255.7067	0	971.5861
7/17/2013 18:00	16111	333	2.409305	277.0832	30.93086	25.41874	-224.6705	31.87884	255.8819	0	970.9244
7/17/2013 19:00	16112	333	2.401722	279.3955	25.57647	24.34486	-226.0441	38.10442	255.9533	0	970.6086
7/17/2013 20:00	16113	333	2.03932	288.1662	19.96552	21.94161	-225.8686	47.08336	255.1729	0	970.296
7/17/2013 21:00	16114	333	1.750357	290.161	15.25671	19.81651	-226.2883	51.1493	255.6368	0	970.3522
7/17/2013 22:00	16115	333	1.300252	286.9604	14.89706	18.34122	-223.3427	54.89625	254.4859	0	970.3807
7/17/2013 23:00	16116	333	1.232441	283.9027	15.67087	17.30248	-226.563	60.33429	254.0001	0	970.2453
7/18/2013 0:00	16117	333	1.173415	286.5971	15.09769	15.96306	-225.8762	67.52905	254.9801	0	970.2496
7/18/2013 1:00	16118	333	0.8901547	286.6541	15.03634	14.29647	-223.8082	76.20426	255.012	0	970.1434
7/18/2013 2:00	16119	333	0.4448596	268.7028	21.82647	13.3138	-224.2355	78.68442	253.9428	0	969.6497
7/18/2013 3:00	16120	333	0.5374855	169.8645	17.8772	12.91275	-224.4034	78.72258	254.2094	0	969.0319
7/18/2013 4:00	16121	333	0.4694783	155.3471	7.634515	12.28825	-223.976	86.34927	253.7085	0	968.3621
7/18/2013 5:00	16122	333	0.4757642	150.2956	8.818197	11.93431	-223.3579	88.57301	253.5042	0	967.8718
7/18/2013 6:00	16123	333	0.2770487	146.9476	10.43069	13.25889	-223.7395	86.04706	253.2699	0	967.441
7/18/2013 7:00	16124	333	0.3214875	134.6584	18.5565	16.55427	-224.5331	80.98907	253.9057	0	966.6599
7/18/2013 8:00	16125	333	0.4632852	157.2793	24.54951	19.51155	-224.846	60.26408	255.5603	0	966.1058
7/18/2013 9:00	16126	333	0.4328149	162.5759	31.07054	20.87008	-226.2273	56.73843	255.5117	0	965.5016
7/18/2013 10:00	16127	333	0.5323541	154.0375	31.14429	21.21478	-225.5023	47.8358	255.4227	0	964.485
7/18/2013 11:00	16128	333	0.8394215	145.6448	43.8586	23.22463	-227.7841	43.71645	256.6583	0	963.3099
7/18/2013 12:00	16129	333	0.8542881	160.6339	52.57061	23.44532	-226.7538	43.89502	255.9247	0	962.0304
7/18/2013 13:00	16130	333	1.083687	264.7917	62.39375	24.32615	-225.3878	40.75399	256.6417	0	960.8083
7/18/2013 14:00	16131	333	1.051763	232.95	55.61542	24.00136	-226.9294	43.89197	255.2502	0	959.6041
7/18/2013 15:00	16132	333	1.862451	285.745	24.07299	22.89825	-224.5865	51.56139	255.1342	0	959.4838
7/18/2013 16:00	16133	333	2.692327	293.2375	35.26006	20.70825	-226.0441	74.25982	255.2861	0	959.3071
7/18/2013 17:00	16134	333	0.7371219	241.364	53.57533	18.59597	-233.9577	63.57452	255.2288	0	958.4151
7/18/2013 18:00	16135	333	1.670561	305.4007	24.1256	21.67303	-232.8359	58.84619	260.6805	0	957.2571
7/18/2013 19:00	16136	333	1.672184	297.5355	21.74232	21.19646	-224.2279	72.37947	260.7523	0	956.5585
7/18/2013 20:00	16137	333	1.462809	285.7805	20.26042	18.63702	-224.6018	74.43076	255.8619	0	956.422
7/18/2013 21:00	16138	333	1.373053	278.6277	18.43294	17.45644	-229.1806	72.77172	256.6912	0	956.3602
7/18/2013 22:00	16139	333	1.433975	278.933	18.23386	17.24106	-228.6845	69.99394	259.0628	0	955.7589
7/18/2013 23:00	16140	333	1.432205	288.648	17.56669	17.33818	-230.9281	72.46953	258.451	0	955.1778
7/19/2013 0:00	16141	333	1.627598	289.8532	16.34061	17.09604	-231.0044	77.12307	259.8342	0	954.5482
7/19/2013 1:00	16142	333	3.453087	299.6376	16.65196	17.45283	-226.4562	78.06018	258.5912	0	954.119
7/19/2013 2:00	16143	333	3.06324	300.1863	17.09484	17.1701	-223.2663	83.33949	258.9326	0	954.0789
7/19/2013 3:00	16144	333	3.49825	298.5977	17.1489	16.57099	-224.0829	88.09835	254.2097	0	954.0464
7/19/2013 4:00	16145	333	4.213257	299.8422	17.14176	15.39072	-225.9449	84.54676	257.8591	0	954.3282

7/19/2013 5:00	16146	333	2.877393	294.6749	20.2906	14.3839	-224.0829	88.87826	254.5046	0	954.6078
7/19/2013 6:00	16147	333	2.868903	290.0909	20.79383	14.26287	-230.8824	83.5318	257.1422	0	955.071
7/19/2013 7:00	16148	333	3.502557	293.9724	19.29815	15.69487	-226.1052	69.64748	258.011	0	955.2945
7/19/2013 8:00	16149	333	2.013032	282.4327	28.11074	18.1291	-231.0426	68.9454	259.5856	0	955.3138
7/19/2013 9:00	16150	333	2.165047	266.8156	32.7365	18.34221	-226.792	57.20852	258.108	0	955.4688
7/19/2013 10:00	16151	333	3.824115	289.5062	25.21497	20.52902	-232.5383	47.11236	260.1257	0	955.3085
7/19/2013 11:00	16152	333	5.634621	293.4528	20.70985	20.79004	-225.1971	40.38769	258.8418	0	955.3506
7/19/2013 12:00	16153	333	7.384188	298.256	17.65867	20.45278	-218.4205	38.73019	256.7685	0	955.8258
7/19/2013 13:00	16154	333	6.862878	300.3881	18.14004	19.93991	-224.7468	52.75645	256.4227	0	956.1865
7/19/2013 14:00	16155	333	7.062626	304.2235	17.10349	18.94786	-224.7773	45.10076	256.337	0	957.0788
7/19/2013 15:00	16156	333	6.620208	301.0752	16.9183	17.82119	-232.4162	47.30009	257.7651	0	957.9247
7/19/2013 16:00	16157	333	6.535604	303.9129	17.17342	17.06156	-223.5182	50.01682	256.9205	0	958.8442
7/19/2013 17:00	16158	333	6.17723	305.5101	17.70265	16.55036	-223.6937	48.25247	255.4615	0	959.7028
7/19/2013 18:00	16159	333	5.770337	308.3751	19.22415	15.93656	-223.6479	50.27476	255.1921	0	960.4924
7/19/2013 19:00	16160	333	5.699869	306.5703	17.18153	14.76643	-223.709	55.97684	255.469	0	961.3636
7/19/2013 20:00	16161	333	4.920016	303.5879	18.69597	13.42993	-223.4419	64.87183	255.8396	0	962.0901
7/19/2013 21:00	16162	333	4.575659	303.6778	18.01925	12.3073	-224.64	71.03484	254.7966	0	962.8109
7/19/2013 22:00	16163	333	4.077607	305.3108	18.98785	11.47284	-224.5865	83.70885	254.7401	0	963.7344
7/19/2013 23:00	16164	333	3.491081	309.9287	20.26465	10.78267	-225.3726	86.51257	256.7854	0	964.0934
7/20/2013 0:00	16165	333	3.14919	312.445	20.0211	10.39964	-230.3253	93.97594	256.8161	0	964.5629
7/20/2013 1:00	16166	333	3.074594	320.1127	23.20038	9.836346	-226.3799	91.63467	255.4833	0	965.0606
7/20/2013 2:00	16167	333	2.52274	328.1259	28.84469	9.786733	-230.2719	89.38192	255.6954	0	965.6669
7/20/2013 3:00	16168	333	2.043496	336.3002	30.6939	9.592094	-230.2871	89.25219	259.1116	0	966.3094
7/20/2013 4:00	16169	333	2.080648	331.63	26.21539	9.621163	-224.0981	88.72717	258.6171	0	966.8414
7/20/2013 5:00	16170	333	2.061708	338.749	32.9906	9.141804	-222.8542	83.89809	255.8936	0	967.5382
7/20/2013 6:00	16171	333	1.511001	353.4632	31.25026	9.34023	-229.8826	81.12032	256.7227	0	968.0927
7/20/2013 7:00	16172	333	1.713928	331.9194	27.94719	9.915135	-225.5862	76.84071	256.8239	0	968.8201
7/20/2013 8:00	16173	333	1.973225	318.7443	26.30043	10.62975	-222.9611	77.45731	256.0612	0	969.3919
7/20/2013 9:00	16174	333	1.948649	314.3488	24.63892	10.83943	-232.5383	73.9393	256.0389	0	969.96
7/20/2013 10:00	16175	333	1.776185	311.0978	28.71909	12.04056	-231.2105	60.9051	255.7931	0	970.3876
7/20/2013 11:00	16176	333	1.34332	305.087	39.22137	14.39079	-232.5688	52.23599	257.0807	0	970.2421
7/20/2013 12:00	16177	333	1.421012	306.625	37.41079	15.49741	-228.7456	50.64411	259.6685	0	969.9102
7/20/2013 13:00	16178	333	1.379343	315.7252	46.12704	16.65719	-229.2492	43.36084	259.8717	0	969.5797
7/20/2013 14:00	16179	333	1.592631	295.7162	42.14248	17.58673	-223.8539	43.49209	254.99	0	969.2213
7/20/2013 15:00	16180	333	1.791842	293.066	47.31275	18.60799	-222.5337	36.4347	255.2165	0	968.867
7/20/2013 16:00	16181	333	1.525094	289.8952	46.24153	19.41877	-225.4718	37.22225	255.2321	0	968.4667
7/20/2013 17:00	16182	333	1.440047	284.1692	42.50148	19.96032	-225.8152	34.18501	256.5727	0	967.9189
7/20/2013 18:00	16183	333	1.529935	283.2827	41.52252	19.847	-231.8591	36.96125	257.3118	0	967.5023
7/20/2013 19:00	16184	333	1.45433	291.4039	23.62173	18.9656	-231.7523	46.0974	259.3743	0	967.3663
7/20/2013 20:00	16185	333	1.086274	291.3896	21.02319	15.55074	-222.9916	50.3877	254.6412	0	967.2238
7/20/2013 21:00	16186	333	0.6371057	281.3431	18.10877	12.92848	-222.259	55.53727	252.4914	0	967.3751
7/20/2013 22:00	16187	333	0.7612246	272.6649	29.49272	12.99008	-222.488	59.42769	252.0375	0	967.7739
7/20/2013 23:00	16188	333	0.8661917	262.7602	21.49471	12.05117	-230.89	65.2122	257.6671	0	967.8317
7/21/2013 0:00	16189	333	0.6544411	289.9026	30.09139	11.29579	-231.18	78.75921	261.3431	0	967.9941
7/21/2013 1:00	16190	333	0.6611724	271.1346	25.12872	9.921067	-231.6226	85.8868	261.3473	0	967.856
7/21/2013 2:00	16191	333	0.408991	238.1901	43.45237	8.904344	-231.6226	94.78791	261.6097	0	967.6428

7/21/2013 3:00	16192	333	0.2828963	258.1433	9.600006	8.703153	-231.8362	93.90421	261.3501	0	967.4693
7/21/2013 4:00	16193	333	0.08407019	206.6552	16.67951	8.207548	-232.2254	97.12155	261.7682	0	967.3479
7/21/2013 5:00	16194	333	0.07522748	179.2021	8.581738	8.058398	-232.317	97.66337	262.1536	0	967.4857
7/21/2013 6:00	16195	333	0.5442946	261.5603	27.15564	9.478847	-232.6681	93.41123	262.6501	0	967.6389
7/21/2013 7:00	16196	333	0.8372041	290.2661	28.8369	12.48386	-232.401	56.71402	262.6442	0	967.518
7/21/2013 8:00	16197	333	0.5317535	288.7239	43.81979	16.44345	-223.8539	56.17373	261.2192	0	967.4642
7/21/2013 9:00	16198	333	0.9018633	286.1867	57.04868	17.7114	-231.5081	49.55132	256.8799	0	967.3572
7/21/2013 10:00	16199	333	0.9344245	319.3591	41.79979	19.01776	-231.1189	40.54795	258.3013	0	966.8684
7/21/2013 11:00	16200	333	0.7724713	332.9825	52.20605	19.78643	-243.5045	36.44538	253.5943	0	966.4985
7/21/2013 12:00	16201	333	1.00419	131.503	76.14413	20.05581	-221.908	39.08733	258.7031	0	965.7692
7/21/2013 13:00	16202	333	1.209791	145.9984	48.28269	21.3299	-218.7639	38.167	259.4195	0.254	965.1541
7/21/2013 14:00	16203	333	1.358941	137.7301	55.52455	22.24074	-235.2169	33.51498	257.6546	0.508	964.7872
7/21/2013 15:00	16204	333	1.210487	143.2055	37.79667	21.85679	-225.2886	38.33641	259.4517	0	964.1429
7/21/2013 16:00	16205	333	1.116754	149.577	34.3454	21.18027	-232.7978	41.41944	259.1501	0	963.5093
7/21/2013 17:00	16206	333	1.344157	144.5984	35.99821	22.0542	-225.1436	38.99422	257.7405	0	962.5464
7/21/2013 18:00	16207	333	1.10184	155.4399	35.93261	21.66945	-225.5939	42.97622	257.4026	0	961.9643
7/21/2013 19:00	16208	333	0.866829	152.8204	26.12857	19.99007	-233.4922	49.17891	258.472	0	961.524
7/21/2013 20:00	16209	333	1.149997	152.0626	26.39246	18.90215	-225.8686	53.31658	260.6767	0	960.8625
7/21/2013 21:00	16210	333	0.9545296	147.3927	25.79376	18.26721	-232.0423	58.76835	257.0967	0	960.5071
7/21/2013 22:00	16211	333	1.058127	142.2045	26.99541	17.87674	-226.1891	58.74546	260.677	0	960.2813
7/21/2013 23:00	16212	333	1.456488	137.7879	27.81329	17.83135	-224.2966	61.80713	256.8815	0	959.4929
7/22/2013 0:00	16213	333	1.472017	130.0571	33.20728	16.39559	-224.7392	69.1255	259.3142	0	958.5211
7/22/2013 1:00	16214	333	1.474138	134.4686	28.83525	15.14018	-225.8457	93.20672	256.0181	0	957.4655
7/22/2013 2:00	16215	333	1.659308	119.463	29.82872	13.50051	-231.2715	95.76777	257.2296	5.334001	956.1985
7/22/2013 3:00	16216	333	2.020506	128.2733	32.11345	13.45593	-223.6708	96.39964	259.4307	4.318	954.8233
7/22/2013 4:00	16217	333	2.001206	133.0701	32.80956	13.46139	-222.2056	97.98846	253.5809	5.08	953.449
7/22/2013 5:00	16218	333	2.063688	135.7347	31.07408	13.36491	-226.6241	97.81447	255.6645	0.762	952.4633
7/22/2013 6:00	16219	333	1.94618	130.2589	29.88374	13.26697	-222.61	96.85293	255.6958	0	951.7922
7/22/2013 7:00	16220	333	1.763681	115.1662	29.22435	12.92754	-223.4724	97.65726	253.3333	1.778	951.2834
7/22/2013 8:00	16221	333	1.296753	104.8412	32.08171	12.76042	-226.0746	97.3856	255.851	0.508	950.8481
7/22/2013 9:00	16222	333	1.088305	89.07767	32.51846	13.34199	-224.0981	96.51105	255.2255	0	950.5786
7/22/2013 10:00	16223	333	1.265062	59.83838	41.616	13.49052	-222.198	95.63651	253.5106	3.302	950.498
7/22/2013 11:00	16224	333	1.255771	51.75599	45.06964	13.95855	-230.6305	95.93718	257.5819	0.508	950.8431
7/22/2013 12:00	16225	333	2.038511	355.3963	34.17862	13.89388	-222.1369	93.13039	254.9447	0	951.8472
7/22/2013 13:00	16226	333	2.093673	353.5668	35.77437	13.40801	-222.1598	90.50067	255.054	0	953.4177
7/22/2013 14:00	16227	333	2.628591	350.6581	34.95429	13.20545	-228.0893	90.72655	253.093	0	955.1262
7/22/2013 15:00	16228	333	2.479222	345.056	31.71063	13.85867	-225.3191	85.09164	259.7542	0	956.5844
7/22/2013 16:00	16229	333	2.832399	330.3237	27.72181	13.63859	-232.0194	84.37887	256.5217	0	957.8167
7/22/2013 17:00	16230	333	3.2011	331.1645	28.9255	14.20461	-229.3332	74.30408	258.2944	0	958.8
7/22/2013 18:00	16231	333	2.837175	339.9561	30.38094	12.89055	-225.6396	82.83125	256.5535	0	959.9928
7/22/2013 19:00	16232	333	2.833791	334.1832	26.25328	13.28547	-228.6769	80.38009	256.0025	0	960.967
7/22/2013 20:00	16233	333	2.644588	343.4631	30.67238	12.09586	-224.1897	87.31081	256.8686	0	962.0621
7/22/2013 21:00	16234	333	1.960061	345.6739	30.41803	11.46142	-220.977	90.67772	252.6676	0	963.0107
7/22/2013 22:00	16235	333	1.914509	334.9429	27.44247	10.97468	-221.1143	91.57362	251.6941	0	963.7087
7/22/2013 23:00	16236	333	1.886731	316.8025	22.48736	10.62913	-224.3347	93.53181	252.3021	0	964.1775
7/23/2013 0:00	16237	333	2.043308	317.3475	22.87675	11.05917	-222.1216	95.5892	255.6613	0	964.5771

7/23/2013 1:00	16238	333	1.814754	319.6009	22.96871	10.61307	-222.5871	96.33401	252.2859	0	965.0684
7/23/2013 2:00	16239	333	1.771883	328.7942	25.15396	10.4078	-230.0734	95.78455	256.2749	0	965.5988
7/23/2013 3:00	16240	333	1.860873	310.8595	19.34911	10.17369	-222.2361	97.50922	255.0094	0	966.0577
7/23/2013 4:00	16241	333	2.183538	307.8418	18.06957	10.0904	-221.7782	98.33797	251.6098	0	966.6174
7/23/2013 5:00	16242	333	2.278872	314.9695	22.37993	10.24065	-222.0377	98.72564	251.8205	0	967.153
7/23/2013 6:00	16243	333	1.651278	318.918	25.14927	10.4698	-221.9003	97.40543	251.9072	0	967.6606
7/23/2013 7:00	16244	333	1.182588	337.4132	30.87698	10.47798	-221.2288	94.19878	252.047	0	968.0923
7/23/2013 8:00	16245	333	1.371109	330.7018	31.42993	11.42208	-223.9379	87.56721	253.2087	0	968.6573
7/23/2013 9:00	16246	333	1.461966	330.0603	31.65236	12.97328	-222.7779	77.64962	253.0311	0	969.0359
7/23/2013 10:00	16247	333	1.496367	320.9476	32.93137	15.363	-226.8835	71.08064	254.1833	0	969.0704
7/23/2013 11:00	16248	333	1.544934	301.6452	30.06942	17.83517	-217.1003	59.57727	255.9318	0	969.2511
7/23/2013 12:00	16249	333	1.455439	311.1766	31.41194	18.90314	-225.8915	52.08642	256.5558	0	969.0506
7/23/2013 13:00	16250	333	1.267843	313.5981	40.1136	20.17327	-231.4089	50.725	256.9286	0	968.7359
7/23/2013 14:00	16251	333	1.388725	339.0668	42.38808	19.57437	-223.5487	77.98997	257.608	0	968.6166
7/23/2013 15:00	16252	333	0.7608812	29.19508	73.41611	19.96176	-232.6451	46.67738	256.3849	0	968.3195
7/23/2013 16:00	16253	333	1.125083	258.5487	45.92159	21.41546	-223.5945	68.53942	258.8756	0.254	967.9594
7/23/2013 17:00	16254	333	0.9605134	226.8639	40.50339	20.52272	-233.0496	47.17189	260.2663	0	967.4182
7/23/2013 18:00	16255	333	1.228895	249.645	34.95248	21.16975	-229.7758	51.3004	260.2101	0	967.011
7/23/2013 19:00	16256	333	1.249601	257.2793	29.5376	20.73808	-226.2654	59.2827	259.5289	0	966.9091
7/23/2013 20:00	16257	333	0.8991561	278.8951	18.41072	17.95462	-224.8537	62.93196	256.095	0	966.9808
7/23/2013 21:00	16258	333	0.7370055	241.3562	20.79512	16.23245	-224.7392	72.27264	254.8878	0	967.0742
7/23/2013 22:00	16259	333	0.7527316	237.4787	27.00035	14.88375	-224.6629	74.63375	254.7464	0	967.0327
7/23/2013 23:00	16260	333	1.18514	259.4173	22.27291	15.52458	-225.7236	74.23235	254.3696	0	966.9678
7/24/2013 0:00	16261	333	1.455485	301.1392	33.58885	15.08708	-221.5569	79.85353	253.1457	0	967.0444
7/24/2013 1:00	16262	333	0.492441	355.0566	29.84521	14.63774	-222.259	84.59254	252.2408	0	966.8909
7/24/2013 2:00	16263	333	0.5203704	98.9205	62.35123	13.03681	-222.343	94.68414	252.303	0	966.6028
7/24/2013 3:00	16264	333	0.51613	228.1688	60.54961	12.21681	-224.5789	93.02203	252.8931	0	966.3332
7/24/2013 4:00	16265	333	0.3676516	239.205	17.84489	13.05602	-220.5343	94.01715	254.5546	0	966.355
7/24/2013 5:00	16266	333	0.6534468	290.6531	30.68979	12.86389	-221.0456	92.47717	251.1625	0	966.5908
7/24/2013 6:00	16267	333	0.7832553	268.2491	27.3956	12.92863	-223.9303	87.72137	251.9776	0	966.5592
7/24/2013 7:00	16268	333	0.8265621	271.9717	22.42303	14.55025	-222.7779	78.62795	257.5301	0	966.6501
7/24/2013 8:00	16269	333	1.406269	273.7661	24.79963	16.81841	-222.5719	69.3117	253.336	0	966.5927
7/24/2013 9:00	16270	333	1.414655	272.2296	32.24358	18.96565	-229.4324	56.71554	253.9423	0	966.481
7/24/2013 10:00	16271	333	1.190352	272.1839	43.95594	21.10469	-225.9602	54.19417	256.7879	0	966.1228
7/24/2013 11:00	16272	333	1.27567	263.2385	36.79692	20.70742	-224.3881	63.515	255.8827	0	965.4687
7/24/2013 12:00	16273	333	1.390323	255.9061	40.24388	21.69502	-225.8839	50.43196	255.1179	0	964.9621
7/24/2013 13:00	16274	333	1.476953	263.7211	34.35395	21.17947	-226.212	59.98172	256.0924	0	964.663
7/24/2013 14:00	16275	333	3.348501	282.9165	24.03197	17.03643	-230.3481	90.91734	256.3409	0	965.2488
7/24/2013 15:00	16276	333	2.648884	305.7103	18.37139	14.07516	-230.6687	95.6594	257.1106	2.286	965.5446
7/24/2013 16:00	16277	333	1.567286	316.9383	22.16152	14.67738	-230.1726	92.98693	260.2591	0	965.4227
7/24/2013 17:00	16278	333	0.4489124	1.895121	42.00541	14.83971	-227.0743	90.93413	258.2201	0	965.4991
7/24/2013 18:00	16279	333	0.455588	88.91154	23.1787	15.30959	-230.0505	88.46465	257.1349	0	965.1293
7/24/2013 19:00	16280	333	0.4361002	113.2221	25.23478	15.91816	-222.1598	88.75616	255.5424	0.254	965.2791
7/24/2013 20:00	16281	333	0.2196191	109.7311	21.81638	15.11424	-225.136	93.27082	256.5154	0	965.4371
7/24/2013 21:00	16282	333	0.02428407	35.58456	1.484173	14.0163	-224.8002	95.07027	255.5866	0	965.7666
7/24/2013 22:00	16283	333	0.3739133	70.98093	19.86369	13.51363	-226.3112	95.20306	255.6611	0	965.8336

7/24/2013 23:00	16284	333	0.9869636	76.81319	32.72514	13.29566	-226.9904	90.01227	257.7488	0	965.9175
7/25/2013 0:00	16285	333	0.8612996	38.83437	40.44762	13.22168	-223.2282	91.87887	255.658	0	966.2629
7/25/2013 1:00	16286	333	1.146909	40.50906	40.25429	13.16905	-221.3585	93.17619	253.072	0	966.5645
7/25/2013 2:00	16287	333	1.155508	67.89571	36.82564	13.14607	-221.1219	92.15055	251.9192	0	966.5524
7/25/2013 3:00	16288	333	1.346372	67.66869	33.70207	12.91191	-220.5801	91.34774	250.8673	0	966.8328
7/25/2013 4:00	16289	333	1.717204	74.84154	35.25168	12.59494	-221.244	89.14841	250.8159	0	967.1043
7/25/2013 5:00	16290	333	2.012424	76.62689	32.10602	12.32668	-221.1143	89.97717	252.6481	0	967.427
7/25/2013 6:00	16291	333	1.754414	73.92843	39.03191	12.00359	-224.8537	87.41458	252.549	0	967.5945
7/25/2013 7:00	16292	333	1.877908	73.36138	38.96448	12.13895	-221.2288	86.90329	251.7689	0	967.8768
7/25/2013 8:00	16293	333	1.683646	66.74742	41.76776	12.5278	-224.0981	79.42313	251.6967	0	968.5466
7/25/2013 9:00	16294	333	1.805944	78.07095	41.27208	14.04047	-221.3356	74.56812	254.0289	0	968.9186
7/25/2013 10:00	16295	333	2.212304	68.05306	39.18993	14.62414	-224.0142	69.11329	253.6128	0	969.2576
7/25/2013 11:00	16296	333	2.334949	69.86086	39.09867	15.27528	-229.875	63.75309	255.0808	0	969.5715
7/25/2013 12:00	16297	333	2.426436	77.73554	38.82561	15.57726	-230.9815	66.15694	257.3755	0	969.6744
7/25/2013 13:00	16298	333	2.120225	68.67841	39.72356	15.2439	-230.3787	59.27354	257.0085	0	969.5811
7/25/2013 14:00	16299	333	2.486564	66.62146	40.52634	16.05988	-222.8542	60.00004	255.873	0	969.2925
7/25/2013 15:00	16300	333	1.911674	50.83489	44.88193	15.82204	-223.6021	58.90419	254.0305	0	969.3633
7/25/2013 16:00	16301	333	1.769527	63.53188	42.05848	15.95404	-222.984	56.86664	252.9647	0	969.4203
7/25/2013 17:00	16302	333	1.836891	67.40387	42.67167	16.02664	-222.9077	56.24393	252.9346	0	969.4697
7/25/2013 18:00	16303	333	1.938503	47.46839	45.02354	15.85596	-222.9077	53.97592	252.7804	0	969.5652
7/25/2013 19:00	16304	333	2.090995	43.74188	42.8487	15.29368	-222.5108	56.45456	253.4911	0	969.8519
7/25/2013 20:00	16305	333	2.093701	61.13762	41.76572	14.39402	-223.4037	59.83826	254.5664	0	970.264
7/25/2013 21:00	16306	333	1.636535	57.77477	39.79887	13.18894	-221.8622	64.36207	252.5237	0	970.9213
7/25/2013 22:00	16307	333	2.34075	74.10159	35.40728	12.40214	-223.335	68.81719	252.7216	0	971.6092
7/25/2013 23:00	16308	333	1.915214	66.35265	41.71996	11.43944	-224.6781	74.67953	253.9649	0	972.0512
7/26/2013 0:00	16309	333	1.864053	65.25462	38.93863	10.60268	-230.1345	77.41306	255.8842	0	972.3074
7/26/2013 1:00	16310	333	1.825974	59.35619	41.85265	10.01231	-227.2422	78.0266	257.2774	0	972.3388
7/26/2013 2:00	16311	333	1.66204	43.43456	41.88196	9.522799	-226.502	82.45732	258.0959	0	972.3964
7/26/2013 3:00	16312	333	1.481631	35.87584	44.45518	9.318262	-231.2334	85.68534	258.595	0	972.6228
7/26/2013 4:00	16313	333	1.396574	16.51376	41.75855	8.914419	-228.6998	86.77356	258.3794	0	972.9646
7/26/2013 5:00	16314	333	1.46707	28.38829	44.20455	9.022322	-228.1732	85.97533	258.1259	0	973.3635
7/26/2013 6:00	16315	333	1.36604	20.78714	39.48079	8.909415	-229.8216	86.60567	258.3845	0	973.9167
7/26/2013 7:00	16316	333	1.462385	20.89012	43.21031	9.474395	-228.1732	80.75097	258.0203	0	974.4152
7/26/2013 8:00	16317	333	1.908405	44.8825	42.55503	10.21799	-222.3964	72.91366	256.5912	0	974.8005
7/26/2013 9:00	16318	333	1.912021	32.21611	47.79627	11.3297	-222.9077	63.58673	254.6403	0	974.9835
7/26/2013 10:00	16319	333	1.935181	24.31019	47.90193	11.48207	-224.8231	62.65724	254.1664	0	975.2393
7/26/2013 11:00	16320	333	2.1713	15.76597	43.19398	11.72336	-221.7248	62.03148	253.7516	0	975.435
7/26/2013 12:00	16321	333	1.903247	35.65539	48.9478	12.30702	-221.7553	55.61817	252.5976	0	975.4315
7/26/2013 13:00	16322	333	2.33224	46.72385	48.82583	14.93289	-223.4266	47.71981	255.626	0	975.123
7/26/2013 14:00	16323	333	2.358756	43.02801	46.70137	16.37977	-232.1568	46.77354	258.5361	0	974.907
7/26/2013 15:00	16324	333	2.196845	32.0056	46.5422	15.8971	-232.4086	47.44966	256.9082	0	974.8527
7/26/2013 16:00	16325	333	2.337562	44.71884	44.65053	16.06196	-230.3176	48.30436	259.3561	0	974.5222
7/26/2013 17:00	16326	333	1.945285	28.91584	45.00584	15.94804	-231.0579	51.80711	260.258	0	974.3984
7/26/2013 18:00	16327	333	2.016573	21.17005	43.68842	15.41294	-225.0978	53.42952	259.5762	0	974.3718
7/26/2013 19:00	16328	333	1.972334	2.912248	36.17246	14.99397	-229.6155	57.55651	258.4515	0	974.3235
7/26/2013 20:00	16329	333	1.553121	351.2122	31.40802	14.3899	-232.1033	59.89167	259.3257	0	974.0726

7/26/2013 21:00	16330	333	1.655656	344.5255	26.51207	13.54937	-223.7547	60.97684	256.8754	0	973.8322
7/26/2013 22:00	16331	333	1.418353	338.5746	22.37774	12.45061	-225.487	67.85108	255.591	0	973.7623
7/26/2013 23:00	16332	333	1.425333	345.315	24.33553	11.51332	-222.0835	69.57574	254.6895	0	973.6401
7/27/2013 0:00	16333	333	1.429804	343.3226	25.12717	11.03051	-223.0603	74.74364	254.1314	0	973.4266
7/27/2013 1:00	16334	333	1.456381	343.3679	28.00237	10.6134	-223.5487	72.28484	254.8362	0	972.9872
7/27/2013 2:00	16335	333	1.648203	350.2622	30.67781	10.82811	-226.5554	72.25127	254.2688	0	972.8503
7/27/2013 3:00	16336	333	1.987766	351.9421	32.35419	11.03767	-229.8369	74.57727	257.9645	0	972.5499
7/27/2013 4:00	16337	333	1.869716	345.6267	29.69571	10.66616	-230.5237	77.47411	260.0657	0	972.4579
7/27/2013 5:00	16338	333	2.079946	338.5643	25.4649	10.31872	-229.9437	81.79645	259.6673	0	972.378
7/27/2013 6:00	16339	333	1.735651	338.0396	26.87047	10.09079	-229.0814	80.87002	259.2597	0	972.4713
7/27/2013 7:00	16340	333	2.068963	337.7688	28.50134	10.76665	-223.8158	77.54126	259.1425	0	972.2564
7/27/2013 8:00	16341	333	2.675539	349.5614	31.76192	11.96705	-225.3497	68.44936	253.0777	0	972.0425
7/27/2013 9:00	16342	333	2.631504	355.9691	35.68463	13.10558	-221.7019	63.27385	252.5489	0	971.8201
7/27/2013 10:00	16343	333	2.817135	2.647447	38.92028	14.86827	-224.2889	52.78392	254.3427	0	971.4716
7/27/2013 11:00	16344	333	3.149107	12.87439	40.76267	16.92949	-226.8835	42.8648	255.6461	0	971.1664
7/27/2013 12:00	16345	333	3.136214	11.85933	44.29858	18.34834	-241.444	40.73873	257.0464	0	970.7842
7/27/2013 13:00	16346	333	3.227898	11.84183	42.90165	18.64318	-224.3881	42.07725	254.8266	0	970.4219
7/27/2013 14:00	16347	333	2.77245	24.21214	50.73828	19.49099	-222.7016	40.06565	254.5729	0	970.0048
7/27/2013 15:00	16348	333	2.816362	19.1172	44.32162	19.61726	-225.5939	37.16578	255.5151	0	969.8973
7/27/2013 16:00	16349	333	2.547038	5.357743	41.20407	19.95484	-223.6632	36.11419	258.9965	0	969.7545
7/27/2013 17:00	16350	333	2.646356	359.4774	37.11993	19.2452	-226.9294	39.99087	257.0037	0	969.7645
7/27/2013 18:00	16351	333	2.305473	0.6933589	43.66007	18.87124	-224.0524	43.01132	257.4487	0	969.6332
7/27/2013 19:00	16352	333	2.195055	359.6695	37.74846	18.51821	-232.5459	44.13312	257.9853	0	969.5553
7/27/2013 20:00	16353	333	1.947945	11.64035	40.89816	17.64121	-222.1598	46.41181	255.0489	0	969.4675
7/27/2013 21:00	16354	333	1.319358	354.8158	28.02011	15.89437	-222.6711	54.45517	252.6158	0	969.4399
7/27/2013 22:00	16355	333	1.377719	350.0827	26.6932	14.63414	-228.9058	59.53758	252.0954	0	969.5192
7/27/2013 23:00	16356	333	0.8802523	30.11835	41.38543	13.62814	-222.259	65.28088	252.9856	0	969.6536
7/28/2013 0:00	16357	333	0.6675253	15.97601	27.91299	12.37221	-231.6989	73.4509	258.1667	0	969.7788
7/28/2013 1:00	16358	333	0.6119308	356.4565	20.27647	10.94833	-229.4553	82.75494	260.4459	0	969.6821
7/28/2013 2:00	16359	333	0.7088103	2.83057	20.94896	10.3703	-224.8994	85.26409	258.1763	0	969.7398
7/28/2013 3:00	16360	333	1.02727	352.3457	19.6058	9.798532	-231.4242	82.31538	256.9759	0	969.8661
7/28/2013 4:00	16361	333	0.873531	355.9247	19.48743	9.717797	-224.1516	88.02509	259.6098	0	969.7823
7/28/2013 5:00	16362	333	0.562282	2.324787	26.26468	9.126737	-231.7294	86.45	260.7588	0	969.8358
7/28/2013 6:00	16363	333	0.741515	350.9015	20.04919	9.295282	-231.8057	84.22472	260.6509	0	969.8478
7/28/2013 7:00	16364	333	0.612218	348.4939	27.47598	12.2025	-230.7297	60.36481	261.0913	0	969.9563
7/28/2013 8:00	16365	333	0.8610197	330.8909	35.75365	15.51743	-226.8149	59.30101	260.9693	0	970.0219
7/28/2013 9:00	16366	333	1.476654	330.0836	32.28316	17.21578	-232.256	50.91121	256.8327	0	969.941
7/28/2013 10:00	16367	333	1.791287	358.527	38.60424	18.73063	-227.9062	43.55619	256.6933	0	969.6313
7/28/2013 11:00	16368	333	1.631252	15.35706	53.09082	20.20963	-219.0997	33.59435	258.2234	0	969.3186
7/28/2013 12:00	16369	333	1.399438	57.14639	57.09904	21.37667	-238.7502	35.38159	258.7292	0	969.0502
7/28/2013 13:00	16370	333	1.143856	37.16525	75.24762	22.04875	-241.4669	33.35472	258.4716	0	968.6306
7/28/2013 14:00	16371	333	1.12387	338.3823	64.7439	22.95532	-232.5536	31.80863	261.1252	0	968.3469
7/28/2013 15:00	16372	333	1.037194	325.3604	53.54348	23.58961	-233.1183	31.08518	260.8114	0	968.006
7/28/2013 16:00	16373	333	1.1298	325.9026	54.15517	24.4113	-234.2172	30.32206	260.4305	0	967.7537
7/28/2013 17:00	16374	333	0.6136443	302.1383	40.06285	24.98709	-234.5835	30.66394	261.9682	0.254	967.7447
7/28/2013 18:00	16375	333	0.5289664	302.288	38.13935	25.32107	-233.4922	33.47224	262.6176	0	967.632

7/28/2013 19:00	16376	333	0.4951638	253.9331	36.87467	24.02614	-234.034	37.39624	264.2057	0	967.6036
7/28/2013 20:00	16377	333	0.3622597	219.2842	16.74539	19.57862	-232.3323	44.31932	262.7839	0	967.5607
7/28/2013 21:00	16378	333	0.2832249	178.6375	31.52509	16.40497	-232.6986	67.95639	262.4494	0	967.7433
7/28/2013 22:00	16379	333	0.2449636	159.8129	23.57296	14.66489	-232.607	55.54338	262.1134	0	967.9018
7/28/2013 23:00	16380	333	0.1469159	202.0528	14.10062	13.84958	-232.8054	71.17678	262.8093	0	967.861
7/29/2013 0:00	16381	333	0.5418264	194.2162	38.65588	12.79654	-231.7294	89.37888	261.0793	0	967.6866
7/29/2013 1:00	16382	333	0.1787102	160.6284	24.58069	11.66273	-231.4089	91.46832	260.8291	0	967.8818
7/29/2013 2:00	16383	333	0.9799229	253.3195	19.66215	12.46782	-231.9355	82.62826	260.099	0	968.2401
7/29/2013 3:00	16384	333	0.4198133	148.9953	27.25409	11.38813	-230.8594	94.1011	260.2527	0	968.0754
7/29/2013 4:00	16385	333	0.3546615	179.4623	35.976	11.06065	-231.4242	91.83919	261.2055	0	968.1334
7/29/2013 5:00	16386	333	0.6111546	150.0646	6.929183	11.18314	-231.8362	90.61208	261.6561	0	968.3684
7/29/2013 6:00	16387	333	0.462558	151.6363	9.991428	11.42906	-231.5081	89.42771	262.0871	0	968.6048
7/29/2013 7:00	16388	333	0.2897863	167.8656	22.35396	13.52714	-226.067	65.40908	261.6722	0	968.7248
7/29/2013 8:00	16389	333	0.5973117	234.3008	36.00983	19.16008	-226.8301	53.10138	257.9991	0	969.0212
7/29/2013 9:00	16390	333	0.8164603	228.3966	42.64226	20.93295	-224.6705	51.66059	256.5538	0	969.0137
7/29/2013 10:00	16391	333	0.9901543	232.1895	55.76531	22.7896	-236.5219	37.47255	254.7455	0	968.7731
7/29/2013 11:00	16392	333	1.567725	227.938	52.57984	24.02554	-216.505	33.45088	257.0084	0	968.5567
7/29/2013 12:00	16393	333	1.562649	234.1047	54.60962	24.18343	-222.9611	41.00277	256.2968	0	968.3555
7/29/2013 13:00	16394	333	1.511067	231.9082	54.27361	24.76736	-227.7688	28.53329	256.845	0	968.1338
7/29/2013 14:00	16395	333	1.682999	247.935	38.32106	24.43842	-228.1885	38.45393	257.6419	0	968.0643
7/29/2013 15:00	16396	333	1.656387	253.1474	42.95102	24.28576	-227.929	31.35381	257.8504	0	968.0881
7/29/2013 16:00	16397	333	1.595625	268.0765	39.39042	24.3757	-227.9825	38.83091	257.9426	0	967.8771
7/29/2013 17:00	16398	333	1.609528	268.3522	40.09285	24.08099	-229.4706	32.47255	257.8369	0.254	968.0094
7/29/2013 18:00	16399	333	1.34596	244.1136	43.88663	23.6569	-227.3872	39.48415	257.4994	0	967.9072
7/29/2013 19:00	16400	333	0.7307636	199.0727	50.8695	23.03666	-225.2581	46.3996	256.4087	0	967.6986
7/29/2013 20:00	16401	333	0.862537	221.1431	32.53109	20.14682	-222.9611	53.50889	255.1314	0	967.5861
7/29/2013 21:00	16402	333	0.3550064	208.0871	27.52298	17.75916	-222.5871	59.42159	253.1028	0	967.8913
7/29/2013 22:00	16403	333	0.3036427	155.7624	30.06088	15.93517	-222.4956	66.25462	252.5556	0	967.9574
7/29/2013 23:00	16404	333	0.2842865	156.4173	27.29616	14.84497	-222.2285	70.54034	252.2774	0	967.9927
7/30/2013 0:00	16405	333	0.400644	150.5553	15.27996	14.15718	-222.8619	76.09132	252.4701	0	967.7569
7/30/2013 1:00	16406	333	0.2220594	155.0242	27.21061	14.01924	-222.9	76.03943	252.85	0	967.5795
7/30/2013 2:00	16407	333	0.5929683	147.503	13.86291	13.75439	-222.4651	84.66885	253.064	0	967.3351
7/30/2013 3:00	16408	333	0.6519351	148.3859	14.31946	13.41889	-222.8008	86.02264	252.7333	0	967.1215
7/30/2013 4:00	16409	333	0.5422497	154.2295	31.67829	14.12394	-222.3658	86.90024	252.5891	0	966.9135
7/30/2013 5:00	16410	333	0.5685589	225.583	46.03666	14.08562	-224.1363	89.22166	253.5586	0	967.1409
7/30/2013 6:00	16411	333	0.4457102	229.4844	39.40766	14.38638	-223.2816	89.71923	253.5943	0	967.1992
7/30/2013 7:00	16412	333	0.3659232	131.4794	18.80082	14.41224	-223.5258	94.56966	253.2225	0	966.8722
7/30/2013 8:00	16413	333	0.4401638	151.1279	20.82326	16.27228	-226.563	83.48907	256.7038	0	966.9359
7/30/2013 9:00	16414	333	0.7405471	148.1275	25.79725	17.45159	-225.3039	79.40482	255.9126	0	966.7142
7/30/2013 10:00	16415	333	0.7031697	152.5104	34.33511	18.31131	-223.2358	71.11421	254.483	0	966.4122
7/30/2013 11:00	16416	333	0.6923453	197.3783	55.92885	19.90708	-226.151	73.48753	254.1765	0	965.9735
7/30/2013 12:00	16417	333	0.837148	291.3051	32.5881	18.07726	-227.8756	93.24334	257.0763	0	965.7824
7/30/2013 13:00	16418	333	0.778178	268.781	35.92633	17.97817	-233.4007	75.75555	255.1705	0	965.6527
7/30/2013 14:00	16419	333	1.55986	250.5009	38.45836	20.61108	-225.7389	69.00798	257.2196	0	965.1345
7/30/2013 15:00	16420	333	2.159508	294.4094	33.16085	22.89229	-235.1024	56.99332	257.2385	0	964.6032
7/30/2013 16:00	16421	333	2.256768	269.4471	36.32115	24.3026	-228.0969	49.17433	256.9424	0	964.0396

7/30/2013 17:00	16422	333	1.629351	241.8172	45.9763	23.33928	-227.7001	57.41762	257.2856	0	963.6525
7/30/2013 18:00	16423	333	2.413234	300.8061	35.8289	17.79775	-225.1741	95.38621	258.4277	3.302	964.0053
7/30/2013 19:00	16424	333	1.008145	309.6891	20.06956	15.90022	-224.06	95.82729	255.1134	0	963.9722
7/30/2013 20:00	16425	333	2.147268	298.3138	15.82396	15.00117	-224.701	96.5599	255.9136	1.016	964.251
7/30/2013 21:00	16426	333	0.8893765	283.0122	16.65934	14.63939	-226.3494	97.50616	255.4986	0	964.3564
7/30/2013 22:00	16427	333	1.949211	291.4284	22.84479	14.68708	-226.1204	96.50952	255.8238	0	964.4036
7/30/2013 23:00	16428	333	0.8170859	259.0475	19.96645	13.87391	-226.1281	97.53974	255.9851	0	964.2956
7/31/2013 0:00	16429	333	0.720346	222.6258	31.44865	14.13745	-223.1671	96.9735	255.7395	1.27	964.2265
7/31/2013 1:00	16430	333	0.4589218	199.877	24.39308	13.48124	-223.5487	97.61453	253.6083	0	964.0246
7/31/2013 2:00	16431	333	1.164175	253.7174	34.08764	13.47177	-224.1516	96.84988	253.9106	0	963.9858
7/31/2013 3:00	16432	333	1.103546	269.7603	26.9421	12.77997	-226.998	97.31844	256.0572	0	963.618
7/31/2013 4:00	16433	333	0.6955726	225.2356	27.10861	12.0275	-226.8149	97.66337	256.5437	0	963.2952
7/31/2013 5:00	16434	333	1.001224	230.0406	25.17892	11.7044	-225.1284	96.0257	256.1632	0	963.1006
7/31/2013 6:00	16435	333	1.286135	258.5821	27.36672	12.17284	-230.0276	94.4613	256.7411	0	963.0644
7/31/2013 7:00	16436	333	1.734256	263.9416	28.73105	13.27856	-223.4037	91.28516	255.535	0	963.289
7/31/2013 8:00	16437	333	2.040287	277.0842	24.49689	12.98477	-224.2126	94.97717	253.8131	0	963.27
7/31/2013 9:00	16438	333	1.353994	257.9381	36.32238	12.37314	-223.0145	93.53181	253.4474	1.524	963.0314
7/31/2013 10:00	16439	333	1.437268	243.5995	40.44336	13.15295	-222.6024	93.28913	253.202	0	962.6004
7/31/2013 11:00	16440	333	1.960494	264.7312	29.78112	13.71709	-224.4873	92.84194	251.9385	0	962.308
7/31/2013 12:00	16441	333	2.595273	287.0761	23.95278	15.12187	-224.5255	85.30683	254.3625	0	961.8638
7/31/2013 13:00	16442	333	2.99373	288.0114	24.12458	17.12355	-232.5765	73.67678	259.939	1.27	961.3754
7/31/2013 14:00	16443	333	2.78178	283.3992	28.71188	17.1499	-225.9831	86.69115	260.8187	0	961.4237
7/31/2013 15:00	16444	333	2.097134	282.086	25.47718	14.86414	-231.1265	88.23724	254.3837	0.254	961.6282
7/31/2013 16:00	16445	333	2.883664	287.8326	24.57816	17.54541	-231.4089	78.18992	259.0004	0	961.1598
7/31/2013 17:00	16446	333	3.906453	296.575	21.12952	18.50808	-231.8439	75.48692	261.5727	1.27	961.151
7/31/2013 18:00	16447	333	3.219339	293.3204	21.07749	17.05222	-224.6629	94.06447	261.1436	1.27	961.3972
7/31/2013 19:00	16448	333	2.296382	292.3873	18.91833	15.70308	-224.9834	87.54279	257.006	0	961.3083
7/31/2013 20:00	16449	333	2.757236	292.3218	18.08998	14.86668	-227.5246	96.49731	256.2372	0.508	961.3657
7/31/2013 21:00	16450	333	1.89705	293.6129	18.00189	14.29309	-222.5719	97.36422	257.1548	0.762	961.639
7/31/2013 22:00	16451	333	3.065208	297.3859	16.75328	14.02807	-224.8918	96.6942	253.2144	0	961.9358
7/31/2013 23:00	16452	333	3.765592	297.5743	17.0621	13.94916	-228.303	96.87735	255.2275	0	962.1589
8/1/2013 0:00	16453	333	2.824115	295.3705	17.33961	13.52809	-222.9458	97.83584	253.7793	0	962.2995
8/1/2013 1:00	16454	333	2.788794	294.4792	17.11834	13.51735	-224.6552	98.08157	254.5064	0	962.1788
8/1/2013 2:00	16455	333	2.609323	295.5974	17.08494	13.65024	-224.2813	96.8224	254.3618	0	962.1939
8/1/2013 3:00	16456	333	2.648856	299.1303	16.49223	13.76896	-223.5334	96.82546	254.326	0	962.3451
8/1/2013 4:00	16457	333	1.860307	293.4428	17.18461	13.77781	-224.7239	96.91246	254.2541	0	962.4481
8/1/2013 5:00	16458	333	2.095153	294.2592	17.06943	13.61626	-225.2657	96.3279	254.7961	0	962.6769
8/1/2013 6:00	16459	333	1.668127	290.1126	19.04558	13.62464	-224.5484	95.44267	255.0733	0	962.984
8/1/2013 7:00	16460	333	1.728629	287.1288	21.28597	13.85665	-224.701	94.17435	255.6049	0	963.2024
8/1/2013 8:00	16461	333	1.639732	291.6124	20.64433	14.33422	-224.1516	88.5669	255.7646	0	963.3647
8/1/2013 9:00	16462	333	1.781862	283.9455	25.44388	16.01774	-232.5307	83.5257	258.1325	0	963.2289
8/1/2013 10:00	16463	333	2.347453	295.9597	23.22628	17.6238	-231.5005	66.60872	257.0108	0	963.0724
8/1/2013 11:00	16464	333	2.88957	304.0519	20.21261	19.31083	-224.2508	63.64167	258.7468	0	962.6725
8/1/2013 12:00	16465	333	2.240372	283.3152	31.02599	18.69936	-221.8927	87.55042	255.8288	2.794	962.3166
8/1/2013 13:00	16466	333	1.5072	265.2996	22.66805	14.65241	-226.4715	80.11757	256.3347	1.016	962.2182
8/1/2013 14:00	16467	333	1.967103	288.5881	22.80139	15.78224	-223.8539	78.26623	255.8062	0	961.8741

8/1/2013 15:00	16468	333	2.411428	287.4534	22.98364	19.43854	-224.3118	58.09833	256.6811	0	961.3944
8/1/2013 16:00	16469	333	2.398041	300.1199	21.84945	21.35924	-230.1879	60.92037	257.2152	0	960.9396
8/1/2013 17:00	16470	333	1.545274	284.0905	37.49742	18.90793	-223.274	59.04308	255.3897	0	961.0057
8/1/2013 18:00	16471	333	2.453421	309.5677	45.15722	15.38559	-223.274	89.68413	256.2805	0.508	961.3693
8/1/2013 19:00	16472	333	0.9104847	342.6282	41.79588	15.88492	-224.6247	86.77966	256.5433	0	961.3443
8/1/2013 20:00	16473	333	0.3132518	308.3628	12.35293	14.59451	-223.8539	92.16886	255.1772	0	961.4611
8/1/2013 21:00	16474	333	0.5152807	222.4114	18.18406	12.30834	-232.2407	97.4146	259.2306	0	961.4607
8/1/2013 22:00	16475	333	0.5639034	231.1107	20.58648	12.24846	-225.8457	95.83645	259.0303	0	961.5455
8/1/2013 23:00	16476	333	0.762071	279.9724	28.95285	11.99956	-227.2346	98.1823	256.9148	0	961.217
8/2/2013 0:00	16477	333	1.683223	288.6611	17.44842	11.79529	-229.73	96.18749	258.5072	0	961.1617
8/2/2013 1:00	16478	333	2.635996	297.9651	15.96079	11.76798	-231.8439	94.27967	261.3526	0	961.2404
8/2/2013 2:00	16479	333	2.871983	300.1409	16.2198	11.64875	-232.5231	95.00159	262.4955	0	961.3607
8/2/2013 3:00	16480	333	2.378789	297.0151	17.70862	11.22244	-231.7828	96.87735	262.4122	0	961.4858
8/2/2013 4:00	16481	333	2.155851	295.6882	16.91876	10.70706	-231.0579	98.02357	261.7379	0	961.6284
8/2/2013 5:00	16482	333	2.768963	298.8628	17.33984	10.69476	-231.8744	96.36301	262.0104	0	961.8212
8/2/2013 6:00	16483	333	3.035284	310.3128	20.50181	10.91523	-221.2975	93.96679	257.7383	0	962.2186
8/2/2013 7:00	16484	333	3.363257	304.454	19.06076	10.90291	-226.4715	89.51624	253.4539	0	962.8227
8/2/2013 8:00	16485	333	3.81937	302.9477	17.73236	10.77615	-227.2346	93.12429	256.8802	0	963.4402
8/2/2013 9:00	16486	333	3.300336	298.3959	18.59624	11.45343	-224.8613	83.77142	254.3683	0	963.8065
8/2/2013 10:00	16487	333	3.289727	302.7107	19.48914	12.72476	-226.5172	81.14779	255.5086	0	963.8154
8/2/2013 11:00	16488	333	3.591382	301.3035	17.63669	13.52139	-225.0291	77.20701	255.8555	0	963.9232
8/2/2013 12:00	16489	333	3.523014	304.6593	18.60039	14.10545	-225.9602	77.91366	255.5623	0	964.0369
8/2/2013 13:00	16490	333	4.222387	304.3555	16.91167	13.59972	-231.9278	80.8288	255.9166	0	964.6335
8/2/2013 14:00	16491	333	3.569677	302.6486	17.23402	14.3669	-225.7465	78.10292	255.7647	0	964.9918
8/2/2013 15:00	16492	333	4.222693	307.4784	18.03429	14.99587	-223.831	79.61849	255.8202	0	965.2618
8/2/2013 16:00	16493	333	3.451081	305.8915	18.25806	14.50911	-226.1052	80.61971	256.1228	0	965.7821
8/2/2013 17:00	16494	333	3.934319	305.8284	17.04647	14.42507	-230.89	86.39352	255.7152	0	966.1773
8/2/2013 18:00	16495	333	4.386027	304.3951	16.67259	14.29746	-224.1287	81.9567	254.2751	0	966.5027
8/2/2013 19:00	16496	333	4.027695	304.6799	17.96756	14.17596	-227.1812	80.92648	257.1388	0	966.7528
8/2/2013 20:00	16497	333	4.15571	306.1035	17.28934	13.86381	-228.4556	79.55286	257.9557	0	967.1491
8/2/2013 21:00	16498	333	3.504105	303.713	17.44759	13.55159	-228.2724	80.67007	258.8208	0	967.6057
8/2/2013 22:00	16499	333	4.020999	310.1881	20.71488	13.30567	-228.8677	81.46678	258.667	0	967.8848
8/2/2013 23:00	16500	333	4.949817	307.6638	17.72278	12.38662	-232.5154	85.14963	260.5236	0	968.5005
8/3/2013 0:00	16501	333	2.643297	320.2487	23.71659	11.52045	-231.6607	85.52356	260.5914	0	969.12
8/3/2013 1:00	16502	333	2.80406	310.8361	22.22783	11.63898	-232.3323	84.90237	260.8015	0	969.3049
8/3/2013 2:00	16503	333	3.15597	304.6574	18.0495	11.40823	-225.5557	88.47076	258.4348	0	969.5876
8/3/2013 3:00	16504	333	3.407305	298.2943	18.02663	10.63898	-225.9449	89.6536	255.7829	0	969.9737
8/3/2013 4:00	16505	333	3.736341	301.9275	16.45208	10.85145	-231.2639	87.2528	259.1302	0	970.386
8/3/2013 5:00	16506	333	3.489284	300.8208	17.41075	10.746	-224.495	86.81324	256.5099	0	970.7964
8/3/2013 6:00	16507	333	3.581659	301.976	17.99813	10.41786	-224.2355	84.44145	254.6358	0	971.2701
8/3/2013 7:00	16508	333	3.993774	307.1541	18.92486	10.89487	-224.5713	75.4274	254.9587	0	971.6002
8/3/2013 8:00	16509	333	3.636296	316.6506	23.84517	12.46543	-227.3796	70.72501	255.3867	0	971.9822
8/3/2013 9:00	16510	333	3.182715	325.1865	27.27137	13.94044	-225.8533	59.20944	256.7933	0	972.3328
8/3/2013 10:00	16511	333	3.333083	330.5573	28.31196	15.60953	-219.4202	54.5849	253.9827	0	972.668
8/3/2013 11:00	16512	333	2.894475	329.9705	29.37536	17.20952	-214.2691	53.47836	255.6252	0	972.9297
8/3/2013 12:00	16513	333	2.831365	326.0727	29.18713	17.62738	-222.8085	50.3007	257.0945	0	973.1973

8/3/2013 13:00	16514	333	2.953515	321.2813	26.53701	18.51711	-232.3323	50.37549	258.1817	0	973.4426
8/3/2013 14:00	16515	333	2.606368	315.5456	23.94843	19.21931	-223.3503	45.64563	256.8587	0	973.5175
8/3/2013 15:00	16516	333	2.057728	322.7465	30.28858	18.37525	-223.0756	49.79094	253.1938	0	973.6624
8/3/2013 16:00	16517	333	1.511613	330.0486	27.6417	18.97857	-223.5258	54.533	253.1679	0	973.6917
8/3/2013 17:00	16518	333	2.063274	313.5595	20.86586	19.08991	-222.9763	49.1316	253.3912	0	973.607
8/3/2013 18:00	16519	333	1.627415	317.6971	23.2452	17.99033	-223.8082	59.55896	253.5817	0	973.5782
8/3/2013 19:00	16520	333	1.750231	317.1672	27.3672	18.79407	-223.7624	58.63709	254.2419	0	973.5146
8/3/2013 20:00	16521	333	0.5530677	329.5204	20.42588	15.78501	-223.6784	71.79644	253.3709	0	973.3416
8/3/2013 21:00	16522	333	0.4111705	294.0146	8.771538	13.77664	-224.2202	74.4796	253.6796	0	973.4368
8/3/2013 22:00	16523	333	0.4504529	265.4739	20.31972	12.88758	-223.7776	84.30256	256.6657	0	973.5151
8/3/2013 23:00	16524	333	0.4536208	290.0324	36.23418	11.83965	-223.5105	93.20518	255.1497	0	973.6272
8/4/2013 0:00	16525	333	0.2084199	296.9878	21.94471	10.76254	-223.1213	96.10049	253.2697	0	973.7813
8/4/2013 1:00	16526	333	0.1203229	186.0119	9.790862	10.37286	-229.6766	98.7058	255.7513	0	973.824
8/4/2013 2:00	16527	333	0.1197789	210.5465	15.38907	10.40792	-231.4394	96.98571	260.4988	0	973.6502
8/4/2013 3:00	16528	333	0.1324131	218.8499	23.57873	9.995955	-233.103	98.23267	262.3409	0	973.6602
8/4/2013 4:00	16529	333	0.1382332	199.3233	25.38278	9.529163	-233.3778	98.76227	263.2216	0	973.7152
8/4/2013 5:00	16530	333	0.2844464	148.8749	30.76025	9.326741	-233.477	99.24457	263.4921	0	973.4541
8/4/2013 6:00	16531	333	0.2875633	138.2969	10.19882	9.783688	-233.3854	97.95031	263.4559	0	973.2808
8/4/2013 7:00	16532	333	0.2846706	204.8152	46.23289	12.34287	-233.5762	75.00921	263.4769	0	973.0328
8/4/2013 8:00	16533	333	1.090381	268.523	29.2962	16.6791	-226.3723	71.37367	260.9028	0	972.8858
8/4/2013 9:00	16534	333	1.593206	278.216	30.03736	18.29592	-227.5704	63.34711	255.7899	0	972.6422
8/4/2013 10:00	16535	333	1.838863	286.6985	33.48268	20.05076	-230.3558	50.22287	256.4089	0	972.4014
8/4/2013 11:00	16536	333	2.254964	274.7276	34.44506	21.80142	-239.5667	41.47133	259.2092	0	971.8845
8/4/2013 12:00	16537	333	2.845294	285.2697	28.71205	21.72072	-225.2047	43.06779	256.2877	0	971.3964
8/4/2013 13:00	16538	333	2.518861	273.9492	34.24961	22.07805	-224.6171	52.42067	254.7764	0	970.8774
8/4/2013 14:00	16539	333	2.09626	257.0654	36.00362	21.69189	-226.1052	43.55314	255.4246	0	970.3015
8/4/2013 15:00	16540	333	1.982481	246.3659	37.1439	22.70356	-223.831	40.79063	254.429	0	969.4611
8/4/2013 16:00	16541	333	1.96182	264.0616	32.7384	23.43935	-223.8616	38.80192	254.6824	0.508	968.6066
8/4/2013 17:00	16542	333	2.180244	255.0959	37.29427	23.19838	-229.3332	37.43898	257.5229	0	967.5559
8/4/2013 18:00	16543	333	1.982349	266.5956	33.67416	21.97551	-228.0969	43.80497	258.2543	0	967.0162
8/4/2013 19:00	16544	333	1.778247	256.5508	31.47931	20.54522	-226.4409	47.62976	256.683	0	966.4094
8/4/2013 20:00	16545	333	1.665261	253.0788	29.77529	18.75898	-228.9898	55.5327	256.95	0	966.2378
8/4/2013 21:00	16546	333	1.265542	257.9794	29.5696	17.61823	-228.9745	61.43472	257.2284	0	966.5058
8/4/2013 22:00	16547	333	1.240383	272.3717	23.47829	16.87505	-227.7306	63.93777	258.067	0	966.3043
8/4/2013 23:00	16548	333	1.018782	245.9671	29.09788	16.42976	-228.3945	67.77019	257.7855	0	966.0123
8/5/2013 0:00	16549	333	0.9560043	260.3747	25.6226	15.90772	-227.143	73.29675	257.7044	0	965.5887
8/5/2013 1:00	16550	333	1.098126	235.8316	32.69308	15.70984	-223.3884	72.40084	255.8407	0	965.1154
8/5/2013 2:00	16551	333	1.295241	244.2429	31.8857	15.22286	-223.1442	76.70945	254.1307	0	964.8115
8/5/2013 3:00	16552	333	1.761893	278.2756	25.24213	14.77242	-221.9309	79.23387	253.8969	0	964.4507
8/5/2013 4:00	16553	333	1.769348	280.8161	23.3605	14.16836	-221.4119	79.5788	252.0292	0	964.0563
8/5/2013 5:00	16554	333	1.37731	279.4903	20.63086	13.32435	-220.9007	80.17099	251.0177	0	963.8116
8/5/2013 6:00	16555	333	1.170111	263.1573	25.07894	13.48992	-220.5801	82.5611	250.5613	0	963.4866
8/5/2013 7:00	16556	333	1.20402	262.226	26.79987	14.06711	-222.7703	73.21891	251.1026	0	963.2242
8/5/2013 8:00	16557	333	1.572599	247.2257	35.22761	16.78932	-223.9837	62.77476	253.2529	0	962.8777
8/5/2013 9:00	16558	333	1.305914	242.1111	42.22137	18.22175	-228.6617	59.03849	256.8723	0	962.3118
8/5/2013 10:00	16559	333	1.53628	242.2132	44.88097	19.92208	-218.9089	58.08001	259.7971	0	961.7626

8/5/2013 11:00	16560	333	1.743674	252.7153	43.7846	21.61612	-231.6302	50.59069	257.3381	0	961.253
8/5/2013 12:00	16561	333	1.693821	238.6938	47.5274	22.35069	-223.0221	46.36908	258.1509	0	960.6393
8/5/2013 13:00	16562	333	1.916911	233.3444	48.04764	23.19176	-232.5383	45.8181	256.8095	0	960.1497
8/5/2013 14:00	16563	333	1.950041	222.1454	50.22643	23.62077	-233.4388	42.91822	259.2536	0	959.4696
8/5/2013 15:00	16564	333	2.577193	290.9708	58.53092	20.20622	-228.3716	85.05042	256.5339	0	959.5712
8/5/2013 16:00	16565	333	1.772465	329.1343	28.86847	14.11189	-222.0988	96.79646	253.4478	3.048	960.3182
8/5/2013 17:00	16566	333	0.8334869	287.2318	40.72263	13.73206	-221.6561	93.7058	251.794	2.794	960.1687
8/5/2013 18:00	16567	333	0.4492512	207.2139	51.50374	13.83156	-221.2059	94.19725	252.1424	1.27	959.5444
8/5/2013 19:00	16568	333	0.334299	268.7535	27.92221	14.30455	-220.6717	95.60751	250.876	0	959.5223
8/5/2013 20:00	16569	333	0.2208394	242.9587	19.17994	13.79393	-221.1677	96.23479	251.0273	0	958.9817
8/5/2013 21:00	16570	333	0.1225569	177.4585	24.71113	13.08521	-220.1757	97.92436	250.5661	0	959.0338
8/5/2013 22:00	16571	333	0.8406226	287.9402	21.75957	13.40184	-224.5179	98.59897	251.0403	0	959.278
8/5/2013 23:00	16572	333	0.5464321	287.7608	16.64284	13.74683	-221.7782	96.97503	253.2484	0	959.0857
8/6/2013 0:00	16573	333	1.287914	304.0414	25.924	13.65747	-220.977	97.10629	251.4452	0	958.9922
8/6/2013 1:00	16574	333	1.618424	335.1402	28.30927	12.75402	-221.0533	97.13987	250.9267	0	959.1483
8/6/2013 2:00	16575	333	1.39588	343.6472	30.09468	11.78032	-221.2364	97.95184	251.1344	0	959.1371
8/6/2013 3:00	16576	333	0.9579384	354.8875	29.82625	11.54984	-220.5191	96.32485	251.1651	0	959.084
8/6/2013 4:00	16577	333	1.569969	346.6651	30.93798	11.06667	-222.2361	95.90208	252.4213	0	959.2269
8/6/2013 5:00	16578	333	1.478229	359.0347	32.74962	10.56017	-224.6934	94.72991	253.5504	0	959.603
8/6/2013 6:00	16579	333	1.222152	2.945371	31.84223	10.44401	-227.868	94.57881	255.6931	0	959.7715
8/6/2013 7:00	16580	333	1.154163	6.511974	36.65911	10.63314	-220.1909	90.00311	253.564	0	959.9504
8/6/2013 8:00	16581	333	1.01459	355.8119	34.93885	11.81415	-221.3356	74.17892	251.4783	0	960.1685
8/6/2013 9:00	16582	333	1.203362	353.2412	37.33336	13.79741	-223.4876	74.68106	251.9676	0	960.3693
8/6/2013 10:00	16583	333	1.606723	336.1012	33.03779	14.84319	-223.4037	63.94693	253.3783	0	960.6245
8/6/2013 11:00	16584	333	1.772636	324.7539	36.8628	16.15262	-228.944	53.95761	254.2279	0	960.724
8/6/2013 12:00	16585	333	1.331852	319.9378	34.68064	16.81997	-226.6928	45.6319	254.409	0	960.5917
8/6/2013 13:00	16586	333	1.722096	311.7676	28.90713	18.05232	-238.6128	42.56718	258.2193	0	960.4576
8/6/2013 14:00	16587	333	1.961642	317.4876	27.26256	18.38473	-226.0899	42.1612	258.0338	0	960.3696
8/6/2013 15:00	16588	333	2.349802	310.2624	22.58475	18.93234	-225.1818	46.73996	258.0371	0	960.2964
8/6/2013 16:00	16589	333	2.297018	312.1748	22.77225	18.59218	-224.5789	46.45455	256.4877	0	960.3981
8/6/2013 17:00	16590	333	2.369391	304.5027	23.7063	19.58619	-226.8988	44.35595	255.7422	0	960.5425
8/6/2013 18:00	16591	333	2.809071	311.477	19.83126	17.86022	-224.4873	52.30468	254.5591	0	960.918
8/6/2013 19:00	16592	333	2.617878	305.2835	17.78807	15.34465	-221.2059	60.04735	253.0016	0	961.3299
8/6/2013 20:00	16593	333	1.946088	315.119	22.31982	14.00288	-221.4272	68.21891	251.6871	0	961.6306
8/6/2013 21:00	16594	333	1.794458	334.1437	24.83825	12.86496	-221.1143	68.18533	251.1876	0	962.0916
8/6/2013 22:00	16595	333	1.657728	337.2223	28.19236	11.8686	-221.2517	72.68167	251.1278	0	962.3376
8/6/2013 23:00	16596	333	1.427278	345.0541	31.45726	11.09405	-221.3814	79.29951	251.1236	0	962.5183
8/7/2013 0:00	16597	333	1.074984	358.0185	34.14287	10.26829	-221.7782	82.30927	251.6237	0	962.7943
8/7/2013 1:00	16598	333	0.9588025	348.5125	29.2062	9.907049	-221.5264	84.42771	251.8402	0	963.2382
8/7/2013 2:00	16599	333	0.7259033	357.7838	26.05718	9.484127	-223.4266	86.96587	252.2106	0	963.5909
8/7/2013 3:00	16600	333	0.8727887	345.9007	21.3742	8.210596	-221.6332	93.89048	252.0742	0	963.7709
8/7/2013 4:00	16601	333	0.6427173	7.377252	26.08359	7.221594	-221.8011	95.11758	252.0345	0	963.878
8/7/2013 5:00	16602	333	0.5451548	8.267597	36.30328	7.112279	-222.2056	96.74152	252.0907	0	964.3293
8/7/2013 6:00	16603	333	0.357458	21.64484	43.36655	6.686745	-223.4953	96.83767	252.593	0	964.5227
8/7/2013 7:00	16604	333	0.7036124	345.3042	31.19398	8.782134	-232.2712	77.82056	254.232	0	964.7817
8/7/2013 8:00	16605	333	1.719373	305.1186	22.38523	10.54156	-223.0679	77.03759	259.1172	0	964.925

8/7/2013 9:00	16606	333	2.151922	306.5567	24.62243	12.11871	-224.0524	63.36543	255.4227	0	964.8065
8/7/2013 10:00	16607	333	2.410303	303.2094	26.30262	13.17818	-225.5023	55.95395	254.2623	0	964.8397
8/7/2013 11:00	16608	333	2.804868	297.2673	28.05113	13.71004	-230.2108	53.74698	254.2531	0	964.9249
8/7/2013 12:00	16609	333	2.657828	289.0203	28.49704	14.19395	-226.5707	55.1725	254.4144	0	964.9707
8/7/2013 13:00	16610	333	2.712417	287.8294	27.19011	13.89665	-223.6708	67.32146	254.4455	0	965.002
8/7/2013 14:00	16611	333	2.167666	278.585	30.76884	13.8482	-223.4647	66.9628	256.3126	0.254	965.0527
8/7/2013 15:00	16612	333	2.583126	294.9901	23.24026	13.57832	-228.3106	58.13496	253.2813	0	965.1013
8/7/2013 16:00	16613	333	2.309929	297.5531	25.2106	13.44996	-222.0148	66.80713	253.2712	0	964.9033
8/7/2013 17:00	16614	333	3.053818	298.155	21.50582	14.02182	-227.7383	67.15205	257.0772	0	964.975
8/7/2013 18:00	16615	333	1.857147	295.9016	21.14306	13.28899	-230.4168	64.87183	254.8823	0	964.9436
8/7/2013 19:00	16616	333	2.415329	292.0005	19.80583	12.76095	-224.5942	61.5324	256.6177	0	964.812
8/7/2013 20:00	16617	333	2.690788	301.2927	19.99157	11.68899	-223.7318	76.24548	255.8644	0	964.9916
8/7/2013 21:00	16618	333	2.555212	314.0595	23.34957	10.06589	-223.335	81.57667	255.5648	0	965.5285
8/7/2013 22:00	16619	333	1.762984	289.805	17.64494	9.022937	-225.1971	83.73479	255.2334	0	965.6618
8/7/2013 23:00	16620	333	1.757823	289.2596	16.28817	8.012634	-227.6696	88.74548	255.954	0	965.687
8/8/2013 0:00	16621	333	1.313115	282.4764	16.00338	7.371658	-226.1662	93.01746	254.7367	0	965.7013
8/8/2013 1:00	16622	333	1.354863	275.6612	17.64692	7.008641	-223.5334	95.26411	253.5371	0	965.9055
8/8/2013 2:00	16623	333	1.403914	281.4658	16.1076	6.668254	-222.4269	96.16154	252.7478	0	965.7986
8/8/2013 3:00	16624	333	1.267142	272.4872	18.40471	6.40596	-221.7706	96.9964	252.6027	0	965.7552
8/8/2013 4:00	16625	333	1.436824	279.2194	18.83011	6.347875	-229.9971	96.15391	251.9502	0	965.6629
8/8/2013 5:00	16626	333	1.333591	280.8878	21.93164	7.392124	-223.419	92.05439	253.6255	0	965.7251
8/8/2013 6:00	16627	333	1.147001	280.0232	22.04713	8.180098	-231.1113	89.32545	257.8233	0	965.6279
8/8/2013 7:00	16628	333	1.362595	288.7573	22.33556	8.688931	-224.0829	85.87612	258.8433	0	965.5847
8/8/2013 8:00	16629	333	1.688425	288.7035	25.34065	9.667673	-223.1442	84.49792	254.1528	0	965.3702
8/8/2013 9:00	16630	333	2.102811	295.5188	20.47065	9.861134	-222.6177	90.87765	254.4113	0.508	965.2224
8/8/2013 10:00	16631	333	1.710653	296.626	21.73351	9.649549	-220.6107	88.18076	251.5696	0	965.1613
8/8/2013 11:00	16632	333	1.728922	271.5616	33.47989	11.73754	-223.7166	74.61086	250.5663	0	964.8609
8/8/2013 12:00	16633	333	1.571465	264.4215	34.60284	11.46373	-221.7477	82.9045	253.5434	1.016	964.4291
8/8/2013 13:00	16634	333	2.169476	261.6977	35.49761	13.07338	-230.5847	75.02599	252.627	0	964.0312
8/8/2013 14:00	16635	333	2.388728	268.0002	30.19449	11.04925	-221.1067	89.53303	251.9723	0	964.1203
8/8/2013 15:00	16636	333	2.017662	284.2959	28.21518	11.12065	-222.0911	90.04737	251.1149	0.762	964.0171
8/8/2013 16:00	16637	333	1.783786	287.7117	25.63098	10.76551	-222.3735	71.87581	251.6018	0	963.7101
8/8/2013 17:00	16638	333	1.815974	291.8351	27.75225	13.27644	-222.7856	76.57056	254.4781	0	963.5386
8/8/2013 18:00	16639	333	1.25227	269.8642	36.14475	13.73479	-230.2566	77.78393	255.3577	0	963.1418
8/8/2013 19:00	16640	333	0.8614597	258.4078	27.96055	12.00948	-232.0652	82.76562	261.7053	0	962.8183
8/8/2013 20:00	16641	333	1.378786	243.7006	34.10111	11.13617	-221.2288	94.29341	256.3153	1.016	962.5831
8/8/2013 21:00	16642	333	1.420108	273.835	23.501	9.915633	-221.0075	97.26197	250.858	0	962.5598
8/8/2013 22:00	16643	333	1.234177	308.51	24.38313	9.917206	-220.5343	96.2928	251.1384	1.016	962.501
8/8/2013 23:00	16644	333	0.9864836	331.1057	25.98991	9.473296	-220.9464	94.81844	251.4298	1.778	962.4931
8/9/2013 0:00	16645	333	0.6683046	349.3518	26.55789	9.114774	-224.4797	95.3572	251.3144	0.762	962.4586
8/9/2013 1:00	16646	333	0.1903122	207.8225	17.77154	8.858596	-221.2517	96.36758	252.1437	0	962.1385
8/9/2013 2:00	16647	333	0.54654	259.4965	30.00965	8.669967	-221.038	97.42223	251.1048	0	962.3195
8/9/2013 3:00	16648	333	0.8909698	280.0252	15.03288	8.685824	-221.5493	97.89689	251.7583	0	962.5756
8/9/2013 4:00	16649	333	1.073753	280.1659	15.96764	8.735195	-220.8854	98.28913	251.4607	0	962.7882
8/9/2013 5:00	16650	333	1.26601	286.8777	15.75405	8.95645	-221.1983	98.55165	251.082	0	963.0291
8/9/2013 6:00	16651	333	1.881686	297.0528	18.61513	9.545955	-221.5951	98.11057	251.1161	0	963.5234

8/9/2013 7:00	16652	333	2.053881	304.7838	19.41815	10.35335	-219.6796	94.54371	250.9507	0	963.9961
8/9/2013 8:00	16653	333	2.631338	301.8567	18.28565	11.49129	-222.7093	89.81233	250.7665	0	964.4457
8/9/2013 9:00	16654	333	2.354708	306.2393	19.96452	11.76424	-230.3939	91.91856	256.5402	0	965.033
8/9/2013 10:00	16655	333	2.410985	301.625	18.59231	12.5482	-230.9892	85.16183	256.5807	0	965.4335
8/9/2013 11:00	16656	333	2.660754	299.2758	20.904	13.59536	-230.6916	83.84468	260.1132	0	965.8602
8/9/2013 12:00	16657	333	3.563658	300.3169	17.35691	13.67045	-225.3955	85.69755	259.808	0	966.3835
8/9/2013 13:00	16658	333	4.128748	302.5034	17.06594	13.97155	-227.5169	85.1191	259.5754	0	966.9543
8/9/2013 14:00	16659	333	3.669614	303.6064	16.66621	14.39717	-230.2337	81.35384	258.9402	0	967.5365
8/9/2013 15:00	16660	333	3.924751	301.7899	16.83699	14.23279	-225.5633	83.46465	259.3557	0	968.1178
8/9/2013 16:00	16661	333	3.635765	300.1561	16.08907	14.10124	-229.73	81.87582	258.5259	0	968.8689
8/9/2013 17:00	16662	333	2.640761	298.2083	18.80739	14.77487	-228.1809	80.48387	258.6743	0	969.0536
8/9/2013 18:00	16663	333	2.35455	299.3799	18.256	15.62827	-232.3399	75.34956	261.0366	0	968.9794
8/9/2013 19:00	16664	333	2.045559	298.2141	16.73903	15.81162	-228.6082	83.09529	259.916	0	968.7527
8/9/2013 20:00	16665	333	1.231106	287.2157	15.94013	14.25703	-227.2346	85.48388	257.8772	0	968.7911
8/9/2013 21:00	16666	333	1.188164	265.8043	19.08886	13.44943	-227.3643	88.82942	257.6389	0	969.1194
8/9/2013 22:00	16667	333	1.223786	250.8829	22.93819	12.9682	-230.8365	91.8804	258.7767	0	969.2172
8/9/2013 23:00	16668	333	1.45963	261.0114	26.09778	12.19084	-222.5337	93.70885	254.5416	0	969.3749
8/10/2013 0:00	16669	333	1.664694	268.2403	22.29803	12.07159	-220.4733	93.95763	251.8319	0	969.6771
8/10/2013 1:00	16670	333	1.560763	276.675	22.63518	11.9093	-221.1677	94.9909	251.4675	0	969.7735
8/10/2013 2:00	16671	333	1.476106	273.8582	22.77792	11.66877	-222.5108	95.94633	252.0586	0	969.9056
8/10/2013 3:00	16672	333	1.408346	273.7682	23.98862	11.52384	-226.1891	96.28364	255.3876	0	969.951
8/10/2013 4:00	16673	333	1.626993	269.8046	22.71063	11.52207	-230.0429	95.32211	257.0084	0	970.1066
8/10/2013 5:00	16674	333	1.454612	276.6519	23.33695	11.49078	-230.4702	93.87826	257.6404	0	970.0612
8/10/2013 6:00	16675	333	1.608089	280.9448	23.07573	11.77535	-231.9965	90.79523	261.2195	0	970.1088
8/10/2013 7:00	16676	333	1.530695	278.9544	23.86907	12.75268	-221.6561	83.46618	258.638	0	970.1505
8/10/2013 8:00	16677	333	1.144372	284.5459	31.9689	14.69768	-222.6558	80.49609	252.4308	0	969.9948
8/10/2013 9:00	16678	333	1.565681	272.816	30.16406	16.00677	-223.9989	74.85048	253.9153	0	969.8726
8/10/2013 10:00	16679	333	1.480608	267.7761	36.79927	17.35305	-224.6705	64.9161	260.7382	0	969.7297
8/10/2013 11:00	16680	333	1.713545	280.2819	30.57972	20.03578	-219.3896	59.30254	257.441	0	969.7584
8/10/2013 12:00	16681	333	2.237973	282.118	32.0438	22.37685	-233.1641	47.83886	256.4152	1.016	969.4459
8/10/2013 13:00	16682	333	3.707191	296.0257	22.71646	23.13433	-233.2633	46.74301	257.6214	0	968.7662
8/10/2013 14:00	16683	333	3.587929	302.8685	19.61268	19.99696	-223.7929	67.7763	256.1485	0	968.8502
8/10/2013 15:00	16684	333	2.938976	309.6151	23.89524	18.94996	-232.4849	51.79185	259.3942	0	968.8385
8/10/2013 16:00	16685	333	3.520967	298.6338	19.85994	21.62955	-233.9272	53.54094	261.3507	0	968.7695
8/10/2013 17:00	16686	333	2.505749	288.0317	26.05875	21.25115	-234.9422	48.37152	262.9792	0	968.3471
8/10/2013 18:00	16687	333	2.839541	279.7699	27.68016	20.52468	-226.4944	51.72928	262.5555	0.762	968.192
8/10/2013 19:00	16688	333	2.060109	278.1391	25.56865	18.3812	-231.8286	62.61757	262.5204	0	968.4187
8/10/2013 20:00	16689	333	1.157161	285.8924	20.58828	15.85847	-224.3958	73.71494	257.2559	0	968.2261
8/10/2013 21:00	16690	333	1.091871	275.4682	24.29742	14.5087	-227.6696	76.01043	256.6451	0	968.3447
8/10/2013 22:00	16691	333	1.130721	264.3731	20.19272	14.64723	-226.6623	78.82789	256.9991	0	968.1043
8/10/2013 23:00	16692	333	1.019262	281.7287	21.46586	14.44163	-226.708	86.35231	256.5862	0	968.0603
8/11/2013 0:00	16693	333	1.158613	261.4298	21.60658	13.71973	-225.922	81.27448	255.857	0	967.9367
8/11/2013 1:00	16694	333	1.364216	275.1088	25.16343	14.1791	-225.5099	84.38345	256.1395	0	967.686
8/11/2013 2:00	16695	333	1.773245	294.2956	15.6903	13.45673	-227.9062	87.09103	256.6242	0	967.6296
8/11/2013 3:00	16696	333	1.995339	295.957	15.15133	13.23773	-221.5722	86.26532	257.7626	0	967.6053
8/11/2013 4:00	16697	333	2.156551	296.5847	16.88876	12.80977	-225.3191	89.21709	257.4222	0	967.8056

8/11/2013 5:00	16698	333	1.19141	291.9173	16.69187	11.2227	-222.1903	94.04615	254.2634	0	968.0164
8/11/2013 6:00	16699	333	0.9273182	273.6113	21.52001	11.70878	-221.7401	89.9619	252.4388	0	968.1777
8/11/2013 7:00	16700	333	1.415273	289.3563	20.0196	13.214	-233.8891	78.40206	254.3972	0	968.4007
8/11/2013 8:00	16701	333	1.269961	289.6794	26.33659	15.38949	-224.9528	73.99426	258.4851	0	968.4282
8/11/2013 9:00	16702	333	1.690781	303.3403	22.01164	16.84785	-228.6387	74.44754	255.4941	0	968.5372
8/11/2013 10:00	16703	333	1.706298	303.224	21.35517	18.05798	-224.2202	64.98631	256.0059	0	968.5568
8/11/2013 11:00	16704	333	1.373094	300.4818	32.06482	20.11379	-227.7154	52.2482	256.5413	0	968.2399
8/11/2013 12:00	16705	333	1.387272	277.7138	45.95172	21.90359	-224.0981	47.51987	258.8351	0	967.8906
8/11/2013 13:00	16706	333	2.288257	288.8575	32.51283	22.89058	-216.0777	48.38984	258.8527	0	967.2524
8/11/2013 14:00	16707	333	2.70781	287.9564	26.98633	21.20294	-223.8539	85.07178	259.7816	0.254	967.0991
8/11/2013 15:00	16708	333	1.658066	325.4209	37.29641	18.32957	-226.4257	75.4625	255.5065	0	967.2419
8/11/2013 16:00	16709	333	0.7918468	270.0211	34.47248	17.02183	-224.6018	81.09743	255.4213	0	967.2627
8/11/2013 17:00	16710	333	0.9037871	284.8239	29.22321	18.4222	-223.6784	78.49059	253.7549	0	967.1044
8/11/2013 18:00	16711	333	1.191494	310.1567	26.86822	19.59513	-228.2572	63.8172	254.3622	0	966.9479
8/11/2013 19:00	16712	333	1.159572	336.0187	23.83585	17.60258	-230.8137	71.16763	257.0302	0	966.6525
8/11/2013 20:00	16713	333	1.323743	335.713	24.4355	16.4135	-227.4559	67.72746	260.191	0	967.4909
8/11/2013 21:00	16714	333	0.9401282	358.9787	30.48841	15.48025	-222.259	57.65876	258.4693	0	967.8425
8/11/2013 22:00	16715	333	0.7767243	19.13387	33.53354	14.36347	-228.7303	61.60413	256.9409	0	968.0519
8/11/2013 23:00	16716	333	1.071923	59.38941	40.26535	13.41994	-229.44	65.18624	258.3055	0	968.4977
8/12/2013 0:00	16717	333	0.6322321	54.38203	36.14856	12.54945	-228.9211	67.69846	258.3741	0	968.9288
8/12/2013 1:00	16718	333	0.7706239	67.69267	29.16442	12.40028	-224.7926	70.63802	258.9982	0	968.8558
8/12/2013 2:00	16719	333	0.6343815	37.51434	36.86288	12.24817	-230.1497	72.79767	259.0883	0	969.2185
8/12/2013 3:00	16720	333	0.3618409	32.73488	17.81257	10.65695	-227.0209	82.89535	258.0967	0	969.1786
8/12/2013 4:00	16721	333	0.6018567	358.0903	12.93571	8.991824	-222.0148	95.36178	254.614	0	969.4747
8/12/2013 5:00	16722	333	0.6229601	335.6697	22.83569	8.411874	-221.6714	96.9094	252.3369	0	969.707
8/12/2013 6:00	16723	333	0.7392019	335.8313	20.97581	8.383253	-221.8393	95.06874	252.0458	0	970.0974
8/12/2013 7:00	16724	333	0.5343159	349.1316	23.85677	10.67797	-226.5707	69.86421	252.5637	0	970.3345
8/12/2013 8:00	16725	333	0.6623452	61.39694	38.22569	14.43891	-227.4254	59.42159	257.4131	0	970.5917
8/12/2013 9:00	16726	333	0.7835201	343.5155	36.8856	15.19263	-224.3958	61.98264	257.1936	0	970.7455
8/12/2013 10:00	16727	333	1.671978	312.1841	25.30931	16.22963	-226.4104	52.77171	257.628	0	970.8895
8/12/2013 11:00	16728	333	1.825813	325.1958	31.24829	16.41651	-235.3008	51.13251	258.2682	0	971.0017
8/12/2013 12:00	16729	333	2.345999	316.5739	25.36139	17.64433	-224.9834	53.69967	254.6808	0	971.0214
8/12/2013 13:00	16730	333	1.463887	342.2837	37.99751	16.19887	-228.219	49.03391	255.523	0	971.298
8/12/2013 14:00	16731	333	1.889757	331.4766	37.93012	16.77542	-223.419	44.35137	256.1769	0	971.2049
8/12/2013 15:00	16732	333	3.444505	308.2594	19.30449	17.86057	-224.9605	48.33794	255.2546	0	971.1685
8/12/2013 16:00	16733	333	2.416271	320.2565	27.76131	17.58049	-224.9681	45.51895	254.6353	0	971.1194
8/12/2013 17:00	16734	333	2.551246	326.13	27.54569	17.3529	-225.6244	50.60443	254.464	0	971.268
8/12/2013 18:00	16735	333	2.304094	337.335	29.82313	15.67871	-223.7471	57.7244	255.8279	0	971.6316
8/12/2013 19:00	16736	333	2.093924	341.7286	31.23124	14.74861	-230.7831	62.1551	257.1523	0	971.8102
8/12/2013 20:00	16737	333	1.584746	341.2993	27.69055	13.75394	-230.7144	65.81354	260.2656	0	971.9897
8/12/2013 21:00	16738	333	1.579798	1.059622	33.69648	12.94129	-230.3558	68.49516	260.7115	0	972.3694
8/12/2013 22:00	16739	333	1.435784	352.2737	33.19034	12.56231	-231.0121	71.91091	259.547	0	972.7082
8/12/2013 23:00	16740	333	1.33982	345.446	30.96998	12.12899	-231.6378	75.69755	261.4569	0	973.0827
8/13/2013 0:00	16741	333	1.188491	343.7814	27.63133	11.74881	-231.6836	80.21831	261.4598	0	973.3754
8/13/2013 1:00	16742	333	1.063063	348.1197	25.7449	10.39898	-232.3094	86.09896	261.1148	0	973.6226
8/13/2013 2:00	16743	333	0.7924003	344.4695	23.54646	9.890893	-233.2938	91.65604	262.4412	0	973.7866

8/13/2013 3:00	16744	333	0.9959754	344.3148	21.55418	9.292108	-222.4269	93.58675	259.9274	0	974.1238
8/13/2013 4:00	16745	333	0.81521	342.1503	22.15655	8.856804	-224.0752	95.87308	258.1479	0	974.3953
8/13/2013 5:00	16746	333	0.6828074	324.7939	24.43224	8.718835	-231.9736	95.80745	259.3552	0	974.4391
8/13/2013 6:00	16747	333	0.5449439	318.8115	25.43723	9.24385	-231.1113	92.69238	260.8671	0	974.5222
8/13/2013 7:00	16748	333	1.6087	312.9819	19.53171	10.51529	-230.8289	83.66	260.1396	0	974.8933
8/13/2013 8:00	16749	333	1.878732	316.4713	21.89349	12.65671	-222.2285	78.52721	257.0067	0	975.2245
8/13/2013 9:00	16750	333	2.053409	306.7103	21.08205	14.3238	-223.6097	67.63283	253.196	0	975.412
8/13/2013 10:00	16751	333	2.114536	315.8387	27.81444	14.62442	-215.7419	54.8993	256.8673	0	975.283
8/13/2013 11:00	16752	333	1.893063	314.988	29.50047	15.23314	-231.9736	66.75523	258.8744	0	975.2831
8/13/2013 12:00	16753	333	1.72112	315.2386	26.08787	16.42582	-225.7007	51.43166	257.5129	0	975.0449
8/13/2013 13:00	16754	333	1.586615	317.1609	26.73669	17.05456	-226.2807	50.80284	257.5083	0	974.8533
8/13/2013 14:00	16755	333	1.284615	305.5512	28.73262	17.67304	-224.1134	58.24638	258.7095	0	974.5535
8/13/2013 15:00	16756	333	0.9616089	276.4246	29.46139	17.59624	-226.5249	56.46829	259.5523	0	974.3414
8/13/2013 16:00	16757	333	1.649027	302.5047	20.34504	17.84784	-231.8668	54.54827	260.9401	0	974.1845
8/13/2013 17:00	16758	333	1.846696	304.7655	21.3017	18.6253	-228.4785	50.96615	260.0778	0	973.8541
8/13/2013 18:00	16759	333	1.415994	295.7366	31.11635	18.84108	-233.6372	53.97287	261.6974	0	973.4125
8/13/2013 19:00	16760	333	1.100195	290.5005	21.59678	17.099	-233.0801	64.42312	263.9379	0	973.0095
8/13/2013 20:00	16761	333	0.9867179	273.4862	18.2696	14.95441	-230.5084	65.78301	262.0465	0	972.7032
8/13/2013 21:00	16762	333	1.179951	258.6342	18.37759	13.87069	-230.5084	72.84803	261.0075	0	972.6316
8/13/2013 22:00	16763	333	1.388458	263.2085	21.5984	13.168	-233.0344	74.99395	261.4396	0	972.5101
8/13/2013 23:00	16764	333	1.489767	271.2791	19.94742	12.56513	-230.6916	81.74456	260.4081	0	972.4045
8/14/2013 0:00	16765	333	1.33137	274.0765	19.5278	11.82561	-231.2944	85.17252	260.1547	0	972.2136
8/14/2013 1:00	16766	333	1.377076	276.85	18.09414	11.45231	-232.0652	85.6655	260.8961	0	972.2079
8/14/2013 2:00	16767	333	1.390614	276.4315	19.14913	11.23518	-230.5847	84.75738	260.8158	0	972.0703
8/14/2013 3:00	16768	333	1.62542	274.4825	19.39274	11.17536	-230.2032	81.24242	260.1149	0	971.9934
8/14/2013 4:00	16769	333	1.556827	274.5336	19.84811	10.9649	-230.4855	82.74883	259.6425	0	971.9805
8/14/2013 5:00	16770	333	1.396988	278.8519	20.03157	10.4678	-231.1265	85.05347	260.3136	0	972.135
8/14/2013 6:00	16771	333	1.769235	272.9865	21.51566	10.42404	-226.7233	80.59071	259.1554	0	972.166
8/14/2013 7:00	16772	333	1.723107	281.5282	22.54993	12.06877	-231.9507	71.22563	259.3313	0	972.0998
8/14/2013 8:00	16773	333	2.599172	290.9222	20.59699	14.80048	-224.9147	62.27568	261.033	0	971.7533
8/14/2013 9:00	16774	333	2.805138	293.3517	20.46449	17.29596	-224.7621	48.6844	255.3999	0	971.4952
8/14/2013 10:00	16775	333	2.930246	292.6886	23.28285	19.64631	-231.2639	44.32848	257.0483	0	971.1476
8/14/2013 11:00	16776	333	3.148726	288.6634	25.0679	21.22378	-236.644	42.44966	259.8307	0	970.7366
8/14/2013 12:00	16777	333	3.075752	285.8249	28.08298	22.53428	-225.922	40.95393	260.6443	0	970.4244
8/14/2013 13:00	16778	333	3.016757	283.2218	28.99509	23.37302	-218.741	37.47103	261.114	0	969.8549
8/14/2013 14:00	16779	333	2.774823	288.0124	29.66564	24.20448	-227.8909	38.47072	262.0573	0.762	969.4689
8/14/2013 15:00	16780	333	3.01722	294.9729	24.05042	24.4621	-234.0493	36.41944	261.2891	0	969.0622
8/14/2013 16:00	16781	333	3.448477	304.5896	19.59401	24.34623	-235.6671	37.4054	262.337	0	968.7516
8/14/2013 17:00	16782	333	3.08888	301.1739	20.25479	24.00782	-233.828	41.1905	263.4574	0	968.4871
8/14/2013 18:00	16783	333	2.178669	292.819	20.53649	22.20591	-233.6067	44.19722	263.3551	0	968.2406
8/14/2013 19:00	16784	333	2.083194	288.9431	18.45646	20.90135	-233.9196	52.83276	262.6454	0	968.051
8/14/2013 20:00	16785	333	1.600179	282.1502	16.76183	18.78081	-232.7138	55.79826	263.6792	0	967.9766
8/14/2013 21:00	16786	333	1.826404	283.5817	15.55369	17.58162	-233.5685	59.81384	262.749	0	968.1258
8/14/2013 22:00	16787	333	1.730224	282.8314	16.60358	16.85336	-233.042	60.89137	262.2371	0	968.2359
8/14/2013 23:00	16788	333	1.659464	284.01	17.03222	15.9506	-232.5459	64.86573	262.1019	0	968.1636
8/15/2013 0:00	16789	333	1.622237	289.9514	15.51291	15.06144	-231.9583	70.9509	261.4677	0	968.3142

8/15/2013 1:00	16790	333	1.877852	292.2974	15.35481	14.51293	-230.3787	70.26257	260.9597	0	968.326
8/15/2013 2:00	16791	333	1.985191	296.807	14.75715	14.33552	-231.5463	72.03454	260.7325	0	968.2907
8/15/2013 3:00	16792	333	1.779268	291.8017	15.56217	13.93753	-231.1723	72.8465	260.3279	0	968.332
8/15/2013 4:00	16793	333	1.739937	291.4085	15.20371	13.50696	-230.2413	76.39962	259.7407	0	968.5627
8/15/2013 5:00	16794	333	1.755004	290.6566	14.69752	12.7655	-227.9367	80.37856	259.2774	0	968.8251
8/15/2013 6:00	16795	333	1.576778	298.9318	13.79712	12.0856	-229.4629	86.04248	259.057	0	969.1036
8/15/2013 7:00	16796	333	1.84711	295.0626	16.17567	13.3574	-230.0582	71.66518	260.4989	0	969.3041
8/15/2013 8:00	16797	333	2.288147	297.3455	17.71417	16.41549	-229.7453	61.2302	262.0544	0	969.4156
8/15/2013 9:00	16798	333	2.060615	299.0087	19.56373	18.48218	-224.7926	62.12153	255.7528	0	969.6476
8/15/2013 10:00	16799	333	1.697042	293.5265	23.46643	19.62092	-224.7163	49.33458	255.104	0	969.7053
8/15/2013 11:00	16800	333	1.971961	308.8842	21.78482	21.47579	-236.1098	49.03086	255.732	0	969.6142
8/15/2013 12:00	16801	333	2.165787	310.479	21.97677	23.62738	-219.6949	45.89746	261.7769	0	969.4609
8/15/2013 13:00	16802	333	2.086119	294.2936	30.73073	25.26976	-241.0319	42.04215	262.8354	0	969.2472
8/15/2013 14:00	16803	333	2.486505	294.316	25.52317	26.03976	-236.125	40.49911	263.3607	0	968.979
8/15/2013 15:00	16804	333	2.196373	298.6099	31.42072	26.68824	-233.5609	37.2894	262.8073	0	968.7062
8/15/2013 16:00	16805	333	1.649319	289.2403	30.47468	27.38754	-229.7529	40.04123	261.5745	0	968.5484
8/15/2013 17:00	16806	333	1.846464	283.7493	28.11033	26.82268	-229.0203	37.7778	260.134	0	968.4952
8/15/2013 18:00	16807	333	1.394603	265.4145	34.10899	25.81774	-227.0896	42.4054	260.1673	0	968.5795
8/15/2013 19:00	16808	333	1.474609	267.9059	27.61605	24.44553	-232.8893	46.10962	260.796	0	968.7178
8/15/2013 20:00	16809	333	1.116547	256.2147	21.55243	21.71182	-231.8744	50.43806	262.2272	0	968.9293
8/15/2013 21:00	16810	333	1.058884	250.3982	22.0685	20.18406	-230.2719	52.12152	261.572	0	969.0569
8/15/2013 22:00	16811	333	0.9254963	232.5671	20.90351	18.88274	-230.9663	58.07696	261.2441	0	969.1348
8/15/2013 23:00	16812	333	1.124078	243.8016	24.22975	17.94771	-232.317	60.26866	260.6781	0	969.1561
8/16/2013 0:00	16813	333	1.374468	251.2913	25.52961	17.28059	-230.1268	59.14686	260.6927	0	969.2671
8/16/2013 1:00	16814	333	1.062583	234.0298	26.05126	16.85664	-230.2032	63.77293	260.6934	0	969.3416
8/16/2013 2:00	16815	333	0.6476721	198.9269	47.44069	15.12493	-229.4477	85.92802	259.5625	0	969.232
8/16/2013 3:00	16816	333	0.2519101	221.8994	52.63418	13.47715	-228.9211	81.9216	259.3094	0	969.3109
8/16/2013 4:00	16817	333	0.3907098	149.486	15.41391	12.59999	-227.3033	94.45671	259.0464	0	969.2091
8/16/2013 5:00	16818	333	0.1950996	156.2446	16.04215	11.75953	-227.3567	91.21801	257.9518	0	969.3629
8/16/2013 6:00	16819	333	0.4960621	135.4912	11.25637	11.51826	-226.937	95.01228	257.6714	0	969.6146
8/16/2013 7:00	16820	333	0.4925745	142.4229	12.01082	12.9454	-231.096	77.5901	258.8144	0	969.8171
8/16/2013 8:00	16821	333	0.3684955	137.0729	17.31237	18.51094	-231.7599	61.88801	261.7793	0	969.593
8/16/2013 9:00	16822	333	0.852326	110.5396	30.03335	20.61754	-226.4867	61.82696	256.9414	0	969.1857
8/16/2013 10:00	16823	333	1.108374	140.9292	38.19237	23.60968	-218.8555	44.09343	254.6673	0	968.8253
8/16/2013 11:00	16824	333	1.377685	187.9452	55.12402	25.9931	-226.296	38.58519	258.256	0	968.5023
8/16/2013 12:00	16825	333	1.70455	166.9246	47.9437	26.45053	-224.5484	44.36358	261.826	0	968.103
8/16/2013 13:00	16826	333	1.390069	176.8467	50.59321	26.2739	-225.9907	45.77689	258.7928	0	967.4061
8/16/2013 14:00	16827	333	1.455834	169.3001	48.72991	26.98311	-225.3573	41.72011	257.2625	0	966.6802
8/16/2013 15:00	16828	333	1.780923	178.84	53.33837	28.5295	-226.1662	42.1673	256.8666	0	966.0281
8/16/2013 16:00	16829	333	1.807366	198.1856	49.50256	27.85646	-226.1815	48.13495	257.1515	0	965.472
8/16/2013 17:00	16830	333	1.840159	217.2847	50.97201	27.66514	-226.1738	50.51438	257.1388	0	965.2909
8/16/2013 18:00	16831	333	1.616466	216.4706	44.10017	26.64843	-225.8686	51.88648	256.6772	0	965.1506
8/16/2013 19:00	16832	333	1.449555	216.9754	45.15065	25.53373	-226.7233	55.00004	257.2964	0	965.1017
8/16/2013 20:00	16833	333	1.17425	210.0842	43.35744	24.01279	-227.1277	58.82177	258.2502	0	965.3026
8/16/2013 21:00	16834	333	0.9279005	173.604	46.04359	22.63343	-231.0121	63.08002	259.2705	0	965.3416
8/16/2013 22:00	16835	333	1.342627	185.7651	48.67184	22.40796	-224.1897	64.30407	256.7414	0	965.3065

8/16/2013 23:00	16836	333	1.358181	204.2196	44.93773	21.76767	-231.1494	64.33002	257.1398	0	965.2801
8/17/2013 0:00	16837	333	1.745902	218.8601	44.51791	21.46772	-223.2053	62.55346	257.0546	0	965.1984
8/17/2013 1:00	16838	333	1.867464	232.2918	42.87976	21.45377	-226.3723	61.79033	256.06	0	965.2756
8/17/2013 2:00	16839	333	2.097238	228.7819	42.34096	20.82743	-223.4266	65.11299	256.0365	0	965.0498
8/17/2013 3:00	16840	333	2.095361	238.7235	42.19692	20.31474	-224.0981	63.57299	257.632	0	964.7986
8/17/2013 4:00	16841	333	1.998307	229.9888	46.96679	19.69823	-230.8671	66.36909	257.9301	0	964.5081
8/17/2013 5:00	16842	333	1.846535	218.8253	47.78483	19.03967	-224.9376	68.39748	258.1599	0	964.0815
8/17/2013 6:00	16843	333	1.733099	217.5762	46.49706	18.76839	-223.6708	68.95609	254.9541	0	964.1475
8/17/2013 7:00	16844	333	1.775168	228.1029	46.9003	19.44913	-225.5252	67.33063	254.7291	0	964.3099
8/17/2013 8:00	16845	333	1.767018	215.1489	45.0978	20.20842	-224.6552	64.33612	256.0464	0	964.339
8/17/2013 9:00	16846	333	1.986868	215.4046	48.35419	21.61894	-224.64	56.11267	255.405	0	963.9961
8/17/2013 10:00	16847	333	2.218056	211.2458	47.46958	23.63746	-223.8997	58.5501	254.7522	0	963.7886
8/17/2013 11:00	16848	333	1.665794	239.8634	42.08773	21.75496	-229.959	67.11238	259.46	0	964.6282
8/17/2013 12:00	16849	333	1.691927	257.2945	47.5983	21.23542	-224.3347	66.8178	257.2812	0	965.5703
8/17/2013 13:00	16850	333	1.218484	183.0198	48.42709	23.26832	-223.709	59.55742	255.1877	0	964.4006
8/17/2013 14:00	16851	333	1.66448	209.8633	47.88449	24.4787	-225.6396	61.75217	255.4652	0	964.4845
8/17/2013 15:00	16852	333	1.114787	201.1359	45.32351	23.46642	-231.3021	62.37641	256.9882	0	964.4322
8/17/2013 16:00	16853	333	1.252276	182.3037	50.83875	23.54683	-224.2279	58.28148	257.3452	0	963.6818
8/17/2013 17:00	16854	333	1.818727	221.5274	50.04744	24.7418	-225.1131	61.69876	254.9983	0	963.8672
8/17/2013 18:00	16855	333	1.107265	197.1917	47.55288	22.50642	-223.8387	75.33277	255.8993	0	964.2085
8/17/2013 19:00	16856	333	0.9933999	167.8468	43.50476	21.30417	-223.6479	72.42374	254.8272	0	963.912
8/17/2013 20:00	16857	333	0.6734595	170.199	41.72567	20.1959	-223.19	82.59163	255.5478	0	963.8041
8/17/2013 21:00	16858	333	0.6731022	160.9028	37.72591	18.96888	-222.8771	80.53882	253.2196	0	963.705
8/17/2013 22:00	16859	333	0.7877053	156.4996	31.01486	19.22733	-223.274	79.04004	253.0316	0	963.5977
8/17/2013 23:00	16860	333	0.6356395	153.7956	26.40511	19.64164	-222.6177	82.08797	253.3708	0	963.8927
8/18/2013 0:00	16861	333	0.7235365	160.8403	34.83694	19.30908	-223.1442	80.59834	253.1829	0	963.7982
8/18/2013 1:00	16862	333	0.7733266	169.0499	41.00078	19.67605	-222.053	82.34743	252.9641	0	963.6877
8/18/2013 2:00	16863	333	0.7518289	175.5284	41.42398	19.32333	-222.3887	81.93534	252.6897	0	963.4504
8/18/2013 3:00	16864	333	1.113725	193.1971	42.92644	20.03409	-222.6406	80.8288	252.3239	0	963.3518
8/18/2013 4:00	16865	333	0.8645377	199.6134	47.13564	19.86223	-222.5948	83.43717	252.5444	0	962.9318
8/18/2013 5:00	16866	333	0.6483296	204.5294	33.85736	19.90958	-221.6332	83.98663	252.2968	0	963.1498
8/18/2013 6:00	16867	333	0.3105421	207.5279	35.0315	19.9787	-222.3353	86.72472	252.2439	0	963.4415
8/18/2013 7:00	16868	333	0.5270235	185.4436	42.13436	20.00782	-221.9385	84.23388	252.1535	0	963.8382
8/18/2013 8:00	16869	333	0.9677016	212.8525	51.05898	20.54978	-223.1595	85.48693	252.5534	0	963.5837
8/18/2013 9:00	16870	333	0.7524845	223.0731	45.29848	20.89409	-222.9687	80.5785	252.7177	0	963.6395
8/18/2013 10:00	16871	333	1.077267	228.6851	46.70592	23.08798	-224.991	69.68869	255.0484	0	963.3837
8/18/2013 11:00	16872	333	0.8707814	205.7024	48.92348	24.52023	-224.0905	74.22776	254.4392	0	963.1226
8/18/2013 12:00	16873	333	0.8597795	198.5918	51.31155	24.64734	-224.0829	72.34132	253.9931	0	963.2352
8/18/2013 13:00	16874	333	1.211849	193.4657	55.78887	24.32889	-222.9153	70.17862	253.9975	0	963.5363
8/18/2013 14:00	16875	333	1.493062	233.4944	42.99597	24.70257	-224.0829	75.87612	254.1214	0	963.4305
8/18/2013 15:00	16876	333	1.41671	243.7274	49.26825	22.74972	-223.19	80.67465	254.1186	0	963.2986
8/18/2013 16:00	16877	333	0.5343071	183.3836	44.85654	20.92165	-223.4953	80.39077	252.9265	0	962.5585
8/18/2013 17:00	16878	333	1.296745	276.9213	33.12608	22.47402	-224.1592	71.28515	253.6107	0	962.7665
8/18/2013 18:00	16879	333	1.006228	260.8565	34.21278	23.06913	-224.3118	80.58766	254.0154	0	962.1992
8/18/2013 19:00	16880	333	0.8054852	213.4131	41.43114	21.43562	-223.3656	85.59224	254.0493	0	961.97
8/18/2013 20:00	16881	333	0.8130773	197.9426	56.60681	20.68792	-223.4647	89.07516	253.8704	0	962.2296

8/18/2013 21:00	16882	333	0.962763	146.8121	25.93351	19.27103	-223.4724	87.6771	253.8198	0	961.8961
8/18/2013 22:00	16883	333	0.5353419	167.4745	69.93736	17.54357	-222.9993	90.49914	253.5275	0	962.5447
8/18/2013 23:00	16884	333	0.4381174	150.5698	47.29549	16.60062	-222.5108	94.46435	252.917	0	962.3552
8/19/2013 0:00	16885	333	0.5274838	138.3708	21.87578	15.68441	-222.4116	96.65452	252.4652	0	962.3694
8/19/2013 1:00	16886	333	0.3394435	147.9672	35.77227	15.62652	-222.4651	96.7583	252.191	0	962.0817
8/19/2013 2:00	16887	333	0.8265848	261.3506	35.99076	16.60505	-222.3582	97.34591	252.296	0	961.778
8/19/2013 3:00	16888	333	0.8184393	271.9921	38.32862	17.01067	-223.4876	98.53792	252.2896	0	961.5854
8/19/2013 4:00	16889	333	1.014376	293.1324	19.24086	17.27082	-222.9	98.75311	252.733	0	961.5698
8/19/2013 5:00	16890	333	1.220126	285.3822	20.17514	17.1457	-222.4498	97.88926	252.5377	0	961.955
8/19/2013 6:00	16891	333	0.303013	231.6313	32.46148	16.57697	-222.2895	98.28761	252.3186	0	961.8702
8/19/2013 7:00	16892	333	0.2719693	194.5185	31.76823	16.99599	-222.7321	97.18108	252.3451	0	962.1542
8/19/2013 8:00	16893	333	0.5228364	231.3627	42.2224	17.33814	-221.9232	96.61788	252.0235	0	962.2878
8/19/2013 9:00	16894	333	0.772358	242.0622	40.47652	17.93463	-221.6332	90.27631	252.4796	0	962.2891
8/19/2013 10:00	16895	333	0.9060567	238.5362	47.97675	19.65724	-223.9837	82.02997	252.9915	0	962.4785
8/19/2013 11:00	16896	333	1.095038	255.4126	52.27946	22.98393	-234.2248	66.06384	254.9406	0	962.1187
8/19/2013 12:00	16897	333	1.190491	234.3544	56.29608	25.47406	-215.7114	61.52934	252.7004	0	961.5279
8/19/2013 13:00	16898	333	1.554015	250.1004	46.18097	27.16441	-224.0295	58.58978	254.8169	0	960.9818
8/19/2013 14:00	16899	333	1.424173	218.3288	59.69119	28.62809	-225.2276	51.91853	254.6145	0.254	960.5104
8/19/2013 15:00	16900	333	1.551734	212.3202	55.4016	29.39706	-225.2886	46.75827	255.1488	0	959.8892
8/19/2013 16:00	16901	333	1.644193	193.6554	48.12937	29.96607	-224.6018	46.7018	255.4748	0	959.2852
8/19/2013 17:00	16902	333	1.646081	209.7117	53.4983	29.52586	-225.3268	53.2189	255.5225	0	959.0281
8/19/2013 18:00	16903	333	1.337221	197.8859	49.48178	28.83836	-225.342	51.69417	255.4414	0	958.5284
8/19/2013 19:00	16904	333	0.9516705	176.2803	43.13329	26.91157	-226.2044	57.99607	257.0217	0	958.1466
8/19/2013 20:00	16905	333	0.8178094	156.3228	28.06217	24.6093	-224.8155	63.61268	255.1788	0	958.1093
8/19/2013 21:00	16906	333	0.7960513	161.3113	42.17944	23.2892	-224.1363	66.07147	254.6108	0	958.2013
8/19/2013 22:00	16907	333	0.7452678	167.8741	43.35154	22.93612	-224.1058	68.70731	254.7034	0	958.1643
8/19/2013 23:00	16908	333	0.7531908	169.3423	42.57778	21.96343	-223.2282	73.92251	254.354	0	958.1718
8/20/2013 0:00	16909	333	0.8123102	182.7312	42.17693	21.24973	-224.1821	77.79003	253.9778	0	958.0819
8/20/2013 1:00	16910	333	0.6131561	167.1879	41.9711	20.62032	-223.045	83.4097	253.9733	0	957.9695
8/20/2013 2:00	16911	333	0.7667188	155.093	30.48	19.74411	-223.2663	82.75341	253.5136	0	957.5222
8/20/2013 3:00	16912	333	0.8611311	169.5798	46.19534	20.52984	-224.1439	76.82697	253.7177	0	957.1345
8/20/2013 4:00	16913	333	1.026267	176.4539	42.54456	21.64692	-224.7392	76.36299	254.1002	0	956.7627
8/20/2013 5:00	16914	333	1.072854	205.3788	44.95958	21.97759	-223.4953	78.37307	253.8757	0	956.7498
8/20/2013 6:00	16915	333	0.9521545	260.1131	41.39285	21.33578	-223.2587	82.93504	254.0714	0	957.4005
8/20/2013 7:00	16916	333	0.7621683	274.7873	29.57959	21.55601	-223.7929	74.81995	253.7278	0	957.9865
8/20/2013 8:00	16917	333	1.06912	253.9433	34.94901	24.1577	-223.8387	71.5904	254.0834	0	958.0798
8/20/2013 9:00	16918	333	1.896457	275.536	30.15783	25.07832	-224.411	66.83917	254.2488	0	958.4448
8/20/2013 10:00	16919	333	2.103535	284.0199	30.6507	26.5048	-228.8677	58.18532	254.3464	0	958.854
8/20/2013 11:00	16920	333	2.189461	293.8841	27.79433	27.99915	-229.9437	46.81932	254.2197	0	958.9897
8/20/2013 12:00	16921	333	2.242918	299.3828	26.65027	29.48545	-218.4739	33.86907	256.0189	0	959.0447
8/20/2013 13:00	16922	333	2.550254	306.3013	22.77292	30.54571	-217.0469	32.18409	255.2384	0	958.9055
8/20/2013 14:00	16923	333	3.411505	310.5515	16.99047	30.70282	-226.0975	31.04855	256.4406	0	958.7208
8/20/2013 15:00	16924	333	2.5188	300.2531	25.26501	31.46175	-225.052	29.26131	256.4456	0.762	958.559
8/20/2013 16:00	16925	333	3.253694	304.2787	20.34424	31.02695	-225.1971	33.4524	256.1577	0	958.5869
8/20/2013 17:00	16926	333	2.728591	305.1478	15.98878	28.90093	-225.2123	35.14654	255.277	0	958.5861
8/20/2013 18:00	16927	333	2.817718	311.9855	21.45023	26.61581	-224.6018	43.08458	254.8305	0	958.8819

8/20/2013 19:00	16928	333	2.57958	312.8246	19.51605	23.59868	-223.915	50.22439	254.2129	0	959.1395
8/20/2013 20:00	16929	333	1.033016	326.8577	23.43459	21.73067	-224.2431	55.95089	254.0559	0	959.0461
8/20/2013 21:00	16930	333	0.7132605	343.2027	21.12825	20.16846	-224.4034	57.60382	254.044	0	959.2089
8/20/2013 22:00	16931	333	1.189715	320.57	54.96525	18.35481	-222.9382	94.27967	255.2651	0.508	959.297
8/20/2013 23:00	16932	333	0.2181349	115.4532	19.98843	15.92198	-224.2508	96.62094	255.3634	0.508	959.4348
8/21/2013 0:00	16933	333	0.3785589	210.1176	71.30276	15.94418	-224.701	97.67406	254.1986	0	959.1767
8/21/2013 1:00	16934	333	1.065168	271.2673	52.37355	15.84564	-230.2642	97.0254	255.4506	2.54	959.4305
8/21/2013 2:00	16935	333	0.1711999	241.5506	24.50465	15.5	-225.9907	96.3157	258.7114	0	959.5128
8/21/2013 3:00	16936	333	0.6470112	254.0656	42.48466	14.47281	-229.5011	97.34591	257.571	0	959.6245
8/21/2013 4:00	16937	333	0.512971	210.4102	36.31512	13.62328	-224.9452	98.16246	256.6994	0	959.7335
8/21/2013 5:00	16938	333	1.128791	234.8133	24.03728	13.58095	-230.0353	95.98145	254.4969	0	959.7675
8/21/2013 6:00	16939	333	1.630927	262.5475	25.56264	13.87418	-231.592	94.41856	259.6573	0	959.9568
8/21/2013 7:00	16940	333	1.70903	274.4037	22.66484	14.37117	-223.7853	86.93992	260.1398	0	960.4785
8/21/2013 8:00	16941	333	1.600019	275.0167	27.55124	16.28796	-227.5093	81.00738	256.9445	0	961.2687
8/21/2013 9:00	16942	333	2.346883	286.8323	23.99891	17.84486	-232.7596	69.03545	257.1132	0	961.5551
8/21/2013 10:00	16943	333	3.447288	295.251	20.90218	19.32262	-213.1473	58.08612	257.8283	0	961.7321
8/21/2013 11:00	16944	333	4.014817	297.2652	20.19334	20.80618	-217.1537	50.52354	258.8459	0	962.319
8/21/2013 12:00	16945	333	4.748896	294.1912	21.83836	21.47228	-229.1882	45.06565	258.2225	0	962.6719
8/21/2013 13:00	16946	333	4.94148	290.7251	22.90351	22.6133	-236.0869	39.55131	258.7381	0	962.9383
8/21/2013 14:00	16947	333	4.396731	288.9325	22.16677	20.76632	-222.9458	42.27719	257.145	0	963.4019
8/21/2013 15:00	16948	333	3.232721	285.593	28.51766	23.01041	-226.212	39.78788	255.7356	0	963.5972
8/21/2013 16:00	16949	333	3.866158	289.6844	24.37052	23.41356	-223.77	35.38159	255.0837	0	963.6462
8/21/2013 17:00	16950	333	4.055075	285.5665	25.6086	23.20895	-224.35	36.90784	255.1031	0	963.7712
8/21/2013 18:00	16951	333	3.908771	289.9205	21.69456	21.68712	-224.1287	41.02567	254.1014	0	964.0052
8/21/2013 19:00	16952	333	3.222684	303.1804	25.29773	19.95717	-223.8539	58.50431	254.5871	0	964.4772
8/21/2013 20:00	16953	333	2.644037	310.5872	20.51201	17.41215	-230.7602	64.37733	255.357	0	965.6831
8/21/2013 21:00	16954	333	2.433907	297.9763	16.82566	16.00032	-223.4113	74.32392	253.357	0	966.4257
8/21/2013 22:00	16955	333	2.001665	293.484	15.89164	14.89485	-222.5108	74.76501	252.5464	0	966.882
8/21/2013 23:00	16956	333	2.864959	299.0744	16.00041	15.84751	-222.9916	70.21677	253.6271	0	967.0992
8/22/2013 0:00	16957	333	2.356628	295.2149	16.28219	15.83778	-224.4339	67.84345	253.7715	0	967.4855
8/22/2013 1:00	16958	333	2.802622	295.4528	17.66357	15.55469	-223.3808	72.58247	252.8796	0	967.952
8/22/2013 2:00	16959	333	3.25019	297.9153	15.9468	14.32045	-221.8164	93.56234	254.3959	0	968.3909
8/22/2013 3:00	16960	333	2.431047	298.3671	17.4924	13.58891	-229.9361	92.37337	253.611	0	968.7942
8/22/2013 4:00	16961	333	2.413237	294.3772	16.5774	13.28218	-228.2648	90.16794	256.2724	0	969.5037
8/22/2013 5:00	16962	333	3.030726	300.1872	17.01789	14.10303	-227.5704	89.58034	259.5931	0	970.2556
8/22/2013 6:00	16963	333	2.989649	300.7344	17.67916	14.08461	-231.4547	90.13437	261.4105	0	970.8746
8/22/2013 7:00	16964	333	2.66826	299.6956	17.23411	14.28444	-221.7248	88.52722	255.5396	0	971.6257
8/22/2013 8:00	16965	333	2.935778	302.2944	16.63626	15.0814	-231.2029	81.31567	255.4168	0	972.1349
8/22/2013 9:00	16966	333	2.269045	308.0662	22.40361	16.6209	-223.4266	67.87856	254.2937	0	972.424
8/22/2013 10:00	16967	333	2.00776	312.3749	21.75429	17.23516	-222.8542	68.1426	253.5783	0	972.7696
8/22/2013 11:00	16968	333	1.085732	303.7166	34.47183	18.63714	-223.9226	64.48417	254.4205	0	972.8489
8/22/2013 12:00	16969	333	1.413593	298.9285	30.76338	18.75136	-223.7929	63.36695	253.9187	0	972.7522
8/22/2013 13:00	16970	333	1.848379	301.1633	29.9327	20.03455	-229.2111	54.0095	255.0447	0	972.6973
8/22/2013 14:00	16971	333	1.771458	311.7059	28.36996	21.98341	-227.7077	48.08611	258.7578	0	972.4813
8/22/2013 15:00	16972	333	1.626125	314.6591	24.76756	22.31813	-225.8686	45.89288	257.3358	0	972.3339
8/22/2013 16:00	16973	333	1.328923	303.272	33.73954	22.47664	-224.9834	44.36969	256.2603	1.016	972.09

8/22/2013 17:00	16974	333	0.7507973	267.6703	46.00035	22.76432	-227.6696	52.14289	256.6982	0	971.8232
8/22/2013 18:00	16975	333	0.9675522	314.699	20.15715	22.11514	-225.7694	51.21493	255.7391	0	971.6334
8/22/2013 19:00	16976	333	0.2398021	277.666	57.31757	19.59626	-224.9376	63.89809	257.0281	0	971.4327
8/22/2013 20:00	16977	333	0.1467764	149.6232	5.6838	16.3274	-223.6708	84.11483	253.9947	0	971.2641
8/22/2013 21:00	16978	333	0.3751993	134.399	5.22583	14.98735	-222.5337	89.2583	252.9942	0	971.4816
8/22/2013 22:00	16979	333	0.3827086	142.5933	8.585276	14.39114	-222.7093	94.38498	252.4619	0	971.5458
8/22/2013 23:00	16980	333	0.4148212	148.6049	8.658715	14.0055	-222.4498	92.87093	252.1476	0	971.3412
8/23/2013 0:00	16981	333	0.412352	150.0277	15.87415	13.77873	-222.0148	84.77112	252.427	0	971.113
8/23/2013 1:00	16982	333	0.6775425	187.0108	36.67715	14.09362	-222.114	83.95915	252.4032	0	971.0733
8/23/2013 2:00	16983	333	0.6501781	202.3207	26.42273	13.69284	-223.0908	88.70733	252.3822	0	971.1229
8/23/2013 3:00	16984	333	0.7296477	200.5818	22.72558	12.98236	-221.9766	88.43413	252.1908	0	971.1158
8/23/2013 4:00	16985	333	0.6181395	191.3468	23.09456	13.01753	-222.0377	92.02692	252.108	0	971.0928
8/23/2013 5:00	16986	333	0.5255885	152.6557	10.98008	11.69757	-221.4883	96.81477	251.7486	0	971.098
8/23/2013 6:00	16987	333	0.481346	153.7598	10.00149	11.4741	-221.3585	97.1414	251.5499	0	970.9628
8/23/2013 7:00	16988	333	0.5755444	215.3945	48.02947	13.31055	-222.3506	76.39657	251.6608	0	970.8409
8/23/2013 8:00	16989	333	0.7010754	212.66	46.42175	17.21596	-227.9825	66.40572	255.031	0	970.6736
8/23/2013 9:00	16990	333	1.130226	233.0281	49.8229	19.94917	-224.8918	59.35443	258.2891	0	970.5465
8/23/2013 10:00	16991	333	1.64224	227.5342	44.17424	21.75317	-237.781	46.61023	258.8353	0	970.4364
8/23/2013 11:00	16992	333	1.809669	242.6416	45.09254	23.06761	-228.509	44.91456	256.7378	0	969.952
8/23/2013 12:00	16993	333	2.026936	264.9504	38.15421	23.87064	-242.871	40.78452	255.9906	0	969.5845
8/23/2013 13:00	16994	333	2.133985	267.5269	35.53738	24.24202	-215.5359	35.85777	257.1386	0	969.0922
8/23/2013 14:00	16995	333	2.076188	251.6423	43.27522	25.65461	-234.6293	35.87304	256.6744	0	968.5158
8/23/2013 15:00	16996	333	1.603924	222.0881	54.88417	26.38404	-225.7236	31.69416	257.2816	0	968.0182
8/23/2013 16:00	16997	333	1.600552	217.2887	55.54212	26.47059	-225.3955	34.19569	256.37	0	967.645
8/23/2013 17:00	16998	333	1.336073	215.4817	52.55122	26.38296	-224.6476	34.97561	256.3049	0	967.4003
8/23/2013 18:00	16999	333	1.443681	215.0657	42.81276	25.01828	-232.4239	39.43074	255.7874	0	967.1514
8/23/2013 19:00	17000	333	0.5844319	169.5184	35.28691	22.27063	-224.2966	51.99942	255.7411	0	967.035
8/23/2013 20:00	17001	333	0.4733009	153.9956	21.61542	19.25541	-225.0826	58.0327	257.7185	0	967.1464
8/23/2013 21:00	17002	333	0.5732627	150.132	17.34402	17.73065	-223.0527	65.60596	256.0731	0	967.3694
8/23/2013 22:00	17003	333	0.6545076	151.4323	23.62759	16.53789	-223.0374	68.64931	253.8905	0	967.3409
8/23/2013 23:00	17004	333	0.5014896	171.655	33.66264	16.63701	-222.1903	71.32484	253.7758	0	967.3273
8/24/2013 0:00	17005	333	0.6013877	157.5604	26.28923	15.80219	-223.2969	76.69419	253.3707	0	967.4217
8/24/2013 1:00	17006	333	0.497627	153.2626	15.4477	14.75807	-223.2129	82.96556	253.1731	0	967.6184
8/24/2013 2:00	17007	333	0.6870069	148.2617	10.32294	14.20616	-223.8387	83.39443	253.2841	0	967.2891
8/24/2013 3:00	17008	333	0.7778031	147.1996	11.74226	13.98512	-222.9306	85.87917	253.0324	0	967.1047
8/24/2013 4:00	17009	333	0.6476999	150.0703	14.1305	14.31206	-225.2276	81.00585	253.0112	0	967.3596
8/24/2013 5:00	17010	333	0.6376936	170.3221	39.01801	14.90263	-226.5096	95.20763	259.8864	0	967.6772
8/24/2013 6:00	17011	333	0.8883446	117.0042	37.26079	14.77318	-231.737	96.89108	260.2583	0	967.123
8/24/2013 7:00	17012	333	1.095687	137.9073	17.44088	15.4719	-232.6528	96.53853	262.6759	0	966.3436
8/24/2013 8:00	17013	333	1.321049	141.8283	17.65691	16.10591	-225.4641	92.14292	259.7946	0	966.1125
8/24/2013 9:00	17014	333	1.337924	144.0894	25.96342	17.598	-232.6681	82.54431	257.3416	0	965.4728
8/24/2013 10:00	17015	333	1.105567	124.3506	81.98473	17.2299	-229.7682	95.95397	261.6171	0.254	965.766
8/24/2013 11:00	17016	333	1.288429	143.6915	26.54563	17.25155	-231.3707	96.48205	262.0653	1.524	964.3591
8/24/2013 12:00	17017	333	0.8427733	70.10834	77.38135	18.3731	-229.005	97.68016	259.166	7.366002	964.7366
8/24/2013 13:00	17018	333	1.267381	126.9467	33.83756	17.84386	-233.0191	96.89567	260.5578	3.809999	964.7264
8/24/2013 14:00	17019	333	1.940315	72.53996	51.72167	17.61008	-233.2862	98.94695	261.4335	10.922	964.1993

8/24/2013 15:00	17020	333	2.585902	89.84016	58.03114	17.78572	-233.0191	98.72106	259.897	21.33599	963.7411
8/24/2013 16:00	17021	333	1.483013	128.6677	30.03986	18.95592	-230.165	95.67161	259.6557	0	962.4321
8/24/2013 17:00	17022	333	0.9549524	146.293	27.76869	18.93505	-233.0878	96.73694	259.2942	0	962.1567
8/24/2013 18:00	17023	333	0.8362827	107.8949	31.08276	18.82006	-231.4623	96.27143	262.0972	0	961.4469
8/24/2013 19:00	17024	333	1.154297	133.6603	30.0348	18.5214	-231.4776	97.68474	261.7882	0	960.0663
8/24/2013 20:00	17025	333	1.209859	141.5753	25.82097	18.40823	-230.7755	98.53486	261.4076	5.588001	959.2038
8/24/2013 21:00	17026	333	1.557791	212.9221	69.28085	18.72667	-232.813	99.39262	261.0372	25.14598	959.7313
8/24/2013 22:00	17027	333	1.351864	166.2856	49.84348	18.69146	-230.2947	98.86911	260.393	4.572	960.037
8/24/2013 23:00	17028	333	1.186745	149.1186	23.97344	18.82433	-226.7309	98.2464	259.9013	4.572	959.5974
8/25/2013 0:00	17029	333	1.136197	167.9089	35.4206	18.66483	-231.3173	96.92161	259.7897	0	958.561
8/25/2013 1:00	17030	333	1.246458	277.7545	48.32404	18.23584	-230.7602	98.75922	261.3139	0	959.6096
8/25/2013 2:00	17031	333	0.3382398	324.2276	28.31101	18.39732	-231.8515	97.7519	261.3912	0	960.379
8/25/2013 3:00	17032	333	0.06842171	152.9498	2.680034	17.97339	-233.248	98.28303	262.652	0	960.4047
8/25/2013 4:00	17033	333	0.2622633	158.8987	43.37233	17.66854	-233.3625	99.11941	263.0144	0	960.5791
8/25/2013 5:00	17034	333	0.5548365	171.228	35.52262	18.19726	-232.6528	98.75464	262.9182	0	960.6602
8/25/2013 6:00	17035	333	0.3572133	160.2513	25.84708	18.32096	-232.7291	98.66306	262.7301	0	960.7012
8/25/2013 7:00	17036	333	0.3661206	169.2854	32.39471	18.74337	-233.1259	97.98694	263.1245	0	961.1544
8/25/2013 8:00	17037	333	0.6344656	234.2785	34.98926	19.23927	-230.9892	97.68169	262.4742	0	961.7086
8/25/2013 9:00	17038	333	0.3838895	241.8306	32.9279	19.80876	-224.9528	96.8743	253.146	0	961.84
8/25/2013 10:00	17039	333	0.5968437	227.0293	41.13675	20.47152	-224.8002	94.70397	255.156	0	962.2256
8/25/2013 11:00	17040	333	0.6204492	180.4973	45.10447	21.37005	-226.8835	90.83492	257.1498	0	962.334
8/25/2013 12:00	17041	333	0.5561699	214.8327	42.37264	22.16507	-231.4852	92.48479	259.636	0.762	962.4819
8/25/2013 13:00	17042	333	1.124905	250.5962	36.68164	22.26348	-230.5847	93.6249	261.1465	0	962.7565
8/25/2013 14:00	17043	333	1.246675	259.1326	31.27143	22.43051	-231.2486	92.92131	260.3333	0	962.9311
8/25/2013 15:00	17044	333	1.13538	279.9996	28.7577	23.28086	-228.1885	86.16458	258.6602	0	963.3409
8/25/2013 16:00	17045	333	1.393975	283.8204	28.24545	25.78048	-224.495	78.33491	256.2254	0	963.4127
8/25/2013 17:00	17046	333	2.222418	301.7292	17.10345	25.89307	-227.1201	75.23814	256.6263	0	963.9193
8/25/2013 18:00	17047	333	2.486535	297.854	16.26851	24.49359	-227.1964	81.48357	258.0837	0	964.2578
8/25/2013 19:00	17048	333	1.428208	300.4986	12.76332	22.69359	-227.4635	92.08492	257.2502	0	964.5061
8/25/2013 20:00	17049	333	0.648296	298.8918	23.78976	20.6285	-226.0899	95.99518	256.9174	0	964.9849
8/25/2013 21:00	17050	333	0.5761597	304.7265	15.03219	19.75594	-224.8002	97.38712	255.8413	0	965.3331
8/25/2013 22:00	17051	333	0.492487	286.3231	12.46673	19.36551	-224.1134	96.10049	254.7227	0	965.8295
8/25/2013 23:00	17052	333	0.138618	170.3593	21.05932	18.40211	-224.4339	97.77937	254.1752	0	965.9291
8/26/2013 0:00	17053	333	0.02870529	251.5751	6.802131	18.03801	-223.6555	99.06599	253.9491	0	965.935
8/26/2013 1:00	17054	333	0.3994448	300.5508	17.38699	17.76005	-223.8921	98.82485	253.7242	0	965.8333
8/26/2013 2:00	17055	333	1.002231	307.8884	11.99779	17.60009	-224.3729	98.68749	254.2286	0	966.0138
8/26/2013 3:00	17056	333	0.877283	319.2978	14.60446	17.59889	-231.9202	99.03089	260.1617	0	966.23
8/26/2013 4:00	17057	333	0.4704196	341.3782	18.47741	17.71512	-233.3091	98.6478	262.7983	0	966.6047
8/26/2013 5:00	17058	333	0.05053953	358.9051	8.13798	17.25841	-231.1723	98.47076	261.8635	0	966.8934
8/26/2013 6:00	17059	333	0.254613	91.00025	17.93331	17.24512	-232.752	98.54402	262.7658	0	967.179
8/26/2013 7:00	17060	333	0.290443	98.6703	19.81173	17.34587	-233.7746	97.64964	262.6759	0	967.709
8/26/2013 8:00	17061	333	0.2814047	131.7508	27.7436	17.90676	-233.6601	96.43932	263.2427	0	968.006
8/26/2013 9:00	17062	333	0.5045868	150.5243	28.74457	18.49873	-224.4187	96.55836	258.7383	0	967.8287
8/26/2013 10:00	17063	333	0.5677434	233.0158	48.85704	19.47994	-224.5865	94.73602	255.4918	0	967.8287
8/26/2013 11:00	17064	333	0.5247333	261.4951	66.66864	21.17867	-223.5487	85.68534	254.8948	0	967.8068
8/26/2013 12:00	17065	333	1.003119	302.3969	38.25853	23.64994	-236.7737	70.1023	257.1203	0	967.634

8/26/2013 13:00	17066	333	0.6661746	178.6389	80.12608	26.08527	-235.1482	63.76989	260.2414	0	966.9691
8/26/2013 14:00	17067	333	0.8398419	109.4704	32.06688	26.84779	-225.7541	60.66854	257.8382	0	966.4456
8/26/2013 15:00	17068	333	0.8633745	216.2119	57.79821	28.35702	-229.8292	54.80315	260.4822	0.762	966.0072
8/26/2013 16:00	17069	333	0.9567074	227.5933	44.50781	28.37396	-225.7541	55.26713	259.0708	0	965.6687
8/26/2013 17:00	17070	333	0.8985174	276.4336	30.23178	28.06028	-226.6393	56.14014	256.931	0	965.6137
8/26/2013 18:00	17071	333	0.2508136	182.0018	51.70152	25.84685	-225.1589	74.98479	255.1759	0	965.3371
8/26/2013 19:00	17072	333	0.5822369	135.4688	7.610294	23.0737	-226.0746	87.9152	254.9155	0	964.7958
8/26/2013 20:00	17073	333	0.2919932	149.483	8.632639	21.26298	-227.1964	92.96862	256.666	0	964.7139
8/26/2013 21:00	17074	333	0.3285633	150.8185	13.10188	20.21684	-229.3943	95.76777	257.1433	0	964.7488
8/26/2013 22:00	17075	333	0.4823996	146.5391	9.42296	19.16868	-226.7004	96.26838	258.5312	0	964.3911
8/26/2013 23:00	17076	333	0.2481086	149.2323	16.75205	18.85084	-229.73	90.73418	258.7509	0	964.0997
8/27/2013 0:00	17077	333	0.3093593	161.4781	18.37707	18.58404	-231.3097	93.54555	260.6438	0	964.0162
8/27/2013 1:00	17078	333	0.8295998	217.1968	31.88202	19.0877	-224.7468	88.87215	256.2598	0	964.3086
8/27/2013 2:00	17079	333	0.7491545	211.2583	27.45066	19.04644	-223.7318	90.88528	254.8765	0	964.0792
8/27/2013 3:00	17080	333	0.4368414	191.3196	29.54133	18.43457	-223.7853	94.24762	253.5605	0	963.99
8/27/2013 4:00	17081	333	0.1164277	168.0588	14.05702	17.52554	-223.419	96.7232	252.1081	0	963.9716
8/27/2013 5:00	17082	333	0.2986198	206.5715	26.62833	16.90003	-223.4266	97.10781	253.3765	0	963.8312
8/27/2013 6:00	17083	333	0.09606631	156.9063	23.28618	16.90598	-232.0347	98.2815	256.8051	0	963.9749
8/27/2013 7:00	17084	333	0.42555	130.3904	81.46256	17.89002	-231.6378	94.96191	262.6601	0	964.2728
8/27/2013 8:00	17085	333	0.4075722	285.5829	30.97489	19.48766	-231.2181	83.06935	262.0623	0	964.6413
8/27/2013 9:00	17086	333	0.347712	139.0605	55.65824	21.68791	-232.8207	80.97686	257.5318	0	964.4612
8/27/2013 10:00	17087	333	0.2015016	133.2976	21.27394	21.96398	-223.419	79.70396	259.7153	0	964.4516
8/27/2013 11:00	17088	333	0.6030948	111.4257	41.01389	23.03095	-224.8155	71.15084	254.4029	0	964.7308
8/27/2013 12:00	17089	333	0.9910359	109.5773	31.21095	25.56808	-239.5972	65.3343	258.7329	0	964.8104
8/27/2013 13:00	17090	333	1.006207	332.5479	63.71735	26.93659	-241.1388	62.07727	261.4906	0	964.7234
8/27/2013 14:00	17091	333	1.222253	328.4454	25.87627	28.19093	-233.1946	55.3526	259.3759	0	964.6728
8/27/2013 15:00	17092	333	0.3919444	352.4183	30.2799	28.55309	-225.4489	58.19754	257.0293	0	964.296
8/27/2013 16:00	17093	333	0.8453245	257.2224	55.29004	28.75569	-225.342	66.92312	256.7873	0	964.0727
8/27/2013 17:00	17094	333	1.121703	349.7206	41.42183	26.74477	-225.3115	66.63772	256.6333	0	964.1107
8/27/2013 18:00	17095	333	0.773552	42.56119	44.04684	24.24236	-224.6857	75.56934	254.862	0	964.7323
8/27/2013 19:00	17096	333	0.6566194	33.36886	39.15804	21.82627	-225.8381	79.13161	255.3714	0	965.4303
8/27/2013 20:00	17097	333	0.4900839	55.08028	29.36174	20.00213	-230.8976	85.76165	259.4976	0	965.5616
8/27/2013 21:00	17098	333	0.6011054	86.54758	30.80198	18.72244	-233.4693	91.60567	261.5877	0	966.1611
8/27/2013 22:00	17099	333	0.7396165	115.659	21.72375	17.38923	-225.5862	95.69146	260.3455	0	966.5491
8/27/2013 23:00	17100	333	0.8392864	124.9684	20.75789	16.95189	-223.915	96.70184	255.8066	0	966.3684
8/28/2013 0:00	17101	333	0.5646634	112.2687	20.4855	16.81595	-223.6784	97.33218	253.939	0	966.4431
8/28/2013 1:00	17102	333	0.6448184	123.9062	21.77353	16.58112	-225.426	97.40696	254.3017	0	966.3365
8/28/2013 2:00	17103	333	0.6326635	116.9341	19.96488	16.74104	-231.035	98.09377	258.4711	0	966.434
8/28/2013 3:00	17104	333	0.5288531	51.80855	54.53414	17.23937	-231.7828	97.83431	262.1896	0	966.5926
8/28/2013 4:00	17105	333	0.8596299	115.8411	29.9029	17.386	-232.4315	98.68139	261.3232	0	966.5115
8/28/2013 5:00	17106	333	1.161944	120.602	23.91891	17.6594	-231.0731	98.6478	261.8527	0	966.558
8/28/2013 6:00	17107	333	0.9909686	113.9325	28.19976	17.89944	-232.7673	98.35171	261.8795	0	966.8198
8/28/2013 7:00	17108	333	1.154086	131.7341	22.0121	18.4041	-232.7291	95.90513	262.7384	0	966.8401
8/28/2013 8:00	17109	333	0.9078012	139.8354	27.30833	19.1629	-224.8689	92.95794	261.5253	0	966.6665
8/28/2013 9:00	17110	333	0.4743064	134.8814	31.6089	22.56784	-223.9074	74.7299	256.0038	0	966.4559
8/28/2013 10:00	17111	333	0.761593	136.1384	34.66488	24.26571	-230.9968	67.34895	256.9551	0	966.6018

8/28/2013 11:00	17112	333	0.939249	101.9962	37.36221	25.2787	-218.7563	68.90115	260.6158	0	966.6845
8/28/2013 12:00	17113	333	0.8712051	100.5815	63.4744	26.76982	-245.2902	60.88068	261.8167	0	966.4902
8/28/2013 13:00	17114	333	1.272837	292.1636	38.36657	28.72824	-226.2807	54.16059	263.7763	0	966.2229
8/28/2013 14:00	17115	333	1.471828	290.1338	33.45825	29.76901	-237.0102	49.8642	263.652	0.508	966.0042
8/28/2013 15:00	17116	333	2.799124	295.5004	22.03488	30.55659	-233.9272	45.42128	263.5603	0	965.7897
8/28/2013 16:00	17117	333	2.772106	304.0993	17.70787	30.17994	-232.0881	44.97713	262.7379	0	965.9297
8/28/2013 17:00	17118	333	2.97125	303.9866	15.72022	29.37241	-233.8814	43.98965	262.4181	0	966.1275
8/28/2013 18:00	17119	333	2.527665	299.4999	15.32311	27.63917	-226.3036	51.63159	259.6107	0	966.262
8/28/2013 19:00	17120	333	1.22502	296.6033	10.87789	24.27485	-225.9449	57.5153	255.5592	0	966.4506
8/28/2013 20:00	17121	333	0.5808187	267.0232	36.48833	22.3996	-224.5942	72.67404	255.5606	0	966.857
8/28/2013 21:00	17122	333	0.3378835	152.398	5.505669	20.1732	-225.2734	88.46313	254.9756	0	967.2016
8/28/2013 22:00	17123	333	0.2866797	156.9773	15.36814	19.02711	-224.495	93.747	255.2936	0	967.5839
8/28/2013 23:00	17124	333	0.4070947	145.3416	11.18763	18.3411	-223.6403	96.58431	253.7098	0	967.4416
8/29/2013 0:00	17125	333	0.6319971	142.7993	11.19604	17.76622	-224.1134	97.81753	253.7181	0	967.3465
8/29/2013 1:00	17126	333	0.5190793	148.3506	6.435499	17.55728	-231.7828	97.81599	254.6402	0	966.9828
8/29/2013 2:00	17127	333	0.1940873	138.6596	8.930895	17.18684	-231.2029	98.1014	260.632	0	967.0731
8/29/2013 3:00	17128	333	0.6004578	145.6034	10.55168	16.81581	-233.8967	99.14842	262.1935	0	966.8912
8/29/2013 4:00	17129	333	0.4721173	154.6463	10.46168	16.63627	-232.8817	96.04401	263.2605	0	966.9614
8/29/2013 5:00	17130	333	0.2450959	156.3606	66.65836	16.81707	-233.5609	91.43779	263.4149	0	966.7227
8/29/2013 6:00	17131	333	0.7214903	338.9421	79.59672	16.8761	-233.2328	94.45367	263.43	0	966.9695
8/29/2013 7:00	17132	333	0.3597635	138.9079	16.06625	17.59888	-233.9425	88.03119	263.6792	0	967.0602
8/29/2013 8:00	17133	333	0.8360513	110.2382	62.49603	20.65371	-219.5118	76.86361	263.2278	0	967.0256
8/29/2013 9:00	17134	333	0.8058239	126.8601	25.19477	23.90993	-232.6528	64.33459	256.2622	0	966.506
8/29/2013 10:00	17135	333	1.171869	92.37552	35.42281	25.06011	-230.6687	59.50858	261.4772	0	966.274
8/29/2013 11:00	17136	333	0.959983	125.4197	24.74773	25.89307	-232.6757	64.27049	261.661	0	965.8828
8/29/2013 12:00	17137	333	0.6229946	133.2822	22.97587	26.42772	-230.89	63.60658	261.6483	0	965.5511
8/29/2013 13:00	17138	333	0.6323441	129.7188	21.63162	26.28115	-230.6458	69.61848	261.7699	0	965.1655
8/29/2013 14:00	17139	333	0.5112123	143.6888	16.57051	25.74755	-231.3707	72.9915	261.6696	0	965.0168
8/29/2013 15:00	17140	333	0.2699899	138.077	16.29849	25.59505	-231.096	71.4683	261.6322	0	964.425
8/29/2013 16:00	17141	333	0.5072348	150.461	33.87458	26.17064	-231.8897	72.71067	261.2608	0	964.229
8/29/2013 17:00	17142	333	0.9757555	235.5513	36.68368	25.55221	-230.6992	70.20456	260.9144	0	964.6667
8/29/2013 18:00	17143	333	0.8733626	240.517	32.16308	24.50657	-226.4562	81.89413	258.4195	0	964.9671
8/29/2013 19:00	17144	333	0.9904364	255.6897	24.13403	23.12526	-224.0295	83.25097	256.5217	0	965.3907
8/29/2013 20:00	17145	333	0.7562419	231.5006	28.9288	21.72639	-223.5792	85.51592	254.088	0	965.7291
8/29/2013 21:00	17146	333	0.764908	242.4921	29.37172	20.28815	-223.0527	88.53333	253.593	0	966.127
8/29/2013 22:00	17147	333	1.360516	290.3886	18.96029	19.51247	-222.4498	92.64963	253.3172	0	966.043
8/29/2013 23:00	17148	333	1.485976	318.9369	24.97876	19.31688	-222.5185	88.15482	253.2535	0	966.1242
8/30/2013 0:00	17149	333	1.170404	6.004192	34.42975	19.07295	-222.8161	83.39443	253.5921	0	966.5261
8/30/2013 1:00	17150	333	1.351901	35.53902	42.89433	18.565	-231.3555	88.47076	254.4381	0	967.1348
8/30/2013 2:00	17151	333	1.148581	25.92163	42.70336	17.97373	-222.6635	87.86788	254.2085	0	967.2124
8/30/2013 3:00	17152	333	1.262979	23.93935	42.5625	17.74591	-225.0215	86.91702	253.9519	0	967.7017
8/30/2013 4:00	17153	333	1.200216	21.50171	41.96694	17.72849	-228.6006	84.70702	255.7681	0	968.0386
8/30/2013 5:00	17154	333	1.278873	15.62888	43.23797	17.07301	-226.2273	87.56416	256.1199	0	968.1743
8/30/2013 6:00	17155	333	1.602478	40.45141	45.18582	16.05836	-225.7083	86.59194	256.5862	0	968.5817
8/30/2013 7:00	17156	333	1.623756	62.18891	42.54078	15.54185	-227.7077	87.35812	257.5624	0	969.2308
8/30/2013 8:00	17157	333	1.476507	55.02665	40.58043	15.08728	-228.7227	90.43352	258.2078	0	969.5453

8/30/2013 9:00	17158	333	1.200499	58.22228	38.53325	14.70693	-231.1723	91.26227	256.3367	0	970.0714
8/30/2013 10:00	17159	333	1.13572	51.12198	41.57809	14.70548	-230.6992	87.71374	258.4145	0	970.3246
8/30/2013 11:00	17160	333	1.306835	84.39606	32.58685	15.13644	-228.6769	86.52325	258.4954	0	970.0352
8/30/2013 12:00	17161	333	1.264771	82.44395	37.0448	15.23932	-224.6934	85.02447	258.1111	0	970.0308
8/30/2013 13:00	17162	333	1.232679	72.07165	38.6533	15.49223	-226.708	80.3343	258.2486	0	969.9462
8/30/2013 14:00	17163	333	1.265298	89.28681	38.59878	16.17268	-224.9071	80.62887	257.9297	0	969.2922
8/30/2013 15:00	17164	333	1.228292	110.5687	32.05703	16.38916	-227.288	81.21953	257.7931	0	968.6164
8/30/2013 16:00	17165	333	1.191873	111.5974	33.14168	16.72533	-225.1589	82.57332	257.7681	0	967.8861
8/30/2013 17:00	17166	333	1.312478	118.0934	28.23211	16.5027	-227.2041	84.28729	256.8768	0	967.2639
8/30/2013 18:00	17167	333	1.13448	114.9573	29.01903	16.70111	-226.273	82.97778	257.1042	0	966.6495
8/30/2013 19:00	17168	333	1.590328	123.8935	28.67266	15.92282	-231.3631	88.25402	256.8885	0	965.0101
8/30/2013 20:00	17169	333	1.802505	132.3024	28.29092	15.265	-226.151	91.10049	258.5363	0	963.6925
8/30/2013 21:00	17170	333	1.749598	134.6492	26.66479	15.16186	-223.7013	92.54585	256.1746	0	962.5697
8/30/2013 22:00	17171	333	1.79304	142.5693	34.84464	15.31639	-225.052	91.0257	256.1	0	961.1016
8/30/2013 23:00	17172	333	1.244479	189.5543	65.43416	15.35815	-225.2428	98.77601	257.5616	11.684	961.8999
8/31/2013 0:00	17173	333	0.7262784	188.4476	40.3057	15.60744	-224.4797	98.05257	258.9627	4.318	960.7394
8/31/2013 1:00	17174	333	1.147678	168.5292	38.37185	15.65153	-230.1726	98.4906	256.1522	1.524	959.6767
8/31/2013 2:00	17175	333	1.573928	169.5257	45.80386	15.64424	-230.6229	97.86178	259.7915	5.842001	958.8145
8/31/2013 3:00	17176	333	0.8408744	204.9142	42.3362	15.40182	-229.4477	97.69848	257.5191	0	958.3813
8/31/2013 4:00	17177	333	0.249226	156.2748	33.93794	14.88202	-223.3045	98.36391	254.1238	0	958.3151
8/31/2013 5:00	17178	333	0.2494885	107.8767	34.40391	14.70105	-223.0984	98.83096	253.1134	0	958.4597
8/31/2013 6:00	17179	333	0.3248461	55.30319	63.72801	15.12048	-230.8213	98.4616	257.0877	0	958.7744
8/31/2013 7:00	17180	333	0.1803241	87.33283	21.76773	15.73066	-231.9736	97.51074	261.7134	0	958.6774
8/31/2013 8:00	17181	333	0.4778641	59.67998	37.83527	16.17541	-231.0044	96.79036	262.4202	0	958.7064
8/31/2013 9:00	17182	333	0.6954995	104.3251	30.78495	16.46141	-222.9382	94.85201	253.3296	0	958.7323
8/31/2013 10:00	17183	333	0.7073839	112.9415	27.00951	17.29607	-230.8594	93.47228	259.1812	0	958.4849
8/31/2013 11:00	17184	333	0.93481	115.369	27.8341	17.79976	-223.0603	88.09377	256.0802	0	958.4343
8/31/2013 12:00	17185	333	1.259064	101.252	34.27581	18.8779	-223.8845	85.63956	255.3019	0	958.1899
8/31/2013 13:00	17186	333	0.9719341	102.7874	30.54158	18.86494	-224.0371	91.37063	255.8663	0	958.5739
8/31/2013 14:00	17187	333	1.457562	43.61716	45.69305	16.67299	-231.1723	95.84866	256.2738	0	958.9299
8/31/2013 15:00	17188	333	1.514114	49.32853	47.90485	15.29612	-224.6476	90.94328	256.0704	0	959.429
8/31/2013 16:00	17189	333	1.631086	68.58467	40.01378	15.12858	-222.2819	93.63865	255.9506	0	959.1287
8/31/2013 17:00	17190	333	1.771919	80.70683	38.48381	14.58171	-222.5643	92.24976	254.6544	0	958.6331
8/31/2013 18:00	17191	333	1.833182	65.57005	43.65471	14.04904	-230.0124	95.34194	257.3532	0	958.8378
8/31/2013 19:00	17192	333	1.79677	43.3775	44.23199	12.891	-222.9687	95.40604	257.612	0	958.8474
8/31/2013 20:00	17193	333	1.935349	57.55785	44.33862	11.62061	-230.7526	96.51411	255.9732	0	959.6188
8/31/2013 21:00	17194	333	2.050066	67.96386	38.6293	10.32757	-222.7474	97.75494	256.7896	0	960.8248
8/31/2013 22:00	17195	333	1.654559	47.70718	47.13534	9.493398	-230.5008	97.48938	257.6099	0	961.1063
8/31/2013 23:00	17196	333	1.734181	47.19838	48.29533	8.745876	-222.5032	96.34469	256.1467	0	961.8477
9/1/2013 0:00	17197	333	1.954425	46.32813	42.50951	8.337899	-221.7248	97.31233	255.0479	1.524	961.8196
9/1/2013 1:00	17198	333	1.806013	48.99785	43.9483	8.185921	-227.4559	96.8392	256.8753	1.27	961.9633
9/1/2013 2:00	17199	333	1.631173	40.85939	44.22638	8.11391	-226.6546	95.73418	257.914	1.016	962.3425
9/1/2013 3:00	17200	333	1.683132	32.82818	42.93216	7.765621	-229.5163	95.7235	257.787	0	962.7766
9/1/2013 4:00	17201	333	1.701521	35.48725	41.03141	7.570133	-229.6003	94.45824	257.8326	0	963.3254
9/1/2013 5:00	17202	333	1.610247	20.55861	42.99208	7.347022	-230.0658	97.23907	259.7917	0	963.9805
9/1/2013 6:00	17203	333	1.924873	4.64108	41.14369	7.03198	-230.8289	97.53516	258.6246	0	964.6848

9/1/2013 7:00	17204	333	1.996788	3.270887	36.1754	6.958112	-224.6018	97.26197	260.8156	0	965.2646
9/1/2013 8:00	17205	333	1.757777	8.810797	36.77562	7.0323	-231.0655	95.28394	261.0406	0	965.7761
9/1/2013 9:00	17206	333	2.065912	359.5904	33.06436	7.618992	-221.3356	92.52296	255.0435	0	966.1757
9/1/2013 10:00	17207	333	1.958244	352.3278	34.76132	8.660409	-222.2666	87.39169	257.2348	0	966.7704
9/1/2013 11:00	17208	333	1.945919	0.9412785	37.97082	9.385341	-227.5169	82.73205	253.4906	0	967.2452
9/1/2013 12:00	17209	333	2.021633	357.5236	36.37539	10.39416	-231.3326	81.11726	257.9749	0	967.7089
9/1/2013 13:00	17210	333	2.228015	350.726	33.52412	10.48646	-225.0215	83.0434	260.2212	0	968.0826
9/1/2013 14:00	17211	333	1.802624	345.3786	34.2553	10.61215	-231.5234	81.12795	261.1675	0	968.3414
9/1/2013 15:00	17212	333	1.597935	350.2764	35.91115	10.95198	-231.7294	79.88558	261.0952	0	968.3904
9/1/2013 16:00	17213	333	1.348241	350.6327	34.6767	11.09334	-230.9434	81.61788	261.2689	0	968.7701
9/1/2013 17:00	17214	333	1.440656	341.1558	31.87397	11.20122	-232.1033	82.67252	260.3788	0	969.0256
9/1/2013 18:00	17215	333	1.64456	346.8634	31.41805	10.844	-230.9815	83.76379	261.3671	0	969.1268
9/1/2013 19:00	17216	333	1.462088	356.0187	30.73701	10.2208	-231.2715	82.60536	261.4793	0	969.3315
9/1/2013 20:00	17217	333	1.007904	3.007765	33.92412	9.947439	-229.8597	85.00616	259.1651	0	969.4977
9/1/2013 21:00	17218	333	0.4849788	38.68708	27.59129	9.810162	-230.3024	85.68687	259.2383	0	969.628
9/1/2013 22:00	17219	333	0.5463785	32.96643	19.1637	8.809835	-230.5237	91.80714	261.273	0	969.8175
9/1/2013 23:00	17220	333	0.1425518	64.16972	19.02304	7.40062	-227.227	96.76594	259.7278	0	970.0169
9/2/2013 0:00	17221	333	0.04911264	159.7272	13.01441	6.759756	-225.5176	97.01777	255.0144	0	969.9464
9/2/2013 1:00	17222	333	0.212897	176.2317	22.57642	6.733125	-222.694	98.98205	255.4516	0	969.8438
9/2/2013 2:00	17223	333	0.03421544	275.9322	10.03616	6.816061	-230.371	99.4735	256.7898	0	969.8477
9/2/2013 3:00	17224	333	0.4942085	294.9047	18.45165	6.905084	-231.1418	99.65819	260.5885	0	969.8535
9/2/2013 4:00	17225	333	0.6700233	271.4496	13.33544	6.976628	-230.8824	99.22625	261.0143	0	970.0808
9/2/2013 5:00	17226	333	0.5662901	268.4863	16.43568	6.591078	-230.5923	98.29677	260.6843	0	970.1768
9/2/2013 6:00	17227	333	0.1549796	205.8093	26.18061	6.690434	-229.7071	99.50556	260.8354	0	970.2347
9/2/2013 7:00	17228	333	0.8531071	263.9064	32.27695	8.006925	-231.4242	95.00005	261.0362	0	970.6049
9/2/2013 8:00	17229	333	1.04747	280.2842	25.38317	10.40236	-231.7828	91.37979	261.263	0	970.6326
9/2/2013 9:00	17230	333	1.450165	278.7379	30.78414	13.14601	-231.5386	77.63589	260.7809	0	970.5585
9/2/2013 10:00	17231	333	1.572648	308.3485	28.41402	15.66742	-231.8668	68.33338	257.6406	0	970.3581
9/2/2013 11:00	17232	333	2.043677	310.4675	21.02777	17.98897	-227.6543	63.17465	256.878	0	970.1092
9/2/2013 12:00	17233	333	1.683776	292.677	39.71275	19.65133	-214.5514	53.79735	255.4512	1.016	969.7446
9/2/2013 13:00	17234	333	1.622782	285.4615	34.65874	20.77512	-230.02	52.35962	255.4967	0	969.3997
9/2/2013 14:00	17235	333	1.525139	277.3573	39.50822	21.75102	-224.8384	51.75217	257.4801	0	968.7889
9/2/2013 15:00	17236	333	1.318202	252.5036	49.99757	22.34986	-224.6171	49.90541	256.1627	0	968.0743
9/2/2013 16:00	17237	333	1.463098	256.5829	48.09374	22.09963	-224.7239	52.6374	256.3236	0	967.6988
9/2/2013 17:00	17238	333	1.52201	231.2465	38.48854	22.07456	-224.9681	50.67006	256.9569	0	967.1838
9/2/2013 18:00	17239	333	1.563164	253.6459	33.71192	20.42214	-231.7752	57.36267	257.4362	0	966.8252
9/2/2013 19:00	17240	333	1.122518	236.506	29.6702	17.87134	-232.172	67.31842	257.9952	0	966.5864
9/2/2013 20:00	17241	333	0.7686682	220.9913	27.81183	15.90174	-232.3857	75.70365	261.6986	0	966.2565
9/2/2013 21:00	17242	333	0.6598665	196.3257	41.93185	14.75719	-232.1797	78.54095	261.1024	0	965.9505
9/2/2013 22:00	17243	333	0.9190484	210.7055	34.61469	14.5561	-231.4776	82.02234	260.4834	0	965.8896
9/2/2013 23:00	17244	333	0.7173232	207.0822	38.97029	13.77723	-230.7526	85.18015	260.7976	0	965.6855
9/3/2013 0:00	17245	333	0.7657036	209.103	32.35645	13.35033	-230.9968	86.78271	260.6015	0	965.2823
9/3/2013 1:00	17246	333	0.6082581	200.457	34.63066	12.91359	-226.8225	90.3862	259.3581	0	964.9224
9/3/2013 2:00	17247	333	0.4829229	190.1277	35.57555	12.34447	-226.357	89.86727	260.1269	0	964.625
9/3/2013 3:00	17248	333	0.4396682	177.3521	41.91051	11.95922	-231.1113	90.28699	258.1426	0	964.1437
9/3/2013 4:00	17249	333	0.7078413	187.3703	43.85051	12.16839	-223.5334	87.9793	257.1815	0	963.7924

9/3/2013 5:00	17250	333	0.7726132	180.5376	43.62527	12.0821	-223.1213	86.92008	255.0442	0	963.2704
9/3/2013 6:00	17251	333	1.068152	189.8255	43.13387	12.56628	-222.6864	84.61086	252.9579	0	962.4003
9/3/2013 7:00	17252	333	1.756716	230.0345	42.46788	13.76725	-231.0807	74.03545	254.4887	0	961.7922
9/3/2013 8:00	17253	333	2.464468	255.5594	31.86714	15.59537	-224.3271	70.09467	258.7095	0	961.571
9/3/2013 9:00	17254	333	2.388683	260.2368	34.20595	17.75624	-234.0188	67.92434	260.0376	0	961.2878
9/3/2013 10:00	17255	333	2.315221	260.0986	34.33766	19.99083	-223.0221	63.2769	258.7721	0	960.8765
9/3/2013 11:00	17256	333	2.048689	254.367	36.40168	21.61466	-245.4046	59.78331	260.1594	0	960.5285
9/3/2013 12:00	17257	333	2.756821	284.8951	30.74339	23.69365	-232.6986	54.19417	260.0985	0	960.628
9/3/2013 13:00	17258	333	5.07017	301.4859	16.42254	22.09108	-231.9507	68.62032	259.3763	0	960.9748
9/3/2013 14:00	17259	333	4.349524	310.3898	22.64186	20.71166	-224.6018	73.8401	258.4694	0	961.5043
9/3/2013 15:00	17260	333	4.044852	312.608	22.33385	19.47324	-231.3478	71.70944	258.7734	0	962.2374
9/3/2013 16:00	17261	333	4.169476	316.5988	22.72453	18.13046	-224.495	56.40113	257.3401	0	963.1581
9/3/2013 17:00	17262	333	3.693518	321.6326	25.09831	17.81997	-224.3881	51.73386	254.7878	0	964.1692
9/3/2013 18:00	17263	333	3.239322	333.0167	26.67446	15.26731	-223.0145	54.80315	254.3737	0	965.2288
9/3/2013 19:00	17264	333	2.79567	328.5761	26.28791	12.72902	-223.7395	59.93899	253.4848	0	966.4009
9/3/2013 20:00	17265	333	2.46019	334.1616	25.6814	11.27579	-222.8466	64.10718	252.8629	0	967.4907
9/3/2013 21:00	17266	333	2.136978	340.459	27.993	9.95997	-222.7703	67.81293	252.8403	0	968.3948
9/3/2013 22:00	17267	333	1.78061	340.8852	26.53798	8.753637	-225.2581	70.47013	253.4892	0	969.2338
9/3/2013 23:00	17268	333	1.587504	337.9761	26.1892	8.00008	-222.198	74.1484	253.0516	0	969.9082
9/4/2013 0:00	17269	333	1.271736	342.9573	26.59947	7.285639	-222.3277	75.53881	253.1323	0	970.4515
9/4/2013 1:00	17270	333	1.033167	349.5598	23.26239	6.577425	-223.4342	77.8984	252.7947	0	970.8925
9/4/2013 2:00	17271	333	0.7745077	350.368	22.03787	5.80943	-222.5871	85.41367	252.708	0	971.2285
9/4/2013 3:00	17272	333	0.5195816	321.4155	22.42899	4.68199	-221.6943	93.08157	252.044	0	971.485
9/4/2013 4:00	17273	333	0.577257	290.5488	14.63828	3.924407	-220.4657	95.35415	251.4058	0	971.9059
9/4/2013 5:00	17274	333	0.9047322	304.6259	14.77502	3.692519	-220.4809	95.64261	250.7648	0	972.4359
9/4/2013 6:00	17275	333	1.070777	289.0506	14.88284	3.627008	-220.6946	97.61453	250.7169	0	973.0146
9/4/2013 7:00	17276	333	1.862033	293.1714	16.69921	4.9973	-221.0914	86.80255	250.9967	0	973.729
9/4/2013 8:00	17277	333	1.818585	292.2272	20.3779	7.588594	-221.7095	72.04369	251.39	0	973.8077
9/4/2013 9:00	17278	333	2.455565	299.5202	22.16246	10.00484	-222.6329	63.43106	253.491	0	973.9624
9/4/2013 10:00	17279	333	3.074463	300.8853	20.33011	10.83051	-223.4419	55.86389	253.4048	0	974.1398
9/4/2013 11:00	17280	333	2.776693	299.7771	22.12766	11.596	-223.3732	54.45517	254.0764	0	974.0795
9/4/2013 12:00	17281	333	2.703512	298.2917	23.63793	13.00066	-227.3872	49.23385	255.2773	0	974.2101
9/4/2013 13:00	17282	333	3.501839	300.9465	20.28605	14.04556	-227.3338	48.15785	256.6105	0	974.0486
9/4/2013 14:00	17283	333	3.250362	299.4412	22.702	14.50222	-223.1748	45.41669	255.841	0	973.9041
9/4/2013 15:00	17284	333	3.001299	305.0273	22.61206	15.31268	-225.5633	48.7485	256.1942	0	973.7288
9/4/2013 16:00	17285	333	3.170605	301.3914	21.29865	15.46552	-225.4641	45.03819	255.9612	0	973.649
9/4/2013 17:00	17286	333	2.944345	303.8623	19.95438	15.45849	-224.9223	46.35229	254.6151	0	973.6464
9/4/2013 18:00	17287	333	2.383718	303.9485	20.22671	14.61898	-223.4342	55.4686	253.8658	0	973.4595
9/4/2013 19:00	17288	333	1.36755	302.2533	20.09661	11.68508	-222.6864	73.97746	253.0924	0	973.4257
9/4/2013 20:00	17289	333	0.2683655	308.7708	9.587791	9.676624	-223.1061	72.48479	252.6171	0	973.5557
9/4/2013 21:00	17290	333	0.1547543	153.597	1.467201	8.72828	-222.6329	83.0266	252.5186	0	973.6797
9/4/2013 22:00	17291	333	0.5237184	213.5273	27.07811	8.323186	-222.1598	83.87063	252.3066	0	973.7244
9/4/2013 23:00	17292	333	0.5539251	171.3362	27.93302	7.932725	-221.2975	94.30867	251.8271	0	973.7953
9/5/2013 0:00	17293	333	0.3381556	161.042	8.109429	8.010514	-221.8317	89.02783	251.4639	0	973.6343
9/5/2013 1:00	17294	333	0.4666326	170.1856	23.1365	7.30478	-220.8549	88.02509	251.3651	0	973.694
9/5/2013 2:00	17295	333	0.5552111	187.1426	31.71117	7.200062	-221.5493	85.25188	251.4169	0	973.7969

9/5/2013 3:00	17296	333	0.4276864	152.0965	21.66425	7.126228	-221.5188	88.0724	251.4099	0	973.7569
9/5/2013 4:00	17297	333	0.3992845	155.3208	27.0606	6.927947	-221.1601	83.65847	251.3054	0	973.7618
9/5/2013 5:00	17298	333	0.5132055	170.5429	43.3835	7.672088	-220.9388	83.95152	251.2824	0	973.3316
9/5/2013 6:00	17299	333	0.6548529	210.7066	37.91728	8.331227	-221.4959	83.41276	251.1723	0	973.7463
9/5/2013 7:00	17300	333	0.8191726	188.4327	45.7934	9.378921	-221.618	73.88589	251.8218	0	973.5107
9/5/2013 8:00	17301	333	1.356979	215.209	42.195	12.38459	-223.0298	62.01469	252.5161	0	973.12
9/5/2013 9:00	17302	333	1.481253	214.5437	48.26189	15.06251	-225.0597	54.4399	254.1438	0	972.8085
9/5/2013 10:00	17303	333	2.122261	236.9711	41.68142	17.65449	-223.8845	49.98324	258.7942	0	972.3032
9/5/2013 11:00	17304	333	2.02763	232.407	44.53659	19.52971	-230.3481	46.6087	259.7823	0	971.8594
9/5/2013 12:00	17305	333	2.059125	229.0644	46.11149	20.88462	-235.7053	47.94264	263.3559	0	971.256
9/5/2013 13:00	17306	333	2.11143	222.0889	45.91501	22.09256	-215.1848	46.95211	260.1647	0	970.461
9/5/2013 14:00	17307	333	2.315831	218.0435	44.68889	23.15998	-237.8878	46.3004	261.2369	0	969.5961
9/5/2013 15:00	17308	333	2.438445	222.5607	43.64949	23.73375	-226.212	40.40448	262.3664	1.27	968.7418
9/5/2013 16:00	17309	333	2.070532	223.9933	45.08524	23.83747	-226.9522	43.22652	261.9446	0	967.9282
9/5/2013 17:00	17310	333	1.854611	226.4544	42.84494	23.23597	-226.0136	47.9579	259.6225	0	967.1417
9/5/2013 18:00	17311	333	1.384158	218.2604	38.77885	20.92841	-225.8076	55.13587	258.647	0	966.6506
9/5/2013 19:00	17312	333	1.308908	204.6431	41.05223	20.03391	-223.8692	56.55681	257.2365	0	966.1472
9/5/2013 20:00	17313	333	0.948965	204.6637	42.11137	18.51535	-224.5408	58.02812	254.5509	0	965.8911
9/5/2013 21:00	17314	333	0.9834259	197.8849	46.57808	17.9172	-224.2813	60.80132	254.9093	0	965.7093
9/5/2013 22:00	17315	333	1.154952	211.4512	43.76053	18.07407	-224.1287	64.19571	255.5691	0	965.3674
9/5/2013 23:00	17316	333	1.441883	228.9214	37.95749	18.45647	-231.035	62.89992	255.9422	0	965.1943
9/6/2013 0:00	17317	333	1.498489	231.2778	42.41052	18.48549	-223.5334	64.81537	255.6885	0	964.963
9/6/2013 1:00	17318	333	1.445529	221.8669	39.07253	18.48286	-224.1668	65.15725	255.5899	0	964.5365
9/6/2013 2:00	17319	333	1.559654	246.8239	38.03329	18.69862	-225.0063	67.28942	256.1584	0	964.5216
9/6/2013 3:00	17320	333	1.45482	251.0414	33.18893	18.34107	-224.4797	83.2235	255.5363	0	964.4984
9/6/2013 4:00	17321	333	1.386964	226.8221	43.04955	16.53808	-230.2184	92.52142	255.8064	0	964.1779
9/6/2013 5:00	17322	333	1.218422	245.6776	39.13193	16.12106	-231.1723	93.73937	258.6035	0	963.4277
9/6/2013 6:00	17323	333	0.8048664	237.3558	44.26303	15.61849	-228.448	96.40726	260.732	0	963.5692
9/6/2013 7:00	17324	333	0.7270119	177.9397	39.85967	15.4091	-226.3952	93.21435	257.9475	0	963.5668
9/6/2013 8:00	17325	333	1.462621	214.3643	37.64984	18.01227	-224.2584	84.2293	254.12	0	963.4509
9/6/2013 9:00	17326	333	1.49611	241.1463	39.72187	21.01956	-224.1668	76.92159	256.371	0	963.2818
9/6/2013 10:00	17327	333	1.990919	277.1129	29.04004	22.98713	-233.5533	73.17312	255.0045	0	963.457
9/6/2013 11:00	17328	333	1.762056	252.55	37.15473	24.65564	-219.8704	66.27446	259.5528	0	963.4328
9/6/2013 12:00	17329	333	1.633426	257.8541	35.01249	26.67421	-219.5804	57.32299	260.106	0.254	963.0016
9/6/2013 13:00	17330	333	1.812717	244.5235	36.35609	27.99921	-229.5545	52.51682	263.3502	0.254	962.3835
9/6/2013 14:00	17331	333	1.845017	278.9872	29.9924	28.48316	-245.1223	43.02506	262.0035	0	962.1132
9/6/2013 15:00	17332	333	1.73943	266.2889	30.39596	28.5987	-230.1345	48.67982	262.1	0	961.9412
9/6/2013 16:00	17333	333	2.449821	288.0011	24.85757	28.4695	-233.6219	43.69203	261.7427	0	961.8672
9/6/2013 17:00	17334	333	2.502702	302.6194	17.0085	27.05218	-228.0664	56.70486	261.456	0	961.8344
9/6/2013 18:00	17335	333	2.960954	303.3889	15.67619	25.02117	-232.0881	55.93258	259.0276	0	961.975
9/6/2013 19:00	17336	333	2.284457	298.8562	14.08567	22.61315	-223.625	64.84283	255.4663	0	962.2992
9/6/2013 20:00	17337	333	1.693419	306.8842	12.00074	20.12195	-227.7611	72.73967	253.91	0	963.1202
9/6/2013 21:00	17338	333	1.718284	329.1419	23.36101	20.39215	-224.495	58.98966	254.6197	0	964.0456
9/6/2013 22:00	17339	333	0.9834599	323.915	19.55814	18.75215	-226.4791	72.90298	254.0436	0	964.5309
9/6/2013 23:00	17340	333	1.355225	322.5565	19.79328	17.24879	-223.7853	66.52782	254.1674	0	965.1959
9/7/2013 0:00	17341	333	1.391643	336.2056	24.24086	17.13201	-227.9443	72.52905	253.8293	0	966.0486

9/7/2013 1:00	17342	333	1.36401	343.549	24.79307	16.08023	-222.2972	78.64779	253.6898	0	966.8369
9/7/2013 2:00	17343	333	1.126845	352.2432	23.95172	15.22859	-222.1445	84.18198	253.4282	0	967.6895
9/7/2013 3:00	17344	333	0.9751607	356.476	21.17214	14.23553	-222.9687	89.17283	252.5228	0	968.2369
9/7/2013 4:00	17345	333	0.661029	4.263221	20.77397	13.50802	-221.3509	93.96374	252.2784	0	968.6275
9/7/2013 5:00	17346	333	0.6028848	328.1885	10.37018	12.5403	-226.1433	97.05287	251.7985	0	969.3728
9/7/2013 6:00	17347	333	1.11884	319.3598	11.05718	12.08463	-232.5231	98.17619	256.1639	0	969.9351
9/7/2013 7:00	17348	333	0.7455277	327.8782	21.35891	12.5543	-230.8137	95.6304	261.495	0	970.7328
9/7/2013 8:00	17349	333	1.519798	338.3015	28.26892	13.91174	-222.6177	88.29676	260.4546	0	971.5612
9/7/2013 9:00	17350	333	1.901912	349.9812	29.52669	12.46006	-222.2895	93.2235	252.79	0	972.4353
9/7/2013 10:00	17351	333	1.217968	1.576453	37.85065	12.8575	-224.0066	83.77142	253.1455	0	973.006
9/7/2013 11:00	17352	333	1.527598	351.5488	35.09483	15.37047	-234.263	69.50401	256.9478	0	973.448
9/7/2013 12:00	17353	333	1.524548	338.0188	35.12843	17.7545	-241.1845	55.03819	261.4604	0	973.4525
9/7/2013 13:00	17354	333	2.191962	328.2869	30.95469	18.81233	-236.7126	52.19478	261.211	0	973.5632
9/7/2013 14:00	17355	333	1.846014	342.0569	36.40261	19.18096	-225.5099	48.8294	258.0406	0	973.5905
9/7/2013 15:00	17356	333	2.084585	323.3265	29.43875	19.46721	-230.0582	43.93165	258.6006	0	973.52
9/7/2013 16:00	17357	333	1.836633	335.0879	33.70811	19.40981	-224.4797	46.7659	259.0933	0	973.649
9/7/2013 17:00	17358	333	1.77395	343.8088	31.94171	18.84651	-231.1952	49.8764	257.7313	0	973.6494
9/7/2013 18:00	17359	333	1.490932	357.591	32.51879	17.07091	-224.8537	59.31322	257.1118	0	973.8094
9/7/2013 19:00	17360	333	1.16338	4.941233	28.26888	14.67226	-223.3274	63.85993	255.0226	0	974.231
9/7/2013 20:00	17361	333	0.7557331	2.399075	24.47486	12.81691	-224.8155	70.89901	252.9907	0	974.8096
9/7/2013 21:00	17362	333	1.121882	40.55615	37.15226	11.95862	-222.1369	71.59498	253.2573	0	975.2354
9/7/2013 22:00	17363	333	1.213368	82.47566	29.82852	10.60866	-222.6711	74.34376	253.0642	0	975.2473
9/7/2013 23:00	17364	333	0.8805442	103.6032	24.16512	8.918882	-222.4651	85.76929	252.1389	0	975.1867
9/8/2013 0:00	17365	333	0.7861285	130.0609	17.16723	7.431777	-221.7782	96.21496	252.1898	0	974.9379
9/8/2013 1:00	17366	333	0.6901588	141.129	11.24415	6.982934	-221.1601	97.07272	252.0382	0	975.0217
9/8/2013 2:00	17367	333	0.6925426	133.1126	14.46127	6.807515	-221.1525	96.68504	251.4049	0	974.895
9/8/2013 3:00	17368	333	0.5822078	133.0292	14.77483	6.481884	-221.6714	97.63284	251.2385	0	974.4757
9/8/2013 4:00	17369	333	0.2549233	123.6116	11.97525	5.789833	-220.9083	99.09805	251.302	0	974.2194
9/8/2013 5:00	17370	333	0.58419	140.9642	12.54865	5.584895	-221.8546	98.96069	251.2972	0	974.0703
9/8/2013 6:00	17371	333	0.8862012	144.5361	12.77262	6.247178	-222.5948	97.80989	252.2959	0	973.4644
9/8/2013 7:00	17372	333	0.78675	151.6402	19.08126	6.52777	-230.3176	96.39964	256.883	0	973.1147
9/8/2013 8:00	17373	333	0.9540531	160.9296	31.1937	9.818634	-223.3732	82.60689	259.2402	0	972.1589
9/8/2013 9:00	17374	333	1.010001	200.1885	41.21326	12.56079	-232.6681	67.96708	256.8932	0	971.9996
9/8/2013 10:00	17375	333	0.9330438	197.3534	48.4559	15.99846	-225.5328	57.67556	257.293	0	971.3972
9/8/2013 11:00	17376	333	1.000003	241.358	55.27346	17.71748	-232.2636	52.24973	258.2368	0	970.4717
9/8/2013 12:00	17377	333	1.333505	241.5291	47.92808	19.05043	-231.7752	47.47256	258.4335	0	969.686
9/8/2013 13:00	17378	333	1.924536	258.8336	40.34032	19.88231	-227.0896	45.99209	259.5088	0	968.7343
9/8/2013 14:00	17379	333	1.60706	245.933	42.79478	20.17147	-224.7392	51.01804	260.1863	0	967.8217
9/8/2013 15:00	17380	333	1.779686	265.7806	32.42248	19.5467	-232.4544	54.65205	260.844	0	966.9829
9/8/2013 16:00	17381	333	1.870072	260.92	32.67551	19.02976	-231.7447	56.85291	261.6255	0	966.1404
9/8/2013 17:00	17382	333	1.518016	251.265	30.20168	19.02807	-230.9052	63.97134	260.5923	0	965.6909
9/8/2013 18:00	17383	333	0.8058231	242.9809	20.25263	18.06222	-232.1033	72.38406	259.9434	0	965.1085
9/8/2013 19:00	17384	333	0.4472892	224.2298	23.31195	16.15914	-224.121	74.3636	259.5867	0	964.6006
9/8/2013 20:00	17385	333	0.1410022	199.0206	18.08686	15.01159	-224.1592	78.60963	254.0799	0	964.2296
9/8/2013 21:00	17386	333	0.5623083	211.3028	31.05022	15.00086	-230.4245	79.45824	255.7586	0	963.9569
9/8/2013 22:00	17387	333	0.6221784	191.894	33.35844	15.10028	-223.8463	81.74456	255.2913	0	963.4003

9/8/2013 23:00	17388	333	0.653717	204.0728	36.63057	15.05843	-224.1974	80.31446	257.8126	0	963.3124
9/9/2013 0:00	17389	333	0.4975842	200.5573	31.17893	14.9432	-231.5157	81.52783	259.0323	0	963.0527
9/9/2013 1:00	17390	333	0.6528347	209.5438	29.89555	14.89345	-223.2663	83.23571	260.1555	0	962.7083
9/9/2013 2:00	17391	333	0.3411422	183.8253	27.14275	14.10711	-223.2892	89.84896	253.9761	0	962.1343
9/9/2013 3:00	17392	333	0.6530889	207.312	23.47817	13.56255	-230.0658	89.15757	254.3092	0	962.0089
9/9/2013 4:00	17393	333	0.3358862	204.3082	24.19449	13.82277	-224.0981	91.60262	253.802	0	961.804
9/9/2013 5:00	17394	333	0.2574299	209.7181	22.55388	13.10505	-222.5871	95.92344	252.9323	0	960.9749
9/9/2013 6:00	17395	333	0.7154841	199.819	27.76888	13.18662	-222.6329	91.7583	252.7726	0	961.3984
9/9/2013 7:00	17396	333	0.5185359	213.1238	34.23212	14.04881	-231.0655	91.00738	256.7877	0	961.8041
9/9/2013 8:00	17397	333	0.1395564	150.4638	55.80981	15.43439	-230.4702	83.20823	261.3479	0	961.4807
9/9/2013 9:00	17398	333	0.6931975	304.7207	29.7205	17.09337	-224.7468	76.96434	255.0132	0	961.0529
9/9/2013 10:00	17399	333	0.2736784	356.3119	35.1049	17.83456	-232.4925	67.34283	255.5015	0	960.6794
9/9/2013 11:00	17400	333	0.648895	330.8244	59.14291	20.61366	-233.3854	65.17556	260.9786	0	960.4534
9/9/2013 12:00	17401	333	1.044385	314.4022	15.86562	21.45326	-235.6519	59.60321	258.3985	0	960.0754
9/9/2013 13:00	17402	333	0.5924789	320.9438	80.9067	22.25557	-225.7312	58.40052	258.5536	0	959.7977
9/9/2013 14:00	17403	333	0.4813361	248.3527	50.16459	22.23818	-226.6699	56.34619	257.0755	0	959.6226
9/9/2013 15:00	17404	333	0.4830729	231.1462	27.52775	21.75361	-226.273	65.13741	256.5934	0	959.5541
9/9/2013 16:00	17405	333	0.2887745	239.2236	19.22447	20.49751	-224.8994	73.46006	255.9506	0	959.434
9/9/2013 17:00	17406	333	0.2967616	241.601	49.75721	18.61223	-223.831	82.30774	254.5823	0	959.5552
9/9/2013 18:00	17407	333	0.3276337	215.5631	22.41868	17.93729	-223.2816	84.71618	253.8126	0	959.8636
9/9/2013 19:00	17408	333	0.4368602	239.9284	19.36974	17.21793	-223.4647	83.88131	253.532	0	959.9055
9/9/2013 20:00	17409	333	0.7436544	264.11	20.99697	16.6998	-223.4266	81.25768	254.0076	0	960.3479
9/9/2013 21:00	17410	333	0.2514513	206.1301	42.43823	16.26678	-230.5313	87.89841	258.0052	0	960.5194
9/9/2013 22:00	17411	333	0.1548951	147.2875	12.75134	15.60287	-231.5386	92.28028	260.9142	0	960.5762
9/9/2013 23:00	17412	333	0.3006179	149.6333	60.12712	15.00793	-231.5386	95.77692	261.4261	0	960.6036
9/10/2013 0:00	17413	333	0.3161453	142.0765	18.58985	14.9175	-230.9968	95.46862	261.329	0	960.6423
9/10/2013 1:00	17414	333	0.1676808	134.7402	23.00508	14.8364	-231.0884	95.36788	260.8813	0	960.7816
9/10/2013 2:00	17415	333	0.3959244	62.3509	44.59825	14.81853	-230.1955	94.91917	260.6079	0	960.9126
9/10/2013 3:00	17416	333	0.6463955	114.0083	22.90263	14.52735	-230.3863	93.93779	260.3888	0	961.0424
9/10/2013 4:00	17417	333	0.7625512	105.3982	26.03608	14.3201	-224.0142	93.39902	258.4088	0	961.288
9/10/2013 5:00	17418	333	0.6926734	115.7955	25.86155	13.79022	-222.1598	95.71587	252.4742	0	961.3504
9/10/2013 6:00	17419	333	0.5132612	108.2881	23.75621	13.7731	-228.5395	95.77081	253.7978	0	961.6643
9/10/2013 7:00	17420	333	0.8011673	118.0582	23.21937	13.8179	-222.7398	96.32333	255.7149	0	962.0833
9/10/2013 8:00	17421	333	0.9107487	123.5577	25.88752	14.16157	-222.6024	94.34377	252.3441	0	962.0533
9/10/2013 9:00	17422	333	0.4627111	142.3896	35.37465	15.07924	-225.0368	90.58614	253.5634	0	961.9952
9/10/2013 10:00	17423	333	0.3777241	137.8009	21.14214	15.76478	-226.9675	88.55317	255.765	0	962.4817
9/10/2013 11:00	17424	333	0.6988869	131.2596	30.67802	17.49909	-224.3347	82.08339	256.5879	0	962.2664
9/10/2013 12:00	17425	333	0.6786776	143.4921	30.1066	18.0119	-231.8134	81.247	256.3295	0	962.1311
9/10/2013 13:00	17426	333	0.6438631	147.7759	28.1582	18.75759	-232.5841	76.52782	262.7921	0	962.1992
9/10/2013 14:00	17427	333	0.6180006	162.7495	37.3634	19.29597	-231.4471	77.74273	261.7826	0	962.1657
9/10/2013 15:00	17428	333	0.8669328	152.1448	37.22312	19.77105	-224.5331	68.01745	257.7252	0	961.9507
9/10/2013 16:00	17429	333	0.9730422	169.6604	42.24511	19.75076	-224.991	74.05988	255.6945	0	961.8432
9/10/2013 17:00	17430	333	0.992784	201.4722	45.16921	19.06028	-228.219	68.76378	256.3183	0	961.6696
9/10/2013 18:00	17431	333	0.8337023	184.8548	45.7006	18.81672	-227.868	77.91519	260.0926	0	961.3732
9/10/2013 19:00	17432	333	0.5777671	166.8043	37.43479	16.18061	-223.0679	89.28271	254.5524	0	961.5561
9/10/2013 20:00	17433	333	0.4677063	157.7772	32.50123	14.82419	-230.165	85.89596	255.768	0	962.0228

9/10/2013 21:00	17434	333	0.7615368	180.6277	45.50688	15.44023	-222.4803	85.08401	253.2422	0	962.1062
9/10/2013 22:00	17435	333	0.7234258	163.3975	36.76553	15.00276	-221.9843	94.24456	254.488	0	961.1046
9/10/2013 23:00	17436	333	0.7726969	192.1383	40.55001	14.63549	-222.4956	95.88224	253.3158	0	961.0892
9/11/2013 0:00	17437	333	0.6163692	178.8224	40.59661	14.54896	-223.0984	97.45428	252.3252	0	960.8548
9/11/2013 1:00	17438	333	1.406554	251.0607	29.73986	14.58006	-222.3658	96.11728	252.5986	0	960.9195
9/11/2013 2:00	17439	333	1.452596	262.4865	31.3512	14.47369	-221.9461	95.86239	253.356	0	961.0723
9/11/2013 3:00	17440	333	2.000277	269.615	27.28377	14.7138	-221.7935	97.02845	252.303	0	961.1768
9/11/2013 4:00	17441	333	2.060605	287.6413	21.56684	14.64111	-222.8542	96.45458	252.4859	0	961.4142
9/11/2013 5:00	17442	333	2.862317	295.1938	17.39507	13.98224	-223.19	92.30928	252.5387	0	961.8654
9/11/2013 6:00	17443	333	4.232639	301.7041	16.761	12.35833	-223.7242	95.38315	257.6592	0	962.5916
9/11/2013 7:00	17444	333	4.191237	303.5366	17.31417	12.03055	-222.2743	90.08096	258.6691	0	963.4764
9/11/2013 8:00	17445	333	3.421072	303.0325	18.81142	11.9378	-222.053	89.34377	251.8256	0	964.1863
9/11/2013 9:00	17446	333	4.14801	304.4558	18.05832	11.89825	-224.9452	86.42252	252.8282	0	964.6916
9/11/2013 10:00	17447	333	3.144892	314.0952	21.66118	12.14166	-231.5463	81.05011	255.4299	0	965.4982
9/11/2013 11:00	17448	333	2.756387	315.4605	22.27099	13.04452	-224.7697	77.86024	257.3823	0	966.0299
9/11/2013 12:00	17449	333	3.023038	314.9221	22.4351	13.29129	-222.7627	71.81934	257.2856	0	966.5078
9/11/2013 13:00	17450	333	2.874153	310.1154	21.51925	14.27805	-226.9751	71.5034	257.0198	0	966.7298
9/11/2013 14:00	17451	333	3.615731	306.6356	18.7687	14.56048	-226.4715	69.38344	257.9663	0	967.1084
9/11/2013 15:00	17452	333	2.504689	322.2961	25.50074	14.59292	-230.2337	67.95792	257.8831	0	967.588
9/11/2013 16:00	17453	333	2.956014	316.7867	23.72137	15.05105	-231.882	66.1371	257.7505	0	967.99
9/11/2013 17:00	17454	333	2.456652	323.3662	26.18636	14.73459	-224.411	70.01073	256.5998	0	968.354
9/11/2013 18:00	17455	333	2.538119	326.3396	26.44017	13.09242	-223.4953	68.15939	254.1855	0	968.9144
9/11/2013 19:00	17456	333	2.519961	334.164	28.33029	11.61135	-224.6323	71.72318	254.4159	0	969.7067
9/11/2013 20:00	17457	333	2.38935	338.1505	29.8155	10.40454	-223.274	75.78912	253.4635	0	970.5183
9/11/2013 21:00	17458	333	2.335224	336.7054	29.21315	9.264807	-223.6479	74.45517	252.8342	0	971.0735
9/11/2013 22:00	17459	333	2.136859	340.1566	30.2736	8.601034	-222.8619	79.20945	252.7044	0	971.3389
9/11/2013 23:00	17460	333	2.166622	330.5846	26.68276	7.435619	-221.0533	86.64382	252.1021	0	971.7467
9/12/2013 0:00	17461	333	2.026431	333.0582	28.84403	6.920217	-225.6091	88.62795	253.8102	0	971.9071
9/12/2013 1:00	17462	333	1.889202	324.6837	25.16376	6.519258	-228.4785	91.61025	256.3433	0	972.0132
9/12/2013 2:00	17463	333	1.909982	330.6476	29.64801	6.328807	-230.1574	93.69054	259.1897	0	972.1511
9/12/2013 3:00	17464	333	1.734919	340.076	27.86929	5.859213	-225.9296	91.94908	256.3452	0	972.6387
9/12/2013 4:00	17465	333	1.876742	343.9567	31.33025	5.98201	-221.1677	89.68259	254.6554	0	972.9868
9/12/2013 5:00	17466	333	1.363569	339.6762	32.94629	6.042185	-225.2581	92.20245	253.9857	0	973.4646
9/12/2013 6:00	17467	333	1.504856	345.836	28.96408	5.698554	-220.5725	95.34499	256.434	0	973.898
9/12/2013 7:00	17468	333	1.354349	352.2	31.61739	5.613836	-221.4883	94.00646	251.2621	0	974.4987
9/12/2013 8:00	17469	333	1.43463	349.7251	34.17564	6.026257	-221.6485	84.94511	251.5123	0	974.939
9/12/2013 9:00	17470	333	1.458221	340.0288	32.264	6.927557	-226.9828	80.6426	257.2843	0	975.423
9/12/2013 10:00	17471	333	1.427227	336.7816	35.03659	8.320353	-222.4498	73.32423	254.3974	0	975.8187
9/12/2013 11:00	17472	333	1.637887	304.6461	27.65287	9.918111	-224.4644	62.72288	255.323	0	975.7714
9/12/2013 12:00	17473	333	1.862656	306.1558	29.73278	11.55204	-233.5685	63.32421	257.2357	0	975.7202
9/12/2013 13:00	17474	333	1.345191	309.1939	37.10107	12.90414	-231.4394	58.40663	257.2145	0	975.4886
9/12/2013 14:00	17475	333	1.744096	303.4834	24.31505	13.58575	-227.9977	59.39869	258.3296	0	975.347
9/12/2013 15:00	17476	333	2.216552	298.1229	19.80679	13.18218	-228.5243	67.09863	258.7542	0	975.3091
9/12/2013 16:00	17477	333	2.203434	297.0419	19.4509	13.10888	-230.3558	65.67312	259.4765	0	975.1603
9/12/2013 17:00	17478	333	2.726847	300.6332	19.20968	13.88788	-225.0291	69.4277	258.9099	0	975.0212
9/12/2013 18:00	17479	333	1.850891	293.4359	17.74143	12.00252	-222.9306	79.85963	255.0995	0	974.8718

9/12/2013 19:00	17480	333	0.9290695	276.437	21.09399	9.678963	-229.6079	91.43932	253.4751	0	974.825
9/12/2013 20:00	17481	333	0.7189004	281.9949	14.59616	8.787781	-222.984	92.19786	255.302	0	974.8253
9/12/2013 21:00	17482	333	0.6721855	264.9016	13.05957	8.89037	-223.1213	94.26288	253.082	0	974.7329
9/12/2013 22:00	17483	333	0.7805151	249.8254	16.16134	8.203232	-223.6479	96.12949	254.5034	0	974.5138
9/12/2013 23:00	17484	333	0.4231187	209.668	32.26251	7.917611	-230.0429	98.23724	254.8739	0	974.595
9/13/2013 0:00	17485	333	0.2695667	187.942	21.32996	7.520706	-223.1366	98.63406	253.1917	0	974.4205
9/13/2013 1:00	17486	333	0.4069296	154.5662	7.99895	7.318354	-222.9382	99.14994	252.7235	0	974.228
9/13/2013 2:00	17487	333	0.1772549	197.9477	19.01894	6.938262	-222.259	99.0431	252.6264	0	974.2217
9/13/2013 3:00	17488	333	0.1518538	154.2567	16.46735	6.564327	-222.61	99.24151	252.6893	0	973.98
9/13/2013 4:00	17489	333	0.1571105	156.2592	16.95239	6.372907	-223.1976	99.7986	253.574	0	973.7813
9/13/2013 5:00	17490	333	0.2173845	145.9527	13.37263	6.40002	-230.2871	99.35751	258.5937	0	973.4731
9/13/2013 6:00	17491	333	0.1607059	146.0184	6.887959	6.126986	-231.0273	98.77143	260.8446	0	973.2959
9/13/2013 7:00	17492	333	0.6975172	146.4837	16.40134	6.957886	-232.4544	99.54066	261.4928	0	972.8806
9/13/2013 8:00	17493	333	0.791997	164.417	33.75864	9.928853	-232.897	87.16122	262.9032	0	972.4171
9/13/2013 9:00	17494	333	0.8807406	188.6794	44.87157	13.33064	-230.5008	78.84468	261.8983	0	971.906
9/13/2013 10:00	17495	333	1.624498	232.2722	44.3606	15.67031	-215.7267	66.35535	258.8223	0	971.2645
9/13/2013 11:00	17496	333	2.000936	220.3687	44.36201	17.55519	-231.0731	59.08734	258.061	0	970.309
9/13/2013 12:00	17497	333	1.984012	225.5067	47.60497	19.34648	-225.9449	53.80651	257.0817	0	969.2766
9/13/2013 13:00	17498	333	1.986922	225.133	52.68071	19.99689	-221.4959	50.77232	257.0559	0	968.425
9/13/2013 14:00	17499	333	1.801688	224.8859	57.27353	21.04204	-234.1332	50.09619	259.7494	0	967.5244
9/13/2013 15:00	17500	333	2.291423	215.9785	46.74527	21.21446	-228.9364	49.47805	260.6009	0	966.7856
9/13/2013 16:00	17501	333	2.039758	216.8284	49.17819	21.02685	-224.1668	53.63709	258.978	0.254	965.9642
9/13/2013 17:00	17502	333	1.978221	216.4055	49.95375	20.31537	-224.0295	55.26408	257.2514	0	965.2379
9/13/2013 18:00	17503	333	1.702482	204.6211	46.20977	18.47577	-231.3173	62.4512	255.5688	0	964.4475
9/13/2013 19:00	17504	333	1.026107	174.9107	42.99677	16.25364	-223.0756	73.97593	255.9761	0	963.5893
9/13/2013 20:00	17505	333	1.068932	171.5715	44.9497	14.80469	-223.2053	70.14657	256.9027	0	963.2203
9/13/2013 21:00	17506	333	1.108636	172.2161	44.05161	14.37981	-229.7148	74.46586	255.2633	0	962.7386
9/13/2013 22:00	17507	333	1.281985	182.7319	50.08502	14.39367	-226.6088	74.04919	255.446	0	962.0039
9/13/2013 23:00	17508	333	1.159909	176.0871	47.95096	14.0749	-222.1445	77.56568	254.7255	0	961.2427
9/14/2013 0:00	17509	333	1.407185	184.9632	48.63234	14.39393	-223.4953	76.6423	255.2902	0	960.4597
9/14/2013 1:00	17510	333	1.57139	190.8908	49.0718	14.7121	-223.6784	78.07697	255.1514	0	960.0422
9/14/2013 2:00	17511	333	1.19941	189.4662	53.21902	14.57584	-226.8454	78.44175	254.8269	0	959.4385
9/14/2013 3:00	17512	333	1.362354	195.6219	52.34985	14.59906	-224.7468	77.9274	255.1079	0	958.7369
9/14/2013 4:00	17513	333	1.497635	200.9156	44.72677	14.69189	-222.4574	79.15603	254.3504	0	958.1417
9/14/2013 5:00	17514	333	1.331795	228.4459	41.66493	14.43995	-223.3274	80.60445	254.119	0	958.0222
9/14/2013 6:00	17515	333	1.495158	240.5591	45.00428	14.44664	-223.0603	78.84773	253.9063	0	958.0809
9/14/2013 7:00	17516	333	1.128461	201.4245	47.1638	14.08257	-230.1726	87.54431	255.3686	0	957.8592
9/14/2013 8:00	17517	333	1.247576	231.0481	41.40186	14.45901	-227.6238	83.11361	256.695	0	958.3834
9/14/2013 9:00	17518	333	1.798166	275.7465	32.62303	15.64661	-227.1125	83.67832	257.1135	0	958.8574
9/14/2013 10:00	17519	333	3.171853	302.9048	19.225	16.01771	-229.6537	79.97869	258.0923	0	958.9766
9/14/2013 11:00	17520	333	2.881637	313.7078	21.66969	17.54312	-241.0319	59.85963	259.0222	0	959.5045
9/14/2013 12:00	17521	333	2.598086	321.2113	25.91224	18.71702	-244.962	56.92617	257.0088	0	960.1867
9/14/2013 13:00	17522	333	3.070562	324.2007	27.8669	19.02213	-231.4471	57.42373	256.6298	0	960.7805
9/14/2013 14:00	17523	333	3.33248	332.3635	28.70218	17.97873	-228.2801	60.78453	257.2159	0	961.7406
9/14/2013 15:00	17524	333	3.064927	330.1977	28.6398	16.70204	-227.3719	59.83215	260.1836	0	962.8993
9/14/2013 16:00	17525	333	3.185608	334.5333	31.40975	14.81999	-226.3646	62.83887	258.6027	0	964.0472

9/14/2013 17:00	17526	333	2.852972	335.3205	29.47483	13.27368	-223.0908	59.77568	256.6963	0	965.3783
9/14/2013 18:00	17527	333	2.763991	335.1963	28.71666	11.93586	-231.1265	63.26011	253.8217	0	966.5665
9/14/2013 19:00	17528	333	2.376201	347.6042	30.47935	10.26373	-223.19	68.689	254.0735	0	967.5356
9/14/2013 20:00	17529	333	2.002998	1.823258	37.61723	8.792135	-222.0682	69.10871	253.6102	0	968.4097
9/14/2013 21:00	17530	333	2.180986	1.355301	39.62582	8.314665	-222.0682	65.58917	253.3197	0	969.1865
9/14/2013 22:00	17531	333	2.926432	353.9371	33.92383	7.829738	-221.6714	64.58948	252.5174	0	970.0866
9/14/2013 23:00	17532	333	2.126694	359.5073	40.74727	7.0728	-221.2898	68.12276	252.5299	0	970.8613
9/15/2013 0:00	17533	333	2.453462	350.5921	33.22773	6.558584	-222.0224	66.38283	251.9661	0	971.4963
9/15/2013 1:00	17534	333	1.757962	2.561169	36.4693	6.195535	-222.0224	67.18258	251.5871	0	972.0582
9/15/2013 2:00	17535	333	1.706794	358.5239	33.17463	5.587035	-221.7172	74.56506	251.6755	0	972.6194
9/15/2013 3:00	17536	333	1.287479	11.85552	36.54645	4.202031	-222.1903	77.82972	251.482	0	973.268
9/15/2013 4:00	17537	333	1.274957	9.836137	33.29589	3.408449	-220.9007	77.83888	251.1844	0	973.9009
9/15/2013 5:00	17538	333	1.16771	356.1233	30.32778	2.807172	-222.3048	89.97259	250.9416	0	974.5861
9/15/2013 6:00	17539	333	1.361854	347.3321	29.93907	2.15366	-220.5725	87.40543	251.3955	0	975.3251
9/15/2013 7:00	17540	333	1.231373	349.0445	29.75117	1.720054	-222.0988	84.55133	251.6244	0	975.947
9/15/2013 8:00	17541	333	1.508272	349.1071	33.13388	2.591848	-221.3356	72.20547	251.9352	0	976.5474
9/15/2013 9:00	17542	333	1.473789	349.4922	35.98346	4.431303	-222.3353	59.36665	252.3701	0	977.325
9/15/2013 10:00	17543	333	1.676672	335.8199	33.91763	5.856316	-223.3808	51.05467	252.3858	0	977.8106
9/15/2013 11:00	17544	333	1.378457	334.1627	40.17095	7.21687	-209.9116	44.1728	252.7759	0	977.9128
9/15/2013 12:00	17545	333	1.505268	315.4531	38.59966	8.93688	-232.111	42.65876	252.8921	0	977.9083
9/15/2013 13:00	17546	333	1.512409	329.5601	38.59724	10.18345	-223.8539	35.70362	252.3075	0	977.8229
9/15/2013 14:00	17547	333	1.379386	324.7216	40.43083	11.40741	-223.0984	34.90387	253.0545	0	977.6203
9/15/2013 15:00	17548	333	2.020424	309.8387	27.62408	12.41885	-222.2743	38.08916	253.2115	0	977.6133
9/15/2013 16:00	17549	333	2.455314	303.5522	19.77466	12.36395	-223.2053	42.85412	253.0334	0	977.5853
9/15/2013 17:00	17550	333	2.463	305.6467	22.52075	11.85448	-222.8237	38.83091	253.1077	0	977.4195
9/15/2013 18:00	17551	333	2.377935	301.4796	19.56009	9.835807	-222.7245	53.72714	252.4577	0	977.3699
9/15/2013 19:00	17552	333	1.08982	306.4512	21.68174	7.443779	-222.1827	70.25035	252.4475	0	977.5366
9/15/2013 20:00	17553	333	0.4087454	307.317	9.934964	5.210268	-223.0145	73.29675	253.0937	0	977.689
9/15/2013 21:00	17554	333	0.6201721	283.1063	9.565889	5.029317	-222.0224	70.50677	252.2734	0	977.7204
9/15/2013 22:00	17555	333	0.3098846	293.0511	15.10089	4.769001	-221.9156	79.06141	251.7135	0	977.8832
9/15/2013 23:00	17556	333	0.3455617	156.5293	7.609442	3.922734	-221.2364	95.67314	251.6559	0	978.0962
9/16/2013 0:00	17557	333	0.2497529	161.6173	7.297192	4.302655	-221.0075	96.97808	251.4889	0	978.1136
9/16/2013 1:00	17558	333	0.412387	157.1173	3.961427	3.835799	-221.183	97.53974	251.4145	0	978.0578
9/16/2013 2:00	17559	333	0.2719053	156.6847	4.48672	3.936363	-231.2029	95.29921	252.723	0	978.1962
9/16/2013 3:00	17560	333	0.2560026	147.8104	4.890448	2.953786	-231.6989	97.5657	262.0499	0	978.3873
9/16/2013 4:00	17561	333	0.246899	151.8829	7.872346	2.303231	-230.6076	97.02845	260.9798	0	978.6052
9/16/2013 5:00	17562	333	0.4338404	150.2235	7.969963	2.126774	-232.5459	98.17162	261.8885	0	978.7635
9/16/2013 6:00	17563	333	0.41671	148.8363	7.637448	2.020785	-232.4239	97.95794	262.168	0	978.866
9/16/2013 7:00	17564	333	0.4929736	152.1851	15.40189	2.466977	-232.1644	96.17374	262.2481	0	978.8927
9/16/2013 8:00	17565	333	0.7857174	212.8022	39.19518	5.847383	-223.0756	72.77935	261.4637	0	978.5277
9/16/2013 9:00	17566	333	1.328632	234.8959	39.21176	9.71166	-224.3347	58.47531	256.334	0	978.5515
9/16/2013 10:00	17567	333	1.389636	220.9321	45.18224	12.67199	-213.9791	50.23355	256.3889	0	978.3268
9/16/2013 11:00	17568	333	1.820799	219.7268	44.69568	14.00704	-231.9583	45.04734	253.8941	0	977.8285
9/16/2013 12:00	17569	333	1.826209	243.9021	45.03161	15.151	-232.0347	46.31108	255.8527	0	977.3268
9/16/2013 13:00	17570	333	1.337979	210.8578	56.38895	16.48986	-209.1256	40.30986	256.0435	0	976.5529
9/16/2013 14:00	17571	333	1.347792	217.6656	58.53622	17.66862	-206.0273	36.48507	253.8448	0	975.5984

9/16/2013 15:00	17572	333	1.606254	216.8351	54.83408	18.2976	-223.1213	35.81351	254.3252	0	974.7302
9/16/2013 16:00	17573	333	1.505409	219.8419	50.49677	18.01096	-224.6094	42.2604	256.264	0	973.8999
9/16/2013 17:00	17574	333	1.516654	200.199	48.09277	17.10013	-232.172	44.5742	259.812	0	973.1437
9/16/2013 18:00	17575	333	0.813456	172.1622	46.78962	14.91497	-232.8207	58.75004	260.6547	0	972.4865
9/16/2013 19:00	17576	333	0.6359953	156.3451	28.3601	11.86092	-222.3353	71.96891	256.3872	0	971.8332
9/16/2013 20:00	17577	333	0.8366795	150.671	18.05988	9.757809	-222.6329	76.97197	254.7236	0	971.3185
9/16/2013 21:00	17578	333	0.9141783	151.7187	27.67173	9.742316	-224.1516	74.48875	253.6384	0	971.0194
9/16/2013 22:00	17579	333	0.6516347	163.4062	30.73346	9.102473	-221.7325	80.26409	253.2034	0	970.6546
9/16/2013 23:00	17580	333	0.7085382	162.939	35.12631	9.005938	-221.5112	81.04248	252.5018	0	970.4122
9/17/2013 0:00	17581	333	0.7597613	160.6821	37.24837	8.850066	-222.2285	85.03822	252.1988	0	970.3199
9/17/2013 1:00	17582	333	0.8487113	159.8953	31.34457	8.612486	-222.5948	86.46678	251.7891	0	970.1009
9/17/2013 2:00	17583	333	0.8079364	156.521	32.25778	8.361873	-222.0377	88.22503	251.8794	0	969.665
9/17/2013 3:00	17584	333	0.9949595	163.0116	35.64642	8.417378	-222.9687	87.44206	252.4456	0	969.3491
9/17/2013 4:00	17585	333	0.6982301	167.7881	51.88952	8.564678	-230.6839	87.46496	252.8332	0	969.0557
9/17/2013 5:00	17586	333	0.8901066	172.6952	42.70329	8.459458	-223.0145	88.39444	252.6222	0	968.6503
9/17/2013 6:00	17587	333	0.8669885	164.6837	42.61868	8.158489	-222.4727	87.84193	252.3392	0	968.1121
9/17/2013 7:00	17588	333	0.8424418	162.1512	40.35682	8.296344	-221.5875	86.3279	251.8369	0	967.5712
9/17/2013 8:00	17589	333	1.361175	171.577	40.67152	10.11953	-222.6177	75.91733	253.8195	0	966.9748
9/17/2013 9:00	17590	333	1.629163	179.9555	46.78732	13.34869	-223.3808	66.6896	254.6601	0	966.5069
9/17/2013 10:00	17591	333	1.822546	198.2738	50.69538	16.01731	-234.5225	61.98875	257.5875	0	966.0073
9/17/2013 11:00	17592	333	1.971871	199.3842	51.54625	17.86597	-239.1623	57.87397	253.9888	0	965.4238
9/17/2013 12:00	17593	333	2.093802	200.8804	52.57523	19.41198	-212.8039	52.85413	256.9214	0	964.6543
9/17/2013 13:00	17594	333	2.085018	184.7	51.25527	20.71538	-226.3036	50.68684	259.3976	0	963.8225
9/17/2013 14:00	17595	333	2.074532	199.4224	51.76	21.57092	-236.6592	47.89228	260.3761	0	963.2005
9/17/2013 15:00	17596	333	2.039097	194.7876	53.35125	21.84004	-231.7141	47.50614	258.6931	0	962.4877
9/17/2013 16:00	17597	333	1.915814	188.0655	49.68942	21.70045	-232.2788	50.04429	261.4086	0	961.9059
9/17/2013 17:00	17598	333	1.628695	200.5936	51.58062	20.32206	-224.7621	58.04338	261.3006	0	961.6699
9/17/2013 18:00	17599	333	1.495081	170.9094	45.66187	18.12028	-232.1262	62.23447	260.2605	0	961.7346
9/17/2013 19:00	17600	333	1.417171	171.0896	44.23974	16.9312	-231.3326	64.38802	261.365	0	961.6541
9/17/2013 20:00	17601	333	1.088971	171.2888	47.79444	16.33575	-231.0273	68.27233	261.1863	0	961.4643
9/17/2013 21:00	17602	333	1.337718	174.8706	47.59158	16.14872	-231.1952	73.7241	261.2515	0	961.1964
9/17/2013 22:00	17603	333	1.435597	194.9422	47.00274	15.99783	-231.0273	77.12917	261.3069	0	961.4401
9/17/2013 23:00	17604	333	1.28974	191.4821	49.81702	15.91621	-231.531	79.0782	260.9065	0	961.3012
9/18/2013 0:00	17605	333	0.9103934	182.7619	46.95953	15.76522	-231.4089	81.48663	261.3066	0	961.0419
9/18/2013 1:00	17606	333	1.040055	182.3954	46.12555	15.59779	-230.951	83.45091	260.8935	0	960.9188
9/18/2013 2:00	17607	333	0.946354	179.5291	46.71628	15.46762	-230.3634	85.2412	260.8096	0	960.6633
9/18/2013 3:00	17608	333	0.8101333	195.6436	47.59288	15.17847	-230.2947	87.96251	260.4296	0	960.4222
9/18/2013 4:00	17609	333	0.9029401	181.928	45.0496	14.94113	-222.404	91.7812	257.3283	0	960.4203
9/18/2013 5:00	17610	333	0.637001	164.4723	34.71776	14.60257	-230.6381	94.02021	256.161	0	960.301
9/18/2013 6:00	17611	333	0.6331049	179.101	42.22825	14.56059	-230.6839	93.59896	260.8916	0	960.5061
9/18/2013 7:00	17612	333	0.5979954	164.0223	35.18428	14.64247	-231.5081	92.8862	260.2694	0	960.2231
9/18/2013 8:00	17613	333	0.8530313	173.9019	42.2907	14.87474	-230.9129	92.89536	260.8568	0	960.3226
9/18/2013 9:00	17614	333	0.8093722	187.7022	46.58392	15.25293	-231.3326	92.12613	260.7544	0	960.3749
9/18/2013 10:00	17615	333	0.8811721	184.9942	43.84386	15.99155	-231.2486	87.70916	259.9543	0	960.5114
9/18/2013 11:00	17616	333	0.906217	184.5329	45.50066	16.80772	-231.7294	80.6945	261.136	0	960.6049
9/18/2013 12:00	17617	333	0.6561593	171.5219	50.5561	18.27617	-231.6073	78.91031	260.8671	0	960.429

9/18/2013 13:00	17618	333	0.7577049	142.7119	35.00429	18.77688	-231.5157	75.37551	260.0052	0	959.992
9/18/2013 14:00	17619	333	0.7907276	149.3583	34.89944	19.55339	-231.4623	73.56232	261.9909	0	959.6514
9/18/2013 15:00	17620	333	0.6158135	145.5569	33.18106	20.32411	-231.5157	67.8755	262.1687	0	959.6004
9/18/2013 16:00	17621	333	0.6640328	137.9504	25.60873	20.73167	-232.8054	70.77996	262.2844	0	959.3865
9/18/2013 17:00	17622	333	0.4803583	137.9684	19.65405	19.89237	-232.6909	81.16305	262.4626	0	959.2363
9/18/2013 18:00	17623	333	0.2279927	137.1771	11.81766	18.39033	-231.9431	85.03363	262.0247	0	959.1697
9/18/2013 19:00	17624	333	0.5435147	138.318	12.88499	16.5944	-231.3631	91.50952	261.3235	0	959.2562
9/18/2013 20:00	17625	333	0.8065296	146.0309	13.14641	15.34088	-231.1723	90.30683	260.84	0	959.465
9/18/2013 21:00	17626	333	1.302845	148.0131	21.58031	16.45998	-231.0426	86.92008	261.0593	0	959.392
9/18/2013 22:00	17627	333	1.159512	146.4546	24.19396	16.04997	-231.9202	86.81934	260.9027	0	958.92
9/18/2013 23:00	17628	333	0.8805439	144.1033	25.14751	16.37435	-231.035	88.93473	260.8869	0	959.0182
9/19/2013 0:00	17629	333	0.9196675	141.2559	26.66732	16.41529	-231.7141	87.91367	261.2012	0	958.6211
9/19/2013 1:00	17630	333	1.012684	145.4982	27.68109	16.5159	-231.2944	89.81996	261.1899	0	958.2228
9/19/2013 2:00	17631	333	0.9463918	145.2042	24.42882	16.29634	-222.4345	94.38039	256.0688	0	957.9814
9/19/2013 3:00	17632	333	0.8850667	136.6393	21.60749	16.03482	-222.2666	96.65452	252.3936	0	957.4216
9/19/2013 4:00	17633	333	0.9115562	137.8793	19.64741	15.88057	-221.7019	97.53364	253.1258	0	956.9285
9/19/2013 5:00	17634	333	1.018016	144.4724	20.37677	16.01006	-221.6867	97.99761	252.2688	0	957.1498
9/19/2013 6:00	17635	333	1.435032	148.2606	20.73057	16.36076	-224.5637	98.32882	252.7891	0	956.9393
9/19/2013 7:00	17636	333	1.319132	148.5594	19.96622	16.65362	-219.5194	97.68169	252.3092	0	956.4283
9/19/2013 8:00	17637	333	0.6219987	151.1574	22.03775	16.98656	-223.3808	96.6591	253.458	0	956.2017
9/19/2013 9:00	17638	333	0.5283087	148.6594	25.99874	17.32035	-223.3274	95.41367	252.8316	0	956.3305
9/19/2013 10:00	17639	333	0.6016971	142.8604	22.36094	17.64141	-222.9153	95.29615	252.867	0	956.2666
9/19/2013 11:00	17640	333	0.7697583	151.3109	28.17384	18.02495	-222.5948	95.68535	252.7162	0	956.2792
9/19/2013 12:00	17641	333	0.7299218	175.5398	42.9246	18.52251	-232.6299	91.36605	256.4985	0	956.5685
9/19/2013 13:00	17642	333	0.5023991	181.1347	39.33838	19.83475	-222.9153	90.30073	253.3026	0	956.1933
9/19/2013 14:00	17643	333	0.4082684	170.7357	36.76014	19.99459	-223.1061	88.75768	252.6421	0	956.4266
9/19/2013 15:00	17644	333	0.8976471	228.691	38.79403	20.65971	-229.524	81.7354	258.5014	0	955.8676
9/19/2013 16:00	17645	333	1.06265	236.0544	42.852	21.24041	-224.6705	80.50524	259.2661	0	955.6656
9/19/2013 17:00	17646	333	1.109022	243.2699	34.21582	20.73758	-232.8436	78.05255	260.9475	0	955.6575
9/19/2013 18:00	17647	333	1.452154	260.0436	30.2511	20.03494	-231.7065	86.62856	262.1706	0	955.8578
9/19/2013 19:00	17648	333	3.076947	294.6748	18.16622	18.43913	-231.6836	84.7589	260.2157	0	956.1641
9/19/2013 20:00	17649	333	3.313971	295.6277	17.5537	16.44777	-229.7834	86.04554	260.6578	0	956.6885
9/19/2013 21:00	17650	333	5.229006	298.911	16.16497	14.15347	-230.3787	85.74487	259.0212	0	957.0302
9/19/2013 22:00	17651	333	4.480919	299.7466	17.53766	11.45004	-228.2496	92.70152	259.8172	0	957.8597
9/19/2013 23:00	17652	333	4.619434	300.091	16.49232	9.641007	-221.908	87.38558	258.0614	0	958.1105
9/20/2013 0:00	17653	333	4.103017	299.7468	17.28163	8.833318	-225.5405	86.64841	258.0127	0	958.2398
9/20/2013 1:00	17654	333	5.301359	301.7088	16.48652	7.506928	-229.8063	85.61971	256.381	0	958.5687
9/20/2013 2:00	17655	333	5.035208	302.1317	16.52851	5.924325	-230.3634	90.87917	255.0156	0	959.136
9/20/2013 3:00	17656	333	4.714414	301.7221	16.50649	5.270657	-230.1879	90.32668	255.5447	0	959.0919
9/20/2013 4:00	17657	333	3.778072	304.4598	18.30985	5.025085	-229.959	90.46862	259.0027	0	959.316
9/20/2013 5:00	17658	333	3.621589	307.7407	18.40377	4.171722	-221.5646	94.07973	257.1547	0	959.0566
9/20/2013 6:00	17659	333	3.514854	303.4989	18.11185	3.68009	-229.4324	92.27723	256.9228	0	959.1428
9/20/2013 7:00	17660	333	4.383824	300.1127	17.08198	3.491436	-229.6995	90.77234	257.3605	0	959.2621
9/20/2013 8:00	17661	333	4.018966	300.818	16.79203	3.724042	-223.1442	90.42741	256.8558	0	959.4681
9/20/2013 9:00	17662	333	5.001873	300.6365	17.16595	4.269997	-229.3408	81.07301	255.798	0	959.5925
9/20/2013 10:00	17663	333	4.236595	299.6707	18.40632	4.78575	-222.2972	79.38802	257.5063	0	959.7126

9/20/2013 11:00	17664	333	4.26586	300.2931	17.96748	5.74968	-230.455	65.39076	258.014	0	959.9193
9/20/2013 12:00	17665	333	4.416814	300.9237	18.49066	6.714473	-232.9046	81.68809	258.8731	0	959.8599
9/20/2013 13:00	17666	333	4.48202	301.2032	17.86556	6.564502	-221.2593	70.57697	260.2668	0	959.7006
9/20/2013 14:00	17667	333	5.098321	300.8156	16.87236	7.834377	-222.0759	60.26255	257.3521	0	959.5424
9/20/2013 15:00	17668	333	5.537015	299.9445	17.32452	7.726053	-222.0301	68.13802	259.3796	0	959.7051
9/20/2013 16:00	17669	333	4.600996	299.0145	18.02715	7.158528	-231.035	74.74822	259.451	0	959.9116
9/20/2013 17:00	17670	333	4.833186	297.9978	17.10511	6.185756	-221.7782	82.46648	260.7799	0	960.3792
9/20/2013 18:00	17671	333	4.379642	303.9566	18.35287	5.275899	-221.2288	85.37093	257.8517	0	960.9927
9/20/2013 19:00	17672	333	3.988111	304.4669	17.68955	4.976705	-221.9995	87.19633	253.5981	0	961.5779
9/20/2013 20:00	17673	333	4.288894	305.507	17.49855	4.481331	-221.9156	91.98571	252.917	0	962.0465
9/20/2013 21:00	17674	333	3.716726	304.5024	17.79152	4.199228	-229.6995	90.18169	253.5759	0	962.3587
9/20/2013 22:00	17675	333	3.960716	305.278	18.07426	3.534552	-230.9052	91.85293	258.6717	0	962.5448
9/20/2013 23:00	17676	333	3.675851	305.1958	18.57078	3.458949	-230.7831	91.47594	259.5396	0	962.7734
9/21/2013 0:00	17677	333	4.043405	304.0438	18.49467	3.13649	-222.6787	93.10598	255.7736	0	963.0657
9/21/2013 1:00	17678	333	4.737981	303.4956	17.0652	2.8816	-221.3967	91.52479	256.377	0	963.3582
9/21/2013 2:00	17679	333	4.484574	302.7085	17.50287	2.330934	-220.8014	91.70335	252.3847	0	963.658
9/21/2013 3:00	17680	333	3.861	302.8567	18.13627	1.768085	-221.3661	92.06355	251.3611	0	964.0291
9/21/2013 4:00	17681	333	3.285467	310.0591	20.57124	1.52972	-221.4501	92.52142	253.0887	0	964.435
9/21/2013 5:00	17682	333	3.8032	305.1683	18.96409	1.276259	-229.959	93.38223	256.2939	0	964.924
9/21/2013 6:00	17683	333	3.578721	301.2377	18.06888	0.9880475	-228.8143	96.00433	258.2287	0	965.3592
9/21/2013 7:00	17684	333	2.948439	309.0221	20.17396	1.060658	-221.4043	94.17435	254.2726	0	965.8917
9/21/2013 8:00	17685	333	3.468238	309.8148	20.8549	1.599427	-221.3814	86.41489	252.5248	0	966.4451
9/21/2013 9:00	17686	333	3.039495	308.8791	20.54005	2.256867	-222.2514	80.83339	252.5236	0	966.8999
9/21/2013 10:00	17687	333	3.074775	315.8027	22.67467	3.670622	-222.6253	68.85383	258.1069	0	967.0536
9/21/2013 11:00	17688	333	2.14881	330.9914	31.05668	5.797204	-222.6787	59.21555	256.5514	0	967.0626
9/21/2013 12:00	17689	333	1.931273	328.3822	37.50248	7.342488	-208.3854	54.85046	254.9488	0	966.9659
9/21/2013 13:00	17690	333	1.66504	338.7733	38.70874	8.481589	-225.3726	55.52201	252.3147	0	966.8539
9/21/2013 14:00	17691	333	1.459938	324.1293	38.42327	10.07632	-222.1598	50.95852	256.2224	0	966.7192
9/21/2013 15:00	17692	333	1.481891	339.4868	39.18568	10.74868	-230.9586	48.33947	255.3162	0	966.5778
9/21/2013 16:00	17693	333	1.186043	336.4998	43.49577	11.23111	-222.984	48.5043	255.5585	0	966.4206
9/21/2013 17:00	17694	333	1.038048	6.600874	37.06401	10.35526	-223.2663	50.49148	258.1351	0	966.2499
9/21/2013 18:00	17695	333	0.5812062	18.73155	26.18297	8.512703	-231.2944	62.91365	259.511	0	966.1064
9/21/2013 19:00	17696	333	0.5942622	29.98295	17.24139	6.348335	-230.2642	70.53728	260.8291	0	966.1749
9/21/2013 20:00	17697	333	0.8213323	122.9327	19.81499	3.880316	-232.0576	90.81355	260.4544	0	966.6701
9/21/2013 21:00	17698	333	0.7268612	130.8038	12.11131	2.666818	-230.4474	91.08065	261.5557	0	966.8975
9/21/2013 22:00	17699	333	0.7803566	131.4643	11.69484	2.18593	-228.3564	94.23846	259.347	0	967.0154
9/21/2013 23:00	17700	333	0.8303912	128.7201	9.319927	1.927843	-229.6613	98.92253	260.0092	0	967.2213
9/22/2013 0:00	17701	333	0.8268789	139.4119	18.09319	1.971497	-230.0353	98.37766	259.0241	0	967.1481
9/22/2013 1:00	17702	333	1.066507	147.2892	16.64883	2.017596	-227.868	93.9851	258.4871	0	967.2576
9/22/2013 2:00	17703	333	1.185301	145.1745	14.83864	1.993259	-229.585	94.02173	259.1306	0	967.4775
9/22/2013 3:00	17704	333	1.213124	144.879	17.22358	2.343234	-230.6152	93.5776	260.5048	0	967.3619
9/22/2013 4:00	17705	333	0.9868488	148.3465	13.75214	1.931699	-231.6226	96.93687	261.396	0	967.5904
9/22/2013 5:00	17706	333	1.227562	145.67	15.19282	1.976389	-232.0117	95.11758	262.0402	0	967.7141
9/22/2013 6:00	17707	333	1.05725	144.4445	15.57236	2.2328	-232.4467	97.57485	262.3631	0	967.6776
9/22/2013 7:00	17708	333	1.152761	146.223	16.81809	2.436843	-232.4773	96.54463	262.3459	0	967.6057
9/22/2013 8:00	17709	333	1.235983	146.7333	24.42958	4.47129	-232.7596	82.52142	262.4647	0	967.5398

9/22/2013 9:00	17710	333	1.235795	152.1061	29.57968	7.834521	-231.9202	69.60932	260.3856	0	967.6015
9/22/2013 10:00	17711	333	1.400772	152.9171	35.41532	10.44935	-229.005	57.09253	259.7327	0	967.5013
9/22/2013 11:00	17712	333	1.793557	148.3993	33.13847	11.7483	-223.2816	53.00675	259.6881	0	967.1127
9/22/2013 12:00	17713	333	1.759519	144.7076	32.47604	13.41957	-240.3451	47.21309	262.1604	0	966.7324
9/22/2013 13:00	17714	333	1.618134	142.7606	36.4995	14.54689	-235.1482	44.32542	258.8424	0	966.0247
9/22/2013 14:00	17715	333	1.608702	147.4774	34.42165	15.50094	-233.0344	44.38953	262.4059	0	965.3007
9/22/2013 15:00	17716	333	1.623342	138.9139	35.90638	16.38066	-224.7086	42.58244	260.2596	0	964.6407
9/22/2013 16:00	17717	333	1.883222	140.8944	30.93455	16.39415	-224.0981	45.87457	261.5773	0	963.8176
9/22/2013 17:00	17718	333	1.854216	146.3516	29.76085	14.75095	-230.3024	47.54734	261.6685	0	963.1007
9/22/2013 18:00	17719	333	1.795602	147.6617	29.9579	12.89706	-231.6836	53.0617	260.4078	0	962.7547
9/22/2013 19:00	17720	333	1.748538	146.9272	24.31852	11.35578	-232.9504	64.42007	260.3968	0	962.8271
9/22/2013 20:00	17721	333	1.629568	143.8246	27.03756	10.23514	-230.9892	65.87306	261.1412	0	962.5303
9/22/2013 21:00	17722	333	1.63031	146.2163	26.82247	9.88704	-233.3472	68.19296	261.4702	0	962.3851
9/22/2013 22:00	17723	333	1.908954	148.9252	25.18829	9.79503	-232.0728	68.12734	261.3379	0	962.1695
9/22/2013 23:00	17724	333	1.873864	150.8034	24.43424	9.729118	-231.1113	73.25096	261.4662	0	962.4987
9/23/2013 0:00	17725	333	1.858163	151.2186	24.84133	9.433652	-233.103	77.15969	261.3654	0	962.0065
9/23/2013 1:00	17726	333	1.790628	150.9591	25.73689	9.282269	-231.0731	79.53149	261.6221	0	961.8263
9/23/2013 2:00	17727	333	1.746604	150.6248	25.00273	9.216964	-232.1186	81.50188	261.7742	0	961.4731
9/23/2013 3:00	17728	333	1.839226	152.3418	24.53486	9.194028	-231.7905	82.62063	261.3543	0	961.2581
9/23/2013 4:00	17729	333	1.815052	153.8666	23.2525	9.049746	-231.8439	84.81691	261.5356	0	961.259
9/23/2013 5:00	17730	333	1.757504	153.7691	22.03837	9.385411	-231.2944	85.97075	261.2449	0	961.0546
9/23/2013 6:00	17731	333	1.866552	152.5882	21.53589	9.435198	-231.325	86.46678	261.5041	0	961.1928
9/23/2013 7:00	17732	333	1.542973	150.6532	21.68582	9.764199	-231.6913	85.83187	261.486	0	961.4072
9/23/2013 8:00	17733	333	1.499621	152.0249	24.84626	10.92722	-231.8286	81.45	261.2989	0	961.2015
9/23/2013 9:00	17734	333	1.651507	152.8049	27.06387	13.16858	-232.4773	69.35902	261.6429	0	961.0724
9/23/2013 10:00	17735	333	1.860251	153.7788	33.2105	15.72719	-241.8942	63.9393	262.4424	0	960.8649
9/23/2013 11:00	17736	333	1.607727	151.53	34.69368	18.78868	-237.3842	58.02964	260.9768	0	960.9459
9/23/2013 12:00	17737	333	1.932159	150.1097	31.85336	21.18131	-250.0673	52.84192	264.5032	0	960.6502
9/23/2013 13:00	17738	333	2.016557	153.2326	38.83989	21.99138	-224.06	50.09466	262.9209	0	960.3199
9/23/2013 14:00	17739	333	1.977236	159.0442	37.18741	22.17914	-233.4312	52.98843	263.3019	0	960.3228
9/23/2013 15:00	17740	333	1.740767	155.1891	38.25425	22.8443	-233.8586	44.28422	263.7668	0.762	960.425
9/23/2013 16:00	17741	333	1.924226	154.1942	36.19206	22.85639	-233.2938	43.70729	263.9678	0	960.2957
9/23/2013 17:00	17742	333	1.692177	151.3415	32.95906	21.53539	-235.3466	50.24576	263.5875	0	960.2008
9/23/2013 18:00	17743	333	1.838685	152.2345	26.77989	19.71962	-233.1717	58.09528	263.5562	0	960.3023
9/23/2013 19:00	17744	333	1.866345	150.3791	23.63762	18.10323	-234.0569	63.02507	263.3	0	960.4057
9/23/2013 20:00	17745	333	2.264457	152.1627	23.4791	17.5035	-233.2251	66.48508	262.8269	0	960.4261
9/23/2013 21:00	17746	333	2.106501	153.409	28.37033	17.00854	-231.4242	69.98174	262.0986	0	960.712
9/23/2013 22:00	17747	333	1.757774	158.463	34.07289	16.44402	-232.5307	69.7879	262.3126	0	961.2345
9/23/2013 23:00	17748	333	1.944935	157.0792	32.045	15.99874	-232.8512	69.33765	261.4386	0	961.5133
9/24/2013 0:00	17749	333	1.920011	153.7749	31.03964	15.37115	-231.9812	69.77416	261.5432	0	961.4717
9/24/2013 1:00	17750	333	1.72172	154.7624	31.00457	14.82363	-231.1189	72.44968	261.0131	0	961.4518
9/24/2013 2:00	17751	333	1.296593	155.6278	34.85309	14.27633	-231.882	75.01073	261.1216	0	961.4872
9/24/2013 3:00	17752	333	1.4697	152.3033	32.63638	13.71806	-231.2029	77.93045	261.2826	0	961.4354
9/24/2013 4:00	17753	333	1.236177	150.5836	31.25347	13.04364	-232.2636	82.8343	261.593	0	961.4265
9/24/2013 5:00	17754	333	1.089281	152.2599	39.10233	12.33786	-231.3784	85.92039	262.0873	0	961.4568
9/24/2013 6:00	17755	333	1.06525	154.2422	35.38401	12.13193	-231.3021	85.98907	261.2739	0	961.5561

9/24/2013 7:00	17756	333	1.309932	153.2448	32.60957	12.37144	-231.4471	84.59408	260.8981	0	961.7357
9/24/2013 8:00	17757	333	1.089526	171.387	47.27747	13.57676	-230.6381	77.75188	259.9705	0	962.1683
9/24/2013 9:00	17758	333	1.311509	184.2882	45.69812	15.01428	-231.7752	74.88558	261.2514	0	962.6387
9/24/2013 10:00	17759	333	1.45511	192.8142	50.44865	17.54176	-224.0829	67.83276	261.2555	0	962.7956
9/24/2013 11:00	17760	333	1.226705	200.3601	55.83289	19.73843	-239.3988	60.39839	263.1356	0	963.0529
9/24/2013 12:00	17761	333	1.427825	223.2318	49.98129	20.57524	-225.6015	56.35382	264.8216	0	963.3423
9/24/2013 13:00	17762	333	1.41137	220.9907	54.2476	21.52967	-234.904	59.12092	265.0271	0.254	963.2735
9/24/2013 14:00	17763	333	1.228246	205.988	49.509	20.17783	-232.2788	57.43288	263.7715	0	963.2222
9/24/2013 15:00	17764	333	1.219376	208.8002	48.55325	21.3476	-233.3701	56.57513	263.797	0	962.903
9/24/2013 16:00	17765	333	0.8302482	193.9438	48.41755	19.79295	-233.2175	54.14991	263.7509	0	962.9426
9/24/2013 17:00	17766	333	0.9759707	158.5101	45.61683	20.13511	-233.9348	63.42495	263.7545	0	963.028
9/24/2013 18:00	17767	333	0.8482797	160.4232	41.49267	18.0149	-233.2786	73.46006	263.5893	0	963.2077
9/24/2013 19:00	17768	333	0.6753922	155.98	29.76604	15.63134	-232.8054	81.26379	263.0447	0	963.5594
9/24/2013 20:00	17769	333	0.8077292	151.5968	23.07788	14.40755	-231.9126	86.88802	262.7026	0	963.8868
9/24/2013 21:00	17770	333	0.7815957	158.6278	32.40412	14.19728	-231.882	89.41703	261.6781	0	963.9632
9/24/2013 22:00	17771	333	0.4224992	162.2172	31.72774	13.3813	-230.745	94.32851	261.2967	0	964.2675
9/24/2013 23:00	17772	333	0.4175791	160.1304	25.74195	12.39947	-223.0298	96.52937	258.9143	0	964.5634
9/25/2013 0:00	17773	333	0.3436669	184.0151	31.14859	12.0639	-231.1342	96.91704	255.7744	0	964.8835
9/25/2013 1:00	17774	333	0.3432076	160.2609	18.38937	11.53818	-231.9736	98.42345	260.9489	0	965.0579
9/25/2013 2:00	17775	333	0.6302881	149.1559	13.65822	10.95629	-232.0728	98.68749	261.8235	0	965.1522
9/25/2013 3:00	17776	333	0.6644481	145.9384	7.641056	10.27681	-232.6757	98.58065	262.7561	0	965.1789
9/25/2013 4:00	17777	333	0.4070175	144.817	5.724638	9.803535	-233.7441	98.64475	263.022	0	965.2988
9/25/2013 5:00	17778	333	0.5882615	140.7549	7.829772	9.23999	-231.2715	99.26899	262.3928	0	965.3657
9/25/2013 6:00	17779	333	0.5705237	141.5777	6.819632	9.047606	-232.0957	99.44299	262.1563	0	965.528
9/25/2013 7:00	17780	333	0.8407925	139.5644	11.6639	9.33582	-233.3091	99.98937	262.5027	0	965.6663
9/25/2013 8:00	17781	333	0.8479712	143.667	17.62447	11.58336	-232.813	95.84103	262.9536	0	965.8714
9/25/2013 9:00	17782	333	0.7617045	149.1631	23.10683	13.0951	-232.9886	88.52112	263.1263	0	966.1451
9/25/2013 10:00	17783	333	0.903346	147.9072	26.51512	15.58222	-231.737	77.38253	262.0208	0	966.1213
9/25/2013 11:00	17784	333	0.9723932	147.269	32.62532	18.65276	-234.8201	59.50248	263.3655	0	966.1682
9/25/2013 12:00	17785	333	0.9813122	146.6837	25.19319	20.43657	-234.263	58.84467	264.4963	0	965.8799
9/25/2013 13:00	17786	333	0.8240526	146.8014	22.96227	20.75031	-240.017	47.26957	264.5652	0	965.6522
9/25/2013 14:00	17787	333	1.203316	148.7025	36.71645	22.93421	-234.9727	43.54704	265.0334	0	965.5499
9/25/2013 15:00	17788	333	1.035868	140.1897	33.43781	23.38183	-235.3161	37.2314	264.6867	0	965.6432
9/25/2013 16:00	17789	333	0.9259664	137.2057	29.7741	23.48813	-235.0032	46.99484	265.1454	0	965.389
9/25/2013 17:00	17790	333	0.5023236	128.4726	19.45164	20.59835	-233.9425	61.74912	263.8121	0	965.3463
9/25/2013 18:00	17791	333	0.6271178	136.4038	10.09792	17.3374	-234.2096	79.63833	264.0971	0	965.3044
9/25/2013 19:00	17792	333	0.591387	140.3849	7.559439	15.11322	-233.1107	86.77814	263.4563	0	965.2463
9/25/2013 20:00	17793	333	0.5395387	137.2775	8.175901	14.22811	-232.813	90.65024	262.6915	0	965.5945
9/25/2013 21:00	17794	333	0.5273865	133.8364	5.422748	13.43932	-233.2786	93.93474	262.9192	0	965.7065
9/25/2013 22:00	17795	333	0.6111831	140.8745	8.767378	12.63386	-233.2022	95.79981	262.9466	0	965.9473
9/25/2013 23:00	17796	333	0.5030109	128.7173	10.30603	12.42789	-232.2025	95.90818	262.6125	0	966.2285
9/26/2013 0:00	17797	333	0.8048091	132.2047	8.662973	11.62744	-232.0881	97.8511	262.3781	0	966.4106
9/26/2013 1:00	17798	333	0.6626672	138.9731	8.209965	10.9025	-231.096	98.66765	261.6266	0	966.6058
9/26/2013 2:00	17799	333	0.9818257	138.7604	12.33554	10.51055	-232.2254	98.67375	261.8504	0	966.5257
9/26/2013 3:00	17800	333	1.000366	143.9824	13.37	11.05253	-232.0042	97.81753	261.8756	0	966.2689
9/26/2013 4:00	17801	333	1.005923	142.0986	13.47742	11.29168	-231.7828	97.55959	262.1776	0	966.1465

9/26/2013 5:00	17802	333	1.011863	145.2661	13.1618	11.34126	-233.0038	97.32607	262.7358	0	966.1132
9/26/2013 6:00	17803	333	1.227723	147.6701	15.63809	11.44843	-233.3625	93.26624	262.8055	0	966.1206
9/26/2013 7:00	17804	333	1.414071	147.7174	16.97217	11.59748	-232.7444	92.04523	263.0238	0	965.9968
9/26/2013 8:00	17805	333	1.29983	146.636	21.67584	12.25723	-231.386	88.62795	262.3933	0	965.8657
9/26/2013 9:00	17806	333	1.295991	146.2766	24.66331	13.33159	-232.1568	82.90909	262.0047	0	965.8353
9/26/2013 10:00	17807	333	1.242431	142.4438	29.08629	16.03422	-226.5478	66.08368	261.5292	0	965.5759
9/26/2013 11:00	17808	333	2.447263	147.2856	27.75082	19.10715	-246.3051	54.649	260.3783	0	964.9714
9/26/2013 12:00	17809	333	2.070869	151.8421	32.87915	20.81174	-231.1494	50.25491	264.4007	0	964.6432
9/26/2013 13:00	17810	333	1.954816	143.0198	32.55181	21.70736	-222.6253	45.00613	264.9527	0	964.0801
9/26/2013 14:00	17811	333	1.97102	145.6586	31.93326	22.75588	-235.3008	45.06108	266.1354	0	963.651
9/26/2013 15:00	17812	333	1.820399	145.847	36.01881	23.05479	-235.7053	46.92006	265.2922	0	963.0382
9/26/2013 16:00	17813	333	1.931798	144.782	30.52423	22.25371	-234.5301	51.71249	265.254	0	962.4106
9/26/2013 17:00	17814	333	1.973712	144.3392	31.82971	20.82834	-234.3469	59.707	264.6043	0	961.5524
9/26/2013 18:00	17815	333	2.082735	149.8181	26.68245	19.22219	-233.3778	61.47592	263.6188	0	961.602
9/26/2013 19:00	17816	333	2.598615	150.803	24.3647	18.58433	-231.1494	64.20181	263.0297	0	961.5656
9/26/2013 20:00	17817	333	2.345316	151.4038	24.07327	17.53314	-231.7523	68.04186	262.9916	0	961.8619
9/26/2013 21:00	17818	333	2.358015	150.8351	23.94007	16.89581	-232.5154	69.1896	262.7588	0	961.6957
9/26/2013 22:00	17819	333	2.257697	152.1081	23.96754	16.5975	-232.4849	71.74608	262.695	0	961.8469
9/26/2013 23:00	17820	333	2.056222	151.1924	24.20474	16.16547	-233.1946	74.85506	262.36	0	961.8414
9/27/2013 0:00	17821	333	2.038464	150.0937	25.13453	16.0694	-232.7673	77.18565	262.415	0	961.887
9/27/2013 1:00	17822	333	1.901452	151.9884	26.18202	16.1279	-232.6604	77.00707	262.2252	0	961.7828
9/27/2013 2:00	17823	333	1.614144	151.1057	28.80178	16.40491	-233.1259	77.68778	262.5482	0	961.524
9/27/2013 3:00	17824	333	1.9655	151.9666	29.49597	16.43122	-231.5768	77.05592	262.4195	0	961.1294
9/27/2013 4:00	17825	333	1.558688	151.1868	31.29288	15.76634	-232.1415	81.5431	262.6964	0	960.9573
9/27/2013 5:00	17826	333	0.7768814	147.7846	28.08063	14.64048	-232.5612	85.98602	262.9294	0	961.1994
9/27/2013 6:00	17827	333	0.9827113	147.7824	23.54045	14.82108	-232.7444	82.19939	262.2602	0	961.2072
9/27/2013 7:00	17828	333	1.093156	153.1062	31.87253	15.34921	-233.2328	82.01928	262.9347	0	961.1149
9/27/2013 8:00	17829	333	1.128499	153.1748	32.58802	15.6772	-233.3472	81.39504	262.9548	0	960.8345
9/27/2013 9:00	17830	333	1.049894	151.1848	29.89297	16.3648	-232.897	81.19511	263.0863	0	960.5906
9/27/2013 10:00	17831	333	1.043746	158.9379	36.01071	16.85612	-232.9657	82.9335	262.9892	0	960.7493
9/27/2013 11:00	17832	333	1.110788	168.1629	44.80943	15.95524	-223.3197	94.76807	259.9846	0	961.1944
9/27/2013 12:00	17833	333	0.6089695	170.0194	42.0509	15.92121	-222.9458	92.32149	252.9382	1.27	960.3185
9/27/2013 13:00	17834	333	0.9672697	152.3167	31.23252	16.66451	-222.0224	96.13712	253.1936	0.508	960.189
9/27/2013 14:00	17835	333	1.561496	157.9887	35.70776	15.74018	-222.4269	97.5779	252.8334	3.302	960.1888
9/27/2013 15:00	17836	333	0.6264403	177.9348	52.40581	15.95491	-224.5026	96.80867	253.2391	1.27	960.0525
9/27/2013 16:00	17837	333	0.5150265	134.3224	35.42825	16.48705	-231.1418	96.17223	254.789	1.016	959.2855
9/27/2013 17:00	17838	333	0.5965814	145.1125	20.37225	16.42322	-222.4727	97.56416	254.2409	0.254	959.5791
9/27/2013 18:00	17839	333	1.088635	145.9305	19.47398	15.92253	-223.2358	98.62796	254.6124	7.112002	959.2534
9/27/2013 19:00	17840	333	0.3020838	111.2126	29.02274	15.90897	-222.7703	98.1014	254.0136	2.032	958.782
9/27/2013 20:00	17841	333	0.3099124	25.7799	53.64592	15.95218	-231.3097	98.37766	256.3612	5.08	957.9512
9/27/2013 21:00	17842	333	0.7098626	138.7547	19.3548	16.07483	-232.9504	98.79433	258.7554	2.286	957.5623
9/27/2013 22:00	17843	333	0.9067239	146.9043	21.71753	16.58076	-231.5539	98.62643	262.2082	3.048	957.2208
9/27/2013 23:00	17844	333	1.354323	192.336	58.27228	16.99446	-231.6989	95.02601	256.2119	0	957.1664
9/28/2013 0:00	17845	333	2.645777	302.6125	15.70082	13.77013	-231.5157	98.44634	260.7815	0.762	957.5162
9/28/2013 1:00	17846	333	2.132643	310.3675	21.08312	12.26185	-222.9382	99.11941	258.2936	6.604002	958.0466
9/28/2013 2:00	17847	333	1.769639	310.4117	19.0928	11.93021	-230.3863	98.80348	257.7666	0.508	958.1265

9/28/2013 3:00	17848	333	1.62506	322.4659	25.02164	11.667	-231.3173	98.60812	256.9193	1.524	958.2988
9/28/2013 4:00	17849	333	1.325626	329.8646	27.66854	11.48767	-223.1595	98.07699	258.0007	1.27	958.4014
9/28/2013 5:00	17850	333	1.07977	346.088	32.21227	11.27266	-230.7602	98.12125	260.5056	1.016	957.9015
9/28/2013 6:00	17851	333	1.007559	14.4322	42.91409	11.12903	-224.121	98.00525	259.1067	0.762	956.3238
9/28/2013 7:00	17852	333	0.8758692	22.77887	55.19666	11.10961	-231.7141	98.46923	257.8362	2.286	956.6506
9/28/2013 8:00	17853	333	0.8551625	26.5287	46.96009	10.90609	-232.4391	98.30746	262.0739	2.286	955.6328
9/28/2013 9:00	17854	333	1.140611	342.6665	36.99982	10.85022	-231.3402	98.52876	261.6778	2.54	954.6088
9/28/2013 10:00	17855	333	2.225134	330.1667	29.83284	10.31515	-231.1113	98.2403	261.1957	2.794	953.8037
9/28/2013 11:00	17856	333	1.943431	356.1319	32.95424	9.631518	-231.7447	98.15482	257.912	0.508	952.4127
9/28/2013 12:00	17857	333	1.624916	358.3747	43.69682	9.80179	-233.0267	99.17589	262.1689	8.128002	950.5114
9/28/2013 13:00	17858	333	1.696412	348.6259	33.86763	10.13547	-232.7596	98.87064	262.8298	6.096001	949.2601
9/28/2013 14:00	17859	333	1.545777	337.6553	32.11514	10.13029	-232.1415	98.81264	262.312	2.032	948.0234
9/28/2013 15:00	17860	333	3.198718	314.3301	21.16924	9.35407	-234.3011	98.16399	263.8137	3.048	947.959
9/28/2013 16:00	17861	333	2.328513	341.3626	28.61424	8.796752	-235.9724	97.71374	264.8097	0.508	947.4434
9/28/2013 17:00	17862	333	2.623642	351.9104	33.19704	8.278033	-236.2471	98.19451	265.6273	0.508	945.9405
9/28/2013 18:00	17863	333	2.418806	339.2945	29.37527	8.096251	-235.8579	98.17619	265.6748	4.572	944.8422
9/28/2013 19:00	17864	333	5.185791	304.6359	20.12764	8.066879	-235.8045	98.87674	265.9609	0.762	945.2675
9/28/2013 20:00	17865	333	6.453731	296.3087	17.80184	7.586277	-236.8882	98.31203	266.0224	1.016	946.3989
9/28/2013 21:00	17866	333	6.569704	292.3899	17.72433	6.786456	-236.5524	97.2986	266.2771	4.064	948.3247
9/28/2013 22:00	17867	333	5.007156	293.1631	19.73543	6.408174	-236.5829	97.64811	266.5462	0.762	950.8244
9/28/2013 23:00	17868	333	4.873322	293.4344	19.45266	6.426216	-237.3231	97.25739	266.7116	1.27	952.4816
9/29/2013 0:00	17869	333	4.421384	291.0552	19.97215	6.445491	-234.8964	94.88712	266.5288	1.27	953.6724
9/29/2013 1:00	17870	333	2.722092	279.6054	25.08974	6.903613	-235.3314	97.74426	259.1318	0.254	954.9105
9/29/2013 2:00	17871	333	2.616779	279.0653	25.49588	7.350465	-236.0258	97.18871	259.7933	0.254	955.9208
9/29/2013 3:00	17872	333	2.277183	280.5262	24.77781	7.295543	-235.4916	97.23754	262.3738	0	956.6695
9/29/2013 4:00	17873	333	1.988301	273.2583	24.6615	7.262255	-235.7892	97.00098	259.1764	0	957.1636
9/29/2013 5:00	17874	333	1.523813	253.4095	32.36032	7.145398	-227.433	96.97961	258.9033	0	957.5745
9/29/2013 6:00	17875	333	1.454901	273.905	30.25025	7.107755	-228.1961	96.72778	257.9245	0	958.1223
9/29/2013 7:00	17876	333	0.5795888	217.7252	28.77945	6.383461	-227.9901	98.7638	258.1674	0.254	958.2873
9/29/2013 8:00	17877	333	0.6742586	187.5334	31.55341	7.062818	-227.9367	96.04097	257.4987	0	958.6208
9/29/2013 9:00	17878	333	1.049047	190.6722	38.70523	8.387764	-237.8802	89.88711	261.0199	0	959.1353
9/29/2013 10:00	17879	333	0.9142603	167.2863	39.99246	9.424088	-229.959	85.80286	263.2024	0	959.1017
9/29/2013 11:00	17880	333	1.019968	159.6495	41.22996	10.75364	-238.8875	78.17618	262.067	0	959.2573
9/29/2013 12:00	17881	333	1.317056	157.4115	38.04196	11.92795	-230.1345	79.42618	263.1154	0	958.9618
9/29/2013 13:00	17882	333	1.387021	159.3085	37.09523	12.11918	-239.1546	74.09346	264.76	0.254	958.6115
9/29/2013 14:00	17883	333	1.053874	155.9747	40.9485	14.14759	-239.933	66.44234	265.4399	0	958.1526
9/29/2013 15:00	17884	333	1.230855	178.6962	42.28397	16.00776	-240.2154	65.79369	267.503	0	957.9095
9/29/2013 16:00	17885	333	0.6859602	166.6942	40.38005	15.82013	-241.1922	69.43076	271.5746	0	957.6687
9/29/2013 17:00	17886	333	0.9454373	150.3288	26.56921	15.2232	-239.4446	73.50127	270.7235	0	957.2984
9/29/2013 18:00	17887	333	1.080982	149.1388	18.07249	13.6766	-239.4446	81.72166	270.1145	0	956.8295
9/29/2013 19:00	17888	333	1.313966	147.6691	16.82584	12.69764	-238.3381	78.50738	269.573	0	956.5085
9/29/2013 20:00	17889	333	1.550962	148.8446	19.16675	13.1322	-239.1699	74.74975	269.2332	0	956.3871
9/29/2013 21:00	17890	333	1.87928	149.0391	20.17648	13.35137	-238.3763	72.0956	269.1587	0	955.8088
9/29/2013 22:00	17891	333	1.899686	151.3092	22.89358	13.65466	-240.864	71.64382	269.1777	0	955.1326
9/29/2013 23:00	17892	333	1.696102	154.1635	28.02922	13.89069	-236.0869	68.76684	269.5506	0	954.5396
9/30/2013 0:00	17893	333	1.724432	157.4887	32.82667	14.38611	-238.4373	69.89016	267.826	0	954.1746

9/30/2013 1:00	17894	333	1.736975	155.0975	29.49088	14.1834	-239.3301	70.78912	265.6714	0	953.8348
9/30/2013 2:00	17895	333	1.870954	152.4295	25.40961	13.87679	-235.3695	74.83979	266.4356	0	953.3737
9/30/2013 3:00	17896	333	1.987182	150.2127	21.73283	13.3183	-239.8414	74.44602	266.7513	0	952.4818
9/30/2013 4:00	17897	333	1.979823	150.2177	20.39602	13.40184	-236.9034	74.3636	266.8218	0	951.888
9/30/2013 5:00	17898	333	1.971074	150.0988	21.87694	13.2877	-241.5661	75.58155	267.6192	0	951.291
9/30/2013 6:00	17899	333	1.537399	154.3534	26.50489	13.04303	-234.2554	76.3172	269.0658	0	950.9427
9/30/2013 7:00	17900	333	0.981274	154.6682	26.37991	12.80301	-236.6058	79.22472	269.7423	0	950.8826
9/30/2013 8:00	17901	333	1.140091	158.2703	27.21863	12.92253	-238.216	79.21861	269.2778	0	950.5515
9/30/2013 9:00	17902	333	1.129908	165.8477	35.74769	13.81704	-240.139	72.85719	268.72	0.254	950.3986
9/30/2013 10:00	17903	333	1.053104	155.3482	32.0894	14.86871	-244.3591	71.90481	271.8638	0	949.9078
9/30/2013 11:00	17904	333	1.175603	179.0325	59.04171	13.77553	-244.4431	93.80501	273.3549	0	950.4644
9/30/2013 12:00	17905	333	0.9369771	150.4239	30.35622	14.85333	-246.5341	78.03728	273.8932	0	949.2314
9/30/2013 13:00	17906	333	1.156672	165.0322	35.28872	17.35299	-244.2905	66.60413	272.9135	0	949.3178
9/30/2013 14:00	17907	333	1.352887	207.5118	57.75007	19.18041	-131.2562	60.16334	186.0485	0	949.4397
9/30/2013 15:00	17908	333	1.621889	227.914	45.12965	19.64846	-131.6759	55.82727	159.806	0	949.3116
9/30/2013 16:00	17909	333	1.565372	224.741	51.0178	20.0294	-239.6354	52.27262	232.6337	0	949.2831
9/30/2013 17:00	17910	333	1.25347	210.2986	47.06076	18.26605	-245.9541	61.28209	275.5646	0	949.5523
9/30/2013 18:00	17911	333	0.4354236	168.8228	33.83859	16.02866	-239.5209	65.5907	272.3542	0	949.8975
9/30/2013 19:00	17912	333	0.4373302	160.5023	23.7682	13.5347	-131.1265	69.80621	214.9287	0	950.4274
9/30/2013 20:00	17913	333	0.528775	159.7359	26.49607	12.65586	-128.5318	70.78606	168.37	0	950.8069
9/30/2013 21:00	17914	333	0.5936537	155.5694	27.60855	11.7417	-244.0692	78.99426	246.4613	0	951.046
9/30/2013 22:00	17915	333	0.6632444	154.4125	22.75321	10.4642	-326.6165	79.4506	345.7766	0	950.925
9/30/2013 23:00	17916	333	0.4187254	162.7082	31.00078	10.60846	-326.3036	81.25768	356.4214	0	951.0202
10/1/2013 0:00	17917	333	0.5346737	160.6548	23.03283	9.959891	-327.433	86.66519	356.4354	0	950.6822
10/1/2013 1:00	17918	333	0.7464823	147.4818	11.81535	9.101021	-326.7157	94.01258	349.3463	0	950.2124
10/1/2013 2:00	17919	333	0.8202233	149.0709	13.47417	8.549539	-126.853	92.54738	329.2031	0	949.5283
10/1/2013 3:00	17920	333	0.930285	146.6692	12.27761	9.635886	-132.3246	90.52814	161.882	0	948.5847
10/1/2013 4:00	17921	333	0.9641231	150.3091	20.54623	10.23025	-132.0957	90.74181	162.2181	0	947.7974
10/1/2013 5:00	17922	333	1.26114	164.7108	62.56899	10.07859	-131.2028	97.0544	160.6899	0.254	947.8494
10/1/2013 6:00	17923	333	1.153692	215.6864	63.29766	10.0588	-127.845	96.99792	158.2531	1.27	946.6453
10/1/2013 7:00	17924	333	0.7377799	187.8286	39.67304	9.702567	-127.0972	98.32577	157.0867	0.254	946.8932
10/1/2013 8:00	17925	333	1.080456	225.7673	40.60388	10.55904	-127.5627	94.62155	157.5035	0	947.1287
10/1/2013 9:00	17926	333	1.651489	235.6545	43.55219	11.34111	-131.4165	90.40757	157.3479	0	947.2971
10/1/2013 10:00	17927	333	1.855844	239.0183	42.11898	11.7018	-128.4326	86.59805	159.1508	0	947.4634
10/1/2013 11:00	17928	333	2.128337	226.6384	46.36913	12.89066	-110.4152	70.2412	160.109	0	947.1282
10/1/2013 12:00	17929	333	2.393085	233.549	44.08987	13.86784	-131.9507	62.26805	159.9475	0	947.2671
10/1/2013 13:00	17930	333	3.69356	249.1235	36.42202	13.2132	-131.8896	61.19357	160.624	0	948.0125
10/1/2013 14:00	17931	333	3.091222	249.1523	36.49951	12.46044	-132.3017	65.63649	162.1486	0	948.6747
10/1/2013 15:00	17932	333	3.077333	238.4881	43.28814	12.34434	-132.6298	80.49761	160.8097	0	948.9521
10/1/2013 16:00	17933	333	3.126162	243.819	38.2382	10.53895	-131.943	76.80255	161.4912	0	949.5478
10/1/2013 17:00	17934	333	3.193308	250.7108	36.61084	10.28669	-133.0419	80.55255	162.1135	0	950.2454
10/1/2013 18:00	17935	333	2.809685	248.3707	34.72437	10.02663	-132.2101	92.27876	161.7401	0	950.7537
10/1/2013 19:00	17936	333	3.496018	271.6169	29.17505	9.544946	-133.3167	93.32271	160.529	0	951.6341
10/1/2013 20:00	17937	333	3.546784	280.1397	24.08733	9.732346	-127.9061	92.40238	159.565	0	952.9622
10/1/2013 21:00	17938	333	3.407832	281.0834	23.96601	9.741834	-128.341	94.13773	158.5763	0	953.879
10/1/2013 22:00	17939	333	4.067985	289.4522	21.37526	9.413918	-133.1411	95.90665	160.089	2.032	954.869

10/1/2013 23:00	17940	333	4.299142	294.4077	17.61856	9.031799	-127.7916	96.90177	159.8938	0	955.9797
10/2/2013 0:00	17941	333	3.583842	289.8611	21.04187	8.801264	-132.1491	94.54066	159.4719	0	957.0028
10/2/2013 1:00	17942	333	3.082376	285.4676	22.28866	8.473845	-128.6768	93.15025	159.3156	0	957.8759
10/2/2013 2:00	17943	333	2.694163	289.0178	18.54478	8.271119	-132.6146	93.50891	159.8543	0	958.3532
10/2/2013 3:00	17944	333	2.88102	293.9915	17.36073	8.163054	-132.5306	92.65726	160.735	0.254	958.856
10/2/2013 4:00	17945	333	2.791251	294.9926	17.64929	7.849271	-133.4235	92.71374	162.56	0	959.6063
10/2/2013 5:00	17946	333	3.19907	296.6577	16.20173	7.721411	-133.7974	92.56111	163.5454	0	960.1584
10/2/2013 6:00	17947	333	2.568512	294.1657	17.07672	7.386457	-132.9885	94.44604	163.1055	0	960.8664
10/2/2013 7:00	17948	333	2.460918	289.4506	20.63691	7.566989	-128.2495	90.83035	160.6985	0	961.548
10/2/2013 8:00	17949	333	1.942818	287.7083	21.58862	7.973907	-128.2342	89.50402	158.6457	0	961.921
10/2/2013 9:00	17950	333	2.006932	286.398	24.5823	8.718093	-132.3017	87.9381	159.0537	0	962.5241
10/2/2013 10:00	17951	333	1.990331	285.2638	24.95269	9.717666	-133.3777	76.61024	163.0018	0	963.1468
10/2/2013 11:00	17952	333	2.94739	284.2303	27.76829	11.60641	-133.4845	76.93228	161.7217	0	963.2868
10/2/2013 12:00	17953	333	2.970787	298.8824	19.50536	11.93606	-125.6014	67.27569	161.9153	0	963.589
10/2/2013 13:00	17954	333	2.963185	299.7358	22.07819	13.28715	-139.1622	66.63772	164.8618	0	963.5244
10/2/2013 14:00	17955	333	1.950302	294.4391	32.62962	14.42682	-132.9351	59.9283	163.7573	0	963.3116
10/2/2013 15:00	17956	333	1.832193	279.3781	34.75843	15.69654	-133.9424	54.66578	163.298	0	962.7537
10/2/2013 16:00	17957	333	1.821044	306.45	21.76937	12.76597	-133.6982	80.91275	163.2532	0	962.5861
10/2/2013 17:00	17958	333	1.726815	312.2184	27.00958	12.19747	-133.2709	75.74334	163.4012	0	962.7188
10/2/2013 18:00	17959	333	1.293841	274.7257	24.08002	10.20762	-133.6906	92.34438	163.5986	0.508	963.1506
10/2/2013 19:00	17960	333	0.8866724	279.0572	16.8539	8.699161	-134.1255	96.60415	163.737	0	963.7731
10/2/2013 20:00	17961	333	0.4270354	305.0023	15.58387	8.3162	-133.7822	97.41001	163.4658	0	964.2562
10/2/2013 21:00	17962	333	0.4085281	233.2242	29.13042	8.061956	-133.4998	97.76716	163.2594	0	964.7599
10/2/2013 22:00	17963	333	0.8151372	260.467	24.25031	7.564751	-133.9424	97.96557	163.0385	0	965.3021
10/2/2013 23:00	17964	333	0.9318966	301.13	16.30657	6.90092	-133.1259	97.82668	163.3304	0	966.0189
10/3/2013 0:00	17965	333	0.616798	311.5157	8.923474	6.093668	-133.4006	98.82333	163.2223	0	966.2035
10/3/2013 1:00	17966	333	0.6954144	329.2047	24.48073	5.977683	-134.1942	98.90269	163.0308	0	966.5324
10/3/2013 2:00	17967	333	0.571115	313.6034	21.67857	6.043739	-134.1255	98.80348	164.2417	0	966.8707
10/3/2013 3:00	17968	333	1.132856	310.6016	22.22581	6.290298	-134.4919	97.07272	163.8632	0	967.1765
10/3/2013 4:00	17969	333	1.478535	314.6362	20.40976	6.152303	-133.3243	95.55714	163.8773	0	967.4394
10/3/2013 5:00	17970	333	1.59479	319.2893	22.08469	5.873272	-129.6231	92.82362	161.5955	0	968.2006
10/3/2013 6:00	17971	333	1.176194	346.384	35.58064	5.34233	-129.7376	92.12917	159.5703	0	968.4785
10/3/2013 7:00	17972	333	0.602098	21.86133	54.75867	4.18808	-129.4094	96.45	159.8485	0	969.1381
10/3/2013 8:00	17973	333	0.4725524	38.85294	42.45292	4.961699	-129.5926	91.01196	159.4902	0	969.7889
10/3/2013 9:00	17974	333	1.162549	1.338113	34.97503	5.214754	-133.3243	92.55196	162.1549	0	970.2256
10/3/2013 10:00	17975	333	1.350109	345.8165	37.07628	5.856803	-134.3316	84.90237	162.8607	0	970.2879
10/3/2013 11:00	17976	333	1.300995	353.0975	43.58258	7.107495	-134.3392	76.8056	163.7033	0	970.45
10/3/2013 12:00	17977	333	0.9961425	337.6363	33.23396	7.735642	-134.3469	75.87917	163.809	0	970.7692
10/3/2013 13:00	17978	333	0.6983433	342.8568	41.37598	8.154379	-133.6448	69.7589	164.0281	0	970.9436
10/3/2013 14:00	17979	333	0.679983	62.85786	63.00691	9.711469	-133.4693	61.80865	163.7291	0	970.9127
10/3/2013 15:00	17980	333	0.5483028	330.3985	58.18185	9.95163	-133.7898	61.36298	163.9076	0	971.165
10/3/2013 16:00	17981	333	0.3037822	117.0521	73.66222	9.886501	-134.0569	66.21494	163.7919	0	971.3234
10/3/2013 17:00	17982	333	0.5031898	8.934841	49.73192	9.304509	-133.7974	67.77782	163.6805	0	971.7365
10/3/2013 18:00	17983	333	1.387565	341.4974	29.60916	8.160228	-133.4922	73.25249	163.6791	0	972.1644
10/3/2013 19:00	17984	333	1.673675	336.4987	28.84401	6.566788	-133.8051	76.96892	163.8553	0	972.9647
10/3/2013 20:00	17985	333	1.642651	339.0255	28.71976	5.294075	-134.0035	80.09315	163.9326	0	973.8089

10/3/2013 21:00	17986	333	1.595054	345.5543	30.20865	4.024437	-133.6448	86.7934	164.011	0	974.3337
10/3/2013 22:00	17987	333	1.78323	1.514048	37.79073	3.208343	-133.9348	87.07423	163.7837	0	975.0605
10/3/2013 23:00	17988	333	1.278794	359.5042	34.18237	2.838383	-133.8508	87.75951	164.0151	0.254	975.5516
10/4/2013 0:00	17989	333	1.388193	351.1994	33.09597	2.349685	-134.034	88.49822	163.6787	0	975.972
10/4/2013 1:00	17990	333	1.271503	14.14303	35.85835	1.058131	-134.6292	85.22594	163.7855	0	976.539
10/4/2013 2:00	17991	333	1.229563	10.00687	37.9269	0.1729154	-133.9958	82.51684	164.1943	0	976.944
10/4/2013 3:00	17992	333	1.135436	1.001846	30.56577	-0.1108586	-134.6826	84.59408	164.6412	0	977.0491
10/4/2013 4:00	17993	333	0.9762233	359.1248	31.66029	-0.1142844	-134.2934	87.3749	162.7874	0	977.0889
10/4/2013 5:00	17994	333	0.9012978	356.0401	27.18016	-0.3334369	-135.1634	90.8166	163.4101	0	977.4932
10/4/2013 6:00	17995	333	0.8477392	14.94138	26.40417	-0.4479416	-134.2553	83.50738	164.3369	0	978.1995
10/4/2013 7:00	17996	333	1.163626	7.592892	34.35443	0.3211944	-134.6063	79.89169	163.3924	0	978.6422
10/4/2013 8:00	17997	333	1.21673	8.492139	37.72918	1.060208	-134.4461	76.75829	164.4611	0	979.4327
10/4/2013 9:00	17998	333	1.592329	356.8776	40.30985	1.465956	-134.0492	73.35323	163.8121	0	979.7228
10/4/2013 10:00	17999	333	1.685571	0.471536	44.47973	1.987967	-134.2706	70.4915	164.027	0	979.8566
10/4/2013 11:00	18000	333	1.224762	40.53277	48.28719	3.03784	-122.7702	66.75829	163.7244	0	979.8236
10/4/2013 12:00	18001	333	1.445863	352.0042	35.70039	3.320632	-123.0602	64.18655	163.8589	0	979.6619
10/4/2013 13:00	18002	333	1.943185	326.8537	30.27754	3.652472	-135.4763	64.35596	162.6158	0	979.582
10/4/2013 14:00	18003	333	1.846653	334.1501	35.19906	5.337817	-130.0657	56.72012	162.3323	0	979.0732
10/4/2013 15:00	18004	333	1.923005	346.3354	35.70316	6.533178	-133.1945	55.50675	162.1756	0	978.6284
10/4/2013 16:00	18005	333	1.559317	347.0048	34.95683	6.639404	-134.5605	54.93288	162.8421	0	978.5167
10/4/2013 17:00	18006	333	1.559402	342.4306	35.15475	5.904598	-133.3395	63.99119	163.9664	0	978.7305
10/4/2013 18:00	18007	333	1.309117	342.1148	28.60813	4.26822	-134.5377	73.37612	163.7999	0	978.893
10/4/2013 19:00	18008	333	1.457282	346.7269	26.57307	3.184915	-133.599	76.34315	164.2884	0	978.8697
10/4/2013 20:00	18009	333	1.702302	353.2503	31.84149	2.341381	-134.7284	77.52905	164.1206	0	979.0624
10/4/2013 21:00	18010	333	1.567293	2.681624	35.80447	1.43904	-134.6063	81.5202	164.2449	0	979.1809
10/4/2013 22:00	18011	333	1.328117	4.162732	34.0134	0.6285254	-134.6979	86.62399	164.4397	0	979.3463
10/4/2013 23:00	18012	333	0.9569362	2.269306	27.06094	-0.0885537	-133.7364	89.25067	164.608	0	979.3207
10/5/2013 0:00	18013	333	0.6251804	23.81378	30.70246	-0.6290347	-129.8826	93.13039	162.7472	0	978.8896
10/5/2013 1:00	18014	333	0.7512761	63.87294	31.37498	-0.6061229	-134.6674	92.32759	163.5927	0	978.254
10/5/2013 2:00	18015	333	1.042421	74.59097	29.99066	-0.709595	-134.6826	91.96435	164.6505	0	978.0322
10/5/2013 3:00	18016	333	1.228593	86.89508	30.89621	-0.8733678	-134.9268	92.03455	164.2988	0	977.7302
10/5/2013 4:00	18017	333	1.247941	85.54728	28.73338	-0.7527054	-135.1253	90.21984	164.6147	0	977.8295
10/5/2013 5:00	18018	333	1.181564	93.30978	31.05102	-0.8008099	-134.1332	90.80286	164.9248	0	977.7995
10/5/2013 6:00	18019	333	1.781393	80.0802	30.54247	-0.6203828	-129.4857	83.09225	163.6941	0	977.3683
10/5/2013 7:00	18020	333	1.836344	84.33502	34.36996	-0.3587185	-134.3469	84.07515	161.5662	0	977.1144
10/5/2013 8:00	18021	333	1.884125	83.51534	35.04162	-0.1845811	-134.4919	82.4909	164.6927	0	976.6295
10/5/2013 9:00	18022	333	1.694696	87.52707	35.63184	0.7527741	-134.5911	81.363	164.1488	0	976.3392
10/5/2013 10:00	18023	333	2.064504	97.09563	34.36708	1.050361	-134.6979	76.28362	164.3893	0	976.1481
10/5/2013 11:00	18024	333	1.776681	93.18352	34.85534	1.668053	-133.8585	74.44144	164.2592	0	975.6963
10/5/2013 12:00	18025	333	1.937734	95.43699	34.97691	3.062554	-134.8047	66.35535	164.3295	0	975.2017
10/5/2013 13:00	18026	333	1.637116	67.7552	48.73547	4.624717	-134.5453	64.2125	164.7451	0	974.5776
10/5/2013 14:00	18027	333	1.639566	60.22441	43.61856	4.736391	-134.6826	62.57941	164.0435	0	973.8632
10/5/2013 15:00	18028	333	1.781234	109.5323	35.98001	5.466642	-133.8051	62.76255	163.7336	0	972.6091
10/5/2013 16:00	18029	333	1.386528	81.31696	34.31835	6.003656	-133.5227	61.81628	163.7883	0	971.8964
10/5/2013 17:00	18030	333	1.375567	91.50979	35.3563	5.713311	-133.4235	67.14291	163.8268	0	971.3864
10/5/2013 18:00	18031	333	1.142897	94.10839	30.43268	4.291405	-135.461	74.94053	164.0907	0	970.7265

10/5/2013 19:00	18032	333	1.144167	113.9274	25.92606	2.561921	-134.8124	80.75097	164.8898	0	970.3709
10/5/2013 20:00	18033	333	1.149275	109.4318	24.22288	2.19255	-133.95	81.52325	164.5633	0	970.0831
10/5/2013 21:00	18034	333	1.188297	96.38234	27.07701	1.756208	-134.3392	79.89474	164.4106	0	969.8401
10/5/2013 22:00	18035	333	1.29987	109.8213	30.61823	2.522927	-133.6753	76.97961	164.1051	0	969.2767
10/5/2013 23:00	18036	333	1.137236	114.4012	24.81565	2.649327	-134.5758	79.36514	164.175	0	968.3504
10/6/2013 0:00	18037	333	0.8678225	107.9709	27.14524	2.801727	-135.0413	81.90024	164.7442	0	967.5164
10/6/2013 1:00	18038	333	0.7143859	110.0429	24.73465	2.91405	-134.614	92.78242	164.4143	0	966.8049
10/6/2013 2:00	18039	333	0.9430502	117.1702	22.48856	3.026736	-134.0416	91.3981	164.3971	0	965.8299
10/6/2013 3:00	18040	333	0.4624127	88.63278	21.2507	3.0633	-135.0184	93.20367	164.5119	0	964.748
10/6/2013 4:00	18041	333	0.6735917	89.14084	50.95095	3.209745	-134.9574	95.67008	164.7642	0	964.0696
10/6/2013 5:00	18042	333	0.528008	93.6003	27.94437	3.361623	-134.3011	96.42253	164.0702	0	963.6764
10/6/2013 6:00	18043	333	0.7954397	107.0589	21.68329	3.166705	-130.2794	98.08462	163.1079	1.016	963.424
10/6/2013 7:00	18044	333	0.111133	39.71538	39.07537	3.240539	-130.0199	97.96862	162.0255	0.508	962.9456
10/6/2013 8:00	18045	333	0.1538716	87.20233	14.50917	3.750694	-129.1423	97.37643	160.3597	0	962.285
10/6/2013 9:00	18046	333	0.1308926	147.997	19.96646	4.424259	-130.0734	95.7815	159.5836	0	961.6802
10/6/2013 10:00	18047	333	0.2370972	186.6147	35.31678	5.397328	-134.469	94.30714	163.2618	0	961.0349
10/6/2013 11:00	18048	333	0.7904123	268.5242	28.65601	6.124861	-134.3698	94.85659	164.5554	0	960.7302
10/6/2013 12:00	18049	333	1.089657	277.328	32.1901	6.927716	-131.1417	88.75311	164.0971	0	960.3149
10/6/2013 13:00	18050	333	0.831367	226.9738	38.82679	8.69205	-137.2773	76.49731	162.7923	0	959.4197
10/6/2013 14:00	18051	333	1.046815	227.729	47.58358	11.14931	-133.1106	63.43258	162.3331	0	958.2148
10/6/2013 15:00	18052	333	1.894862	266.2953	43.75835	12.28409	-134.0492	55.15876	163.62	0	957.5807
10/6/2013 16:00	18053	333	1.878971	293.321	17.9024	11.1489	-133.6143	60.7189	163.7818	0	957.3385
10/6/2013 17:00	18054	333	1.912272	296.2957	15.31212	10.47524	-133.0038	66.08673	163.0316	0	957.3186
10/6/2013 18:00	18055	333	1.476609	286.3141	14.37475	8.860074	-134.095	66.84834	162.2802	0	957.2978
10/6/2013 19:00	18056	333	0.9135994	241.6885	29.86219	8.515833	-134.6979	73.10139	162.7722	0	957.215
10/6/2013 20:00	18057	333	2.92834	278.3948	36.97449	7.339504	-133.2938	94.99242	163.03	0	957.4985
10/6/2013 21:00	18058	333	1.87422	270.4335	26.90808	6.46103	-129.5239	94.39566	160.0126	0	956.9053
10/6/2013 22:00	18059	333	3.274403	290.001	17.50154	6.341389	-129.8063	93.89505	159.4513	0	956.9965
10/6/2013 23:00	18060	333	4.723249	298.3899	14.23257	6.470079	-129.3713	93.99273	159.6546	0	957.2017
10/7/2013 0:00	18061	333	5.147736	301.3936	13.94616	6.155639	-129.0202	90.66093	159.0528	0.762	957.3633
10/7/2013 1:00	18062	333	5.060451	303.5614	15.70175	6.171232	-129.3408	89.00036	159.1988	0	957.7946
10/7/2013 2:00	18063	333	3.714053	304.5637	15.33975	6.056224	-129.3942	91.59805	160.5506	0	958.1985
10/7/2013 3:00	18064	333	3.327857	298.4653	15.13346	5.654611	-113.5135	88.21587	160.7055	0	958.3149
10/7/2013 4:00	18065	333	3.059002	297.9482	15.27285	5.903955	-129.2797	91.81935	162.9045	0	958.5127
10/7/2013 5:00	18066	333	3.021793	297.8806	15.10935	6.158533	-133.309	92.64047	162.0297	0	958.6672
10/7/2013 6:00	18067	333	3.376171	298.5319	15.08764	6.283738	-133.3319	90.60903	161.9886	0	958.8657
10/7/2013 7:00	18068	333	3.83012	298.5246	15.44868	5.990487	-129.0279	90.61056	161.5597	0	959.3076
10/7/2013 8:00	18069	333	4.737883	301.9153	15.31244	5.903684	-128.6234	88.19603	161.7974	0	959.7924
10/7/2013 9:00	18070	333	4.795224	298.4557	14.20286	5.857803	-133.2098	82.88314	161.6011	0	960.2675
10/7/2013 10:00	18071	333	4.41606	302.8706	15.24985	6.558673	-133.4464	77.72594	163.6271	0	960.8153
10/7/2013 11:00	18072	333	3.840392	300.6121	15.68969	7.20611	-133.454	71.20578	163.6386	0	961.1093
10/7/2013 12:00	18073	333	3.662022	300.1413	17.24082	7.697853	-133.4693	71.68961	162.482	0	961.3051
10/7/2013 13:00	18074	333	3.962919	302.7601	16.21434	8.286943	-133.2556	83.39901	163.685	0	961.2756
10/7/2013 14:00	18075	333	2.960582	304.6847	17.23681	8.019693	-134.0416	77.70152	163.2349	0	961.3837
10/7/2013 15:00	18076	333	3.554488	297.7109	15.95848	8.769224	-133.6982	72.27264	163.7813	0	961.4971
10/7/2013 16:00	18077	333	3.22257	295.7352	17.53244	8.57201	-133.8356	65.60291	163.8283	0	961.694

10/7/2013 17:00	18078	333	2.848221	299.7226	16.63242	8.343974	-133.9424	69.63222	163.5621	0	961.8782
10/7/2013 18:00	18079	333	1.859323	287.5126	14.43561	6.783536	-133.4922	73.82178	163.2231	0	961.9567
10/7/2013 19:00	18080	333	1.241058	277.8136	17.18896	5.290659	-132.9274	84.61697	163.2751	0	962.2744
10/7/2013 20:00	18081	333	0.6938156	258.4325	26.40196	4.017983	-132.8282	91.22106	163.0939	0	962.5026
10/7/2013 21:00	18082	333	0.5565137	173.1471	32.44108	3.372126	-131.3172	96.68963	162.4406	0	962.6448
10/7/2013 22:00	18083	333	0.6426914	155.8748	7.484339	3.240286	-130.5923	96.32027	161.4578	0	962.5701
10/7/2013 23:00	18084	333	0.5320054	151.4743	3.92631	3.154161	-128.1198	98.02814	159.6828	0	962.6124
10/8/2013 0:00	18085	333	0.5750551	138.5706	9.523914	2.824666	-131.0654	98.76074	160.5668	0	962.4365
10/8/2013 1:00	18086	333	0.5524725	141.9552	9.570627	3.109387	-131.157	98.8279	161.4336	0	962.3158
10/8/2013 2:00	18087	333	0.8455204	146.0165	13.85216	3.868851	-131.0273	96.60721	161.2695	0	962.2588
10/8/2013 3:00	18088	333	1.186126	145.1589	16.24228	4.812119	-130.8136	88.90574	160.9369	0	961.8896
10/8/2013 4:00	18089	333	1.214681	148.5931	16.49704	5.492836	-130.8441	86.75982	160.8238	0	961.3503
10/8/2013 5:00	18090	333	1.638222	149.4742	17.74311	5.577396	-130.6152	87.07576	160.8479	0	960.7822
10/8/2013 6:00	18091	333	1.551338	144.5337	18.71642	5.690064	-131.2562	90.63193	160.9042	0	960.2901
10/8/2013 7:00	18092	333	1.643524	137.5908	19.45043	5.349042	-130.8289	90.99364	164.1003	0	959.526
10/8/2013 8:00	18093	333	1.552144	145.2633	27.43867	6.407881	-130.4091	81.73846	170.5329	0	958.7041
10/8/2013 9:00	18094	333	1.848773	149.8354	27.02092	8.243927	-326.8455	72.08033	190.0419	0	958.1136
10/8/2013 10:00	18095	333	1.690565	149.9997	28.0202	10.32231	-326.296	67.54736	291.2945	0	957.5974
10/8/2013 11:00	18096	333	1.974564	149.3439	26.65861	13.27834	-328.448	59.4338	354.3604	0	957.0202
10/8/2013 12:00	18097	333	1.74647	148.7655	28.97981	14.72171	-324.7163	60.43502	355.1144	0	956.7057
10/8/2013 13:00	18098	333	1.469655	149.7686	30.92178	16.88845	-321.2517	52.13679	354.8462	0	955.9951
10/8/2013 14:00	18099	333	1.54456	157.8688	34.65514	19.41632	-322.8391	48.57604	352.9227	0	955.6385
10/8/2013 15:00	18100	333	1.026934	153.2632	30.86005	18.82049	-323.5182	54.40327	353.3719	0	955.4758
10/8/2013 16:00	18101	333	1.152943	145.2091	28.87697	19.45043	-324.1592	52.09863	353.3384	0	955.4516
10/8/2013 17:00	18102	333	1.023035	154.3431	28.15792	17.41549	-130.1191	63.49668	198.8269	0	955.7177
10/8/2013 18:00	18103	333	0.6078039	162.5614	23.28817	14.76048	-130.0123	67.84803	159.9541	0	956.2119
10/8/2013 19:00	18104	333	0.1099878	157.0397	5.512411	13.003	-130.4168	77.381	160.1721	0	956.6572
10/8/2013 20:00	18105	333	0.1974375	158.8272	7.181278	11.36242	-131.5386	78.10445	160.2996	0	956.7737
10/8/2013 21:00	18106	333	0.3867995	144.5847	11.95798	10.49029	-326.7386	94.14231	230.9842	0	956.9741
10/8/2013 22:00	18107	333	0.1994461	175.8017	22.86507	9.960523	-326.0594	85.69908	335.1494	0	957.191
10/8/2013 23:00	18108	333	0.5121737	223.3965	21.97398	9.934835	-246.0075	84.64749	292.8599	0	957.6556
10/9/2013 0:00	18109	333	0.5839115	165.6067	20.25953	8.338132	-245.3589	98.08004	275.481	0	958.0695
10/9/2013 1:00	18110	333	0.6910222	163.407	17.63539	7.792663	-243.2373	98.44634	274.6623	0.508	958.6132
10/9/2013 2:00	18111	333	0.6185024	159.5867	20.82924	7.515343	-244.115	98.23571	273.5974	0.254	959.2633
10/9/2013 3:00	18112	333	0.3284135	186.7228	30.22393	7.348328	-245.6565	97.76868	274.9082	0.254	959.7107
10/9/2013 4:00	18113	333	0.4895713	143.4113	12.74799	6.970691	-244.901	98.88437	275.5244	0	960.2965
10/9/2013 5:00	18114	333	0.2846241	174.2932	22.69519	6.675017	-244.2447	98.89047	274.7244	0	960.925
10/9/2013 6:00	18115	333	0.7788454	250.9291	26.88524	6.799713	-245.5344	97.84042	275.2526	0	961.5625
10/9/2013 7:00	18116	333	1.096106	265.9419	28.63729	7.240606	-245.6946	97.43749	275.2097	0	962.3975
10/9/2013 8:00	18117	333	1.799117	293.8433	14.06262	7.442485	-245.3665	98.15025	275.3594	0	963.1754
10/9/2013 9:00	18118	333	1.504446	297.7787	17.97812	8.652153	-245.8701	90.61971	275.2722	0	963.6501
10/9/2013 10:00	18119	333	2.815443	301.4405	13.77745	11.1183	-245.0841	77.09559	274.9492	0	964.4537
10/9/2013 11:00	18120	333	2.281001	303.3526	16.25755	12.73609	-248.564	68.00066	275.7116	0	965.1132
10/9/2013 12:00	18121	333	1.780763	294.8327	23.63717	15.07186	-232.8207	55.95547	274.9871	0	965.5629
10/9/2013 13:00	18122	333	1.749863	296.4188	27.88468	16.53402	-236.3539	52.20852	277.2803	0	966.0629
10/9/2013 14:00	18123	333	1.858873	288.9042	27.82082	17.57531	-244.527	46.31413	274.8711	0	966.29

10/9/2013 15:00	18124	333	1.928918	290.9561	23.18345	17.68129	-244.3897	47.33062	274.2705	0	966.5685
10/9/2013 16:00	18125	333	1.451063	293.1136	15.7313	16.78416	-244.5118	44.05833	274.6933	0	966.9477
10/9/2013 17:00	18126	333	1.121661	291.7248	14.23655	15.94381	-244.8781	48.3181	274.306	0	967.3018
10/9/2013 18:00	18127	333	0.44943	224.4374	39.18858	13.32284	-243.1	65.75249	274.2926	0	967.7093
10/9/2013 19:00	18128	333	0.2796025	170.0328	10.57743	10.17193	-243.0008	79.62765	272.9667	0	967.9805
10/9/2013 20:00	18129	333	0.2866128	152.6614	10.14277	8.39837	-242.6269	95.16338	272.731	0	968.3225
10/9/2013 21:00	18130	333	0.2771782	151.7805	3.389716	7.317715	-241.8256	97.09713	272.0757	0	968.5681
10/9/2013 22:00	18131	333	0.1592789	146.3049	20.07287	6.744815	-241.8256	96.55836	271.7057	0	968.7958
10/9/2013 23:00	18132	333	0.2597481	146.5542	8.504819	6.087165	-242.7261	99.69329	272.0565	0	969.0554
10/10/2013 0:00	18133	333	0.2840132	154.9017	34.34077	5.919649	-242.5963	98.5715	272.4964	0	969.1933
10/10/2013 1:00	18134	333	0.3872784	130.0282	3.519869	5.613149	-241.9019	98.65086	272.3524	0	969.1896
10/10/2013 2:00	18135	333	0.540374	136.6242	6.776502	5.277431	-242.2758	99.14384	272.6	0	969.3
10/10/2013 3:00	18136	333	0.1897402	121.3469	21.99352	4.911075	-242.5658	100	272.6064	0	969.3273
10/10/2013 4:00	18137	333	0.4512532	91.00895	17.76185	5.293026	-242.6116	98.46923	272.5204	0	969.5287
10/10/2013 5:00	18138	333	0.2345443	123.5038	10.67706	4.792677	-242.0927	99.36361	272.4916	0	969.4803
10/10/2013 6:00	18139	333	0.5181792	123.2781	8.533669	4.61325	-242.2376	99.54524	272.421	0	969.3514
10/10/2013 7:00	18140	333	0.3848171	93.91541	14.24952	4.676965	-242.1079	99.24763	272.1624	0	969.0912
10/10/2013 8:00	18141	333	0.7112027	85.41558	38.39082	5.629968	-241.5051	97.66643	271.7726	0	969.017
10/10/2013 9:00	18142	333	0.5627391	111.0462	21.32233	7.292464	-241.8408	95.23815	271.8386	0	968.9349
10/10/2013 10:00	18143	333	0.6956862	104.2795	34.5117	10.42339	-242.2834	75.56629	272.4378	0	968.8228
10/10/2013 11:00	18144	333	0.9812295	99.69212	32.53725	13.66018	-249.4873	65.92953	272.907	0	968.0736
10/10/2013 12:00	18145	333	0.8089678	51.35713	40.62638	15.98592	-243.5731	61.02415	273.4969	0	967.4923
10/10/2013 13:00	18146	333	1.518241	83.47365	30.8369	16.96025	-243.4281	60.34192	273.7883	0	967.0952
10/10/2013 14:00	18147	333	1.102703	103.8906	30.90598	16.40258	-243.7486	62.75645	273.2974	0	966.8466
10/10/2013 15:00	18148	333	1.786087	116.2717	29.48169	17.41432	-243.9318	61.41488	273.7318	0	966.3518
10/10/2013 16:00	18149	333	1.993029	119.1562	27.06145	16.95475	-242.4666	69.59254	273.8004	0	965.922
10/10/2013 17:00	18150	333	1.844959	121.2047	26.66594	15.45502	-242.9855	75.5846	272.5912	0	965.7155
10/10/2013 18:00	18151	333	1.668278	127.1666	25.81176	13.99532	-241.9095	81.25005	272.5465	0	965.6511
10/10/2013 19:00	18152	333	1.154717	122.6796	23.24253	12.7934	-242.0011	86.38742	272.5467	0	965.6509
10/10/2013 20:00	18153	333	1.241735	124.5945	21.80334	12.15129	-241.795	90.37857	272.0906	0	965.3578
10/10/2013 21:00	18154	333	1.201238	129.6475	19.05437	11.67524	-242.0698	93.25708	272.1745	0	965.1664
10/10/2013 22:00	18155	333	1.101293	127.3404	17.83782	11.15366	-242.0774	93.90879	271.9764	0	965.181
10/10/2013 23:00	18156	333	1.263466	132.5785	18.18567	11.80247	-241.7645	91.66978	272.2496	0	964.9704
10/11/2013 0:00	18157	333	1.305809	136.7365	15.47991	11.15562	-242.314	96.75372	272.3647	0	964.7239
10/11/2013 1:00	18158	333	1.301407	138.8819	16.34122	10.91547	-241.3066	93.16093	272.1441	0	964.4704
10/11/2013 2:00	18159	333	1.160787	145.0081	14.00203	11.01203	-242.4666	94.84743	272.1411	0	964.2611
10/11/2013 3:00	18160	333	1.106654	146.3124	13.31694	10.36767	-242.3903	94.08278	272.2151	0	964.2466
10/11/2013 4:00	18161	333	0.9459675	146.7579	15.6004	10.74506	-242.7261	89.30409	272.2643	0	964.1748
10/11/2013 5:00	18162	333	0.700692	146.864	27.2873	11.22114	-242.4666	87.78241	272.5326	0	964.2751
10/11/2013 6:00	18163	333	1.10415	137.2594	17.04641	10.93836	-242.2758	89.68413	272.6499	0	964.0857
10/11/2013 7:00	18164	333	1.109648	137.3587	15.21665	9.709741	-241.9477	92.23602	272.4926	0	964.0366
10/11/2013 8:00	18165	333	1.158339	140.9125	17.64456	10.16399	-242.1461	87.42832	272.2951	0	963.9952
10/11/2013 9:00	18166	333	1.1147	147.23	23.36571	12.27058	-242.665	71.22868	272.3591	0	963.5502
10/11/2013 10:00	18167	333	1.534995	141.7228	26.94189	15.65526	-242.6269	62.64656	272.7595	0	963.5131
10/11/2013 11:00	18168	333	1.38241	138.5427	29.61281	17.1868	-222.3811	56.19052	272.4872	0	963.061
10/11/2013 12:00	18169	333	1.914445	139.2258	28.75516	19.50881	-250.6626	52.12457	271.5571	0	962.4112

10/11/2013 13:00	18170	333	2.238921	146.5181	29.97797	21.05025	-244.4583	51.29277	275.8928	0	961.4524
10/11/2013 14:00	18171	333	2.513858	148.8289	27.96637	20.7011	-243.9471	53.167	274.2599	0	960.6693
10/11/2013 15:00	18172	333	2.306036	150.062	25.70783	19.81592	-243.4586	54.90693	273.6888	0	959.9737
10/11/2013 16:00	18173	333	2.181875	139.5047	27.63318	18.65773	-242.7184	62.66335	273.3837	0	959.7926
10/11/2013 17:00	18174	333	1.961098	132.577	27.80488	17.34481	-243.245	66.52629	273.2118	0	959.8357
10/11/2013 18:00	18175	333	1.892676	133.8527	25.87765	16.01924	-242.6039	73.32423	272.5945	0	959.5573
10/11/2013 19:00	18176	333	2.122795	138.5371	25.81067	15.07418	-242.7413	73.78973	271.9621	0	959.1403
10/11/2013 20:00	18177	333	1.891314	143.2614	26.70515	14.25288	-240.9785	77.06659	272.0191	0	958.8275
10/11/2013 21:00	18178	333	2.038125	138.9197	25.72225	14.09025	-242.2911	76.63619	272.1581	0	958.0727
10/11/2013 22:00	18179	333	2.12081	133.3857	25.42171	14.05815	-242.0698	78.00677	271.8373	0	957.2361
10/11/2013 23:00	18180	333	2.132663	134.1124	26.93196	13.99679	-242.5276	79.66732	272.2151	0	956.3218
10/12/2013 0:00	18181	333	2.163534	133.3022	25.80567	13.3644	-241.1158	81.29584	271.5571	0	955.275
10/12/2013 1:00	18182	333	2.341683	131.8405	24.26462	12.73001	-233.4846	84.27356	271.3549	0	954.3201
10/12/2013 2:00	18183	333	2.302707	136.9397	26.33155	12.28145	-240.7419	85.04585	271.4231	0	953.3242
10/12/2013 3:00	18184	333	2.428195	140.5855	27.33079	12.85967	-240.5206	83.04034	271.3838	0	952.1882
10/12/2013 4:00	18185	333	2.047812	145.9115	30.1341	13.46497	-241.4669	84.87337	271.124	0	951.3495
10/12/2013 5:00	18186	333	2.015625	145.223	26.80257	13.28421	-241.9248	86.47137	271.1951	0	950.802
10/12/2013 6:00	18187	333	2.171664	138.6663	26.67509	13.37318	-242.6269	86.16306	271.7663	0	950.1834
10/12/2013 7:00	18188	333	1.758883	153.0067	25.56865	13.88152	-242.5124	85.59071	272.3982	0	950.015
10/12/2013 8:00	18189	333	1.672513	158.4074	30.05563	13.37575	-240.2383	89.19572	270.2692	0	950.0347
10/12/2013 9:00	18190	333	2.150282	164.3425	28.1917	13.75836	-241.1769	75.42282	270.9947	0	950.1672
10/12/2013 10:00	18191	333	2.304527	173.8222	33.14271	13.7305	-241.093	76.34315	269.7236	0	950.884
10/12/2013 11:00	18192	333	2.940104	171.5067	31.40588	12.90429	-233.2862	68.23112	268.5819	0	951.6977
10/12/2013 12:00	18193	333	2.465628	169.312	33.25625	13.30037	-232.8588	68.97593	263.2146	0	951.9857
10/12/2013 13:00	18194	333	2.699186	174.9587	31.72467	12.88365	-232.5765	73.42495	263.3028	0	952.3203
10/12/2013 14:00	18195	333	2.484194	180.6916	35.57185	12.4992	-233.9348	75.07483	263.7959	0	952.7387
10/12/2013 15:00	18196	333	2.214104	173.6543	34.41553	12.52718	-233.538	81.38741	263.8347	0	953.454
10/12/2013 16:00	18197	333	1.895097	182.9234	38.80409	11.53683	-238.7196	94.33614	265.5791	0	954.3712
10/12/2013 17:00	18198	333	2.710607	262.859	28.26519	9.642292	-240.8946	94.3453	268.3858	0	955.9366
10/12/2013 18:00	18199	333	3.554732	272.4007	23.78836	7.976959	-239.147	89.34072	270.3038	0	957.2318
10/12/2013 19:00	18200	333	3.884883	279.5453	22.31847	7.075393	-239.2844	86.77509	270.0425	0	958.272
10/12/2013 20:00	18201	333	3.92206	281.5714	22.99804	6.133502	-239.0707	84.80928	267.209	0	959.3792
10/12/2013 21:00	18202	333	5.752922	290.4898	20.16298	5.382848	-239.4141	81.86971	267.2256	0	960.6622
10/12/2013 22:00	18203	333	5.804574	293.2816	16.74594	4.378657	-240.1772	73.21433	266.5098	0	962.3631
10/12/2013 23:00	18204	333	4.678501	291.4817	18.16101	3.514646	-241.093	79.5727	269.3207	0	963.647
10/13/2013 0:00	18205	333	3.404894	285.1062	19.23021	3.223095	-239.6583	78.99731	269.8361	0	964.5716
10/13/2013 1:00	18206	333	3.108516	283.4623	20.53337	3.059149	-240.0856	81.08674	269.3108	0	965.3187
10/13/2013 2:00	18207	333	2.890612	271.6888	27.25835	3.089222	-239.8185	80.99364	269.5763	0	966.023
10/13/2013 3:00	18208	333	3.20868	267.9911	25.71839	3.786908	-238.3915	82.47716	268.0916	0	966.6579
10/13/2013 4:00	18209	333	2.837098	266.2382	27.74308	3.899864	-239.0173	82.63436	268.6683	0	967.2974
10/13/2013 5:00	18210	333	2.758396	267.1211	25.77553	4.314776	-239.498	82.52753	268.8282	0	967.9159
10/13/2013 6:00	18211	333	2.541832	263.4342	28.51387	4.434953	-239.8109	83.94389	268.7231	0	968.5366
10/13/2013 7:00	18212	333	2.747591	262.8036	27.03194	4.429844	-239.0173	83.88436	269.2545	0	969.2065
10/13/2013 8:00	18213	333	2.93542	262.3798	25.376	4.388132	-240.139	81.66061	269.6628	0	969.7976
10/13/2013 9:00	18214	333	3.426369	274.5071	26.3989	4.906899	-232.0881	74.62154	269.0381	0	970.3445
10/13/2013 10:00	18215	333	4.409773	280.3898	22.85078	6.001413	-241.3448	66.73845	270.2432	0	970.9543

10/13/2013 11:00	18216	333	4.757934	283.4016	23.78049	6.277516	-238.9257	59.83826	268.9872	0	971.6425
10/13/2013 12:00	18217	333	4.863765	285.3279	23.98886	7.359349	-233.4617	59.19723	261.9182	0	972.1443
10/13/2013 13:00	18218	333	4.669801	281.9954	25.29931	7.935153	-238.1702	54.19417	267.0214	0	972.5257
10/13/2013 14:00	18219	333	4.200735	286.5194	21.90132	7.794214	-232.4239	44.99545	264.6089	0	972.9713
10/13/2013 15:00	18220	333	3.839165	281.0735	24.55917	8.180857	-232.3552	49.72531	264.2525	0	973.3271
10/13/2013 16:00	18221	333	3.743759	281.7257	24.17432	7.666054	-231.7981	52.97775	262.9541	0	973.7864
10/13/2013 17:00	18222	333	3.135173	274.4432	25.4657	7.402952	-239.8491	54.0507	264.2415	0	974.2031
10/13/2013 18:00	18223	333	2.546938	266.9471	25.60565	6.895222	-232.7825	55.98599	264.7643	0	974.4363
10/13/2013 19:00	18224	333	2.109046	260.7366	25.32594	6.481147	-239.5896	59.12855	266.9161	0	974.7659
10/13/2013 20:00	18225	333	1.347132	239.7499	33.1386	5.807241	-238.7044	62.96707	268.7478	0	975.1367
10/13/2013 21:00	18226	333	1.404168	221.957	31.87213	5.127751	-240.3833	67.30926	270.4922	0	975.4277
10/13/2013 22:00	18227	333	1.454029	218.3628	33.0441	5.021231	-240.803	66.90481	270.5644	0	975.5507
10/13/2013 23:00	18228	333	1.921299	226.8754	32.92146	5.179583	-240.0322	65.32361	270.4608	0	975.7516
10/14/2013 0:00	18229	333	1.857073	237.7102	34.14919	5.956364	-237.9794	63.53789	269.9897	0	975.9246
10/14/2013 1:00	18230	333	1.967059	250.1059	31.04165	6.180512	-241.3066	67.12459	270.0025	0	976.3093
10/14/2013 2:00	18231	333	1.808114	253.3624	27.17682	5.519838	-240.0933	70.08552	269.8283	0	976.8122
10/14/2013 3:00	18232	333	1.871903	257.1681	22.6313	4.52151	-240.9403	76.18137	270.7392	0	977.106
10/14/2013 4:00	18233	333	1.579009	264.6153	23.55275	3.727476	-241.1235	79.62002	270.526	0	977.2116
10/14/2013 5:00	18234	333	1.546659	272.2242	21.43576	2.818218	-241.093	80.64413	270.22	0	977.452
10/14/2013 6:00	18235	333	1.122199	240.5869	36.56139	2.166907	-239.2691	89.11636	270.0821	0	977.3524
10/14/2013 7:00	18236	333	0.9627988	226.4106	21.39669	1.697472	-239.8719	90.26104	267.1461	0	977.4382
10/14/2013 8:00	18237	333	0.9226634	217.3091	24.10347	2.506219	-240.1238	86.50341	268.8553	0	977.2136
10/14/2013 9:00	18238	333	1.355225	211.6531	28.40516	4.153735	-242.1613	77.94418	270.4073	0	977.7763
10/14/2013 10:00	18239	333	1.361196	239.683	36.22268	6.746223	-242.1613	65.46707	270.9372	0	977.9614
10/14/2013 11:00	18240	333	1.863407	248.5797	35.67987	9.121078	-245.9388	49.76651	271.9576	0	977.8434
10/14/2013 12:00	18241	333	2.447238	252.5837	33.01766	10.9972	-232.0347	42.1963	264.1355	0	977.5925
10/14/2013 13:00	18242	333	2.775128	253.0389	31.46952	11.38323	-233.0573	35.84709	259.4863	0	977.1785
10/14/2013 14:00	18243	333	2.716512	246.163	32.40635	12.09743	-230.5313	39.87182	261.0405	0	976.8138
10/14/2013 15:00	18244	333	2.229712	257.4467	32.39557	11.52264	-230.5008	38.82176	260.4932	0	976.2968
10/14/2013 16:00	18245	333	2.193039	281.2182	23.57648	10.81618	-230.1421	43.51651	260.3684	0	976.0359
10/14/2013 17:00	18246	333	1.349926	273.8915	20.58125	9.555028	-231.821	47.57634	260.4774	0	975.8984
10/14/2013 18:00	18247	333	0.8568594	257.2384	21.11811	8.76555	-241.7493	52.062	268.9288	0	975.8972
10/14/2013 19:00	18248	333	0.8334211	244.7776	18.77575	7.703671	-238.8494	58.36085	270.4405	0	975.7505
10/14/2013 20:00	18249	333	0.9180877	214.7083	15.17952	6.555434	-240.2383	61.64381	270.254	0	975.9331
10/14/2013 21:00	18250	333	0.8897437	228.9095	18.64727	5.81771	-238.3381	69.06445	266.2074	0	975.3676
10/14/2013 22:00	18251	333	1.047912	240.5504	17.23576	5.306505	-232.5688	71.78118	265.1719	0	975.1624
10/14/2013 23:00	18252	333	1.672384	287.6087	21.53851	4.70483	-238.6739	75.01836	267.9842	0	975.4268
10/15/2013 0:00	18253	333	2.311678	319.7378	23.29816	4.294856	-237.9031	76.77508	268.9959	0	975.325
10/15/2013 1:00	18254	333	1.51084	353.8224	25.5955	3.255251	-238.0634	82.40237	268.5067	0	974.8984
10/15/2013 2:00	18255	333	1.452048	346.5145	27.77091	2.373682	-238.6967	85.34041	268.3507	0	974.6571
10/15/2013 3:00	18256	333	1.344494	2.50275	26.14074	1.644816	-239.6583	88.27539	268.9267	0	974.4568
10/15/2013 4:00	18257	333	0.9158882	2.01762	29.71066	1.003995	-239.0783	88.01745	269.3852	0	974.0797
10/15/2013 5:00	18258	333	0.8711953	14.26551	31.17673	0.7331044	-239.1394	90.79371	269.4379	0	973.8113
10/15/2013 6:00	18259	333	0.9195677	5.339729	23.83462	0.179543	-238.8341	89.39719	268.0901	0	973.9102
10/15/2013 7:00	18260	333	1.152596	10.21843	27.56343	-0.3052339	-238.8417	85.84865	268.6008	0	973.3768
10/15/2013 8:00	18261	333	0.694795	33.35132	30.96793	0.09935245	-238.3152	83.51501	267.856	0	973.5048

10/15/2013 9:00	18262	333	1.103165	7.249361	28.24273	0.7832606	-238.2541	79.76806	268.1511	0	972.9885
10/15/2013 10:00	18263	333	1.271983	8.87259	35.1732	2.097052	-239.6812	68.43716	268.7042	0	972.6119
10/15/2013 11:00	18264	333	1.375943	10.20224	42.23457	3.408635	-230.6839	57.77018	266.1143	0	972.1703
10/15/2013 12:00	18265	333	1.204235	335.6013	32.00706	4.198493	-231.9355	58.20059	270.5588	0	971.6676
10/15/2013 13:00	18266	333	1.614181	320.4774	41.21093	5.028183	-214.5133	53.56078	263.4958	0	970.7925
10/15/2013 14:00	18267	333	1.709302	303.3574	22.68063	5.732945	-239.4751	51.67585	266.659	0	969.8563
10/15/2013 15:00	18268	333	1.524507	340.5789	30.31618	6.60531	-238.1626	43.65235	265.7441	0	968.7092
10/15/2013 16:00	18269	333	1.584467	341.1465	29.49565	7.394043	-238.2618	44.88251	266.9767	0	968.0197
10/15/2013 17:00	18270	333	0.8318034	63.21864	46.23409	6.485616	-231.0044	51.71707	266.8513	0	967.7703
10/15/2013 18:00	18271	333	0.6430812	123.3546	19.68919	3.688011	-227.929	69.74974	259.1664	0	967.5816
10/15/2013 19:00	18272	333	0.3350498	154.4226	3.067472	1.588314	-230.165	70.96158	259.2835	0	967.3166
10/15/2013 20:00	18273	333	0.4094791	158.1244	3.453853	0.7974883	-229.0661	88.87674	263.5823	0	966.9196
10/15/2013 21:00	18274	333	0.364665	164.4371	7.118436	0.3332995	-228.6158	85.72655	260.4153	0	966.4875
10/15/2013 22:00	18275	333	0.3244427	162.4951	9.191525	-0.1214675	-229.2721	89.23846	259.0806	0	965.9984
10/15/2013 23:00	18276	333	0.3529056	189.1524	31.78634	-0.3844605	-228.4403	91.44542	258.9807	0	965.7209
10/16/2013 0:00	18277	333	0.4529686	203.6338	44.03926	-0.5822392	-227.6696	96.9735	258.038	0	965.4402
10/16/2013 1:00	18278	333	0.5954472	191.693	31.79059	-0.5713564	-227.2498	96.06844	257.811	0	964.821
10/16/2013 2:00	18279	333	0.4932358	161.6428	8.199944	-1.059503	-228.0359	92.74731	257.4234	0	964.2281
10/16/2013 3:00	18280	333	0.5230481	162.0946	8.821991	-1.300508	-228.074	94.93291	257.4408	0	963.4615
10/16/2013 4:00	18281	333	0.5964656	165.3745	11.99957	-1.508007	-227.1506	94.7116	257.3642	0	962.6352
10/16/2013 5:00	18282	333	0.5924069	177.5136	13.32199	-1.293324	-227.494	94.96648	257.4423	0	962.2781
10/16/2013 6:00	18283	333	0.7132425	165.82	14.02127	-1.519315	-227.2193	96.79646	257.4704	0	961.8734
10/16/2013 7:00	18284	333	0.7878122	181.5826	20.89259	-0.9501199	-227.0056	94.42162	257.2915	0	961.4561
10/16/2013 8:00	18285	333	0.8508143	164.3346	21.99628	0.2512481	-238.8265	91.40269	258.1095	0	960.7438
10/16/2013 9:00	18286	333	1.125778	176.5115	29.9759	2.135227	-228.7608	82.3978	262.6701	0	960.3787
10/16/2013 10:00	18287	333	1.436507	193.7052	37.63755	4.46444	-236.1784	74.72227	262.6842	0	960.0208
10/16/2013 11:00	18288	333	1.555842	207.2117	36.76584	6.086315	-229.15	58.79735	261.7113	0	959.5477
10/16/2013 12:00	18289	333	1.721334	203.2516	36.13842	8.739101	-228.7303	52.86023	258.9643	0	959.129
10/16/2013 13:00	18290	333	1.776755	197.5148	38.25943	10.78046	-238.4831	47.07878	265.7572	0	958.4185
10/16/2013 14:00	18291	333	1.836972	212.5728	42.08044	11.88458	-228.1351	41.67127	269.8612	0	957.8169
10/16/2013 15:00	18292	333	1.736823	227.9526	39.80934	12.35386	-236.7889	45.14197	266.7733	0	957.3143
10/16/2013 16:00	18293	333	1.670774	236.6899	34.68954	11.84682	-233.7364	49.82756	265.2645	0	957.2712
10/16/2013 17:00	18294	333	1.028856	260.2714	25.56954	10.55144	-234.7743	56.8117	264.4777	0	957.5578
10/16/2013 18:00	18295	333	1.945851	271.4701	21.52308	9.555429	-222.4651	58.99729	260.0231	0	957.7651
10/16/2013 19:00	18296	333	1.607272	271.7442	20.0968	9.266477	-222.1216	59.9161	253.1479	0	957.9479
10/16/2013 20:00	18297	333	2.171976	285.383	17.32839	8.346552	-223.8616	66.97043	253.4416	0	958.1395
10/16/2013 21:00	18298	333	1.347178	273.1796	17.18052	6.719031	-222.7474	70.85933	253.9438	0	958.2703
10/16/2013 22:00	18299	333	1.400731	267.6286	18.13381	6.409157	-221.6104	81.25311	253.0422	0	958.4906
10/16/2013 23:00	18300	333	1.921737	278.883	17.7728	5.967093	-222.7245	84.71312	252.2613	0	958.5851
10/17/2013 0:00	18301	333	2.818569	296.6209	13.20246	5.779188	-224.0142	89.33462	252.9487	0	958.5695
10/17/2013 1:00	18302	333	2.927157	303.6371	13.59946	6.167145	-223.4647	90.37247	254.0637	0	959.0253
10/17/2013 2:00	18303	333	2.722006	308.6448	15.07944	5.969223	-223.7013	87.6191	253.3797	0	959.4336
10/17/2013 3:00	18304	333	2.967675	306.0785	15.24231	5.658945	-222.6635	89.00036	252.9874	0	959.62
10/17/2013 4:00	18305	333	3.401757	306.4534	15.42531	5.272838	-222.5337	85.86239	252.4032	0	959.8482
10/17/2013 5:00	18306	333	2.92558	314.5026	16.62561	4.813312	-221.7859	88.69359	252.0983	0	960.2549
10/17/2013 6:00	18307	333	2.780026	312.0445	17.87731	4.175531	-221.6867	91.18596	251.4558	0	960.8815

10/17/2013 7:00	18308	333	2.801821	309.8017	14.7564	3.606425	-221.6104	90.34805	251.1833	0	961.3004
10/17/2013 8:00	18309	333	2.966938	316.9591	17.19522	3.495238	-221.3738	87.26043	250.8625	0	961.967
10/17/2013 9:00	18310	333	2.28691	330.2212	24.12978	3.562283	-221.2517	71.53545	253.8696	0	962.5211
10/17/2013 10:00	18311	333	2.402623	324.4931	24.34211	4.316568	-232.6375	68.84619	253.0122	0	962.6294
10/17/2013 11:00	18312	333	2.399759	321.1995	23.77594	5.315351	-230.5847	58.58215	259.2676	0	962.524
10/17/2013 12:00	18313	333	2.453925	320.1423	23.71592	5.800348	-223.4953	57.67556	258.2934	0	962.4936
10/17/2013 13:00	18314	333	2.539297	314.4655	21.69268	5.973608	-223.1213	53.19295	254.3801	0	962.3859
10/17/2013 14:00	18315	333	2.0361	316.7667	26.16673	6.471086	-231.1876	53.27384	258.2862	0	962.249
10/17/2013 15:00	18316	333	1.790976	298.1826	22.14462	6.781893	-232.3246	46.15388	261.0143	0	962.027
10/17/2013 16:00	18317	333	2.173495	293.0539	25.60822	7.700852	-232.8283	50.31596	262.6407	0	961.9174
10/17/2013 17:00	18318	333	2.173359	292.3922	12.64451	5.944517	-223.4113	55.76163	256.5119	0	961.9671
10/17/2013 18:00	18319	333	1.787948	294.3492	12.09736	4.774817	-230.9129	57.99912	253.5521	0	962.1444
10/17/2013 19:00	18320	333	1.141914	292.9171	10.73459	4.213602	-231.096	60.16793	259.7422	0	962.3195
10/17/2013 20:00	18321	333	1.120287	284.9351	11.83364	4.244661	-232.0194	65.27935	261.3968	0	962.3538
10/17/2013 21:00	18322	333	0.4751318	280.7473	9.235344	3.077491	-232.9428	72.66183	262.1304	0	962.3195
10/17/2013 22:00	18323	333	2.152303	293.5854	13.15896	3.531865	-231.5005	73.20517	261.2322	0	962.304
10/17/2013 23:00	18324	333	2.673388	295.8296	13.99555	3.472323	-230.8137	81.12948	261.92	0	962.1833
10/18/2013 0:00	18325	333	2.147453	286.0117	14.70748	2.554454	-221.2517	88.34407	257.9402	0	962.0345
10/18/2013 1:00	18326	333	1.641126	278.1001	12.44702	1.319635	-231.9278	91.39963	257.4687	0	961.8911
10/18/2013 2:00	18327	333	1.333184	275.9836	12.55445	1.488445	-221.7019	88.04188	258.6757	0	961.8327
10/18/2013 3:00	18328	333	1.72357	274.0509	18.59403	1.717339	-219.6033	93.40665	250.9547	0	961.7508
10/18/2013 4:00	18329	333	1.498118	273.7804	22.35125	1.175128	-220.6946	96.03028	250.3255	0	961.6761
10/18/2013 5:00	18330	333	1.766649	269.2007	23.00157	0.8483676	-220.6946	95.40147	250.6269	0	961.6625
10/18/2013 6:00	18331	333	1.721819	283.1595	21.76727	0.8415877	-220.4122	93.90115	250.4548	0	961.6327
10/18/2013 7:00	18332	333	0.6698185	224.8409	39.64161	0.4875565	-225.487	95.94787	250.9432	0	961.373
10/18/2013 8:00	18333	333	0.6277733	215.2233	31.44199	0.1756368	-220.6183	92.59316	254.4878	0	961.4445
10/18/2013 9:00	18334	333	1.338254	261.4953	43.36154	1.399997	-220.3665	90.04432	250.3958	0	961.5078
10/18/2013 10:00	18335	333	1.568009	266.4766	33.87644	2.845356	-222.0988	77.77325	252.2117	0	961.2058
10/18/2013 11:00	18336	333	1.900467	271.5943	30.66178	3.86267	-226.7843	69.2766	258.7558	0	960.8957
10/18/2013 12:00	18337	333	1.71624	277.8909	48.65248	5.62703	-233.2099	57.94723	256.2776	0	960.6023
10/18/2013 13:00	18338	333	1.671601	264.6383	34.83791	5.727467	-233.2251	54.51316	262.851	0	960.0303
10/18/2013 14:00	18339	333	1.333279	232.7444	41.31056	6.286692	-231.9965	55.73569	262.4232	0	959.5563
10/18/2013 15:00	18340	333	0.8933448	226.0468	39.00195	6.053749	-231.5157	55.60138	262.1304	0	959.1716
10/18/2013 16:00	18341	333	0.4930048	189.0492	30.60105	5.909596	-231.531	54.64747	261.7454	0	958.953
10/18/2013 17:00	18342	333	0.719923	201.0777	24.32009	5.421556	-232.1491	59.10413	261.5279	0	958.8452
10/18/2013 18:00	18343	333	0.3322903	180.3359	14.11456	4.578315	-231.2563	66.39046	261.8685	0	958.8071
10/18/2013 19:00	18344	333	0.3135739	169.7186	10.93425	3.933417	-222.6482	68.20822	256.8645	0	958.7063
10/18/2013 20:00	18345	333	0.470817	173.6412	14.51202	3.503314	-221.8011	73.03118	252.1227	0	958.6094
10/18/2013 21:00	18346	333	0.5783315	180.1384	12.30396	2.702322	-221.679	75.58919	251.733	0	958.5118
10/18/2013 22:00	18347	333	0.5457658	185.2495	10.78336	1.992944	-223.0145	79.37429	252.7522	0	958.3391
10/18/2013 23:00	18348	333	0.4338423	175.8252	19.14936	1.755136	-221.9766	82.97625	252.0053	0	958.1221
10/19/2013 0:00	18349	333	0.4823531	157.8123	6.779696	1.079036	-230.6152	87.81447	259.7926	0	957.7375
10/19/2013 1:00	18350	333	0.7521247	146.0736	20.16633	0.4891292	-222.7016	94.39414	255.1309	0	957.4415
10/19/2013 2:00	18351	333	0.3831884	161.6505	11.7789	0.8744357	-221.9385	91.65299	256.739	0	957.4088
10/19/2013 3:00	18352	333	0.1951457	177.3086	51.12547	0.8218246	-221.1449	94.18047	252.3825	0	957.1229
10/19/2013 4:00	18353	333	0.7445997	127.5681	29.94844	-0.3188907	-221.3356	99.48267	251.3903	0	956.998

10/19/2013 5:00	18354	333	0.7635253	128.6851	12.77246	-0.4504599	-221.7782	100	251.242	0	956.9677
10/19/2013 6:00	18355	333	0.305077	215.8493	41.99349	-0.3528672	-221.7325	99.20489	251.5169	0	957.117
10/19/2013 7:00	18356	333	0.3814756	123.4424	12.9138	-0.2683219	-221.4653	99.99396	251.6833	0	957.2966
10/19/2013 8:00	18357	333	0.2219093	113.2693	22.05283	0.4341684	-221.1906	98.12277	251.2502	0	957.5037
10/19/2013 9:00	18358	333	0.3351059	87.28289	23.99297	2.252316	-221.8851	84.3865	251.8625	0	957.6113
10/19/2013 10:00	18359	333	0.3496286	47.80184	47.47762	3.53719	-221.5798	78.30286	254.5224	0	957.52
10/19/2013 11:00	18360	333	1.304434	86.90106	40.1077	4.512003	-234.3927	72.06354	255.071	0	957.2856
10/19/2013 12:00	18361	333	1.757175	79.13993	29.9625	4.381259	-233.3854	72.93503	264.5063	0	957.2697
10/19/2013 13:00	18362	333	0.808309	102.2739	47.3765	4.214829	-238.1015	65.18014	263.6441	0	956.9551
10/19/2013 14:00	18363	333	1.131908	312.8795	86.18357	5.574464	-223.2434	71.50036	255.4737	0	956.8347
10/19/2013 15:00	18364	333	0.7071855	247.8806	21.1218	4.005054	-231.0426	75.87002	254.543	0	956.873
10/19/2013 16:00	18365	333	0.4739035	216.3598	46.03811	5.918577	-223.6174	59.34985	255.4061	0	956.9039
10/19/2013 17:00	18366	333	3.030081	304.8648	15.21934	4.154955	-233.6449	86.83157	258.5882	0	957.23
10/19/2013 18:00	18367	333	1.510588	310.4622	34.2492	2.127147	-226.2578	87.99761	262.961	0	957.531
10/19/2013 19:00	18368	333	0.7680885	7.025331	16.80024	1.418638	-221.0456	91.07455	252.2103	0	957.6267
10/19/2013 20:00	18369	333	0.8202224	12.00918	27.73193	1.38621	-221.3127	88.33492	252.3471	0	957.5491
10/19/2013 21:00	18370	333	0.5804903	74.83097	24.08599	1.228585	-222.3124	94.14536	255.3024	0	957.3698
10/19/2013 22:00	18371	333	0.5978949	95.76035	19.326	0.3127525	-222.2514	95.96923	252.8992	0	957.2677
10/19/2013 23:00	18372	333	0.6995724	111.959	26.19434	0.1335455	-222.4193	96.37674	252.3577	0	957.1878
10/20/2013 0:00	18373	333	0.6179814	106.5573	18.32921	0.1084695	-228.8982	97.28639	255.1621	0	956.995
10/20/2013 1:00	18374	333	0.7221764	111.467	15.49148	0.08165666	-232.5994	97.19176	260.2107	0	956.8893
10/20/2013 2:00	18375	333	0.2096312	127.7085	20.38343	0.2955132	-230.1574	98.4967	260.7323	0	956.9525
10/20/2013 3:00	18376	333	0.4855351	134.5132	31.08501	0.3102209	-230.9358	99.2873	261.1752	0	956.8147
10/20/2013 4:00	18377	333	0.7810892	142.4905	16.29288	0.12848	-231.6836	99.67039	261.7908	0	956.5745
10/20/2013 5:00	18378	333	0.6948978	116.0949	18.24481	-0.03318362	-231.7523	99.88406	262.7048	0	956.5696
10/20/2013 6:00	18379	333	0.2935326	145.1555	14.07102	0.2891241	-231.2105	99.12553	261.3799	0	956.476
10/20/2013 7:00	18380	333	0.2053701	162.535	10.16451	0.5017731	-231.0426	98.88132	256.4785	0	956.5706
10/20/2013 8:00	18381	333	0.4241436	158.8889	12.48602	0.2883977	-222.6024	98.86606	259.2094	0	956.6896
10/20/2013 9:00	18382	333	0.5608627	163.3356	20.19803	1.548191	-231.2792	94.71313	257.3409	0	956.8273
10/20/2013 10:00	18383	333	0.5646078	170.5975	26.13788	2.490655	-222.9611	94.58187	256.4806	0	956.9401
10/20/2013 11:00	18384	333	0.8086568	152.2792	32.18274	2.108589	-233.9043	98.06326	256.8011	0	956.9668
10/20/2013 12:00	18385	333	0.973502	139.3121	23.55789	1.238141	-234.7819	98.23267	263.4251	0	957.0713
10/20/2013 13:00	18386	333	1.187893	120.0359	26.31009	2.838803	-236.3845	91.84682	264.8542	0	956.8464
10/20/2013 14:00	18387	333	1.079412	135.4434	37.15689	3.709085	-233.6372	87.22991	265.2609	0	956.6135
10/20/2013 15:00	18388	333	1.096528	103.7233	23.54292	2.705698	-235.8732	93.56691	265.3786	0	956.6705
10/20/2013 16:00	18389	333	2.406426	306.5153	37.69342	1.393433	-237.056	97.70916	266.372	0	956.9392
10/20/2013 17:00	18390	333	0.9270237	343.014	29.87484	1.579468	-236.3692	97.1536	266.5112	0	957.3265
10/20/2013 18:00	18391	333	0.52925	97.19006	30.80577	1.154607	-236.7279	98.25403	266.4828	0	957.5657
10/20/2013 19:00	18392	333	0.2911581	106.906	70.07779	1.030859	-237.3231	97.44512	267.116	0	957.8216
10/20/2013 20:00	18393	333	0.06139081	203.8994	1.96459	0.8123635	-237.3918	98.16703	267.7276	0	957.9036
10/20/2013 21:00	18394	333	0	0	0	0.6909608	-237.8726	97.97472	265.7231	0	957.9017
10/20/2013 22:00	18395	333	0.1860506	69.01397	16.20651	0.798354	-238.5289	97.98846	268.3242	0	957.7435
10/20/2013 23:00	18396	333	0	0	0	0.6205451	-236.7279	98.61423	267.9678	0	957.6439
10/21/2013 0:00	18397	333	0.4085963	74.49541	14.12345	0.5582625	-233.9883	98.76837	266.8453	0	957.6404
10/21/2013 1:00	18398	333	0.97371	73.25547	21.27871	0.5525368	-236.1174	98.84621	265.7953	0	957.7054
10/21/2013 2:00	18399	333	1.167759	71.30199	20.74046	0.6446009	-237.7352	98.44939	265.4031	0	957.8807

10/21/2013 3:00	18400	333	1.580238	57.1111	30.63257	0.7621599	-237.4987	97.57485	266.7136	0	958.061
10/21/2013 4:00	18401	333	1.560256	37.68148	31.13857	0.6783735	-237.9565	97.98998	267.5391	0	958.2715
10/21/2013 5:00	18402	333	1.320051	25.3874	30.75278	0.5688761	-238.9333	99.10415	267.8577	0	958.5649
10/21/2013 6:00	18403	333	1.253068	23.24779	28.92603	0.3982198	-239.7651	98.4677	268.7587	0	958.8157
10/21/2013 7:00	18404	333	1.651475	42.48126	34.68236	0.5409694	-235.7892	97.16123	267.3972	0	959.1783
10/21/2013 8:00	18405	333	1.769701	38.2261	33.55423	0.4769953	-239.582	96.54311	267.9413	0	959.7563
10/21/2013 9:00	18406	333	1.687207	22.37122	34.34116	0.6455867	-238.9562	95.61819	269.3369	0	960.3121
10/21/2013 10:00	18407	333	2.046566	19.50192	33.64204	0.520648	-230.7907	95.94633	264.8748	0	960.8609
10/21/2013 11:00	18408	333	2.270959	19.30023	35.03968	0.6782596	-231.8362	90.93718	262.0948	0	961.3116
10/21/2013 12:00	18409	333	2.426107	38.00574	35.64753	0.9634272	-235.6137	85.88833	263.3077	0	961.7081
10/21/2013 13:00	18410	333	2.411888	21.24941	32.6059	1.403631	-236.4379	86.22258	263.2985	0	961.8148
10/21/2013 14:00	18411	333	2.245436	8.910364	34.19643	1.524274	-238.0481	82.21465	265.9397	0	962.0031
10/21/2013 15:00	18412	333	2.30087	0.4046931	31.2849	1.892199	-237.7505	81.20274	267.5583	0	962.2672
10/21/2013 16:00	18413	333	2.015739	5.608644	28.10724	1.392581	-238.796	87.49548	267.7574	0	962.6655
10/21/2013 17:00	18414	333	1.87696	10.90567	29.16925	0.2082411	-231.531	84.20029	262.6278	0	963.1412
10/21/2013 18:00	18415	333	1.98967	8.803511	28.3979	-0.06970419	-239.3531	83.863	262.3831	0	963.7519
10/21/2013 19:00	18416	333	1.502478	353.1928	27.80239	-0.5234246	-231.0579	88.863	263.7166	0	964.0496
10/21/2013 20:00	18417	333	1.940782	336.8694	21.82564	-0.5584422	-231.1265	90.43656	262.7502	0	964.2333
10/21/2013 21:00	18418	333	2.097761	335.6107	23.23606	-0.8247777	-231.9049	94.82301	263.6681	0	964.6013
10/21/2013 22:00	18419	333	1.961613	342.8526	24.77757	-1.20035	-230.7297	94.16215	263.6714	0	964.8477
10/21/2013 23:00	18420	333	1.985022	348.7453	24.62444	-1.657071	-235.255	94.32546	264.851	0	965.0455
10/22/2013 0:00	18421	333	1.970409	1.511297	28.75258	-1.787699	-235.0643	91.13254	265.0449	0	965.241
10/22/2013 1:00	18422	333	1.593051	0.3248611	27.6239	-1.929191	-234.9269	91.36605	265.337	0	965.5301
10/22/2013 2:00	18423	333	1.166187	13.71492	23.49086	-2.347131	-235.6671	92.19176	265.4547	0	965.5855
10/22/2013 3:00	18424	333	1.00781	5.916586	25.34806	-2.690393	-235.3771	96.24395	264.9729	0	965.6926
10/22/2013 4:00	18425	333	1.917356	312.2801	23.00423	-2.262187	-235.7206	94.95885	265.2228	0	965.765
10/22/2013 5:00	18426	333	1.407166	297.6644	19.69951	-1.924056	-235.1635	93.09072	265.1644	0	965.7808
10/22/2013 6:00	18427	333	1.563906	297.1602	21.89882	-1.844805	-234.8124	85.48235	264.9611	0	965.7511
10/22/2013 7:00	18428	333	2.061081	289.7807	15.93434	-1.658138	-235.6213	85.10995	265.3937	0	965.6616
10/22/2013 8:00	18429	333	1.532111	278.4074	15.09789	-1.577681	-235.7587	87.7061	265.3519	0	965.5515
10/22/2013 9:00	18430	333	1.925123	281.5869	21.41017	-0.8254972	-236.0716	85.49151	265.0826	0	965.4857
10/22/2013 10:00	18431	333	2.475114	294.5032	16.06449	-0.325254	-232.2331	92.67405	262.3071	0	965.2533
10/22/2013 11:00	18432	333	2.948685	311.525	18.89305	-1.107951	-237.926	90.77997	265.7249	0	965.0812
10/22/2013 12:00	18433	333	3.643501	307.7078	15.06639	0.1993975	-240.3298	81.87429	268.3876	0	964.8503
10/22/2013 13:00	18434	333	4.778107	305.198	14.71726	0.07895016	-231.6683	80.59682	263.322	0	964.5381
10/22/2013 14:00	18435	333	5.212281	301.1964	13.97796	-0.2835543	-231.6836	83.85232	262.1833	0	964.3426
10/22/2013 15:00	18436	333	6.091378	302.8572	13.6491	-0.7604596	-236.2318	78.01592	263.3037	0	964.2174
10/22/2013 16:00	18437	333	5.150812	306.1908	14.59365	-1.187937	-234.4614	82.41153	265.2126	0	964.308
10/22/2013 17:00	18438	333	4.210823	308.3369	15.28541	-1.603973	-234.7667	83.30439	264.7649	0	964.4529
10/22/2013 18:00	18439	333	5.862958	301.7628	13.74542	-2.482808	-235.0185	82.32912	264.9583	0	964.6133
10/22/2013 19:00	18440	333	5.223466	299.5007	13.50159	-3.044635	-235.0108	84.27356	264.8138	0	964.5591
10/22/2013 20:00	18441	333	4.8663	303.5255	14.49225	-3.228424	-234.408	84.60475	264.5489	0	964.4883
10/22/2013 21:00	18442	333	4.711654	301.0515	14.04798	-3.613188	-234.6445	85.47167	264.4268	0	964.6749
10/22/2013 22:00	18443	333	3.976806	309.3091	16.65779	-3.602195	-234.3622	84.41397	264.3706	0	964.6076
10/22/2013 23:00	18444	333	4.274203	301.7294	14.48793	-3.76871	-234.1867	88.56233	264.3105	0	964.5131
10/23/2013 0:00	18445	333	4.257678	302.3964	14.77808	-3.778527	-234.5835	91.52937	264.5155	0	964.2812

10/23/2013 1:00	18446	333	4.374146	296.3369	13.18144	-3.924318	-234.9803	91.39506	264.721	0	964.1354
10/23/2013 2:00	18447	333	4.837424	299.0869	13.65359	-3.673172	-235.0414	86.87276	264.8658	0	963.9695
10/23/2013 3:00	18448	333	4.085784	294.2614	14.82175	-3.765314	-234.3774	92.70152	264.9877	0	963.9001
10/23/2013 4:00	18449	333	3.712576	295.455	14.48883	-3.939547	-234.3469	93.44787	264.3365	0	963.7211
10/23/2013 5:00	18450	333	3.886676	296.4385	15.15223	-3.760566	-234.8277	92.66642	264.6337	0	963.6315
10/23/2013 6:00	18451	333	5.159441	298.3593	12.67017	-3.61093	-235.1635	93.20518	265.0983	0	963.5795
10/23/2013 7:00	18452	333	5.271664	298.2705	12.67387	-3.620223	-235.3161	88.95306	265.0529	0	963.7869
10/23/2013 8:00	18453	333	4.814229	299.0699	14.12723	-3.387552	-235.0261	88.90421	265.0504	0	964.0576
10/23/2013 9:00	18454	333	5.023977	299.6114	13.00794	-3.252244	-235.4229	89.48724	265.1835	0	964.1404
10/23/2013 10:00	18455	333	5.078616	299.6763	13.64021	-2.852422	-235.4611	87.26348	265.5414	0	964.2934
10/23/2013 11:00	18456	333	4.404305	297.1249	14.00648	-2.502928	-235.5603	89.06293	265.7225	0	964.541
10/23/2013 12:00	18457	333	4.431658	298.6936	13.70615	-2.014081	-235.7282	88.23724	265.7429	0	964.7453
10/23/2013 13:00	18458	333	4.503977	299.7946	13.57768	-1.297537	-236.3311	88.43413	265.8976	0	964.7314
10/23/2013 14:00	18459	333	4.603587	300.2186	13.3121	-0.6389394	-231.7523	82.99456	264.2872	0	964.8889
10/23/2013 15:00	18460	333	4.620139	302.7385	13.77858	-0.3307478	-232.1186	85.5205	261.7051	0	965.0814
10/23/2013 16:00	18461	333	4.369154	304.2498	13.8657	-0.07309022	-232.0652	86.57362	261.8766	0	965.3493
10/23/2013 17:00	18462	333	4.221018	302.5935	13.80951	-0.2912264	-231.5234	93.18382	261.8315	0	965.637
10/23/2013 18:00	18463	333	4.231747	303.7081	13.77569	-0.2799843	-231.3021	94.80318	261.7065	0	965.9164
10/23/2013 19:00	18464	333	4.706336	303.5575	13.36754	-0.5056732	-231.8439	91.52479	262.8349	0	966.2667
10/23/2013 20:00	18465	333	5.003409	303.246	13.25082	-0.6699278	-237.0331	90.86239	266.0037	0	966.4678
10/23/2013 21:00	18466	333	4.601388	303.9893	13.97092	-0.8338335	-237.3613	91.74151	267.2967	0	966.6273
10/23/2013 22:00	18467	333	3.831464	307.9898	14.79011	-0.9231051	-234.8964	90.73266	266.387	0	966.6749
10/23/2013 23:00	18468	333	3.808975	306.7649	14.50379	-1.145657	-234.759	91.68352	264.2455	0	966.7292
10/24/2013 0:00	18469	333	3.70993	299.4517	12.78657	-1.347363	-233.7593	91.30196	264.0855	0	966.887
10/24/2013 1:00	18470	333	3.210657	297.1862	13.34142	-1.485859	-233.5838	90.07942	263.8569	0	967.0928
10/24/2013 2:00	18471	333	2.690817	293.8778	13.82389	-1.404146	-234.1027	91.50952	264.0511	0	967.3242
10/24/2013 3:00	18472	333	2.676734	292.8404	13.1152	-1.57768	-234.1409	91.01196	264.3224	0	967.3229
10/24/2013 4:00	18473	333	2.41506	292.7595	14.0054	-1.887528	-233.3396	91.30653	263.7636	0	967.3911
10/24/2013 5:00	18474	333	2.125942	290.1467	14.81959	-1.927263	-235.6595	89.85964	264.5341	0	967.5819
10/24/2013 6:00	18475	333	2.593526	293.8353	15.55467	-1.618729	-234.5835	89.50097	264.768	0	967.9417
10/24/2013 7:00	18476	333	2.952516	297.9615	13.79771	-1.67024	-234.1256	92.21465	264.8925	0	968.1879
10/24/2013 8:00	18477	333	3.062969	297.8754	14.81571	-1.540153	-235.6519	93.62338	264.5581	0	968.4171
10/24/2013 9:00	18478	333	3.123975	301.7454	14.97951	-1.250765	-235.8732	93.42802	265.1965	0	968.7407
10/24/2013 10:00	18479	333	3.164775	298.4366	14.22842	-0.9738541	-236.6134	91.18748	265.8819	0	969.1571
10/24/2013 11:00	18480	333	3.343982	304.2593	14.27576	-0.3404981	-232.2941	90.77081	261.9541	0	969.6141
10/24/2013 12:00	18481	333	2.975421	303.7235	14.26745	0.1228268	-233.3167	89.69939	262.9424	0	969.8619
10/24/2013 13:00	18482	333	3.439224	301.1012	14.4768	0.9064184	-232.7825	83.4448	263.2797	0	969.91
10/24/2013 14:00	18483	333	3.314893	305.5124	15.16268	1.39006	-238.5365	84.05378	263.841	0	970.0811
10/24/2013 15:00	18484	333	3.878252	303.7314	13.652	1.910101	-240.2917	85.52203	265.2262	0	970.386
10/24/2013 16:00	18485	333	3.61074	299.1598	14.05408	1.387157	-240.7114	87.8633	267.9655	0	970.6929
10/24/2013 17:00	18486	333	3.0702	299.3451	13.42008	1.174245	-241.7111	86.66825	270.0056	0	970.7492
10/24/2013 18:00	18487	333	2.815937	298.8002	13.73744	0.9626611	-237.8878	88.62948	269.6675	0	970.9152
10/24/2013 19:00	18488	333	1.927287	289.1277	14.26135	0.417244	-231.966	92.31081	268.8845	0	971.0403
10/24/2013 20:00	18489	333	1.57091	282.9345	13.58086	-0.3279441	-242.4819	92.82973	267.3234	0	970.9858
10/24/2013 21:00	18490	333	1.333189	273.6604	16.04237	-0.1686187	-231.7828	91.7934	264.0396	0	970.7355
10/24/2013 22:00	18491	333	1.494685	279.7506	16.07867	0.3057613	-243.2679	89.94206	265.289	0	970.3555

10/24/2013 23:00	18492	333	1.43773	274.4041	20.02169	0.2714902	-231.8057	88.04034	268.1492	0	970.3558
10/25/2013 0:00	18493	333	1.431809	272.8003	20.19793	-0.07090588	-231.8439	91.64689	263.9911	0	970.0911
10/25/2013 1:00	18494	333	1.195754	271.0811	28.68396	0.009547733	-231.7447	91.84377	262.6253	0	969.6717
10/25/2013 2:00	18495	333	0.8529077	217.5258	25.382	-0.428686	-238.071	90.72503	266.275	0	969.2866
10/25/2013 3:00	18496	333	0.6687068	192.8337	39.25198	-0.1730748	-236.415	93.47228	262.7658	0	968.6522
10/25/2013 4:00	18497	333	0.7748834	181.4738	19.45538	-0.6607485	-235.5908	92.28638	265.6385	0	967.5405
10/25/2013 5:00	18498	333	1.027282	186.1379	26.50916	-0.4103382	-235.1406	93.13193	264.9704	0	966.6141
10/25/2013 6:00	18499	333	1.327157	170.9505	25.79969	-0.4062284	-235.0185	94.13315	264.9075	0	965.2501
10/25/2013 7:00	18500	333	1.436018	175.529	26.9614	-0.2625361	-234.6293	92.381	264.5895	0	963.6879
10/25/2013 8:00	18501	333	1.434836	173.0803	25.67032	-0.2558149	-231.1647	91.70335	263.8335	0	962.4165
10/25/2013 9:00	18502	333	1.486153	168.5111	25.68292	0.0349505	-231.096	87.12612	261.6853	0	960.8884
10/25/2013 10:00	18503	333	1.992833	170.4163	27.74349	0.6583412	-241.3372	84.35445	266.4146	0	958.8246
10/25/2013 11:00	18504	333	1.888567	167.6776	26.30498	0.5194277	-242.0698	97.32607	268.487	0	957.0329
10/25/2013 12:00	18505	333	1.995998	155.157	21.41827	0.3175923	-241.3906	98.51654	265.6695	0	955.4248
10/25/2013 13:00	18506	333	2.159464	155.9508	20.78005	0.4169604	-242.7566	97.73052	265.6624	0	953.8323
10/25/2013 14:00	18507	333	1.247526	157.717	19.9746	0.6789903	-240.5435	96.20885	268.3699	0	952.7596
10/25/2013 15:00	18508	333	1.077595	157.9391	20.43831	0.9267088	-239.8643	95.48388	268.7527	0	951.926
10/25/2013 16:00	18509	333	0.6258124	232.8914	47.24349	0.7968758	-235.1711	97.2467	266.0675	0	951.7073
10/25/2013 17:00	18510	333	2.265865	290.6733	14.81371	0.5240577	-233.3701	97.5077	263.4923	0	951.7269
10/25/2013 18:00	18511	333	3.871173	301.4904	12.54255	0.585433	-233.8891	96.60721	263.9634	0	952.177
10/25/2013 19:00	18512	333	4.331832	307.7424	13.85264	0.6675305	-233.1259	94.96954	264.0781	0	952.8807
10/25/2013 20:00	18513	333	3.62468	313.0341	15.08959	0.6954295	-232.897	95.8044	263.7158	0	953.6672
10/25/2013 21:00	18514	333	4.021282	308.5891	14.53394	0.716871	-232.9733	96.27753	262.9658	0	954.4106
10/25/2013 22:00	18515	333	4.107327	312.741	13.78401	0.7639585	-232.7062	95.48998	262.6278	0	955.3494
10/25/2013 23:00	18516	333	3.345743	315.3183	15.61029	0.6159433	-230.9968	95.34347	262.0231	0	956.1185
10/26/2013 0:00	18517	333	3.097286	314.3045	15.96271	0.559724	-231.8668	98.38987	262.1084	0	956.8848
10/26/2013 1:00	18518	333	2.887316	315.2622	15.43947	0.4045858	-231.4852	98.8798	262.4843	0	957.7532
10/26/2013 2:00	18519	333	2.521267	325.8019	21.53467	0.3910259	-230.9815	98.65849	261.9877	0	958.6895
10/26/2013 3:00	18520	333	2.353362	337.6022	24.84389	0.1906004	-230.8518	97.43902	260.7038	0	959.7642
10/26/2013 4:00	18521	333	2.781402	335.6524	23.56295	-0.04211567	-230.7144	95.77081	261.0039	0	960.9449
10/26/2013 5:00	18522	333	3.077856	326.3179	22.18854	-0.2449051	-230.7068	95.39536	260.9006	0	962.181
10/26/2013 6:00	18523	333	3.120151	320.4928	18.68895	-0.2561469	-230.4931	91.33553	260.8428	0	963.1699
10/26/2013 7:00	18524	333	2.610119	328.8529	23.45954	-0.6089045	-233.4236	93.80653	263.5219	0	964.0414
10/26/2013 8:00	18525	333	2.056006	343.5605	25.61518	-1.123795	-235.0719	91.72778	265.6974	0	965.1891
10/26/2013 9:00	18526	333	2.074173	342.499	26.26056	-1.039384	-233.5457	87.12612	264.0733	0	965.7682
10/26/2013 10:00	18527	333	1.859426	339.3214	27.40462	-0.3162236	-229.44	87.17802	260.9033	0	966.116
10/26/2013 11:00	18528	333	2.237712	320.5095	20.86598	0.04549869	-229.585	86.4332	261.4501	0	966.4354
10/26/2013 12:00	18529	333	3.63562	307.14	14.80797	0.127808	-239.2233	84.91459	265.8756	0	966.4882
10/26/2013 13:00	18530	333	3.610236	309.0536	14.7246	0.4182991	-237.6894	83.28302	267.0714	0	966.0758
10/26/2013 14:00	18531	333	4.325373	299.922	16.17043	0.7537712	-230.2719	81.86208	265.7059	0	965.9147
10/26/2013 15:00	18532	333	3.270029	294.0851	15.67765	0.1885828	-229.9818	81.08217	261.6669	0	965.8072
10/26/2013 16:00	18533	333	2.753299	295.9507	15.70689	-0.1035435	-230.1268	80.55714	260.2659	0	965.3328
10/26/2013 17:00	18534	333	2.848336	292.0482	17.18275	-0.5853294	-237.0865	86.68351	262.5095	0	964.774
10/26/2013 18:00	18535	333	2.903899	288.762	18.81674	-1.043776	-236.2166	87.03455	266.3164	0	964.5281
10/26/2013 19:00	18536	333	2.413231	291.9312	17.64159	-1.239462	-236.1174	89.2293	266.213	0	963.8455
10/26/2013 20:00	18537	333	1.785924	285.0032	21.23161	-1.386939	-236.1098	90.26868	265.9147	0	963.1185

10/26/2013 21:00	18538	333	1.670945	277.1235	22.0886	-1.532375	-235.7511	88.83553	266.0262	0	962.3384
10/26/2013 22:00	18539	333	2.061055	279.4988	21.25284	-1.369104	-234.9269	93.07241	264.88	0	961.8425
10/26/2013 23:00	18540	333	1.23692	270.2245	27.35837	-1.346958	-236.6516	94.48572	265.7109	0	961.0016
10/27/2013 0:00	18541	333	0.5363536	182.682	24.91961	-1.23579	-237.3384	96.64231	266.8369	0	960.0357
10/27/2013 1:00	18542	333	0.6835481	175.7572	19.75114	-1.257773	-236.6058	97.08187	267.2443	0	959.192
10/27/2013 2:00	18543	333	0.4292552	170.2018	15.58354	-1.06286	-236.9263	97.53974	266.7916	0	958.4844
10/27/2013 3:00	18544	333	0.3102884	179.772	16.7144	-0.8591179	-235.6519	97.55653	266.5623	0	958.0209
10/27/2013 4:00	18545	333	0.8080315	246.4911	39.58162	-0.5228098	-229.6537	97.94115	264.2601	0	957.6364
10/27/2013 5:00	18546	333	2.030634	313.3575	19.87623	-0.3134248	-229.524	97.33828	259.2676	0	957.8954
10/27/2013 6:00	18547	333	1.697484	331.4377	23.11861	-0.6362441	-234.6445	95.25647	263.598	0	958.272
10/27/2013 7:00	18548	333	1.990859	338.3979	25.52737	-1.183591	-234.4309	94.41398	265.3482	0	958.8526
10/27/2013 8:00	18549	333	2.194389	345.0168	25.01645	-1.596848	-232.8665	92.83736	262.7248	0	960.0374
10/27/2013 9:00	18550	333	2.580827	349.9092	27.08879	-1.599391	-233.6525	87.84193	262.8341	0	961.1968
10/27/2013 10:00	18551	333	3.053466	350.0261	27.9681	-1.268261	-234.6369	85.64719	263.8546	0	962.6743
10/27/2013 11:00	18552	333	4.305314	347.6379	26.39207	-2.581761	-234.553	79.23235	264.073	0	964.6428
10/27/2013 12:00	18553	333	4.115052	338.8857	25.99911	-3.242316	-212.5292	78.05561	265.1809	0	966.492
10/27/2013 13:00	18554	333	4.418159	341.0549	24.84472	-3.787579	-232.5688	75.29003	263.5125	0	968.1409
10/27/2013 14:00	18555	333	3.681862	344.3499	27.30013	-3.920712	-233.0954	76.98571	262.9032	0	969.5787
10/27/2013 15:00	18556	333	3.555502	339.9344	26.0902	-4.174219	-234.1104	79.64443	263.2483	0	971.0922
10/27/2013 16:00	18557	333	3.519024	340.2105	25.15424	-4.314163	-233.8433	82.7702	264.3196	0	972.4531
10/27/2013 17:00	18558	333	3.316715	345.1733	26.34555	-4.916355	-234.1104	82.62978	264.0093	0	973.6334
10/27/2013 18:00	18559	333	3.365373	343.5749	26.76924	-5.403453	-233.0496	82.72136	263.3116	0	974.9922
10/27/2013 19:00	18560	333	2.535012	348.5035	27.79461	-5.577247	-232.5002	80.90207	262.4297	0	976.1885
10/27/2013 20:00	18561	333	2.532798	340.6857	27.78655	-5.620241	-231.5463	80.60445	262.1358	0	977.4565
10/27/2013 21:00	18562	333	2.704837	337.1077	26.76361	-5.999676	-232.1644	83.36849	261.6822	0	978.5783
10/27/2013 22:00	18563	333	3.596952	319.5472	21.19127	-6.510267	-232.1797	83.24944	261.9043	0	979.5149
10/27/2013 23:00	18564	333	3.184384	326.491	21.53451	-7.046892	-231.2486	83.90115	262.154	0	980.364
10/28/2013 0:00	18565	333	3.433342	320.8626	27.22025	-7.172035	-232.3018	83.76531	262.175	0	980.855
10/28/2013 1:00	18566	333	4.251661	307.204	17.69857	-7.726652	-231.9583	81.06232	262.8851	0	981.5616
10/28/2013 2:00	18567	333	3.816143	310.3601	16.41829	-8.101427	-233.0267	82.1658	262.7454	0	981.8356
10/28/2013 3:00	18568	333	3.987344	302.4124	15.21292	-8.522534	-233.1412	80.56629	263.1708	0	982.1217
10/28/2013 4:00	18569	333	2.63946	317.6995	21.05005	-8.988703	-233.4388	84.76501	263.3933	0	982.4501
10/28/2013 5:00	18570	333	3.743535	304.4316	18.27786	-9.073387	-234.0264	83.16245	264	0	982.8721
10/28/2013 6:00	18571	333	3.636514	307.2908	17.46755	-9.127412	-234.8658	85.3511	264.6922	0	983.1575
10/28/2013 7:00	18572	333	3.722737	301.2273	16.11123	-9.014892	-234.7819	79.9329	264.3664	0	983.2822
10/28/2013 8:00	18573	333	3.129041	296.2362	15.90581	-8.833095	-234.2859	80.76318	264.5034	0	983.5134
10/28/2013 9:00	18574	333	3.832966	299.3437	15.70461	-8.60326	-234.2248	83.95457	264.1846	0	983.8577
10/28/2013 10:00	18575	333	3.32448	301.2193	17.15984	-8.456612	-234.8506	77.37948	264.5204	0	984.3272
10/28/2013 11:00	18576	333	3.266231	293.1492	20.99781	-7.95759	-235.4001	72.42525	265.0528	0	984.5445
10/28/2013 12:00	18577	333	2.995782	289.8721	26.25481	-6.8485	-234.9116	74.07056	264.7626	0	984.3166
10/28/2013 13:00	18578	333	3.293548	292.8184	21.36244	-6.333175	-234.8888	72.30621	264.6707	0	983.7264
10/28/2013 14:00	18579	333	3.190028	291.7472	21.76808	-6.092657	-235.4763	69.90237	265.0886	0	983.2557
10/28/2013 15:00	18580	333	2.849552	281.6521	23.72474	-5.773161	-235.6061	70.55865	265.3633	0	982.7359
10/28/2013 16:00	18581	333	2.729831	288.2105	20.64344	-6.445291	-234.3774	71.24089	265.1001	0	982.4971
10/28/2013 17:00	18582	333	2.311567	278.5939	20.9884	-6.732623	-234.4461	71.73844	265.3453	0	982.0704
10/28/2013 18:00	18583	333	2.053577	278.2099	16.75767	-7.33603	-234.5148	76.84834	264.597	0	981.9597

10/28/2013 19:00	18584	333	1.878171	279.8761	14.62358	-7.49832	-233.973	77.69235	264.3247	0	982.0287
10/28/2013 20:00	18585	333	1.790432	281.0619	14.26905	-7.629194	-233.9501	78.22655	264.1431	0	981.6404
10/28/2013 21:00	18586	333	2.079992	282.8693	13.52918	-7.739427	-233.3625	80.91733	263.4141	0	981.4107
10/28/2013 22:00	18587	333	1.803208	277.7811	12.78609	-8.036167	-232.5994	83.78516	262.9566	0	981.3666
10/28/2013 23:00	18588	333	1.504565	272.1978	16.35352	-8.000553	-232.4773	85.92649	262.0954	0	981.106
10/29/2013 0:00	18589	333	1.826816	277.4389	18.84236	-7.310617	-232.5765	79.71464	262.3229	0	980.6085
10/29/2013 1:00	18590	333	2.168655	284.1051	18.5462	-6.47379	-232.897	75.35719	262.9623	0	980.3743
10/29/2013 2:00	18591	333	2.44142	283.5876	19.57704	-6.080831	-233.6983	77.37948	263.2423	0	979.6902
10/29/2013 3:00	18592	333	2.857374	276.1321	24.2713	-5.778371	-234.2859	80.62734	263.5584	0	979.1119
10/29/2013 4:00	18593	333	3.004018	278.4743	23.84822	-5.738046	-234.0493	79.50249	264.1725	0	978.6411
10/29/2013 5:00	18594	333	2.768806	282.1245	23.89062	-5.668375	-235.1864	77.32148	264.5583	0	978.1266
10/29/2013 6:00	18595	333	2.882198	284.1015	21.34653	-5.655961	-234.6369	77.93808	264.916	0	977.8369
10/29/2013 7:00	18596	333	2.217052	269.3294	28.97655	-5.684095	-234.1027	81.39046	264.4261	0	977.2615
10/29/2013 8:00	18597	333	2.084243	250.4879	35.23645	-5.677424	-234.2325	76.66213	264.3387	0	976.6887
10/29/2013 9:00	18598	333	2.713437	277.3429	24.60567	-5.421424	-233.9806	74.707	264.0723	0	976.2386
10/29/2013 10:00	18599	333	2.847007	266.8593	28.48754	-4.858493	-233.477	70.77081	263.7292	0	975.5392
10/29/2013 11:00	18600	333	3.062992	257.4955	29.05374	-4.226134	-233.4236	71.62093	263.7707	0	974.7261
10/29/2013 12:00	18601	333	2.123898	234.8471	33.72366	-3.699631	-233.2175	71.72166	263.5002	0	974.1956
10/29/2013 13:00	18602	333	1.964297	232.5898	35.60255	-3.34544	-233.4007	72.82513	263.131	0	973.3311
10/29/2013 14:00	18603	333	2.357556	234.334	32.35919	-3.047488	-233.7059	73.2067	263.4106	0	972.4295
10/29/2013 15:00	18604	333	1.903868	233.7978	36.32388	-2.950157	-233.0649	69.35291	263.2692	0	971.5637
10/29/2013 16:00	18605	333	1.832921	233.8676	34.96564	-3.078878	-232.4162	72.86024	262.9976	0	970.8947
10/29/2013 17:00	18606	333	1.556846	219.2545	34.03099	-3.377686	-232.3475	75.39993	262.4044	0	970.3143
10/29/2013 18:00	18607	333	1.067222	200.4089	27.14744	-4.0992	-231.7981	77.03149	262.2953	0	969.8717
10/29/2013 19:00	18608	333	1.192145	218.4219	30.61292	-4.325269	-232.3857	73.7943	262.3227	0	969.5088
10/29/2013 20:00	18609	333	1.832984	229.0755	33.15232	-4.266808	-232.2331	74.92831	262.3442	0	968.8896
10/29/2013 21:00	18610	333	1.525964	238.0111	33.14437	-4.682672	-231.8591	78.46465	262.4202	0	968.8994
10/29/2013 22:00	18611	333	1.381274	240.7049	30.08892	-4.821738	-232.3246	78.37917	262.1527	0	968.7869
10/29/2013 23:00	18612	333	1.091984	227.6888	31.14318	-4.375605	-232.3552	77.71831	262.403	0	968.3141
10/30/2013 0:00	18613	333	1.23599	209.7864	29.68307	-4.37535	-232.8359	80.38619	262.7489	0	967.8593
10/30/2013 1:00	18614	333	0.9599648	197.6195	25.23319	-5.024056	-232.8359	81.62856	262.6305	0	967.5812
10/30/2013 2:00	18615	333	0.8198099	184.1817	19.15712	-5.695681	-232.9046	86.42252	262.7792	0	967.2496
10/30/2013 3:00	18616	333	0.9227145	177.6434	14.73381	-6.027162	-232.1033	85.6014	262.7465	0	966.7717
10/30/2013 4:00	18617	333	1.022296	183.0897	16.07519	-6.058084	-233.0267	86.06995	262.69	0	966.3401
10/30/2013 5:00	18618	333	0.9633163	174.1626	13.65397	-6.477051	-232.9046	89.70855	262.6147	0	966.2418
10/30/2013 6:00	18619	333	1.115872	174.4082	14.63601	-6.603214	-232.6986	91.05317	262.6271	0	965.7265
10/30/2013 7:00	18620	333	1.111762	179.7655	16.81532	-6.438621	-232.6833	91.11269	262.6219	0	964.9337
10/30/2013 8:00	18621	333	1.128328	174.4146	15.76889	-5.959214	-232.9046	88.36086	262.7227	0	964.5729
10/30/2013 9:00	18622	333	1.041098	181.0181	28.23711	-3.766347	-234.0798	74.13466	263.273	0	964.2132
10/30/2013 10:00	18623	333	1.214562	187.4124	27.31842	-0.9460484	-230.6916	71.12032	263.6266	0	963.7484
10/30/2013 11:00	18624	333	1.731179	208.1163	33.82488	1.350107	-236.1555	61.23325	264.4355	0	963.1458
10/30/2013 12:00	18625	333	2.413277	215.1349	33.53473	3.492375	-247.5795	52.26347	265.2076	0	962.3429
10/30/2013 13:00	18626	333	2.0378	217.0917	40.16991	4.673806	-233.2786	46.8529	268.8729	0	961.4366
10/30/2013 14:00	18627	333	1.858752	201.2271	41.39434	5.351108	-227.8146	45.29002	267.0536	0	960.413
10/30/2013 15:00	18628	333	2.01713	199.4766	33.42503	5.624078	-232.6757	40.47011	268.9846	0	959.2192
10/30/2013 16:00	18629	333	1.697241	188.6323	31.47032	4.528739	-241.6653	51.72317	267.2587	0	958.2837

10/30/2013 17:00	18630	333	1.720699	185.7628	27.57887	3.357192	-230.5084	62.23447	266.897	0	957.7972
10/30/2013 18:00	18631	333	1.770583	188.1324	31.62419	2.438506	-231.1342	70.12673	266.6318	0	957.5036
10/30/2013 19:00	18632	333	1.60092	194.2629	30.51062	1.917655	-237.9336	74.31629	266.2384	0	956.7328
10/30/2013 20:00	18633	333	1.466123	187.548	26.76576	1.452587	-236.3845	81.19816	266.6392	0	956.0439
10/30/2013 21:00	18634	333	1.19632	187.139	24.06795	0.5274135	-230.7602	86.04706	261.65	0	955.2876
10/30/2013 22:00	18635	333	1.351631	190.5998	24.74801	0.3988693	-230.0505	87.20854	261.5038	0	954.799
10/30/2013 23:00	18636	333	0.9435007	195.0174	25.3654	0.5104336	-230.2871	89.56203	261.2487	0	954.3644
10/31/2013 0:00	18637	333	0.8035895	186.6167	20.62549	0.6005213	-236.3616	90.81355	261.8789	0	953.8032
10/31/2013 1:00	18638	333	1.424566	203.0464	25.71135	1.462472	-236.4837	88.29523	266.1081	0	953.1395
10/31/2013 2:00	18639	333	1.422924	226.6933	32.99105	1.783492	-236.4684	89.13314	265.7705	0	952.5224
10/31/2013 3:00	18640	333	1.096075	221.4496	28.79937	1.45239	-235.2016	92.19786	264.8192	0	951.9558
10/31/2013 4:00	18641	333	0.9289227	213.6724	27.62263	1.232831	-232.7749	93.26776	263.6856	0	951.3801
10/31/2013 5:00	18642	333	1.024174	228.8316	28.17083	1.119843	-231.4089	93.92252	262.2358	0	950.9455
10/31/2013 6:00	18643	333	1.108225	236.8175	27.46424	1.330109	-232.8283	92.36575	262.0625	0	950.7013
10/31/2013 7:00	18644	333	0.9859317	244.0085	26.53636	1.374431	-232.0194	94.77112	263.2509	0	950.7576
10/31/2013 8:00	18645	333	0.5854287	221.0294	23.84601	1.048179	-230.2794	96.55531	261.0628	0	950.8945
10/31/2013 9:00	18646	333	0.7380683	265.9008	24.06321	0.9859868	-230.7144	97.14597	260.5309	0	950.518
10/31/2013 10:00	18647	333	1.343554	294.0567	18.37773	1.647127	-230.4092	92.49242	260.9178	0	950.1108
10/31/2013 11:00	18648	333	1.503868	304.7031	18.77387	2.386225	-231.6226	86.09743	261.3261	0	949.4179
10/31/2013 12:00	18649	333	0.2278977	221.3399	50.24748	3.101719	-230.745	85.34805	261.6469	0	949.064
10/31/2013 13:00	18650	333	0.6439735	242.215	25.6517	3.230126	-231.3097	84.63223	261.5991	0	948.7488
10/31/2013 14:00	18651	333	0.5378739	268.3416	37.33781	3.286516	-231.5005	84.52843	261.4631	0	948.4932
10/31/2013 15:00	18652	333	0.7091849	280.9081	26.22845	3.244494	-231.5157	84.04767	261.4421	0	948.2369
10/31/2013 16:00	18653	333	1.302197	307.4977	15.67819	3.00944	-231.4623	83.58522	261.8533	0	948.0289
10/31/2013 17:00	18654	333	1.169569	329.7593	25.96495	2.555263	-231.7141	84.65816	261.8019	0	948.0989
10/31/2013 18:00	18655	333	1.36586	343.5989	22.03879	2.082224	-231.8744	83.47075	261.7566	0	947.9042
10/31/2013 19:00	18656	333	1.250655	340.7536	22.24402	1.888998	-231.6455	83.79432	261.7596	0	947.8483
10/31/2013 20:00	18657	333	1.008977	350.9563	24.21256	1.860731	-231.9736	83.75463	261.8437	0	947.5706
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10/31/2013 22:00	18659	333	1.217518	2.499956	25.59965	1.566553	-231.7141	82.55805	261.7713	0	947.6809
10/31/2013 23:00	18660	333	1.300304	352.9564	24.56258	1.332977	-231.6683	83.03577	261.5114	0	947.8206
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11/1/2013 3:00	18664	333	1.15379	44.17044	36.87554	0.4539583	-231.4242	78.10597	261.3077	0	948.6727
11/1/2013 4:00	18665	333	1.066341	28.16548	36.44444	0.4293966	-230.5923	77.65878	261.074	0	949.0884
11/1/2013 5:00	18666	333	0.934135	12.25061	29.1205	0.3151138	-230.7755	77.76257	260.9168	0	949.6313
11/1/2013 6:00	18667	333	0.9668555	18.32676	27.82969	0.1058399	-230.9129	76.02264	261.0299	0	950.3337
11/1/2013 7:00	18668	333	1.157488	21.61911	33.11412	0.003832201	-231.3326	77.42679	261.0918	0	950.8254
11/1/2013 8:00	18669	333	0.8822711	25.61093	33.61987	-0.006390084	-230.9586	76.94144	260.9808	0	951.4254
11/1/2013 9:00	18670	333	0.9039909	24.91958	39.76384	0.2233111	-231.3478	75.72502	261.0965	0	951.9436
11/1/2013 10:00	18671	333	0.9012159	358.0451	43.2314	0.7213603	-231.0502	75.45335	261.4902	0	952.5561
11/1/2013 11:00	18672	333	1.09772	350.9156	28.06293	0.9899489	-231.2944	75.76775	261.8886	0	953.2737
11/1/2013 12:00	18673	333	1.291363	335.7678	29.18243	1.44598	-231.4089	69.54675	261.9035	0	953.9508
11/1/2013 13:00	18674	333	1.439498	323.6067	29.11153	1.742171	-231.8973	71.9277	261.9672	0	954.3804
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11/1/2013 16:00	18677	333	0.8195435	327.9943	28.91567	1.30593	-231.6302	89.92374	261.7219	0	956.7817
11/1/2013 17:00	18678	333	1.171743	345.3302	25.90787	1.521029	-231.3936	79.27203	261.6847	0	957.7177
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11/1/2013 19:00	18680	333	1.64482	336.3068	21.1065	0.9132763	-231.1189	85.02599	261.4368	0	959.6535
11/1/2013 20:00	18681	333	1.638911	2.99454	28.0205	0.4512648	-231.2257	82.94725	261.3692	0	960.3754
11/1/2013 21:00	18682	333	1.73706	17.53061	27.13135	-0.1441516	-230.8824	82.35201	261.3273	0	960.8983
11/1/2013 22:00	18683	333	1.095354	46.47015	33.28576	-0.6454684	-231.3478	82.36575	261.3553	0	961.4646
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11/2/2013 0:00	18685	333	0.862615	63.2796	27.01155	-0.9745401	-231.4623	82.59163	261.5042	0	962.4703
11/2/2013 1:00	18686	333	1.016598	76.36382	21.57868	-1.103531	-232.2254	82.93809	262.0976	0	963.1615
11/2/2013 2:00	18687	333	0.8379929	78.05955	20.83234	-1.101246	-232.8207	85.50219	262.8327	0	963.8143
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11/2/2013 4:00	18689	333	1.000268	79.45188	19.70519	-1.34333	-233.9425	89.32545	263.921	0	964.6031
11/2/2013 5:00	18690	333	1.006584	106.3939	24.47638	-1.331715	-234.3927	88.02814	264.1816	0	965.0264
11/2/2013 6:00	18691	333	1.169876	114.4905	23.54869	-1.548325	-234.904	89.97869	264.623	0	965.4794
11/2/2013 7:00	18692	333	1.250943	107.9302	21.67934	-1.651278	-234.469	91.02264	264.602	0	965.7285
11/2/2013 8:00	18693	333	1.52297	121.2929	22.70036	-1.4675	-234.2859	89.05989	264.3288	0	965.891
11/2/2013 9:00	18694	333	1.34734	131.9297	27.14655	-1.216067	-234.1332	87.88009	263.9496	0	966.252
11/2/2013 10:00	18695	333	1.454436	151.8386	25.6443	-0.8972104	-233.6067	86.50646	263.8134	0	966.5779
11/2/2013 11:00	18696	333	1.840679	154.0214	23.88961	-0.2862076	-231.6989	83.47381	263.1666	0	966.7497
11/2/2013 12:00	18697	333	1.978454	158.8029	23.48018	0.05000508	-231.6989	79.18504	261.5323	0	966.817
11/2/2013 13:00	18698	333	1.750201	163.1273	24.66914	0.3099158	-235.0414	82.50311	262.9611	0	966.6255
11/2/2013 14:00	18699	333	1.621328	156.6458	25.1969	0.8987383	-234.4614	81.26379	264.8266	0	966.3627
11/2/2013 15:00	18700	333	1.720644	158.2897	21.02746	0.9210538	-234.6598	84.51166	264.6151	0	966.12

Attachment B Factual Report - Hydrology Program

Fracflow Consultants Inc.
Environmental, Hydrogeological and
Geotechnical Engineering Consultants

FIRST MINING GOLD

FACTUAL REPORT
HYDROLOGY PROGRAM
SPRINGPOLE, ON

(File 3134)

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February 26, 2021

Executive Summary

Fracflow Consultants Inc. was retained by First Mining Gold, (FMG) (Gold Canyon Resources) (FMG/GCR) to undertake a hydrology field program at the Springpole Lake Gold Project proposed project site to build upon initial 2011-2012 field work by DST Consulting Engineers Inc. and drainage basin outlines that were prepared by Aquasphera Conseil Inc. The Springpole Lake Gold Project is located approximately 110 km northeast of the Town of Red Lake. The 2020 hydrology field program focused on watersheds that were delineated by Aquasphera in the proposed project area, including sub-water sheds in the mine rock storage area, plant site area, and tailings management facility. This included a number of small streams that flow into Birch Lake (East and West) and into the northern section of Springpole Lake. A large percentage of the Springpole Lake land cover in the main Springpole Lake drainage basin has no defined streams, so data from the small streams are required to account for lake input from overland flow and interflow.

Other stream monitoring locations were identified and instruments were installed in those streams where they enter Springpole Lake, East Arm, to provide the data needed to construct stream hydrographs, provide data to support water budget calculations and 3D modelling. Measurements within the Springpole Lake drainage basin included measuring the inflow, at the north end of Cromarty Lake (F7-HS1), to Springpole Lake and the outflow from Springpole to Birch River (F8-HS7). Most of the monitoring locations are downstream from large storage areas (lakes and ponds), within those drainage basins, that collect and store surface water and then discharge directly into Springpole Lake.

Lake level and temperature monitoring sensors devices were installed in a number of locations in Springpole Lake. In June 2020, two devices were installed on anchors in Springpole Arm to monitor the relative change in lake levels, with a third device monitoring lake levels in a fixed standpipe. During September 2020, additional fixed lake elevation monitoring locations were chosen. Several of those locations were instrumented with sensors during October and November 2020 for winter and spring monitoring of lake levels. A sensor was installed on an anchor near where the West to East Arm of Springpole Lake meets the Northern section of Springpole Lake. Benchmarks were installed and surveyed in October at all existing and proposed lake elevation monitoring locations. The final group of lake elevation sensors will be installed through the ice in the winter of 2021. Note that the elevation of the lake water surface can be highly variable depending on wind direction and force in the area of each sensor.

The summer 2020 hydrology program consisted of a number of activities to characterize flows from streams identified in previous field studies. Where feasible based on stream conditions, fixed measuring devices (flumes, V-notch weirs, or channels) were installed in the stream with sensors to allow continuous monitoring of sub-drainage basin discharge. For the larger outflow areas (outflow from Cromarty Lake into Springpole Lake (F7-HS1), the outflow from Springpole Lake and the outflow from Seagrave Lake), depth and water velocities were measured on a

monthly basis when feasible to compute the outflow. The measurements at those high flow locations or river sections were taken from land with the use of chest waders and by boat when flows or depths were too great to permit in-stream work. Water level sensors were installed at both the Cromarty Lake outflow (F7-HS1) measuring section and the Springpole outflow measuring section (F8-HS7). The main areas of investigation in the overall project site for reference in this factual report are as follows: Springpole Lake Northern Section, Springpole Lake (Pickerel-East) Arm, Birch Lake East, and Birch Lake West.

In addition to the hydrology measurements, surface water samples were collected at specified locations in the three main lakes on a quarterly basis including Seagrave Lake, Birch Lake, Springpole Lake, and additional minor lakes such as Dole Lake, Jamie Lake, and an unnamed lake impounded by beaver activity. The chemistry data from the current and historical surface water sampling programs are summarized in this report.

Ground Penetrating Radar (GPR) surveys were completed by towing a GPR unit behind a boat on the lake, and pulled by sled on the ice in selected areas of the project site. Those GPR images need to be calibrated by a program of piston coring from the ice cover.

This factual report is designed to tabulate and present the hydrology data that have been and are being collected by Fracflow to support the EIS reporting activities. Interpretation of the collected data is limited.

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1.0 INTRODUCTION

Fracflow Consultants Inc. was retained by First Mining Gold, (FMG) (Gold Canyon Resources) (FMG/GCR) to undertake a hydrology field program at the Springpole Lake Gold Project site to build upon the initial 2011-2012 field work by DST Consulting Engineers Inc. (DST, 2012) and the drainage basin outlines prepared by Aquasphera Conseil Inc. (2020). The Springpole Lake Gold Project is located approximately 110 km northeast of the Town of Red Lake. The 2020 hydrology field program focused on watersheds (**Figure 1.1**) that were delineated by Aquasphera and which are assumed will be impacted to some extent by the proposed project layout including the mine rock storage area, plant site area and tailings management facility. This includes a number of small streams that flow into Birch Lake (East and West areas) and into the northern section of Springpole Lake. In addition, the inflow to Springpole Lake from Cromarty Lake (F7-HS1) and the outflow from the east end of Springpole Lake (F8-HS7) were computed by measuring water velocities at fixed distances and depths across the flow channels. A more limited set of flow measurements was completed at the outflow from Seagrave Lake (**Figure 1.1**).

Springpole Lake has a drainage basin area of approximately 49 km^2. The Springpole Lake drainage basin is approximately 70% surface water and 30% covered by forest and wetlands. Birch Lake is a regional lake, up-stream of Springpole Lake, with a drainage basin area of approximately 1,268 km^2. The elevation of the surface water in Birch Lake is approximately 2 to 4 m higher than the water in Springpole Lake, depending on the season. Birch Lake provides a surface water boundary for the proposed Springpole project to the east, west and north.

Birch Lake discharges into Exit Bay at the south end of Birch Lake, west of Springpole Lake, and then flows through an open river channel into Satterly Lake and then through another 3 to 4 km section of open river channel (Bumpy Creek) into Cromarty Lake. The outflow from the Seagrave Lake drainage basin, an extensive series of lakes in a drainage basin that is located south of Springpole Lake, which is only slightly smaller than the Springpole Lake drainage basin, discharges into the southeast end of Cromarty Lake. Despite the large area of the Seagrave Lake drainage basin, the outflow from this basin is modest (approximately 1.39 cubic metres per minute, September 14, 2020).

The main focus of this current hydrology work was on the northern section of Springpole Lake and Springpole Lake East Arm which includes the Springpole Lake section east of the Cromarty Lake inflow to Springpole Lake (F7-HS1) and extends approximately 16 km to the Springpole Lake outflow, plus the drainage areas that flow into Birch Lake in the areas that are immediately adjacent to the Springpole Project Site.

1.1 Scope and Objectives

The summer hydrology 2020 program consisted of activities that were designed to measure flows in streams from sub-water sheds that were identified in previous field and office studies. Where stream flows and stream geometry were acceptable, flumes and/or weirs were installed in the stream to allow continuous water level and temperature measurements through the use of a barometrically compensated leveloggers. Barologgers were located in an open pipe attached to the main office entrance handrails, but should be moved to an open borehole below frost level to avoid extreme cold temperatures. For larger outflow areas, channel depths and water velocities were measured to compute the flow. For these larger river sections, measurements were taken by wading across the river, guided by a marked survey line, wearing chest waders and using a current meter. When the current was too strong or the stream was too deep to permit in-stream work, the stream velocities were measured using a current meter from an anchored boat.

The overall drainage basin areas for the hydrology work were divided into four major sections; 1) Springpole Lake Northern Section, 2) Springpole Lake (Pickerel-East) Arm, 3) Birch Lake East, and 4) Birch Lake West. The description of each area and the measuring devices that were installed to monitor flow in each sub-basins are as follows:

Springpole Lake Northern Section: Topography in the drainage basin around this section of Springpole Lake is a series of small elevated areas, up to 30 m of relief, with intervening depressions that are filled with peat or organic material overlying silty/clay and/or sand-gravel layers, which overlies the fractured bedrock. The elevated areas are covered by thin layers of granular material or moss covered bedrock. Stream measurements in this area included a constructed channel at F3-HS4, and flumes F4, F6, and F10-HS6 (**Figure 1.1**). A Levelogger was installed at each flume location.

Springpole Lake (Pickerel-East) Arm: Topography in this area is generally steep near the lake shore, with a number of small coves and small islands with rocky outcrops running parallel to the arm. Overall, the relief over the drainage basins in this area is similar to that in the northern section of Springpole Lake. Stream measuring devices/activities in this area included (**Figure 1.1**) flumes that were constructed at F11-HS2, F13, F14, F15, and a V-notch weir at F12. In-stream manual measurements were completed periodically at the river sections, F8-HS7, and F7-HS1, and Leveloggers were installed at each of those river sections.

Birch Lake East: Topography in this area is similar to the area around the northern section of Springpole Lake, with the drainage divide between Springpole Lake and Birch Lake being located in an area with very similar topography, with low relief. Stream measuring devices (**Figure 1.1**) in this area are a constructed channel at F9-A (Dole Lake South), and a V-notch weir F9-B (Dole Lake East). Dole Lake is an area that receives surface water run-off from the area that is located to the east of the proposed plant site and this water then flows into Birch Lake via a shallow, sandy stream that separates shallow water or sandy/gravel shoals in both lakes where Dole Lake empties into Birch Lake.

Birch Lake West: Topography in this area is also similar to the area around the northern section of Springpole Lake, but has more relief close to the Birch Lake shoreline than the Birch Lake East area. Stream monitoring devices in this location are V-notch weir F1-A, and Flume F5-HS5. Flume F5-HS5 is downstream from the proposed TMF area that will occupy the area known currently as Jamie Lake. Flume F1-A is located (**Figure 1.1**) in an area of low relief downstream from the proposed mine rock storage area and an unnamed pond.

The selected stream monitoring locations were inspected and flumes and weirs were designed at the camp site and installed at the selected locations on Springpole Lake and Birch Lake to allow construction of stream hydrographs, and to provide data to support water budget calculations and future 3D surface water-groundwater modelling. Most of the monitoring locations are downstream from large storage areas (lakes and ponds), within those drainage basins, that collect and store surface water runoff and then discharge directly into Springpole Lake or Birch Lake. The large surface water bodies within each sub-basin tend to moderate or buffer the actual basin stream discharge.

Water level and temperature monitoring devices (Leveloggers) were installed at three locations in Springpole Lake during June 2020 (**Appendix A** and **Appendix B**). Two water level and temperature Leveloggers were installed on anchors in Springpole Arm to monitor the relative change in lake levels, with a third Levelogger being installed in a fixed standpipe at the lake outflow. A fourth Levelogger was installed in a standpipe at the outflow from Cromarty Lake (F7-HS1) in July 2020. During September 2020, additional lake elevation monitoring locations were selected and benchmarks were installed and surveyed by a Stantec engineer at nine locations, and Leveloggers were installed in deep water close to three of those locations during October 2020. This included a Levelogger that was installed on an anchor near where the East Arm meets the northern part of Springpole Lake. The remaining Leveloggers are to be installed through the ice to capture winter lake levels and changes in lake elevation during spring melt, including the reposition of an existing Levelogger to ensure that the ice does not capture the Levelogger floater as the lake elevation decreases during the late winter. The existing lake elevation monitoring points and the installed lake elevation benchmarks are shown in **Figure 1.2**, with the coordinates for each location provided in **Table 1.1**.

The chemistry of the three main lakes, Springpole Lake, Seagrave Lake and Birch Lake, has been monitored for a number of years, including selected profiling of water chemistry at depth in several lakes. This work has been completed by a number of different consultants and FMG/GCR staff with documented surface water sampling extending back to 2011. As part of this on-going surface water characterization, Fracflow completed several surface water sampling events in 2020. The objective of this surface water sampling program was to continue documenting the baseline surface water quality. **Figure 1.3** shows the locations for the repeat surface water sampling that were selected by FMG/GCR. In 2020, when locations were accessible, six water samples were taken from Seagrave Lake, one from Cromarty Lake, nine from Springpole Lake, eight from Birch Lake, one sample from Dole Lake, one from Jamie

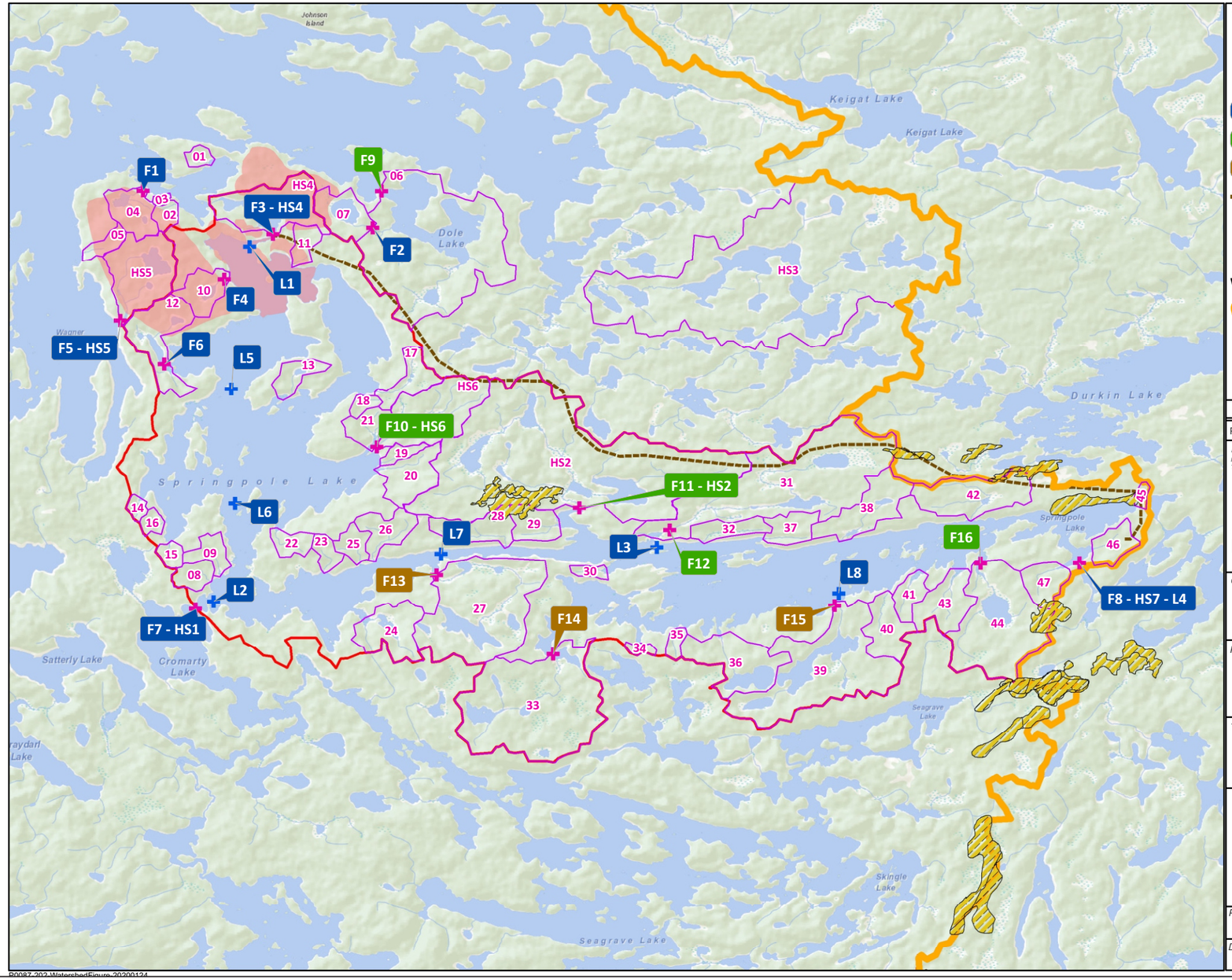
Lake, and one Unnamed Beaver impounded lake south of Jamie Lake. From these 27 sample locations, a representative number of water samples were collected and analyzed for Radon-226 and Methyl Mercury. The historical surface water chemistry data are referenced in this factual report along with the chemistry data from the recent surface water sampling events.

The surface water quality assessment is supported by a regular series of groundwater samples that are designed to document the surface water and groundwater interaction. The groundwater sampling program and resulting chemistry data are provided in separate reports. The current groundwater sampling locations include four shallow overburden monitoring wells, three deep diamond drill holes, four fixed interval piezometers in diamond drill holes, and eight shallow bedrock diamond drill holes. In addition to these wells, an additional four fixed interval piezometers in diamond drill holes are scheduled to be sampled in subsequent sampling events.

Ground Penetrating Radar surveys were conducted over selected lake areas by towing a GPR unit behind a boat. The areas that were mapped included Jamie Lake, the area of the proposed mine water discharge, the area of the proposed cofferdams, and the proposed stockpile area. The GPR images have been used to obtain an estimate of the extent and presence of suspended and soft lake bottom sediments, silty clay zones, till with boulders and assumed bedrock in a maximum depth of up to 12 to 15 m.

Table 1.1 Coordinates of Springpole Lake elevation monitoring points and lake elevation benchmarks that were surveyed by Stantec in 2020.

Location ID	Location Type	UTM Coordinates (NAD83 - Zone15)	
		Easting	Northing
L1-FFC	Levelogger	548 948	5 693 925
L1-FFC-BM	Benchmark	548 944	5 693 930
L1B-FFC	Levelogger	550 322	5 691 716
L1B-FFC-BM	Benchmark	550 322	5 691 711
L3-FFC-BM	Benchmark	555 677	5 688 692
L5-FFC	Levelogger	549 081	5 691 101
L5-FFC-BM	Benchmark	549 158	5 691 094
L6-FFC	Levelogger	549 242	5 688 604
L6-FFC-BM	Benchmark	549 227	5 688 641
L7-FFC	Levelogger	553 397	5 687 951
L7-FFC-BM	Benchmark	553 481	5 688 099
L8-FFC-BM	Benchmark	562 062	5 688 085
F7-HS1	Levelogger	548 603	5 687 011
F7-HS1-BM	Benchmark	548 603	5 687 011
F8-HS7	Levelogger	565 200	5 687 840
F8-HS7-BM	Benchmark	565 184	5 687 832



LEGEND

- Proposed Flow Monitoring Station
- Proposed Lake Level Monitoring station
- High Priority
- Medium Priority
- Lower Priority
- FMG Proposed Road
- Mining Site
- Aggregates

Watersheds

- Springpole Lake
- Cromarty Lake
- Birch and Springpole Lake Sub-watersheds

REV.	DESCRIPTION	YY/MM/DD	BY	VER.
1				

REFERENCES
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CLIENT
First Mining Gold

PROJECT
Springpole Gold Project
Surface Water Hydrology

TITLE
Springpole & Birch Lake Watersheds Delineation and Proposed Hydrometric Stations

AQUASPHERA
info@aquasphera.ca
http://www.aquasphera.ca

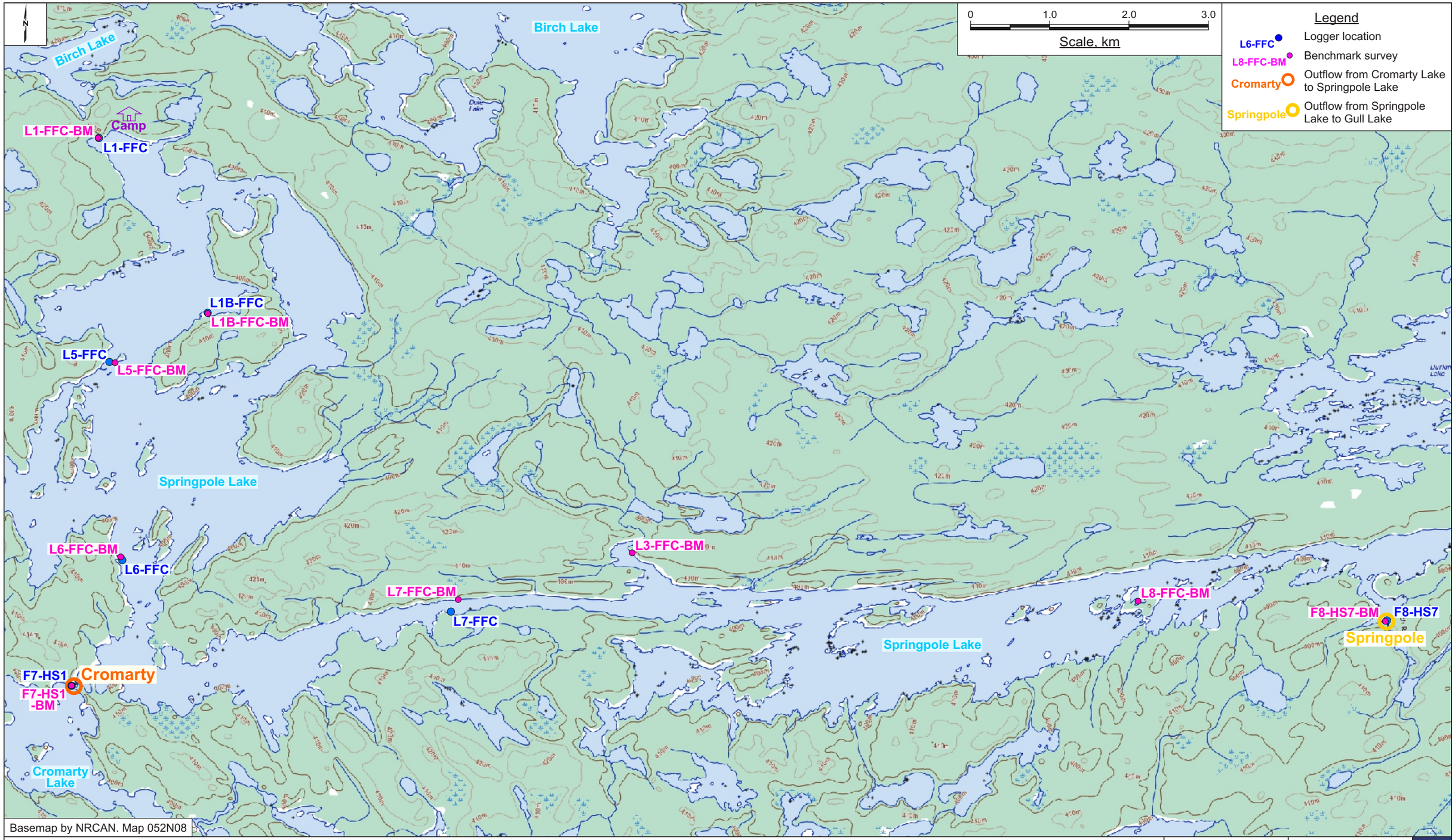
Project Num.	Date		
P0087	January 24, 2020		
Drawn: GRP	Verified: FJD	Fig. Num.: 1	Rev.: 0

P0087-202-WatershedFigure-20200124

Figure 1.1 Springpole and Birch Lake Watersheds Delineation and Hydrometric Stations as proposed by Aquasphera, 2020.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location: Springpole Lake, ON	Date: February 2021

FFC

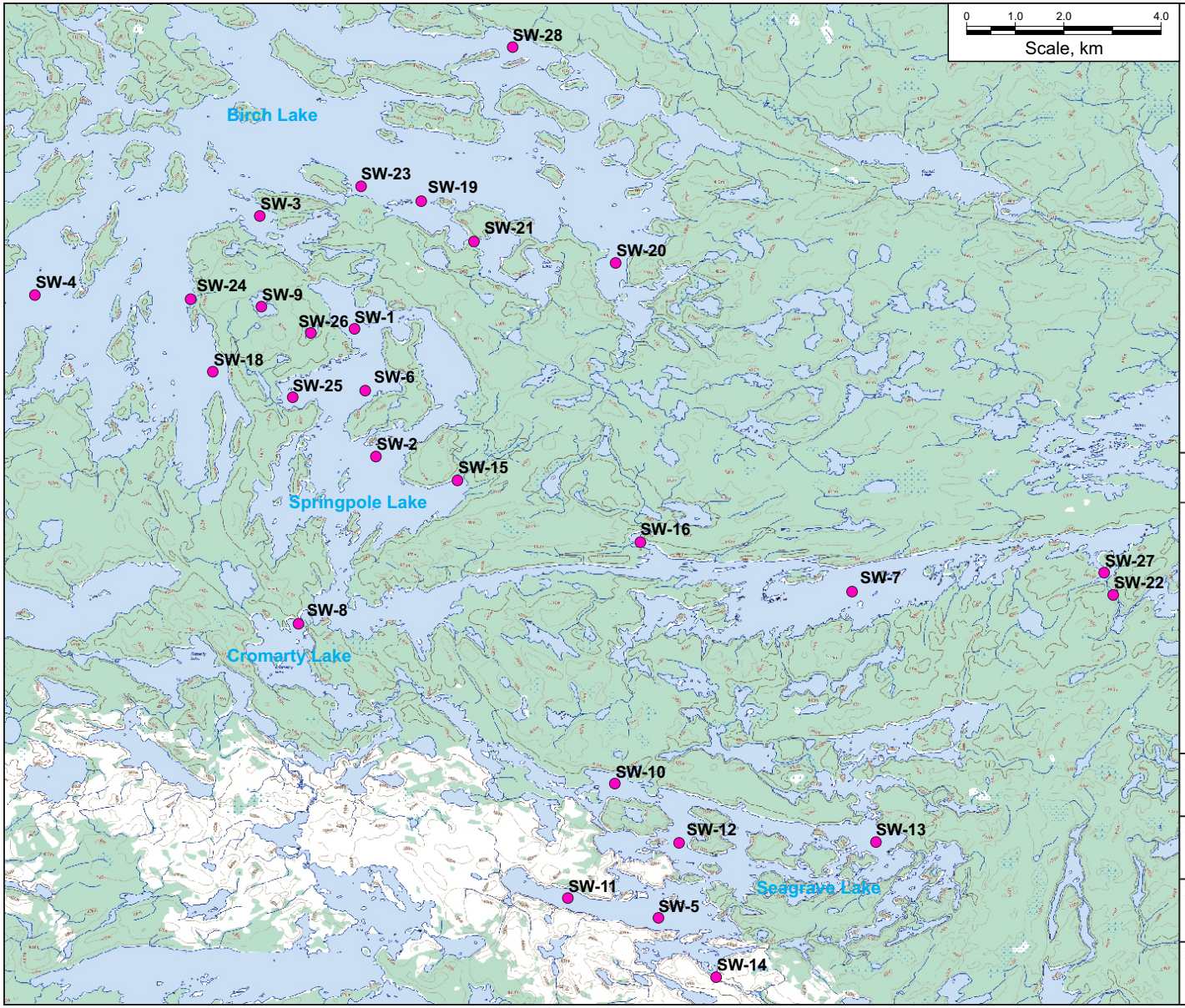


Basemap by NRCAN. Map 052N08

Figure 1.2 Location of Springpole Lake elevation monitoring points and lake elevation benchmarks as surveyed by Stantec, 2020.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC



Legend

SW-1 Sample location and sample ID

SW-6 Standard sample set analysed by laboratory

Basemap by NRCAN. Map identification 052N08

Figure 1.3

Surface water sampling location map.

Project No.
3134

Location
Springpole, ON

Document Reference
FFC-NL-3134-007

Date
February 2021

FFC

2.0 PREVIOUS HYDROLOGY WORK

The historical hydrology work that was completed as part of ongoing baseline studies that were completed by others and which in some part overlaps with the scope and objective of this report are referenced and summarized below:

2.1 DST Consulting Engineers Inc.

2.1.1 Hydrology Program

DST Consulting Engineers Inc. (DST) of Thunder Bay, Ontario, was retained by First Mining Gold (FMG) Gold Canyon Resources (GCR) to conduct a baseline assessment study, which included meteorology, hydrology, surface water quality, and other environmental baseline components.

Collection of baseline data was started in 2010 by DST. Data monitoring devices were installed in 2011 in selected streams (SPR-HS1 to SPR-HS6) to measure stream discharges and several sensors were installed to log lake levels throughout the year, with two being removed as part of the DST winterization activities (DST, 2012).

For the sake of continuity, the numbering of DST's devices and watersheds has been maintained along with the Aquasphera numbering of measuring locations and watersheds.

2.1.2 Lake Outflow Measurements

The DST data have been examined and compared to the 2020 reported and calculated data, with reference to the data for Springpole Inflow and Outflow.. The lack of a surveyed benchmark and water elevations made it difficult to extend the data to include the previous DST rating curves from 2011 to 2012 (DST, 2013b).

2.1.3 Stream Flow Measurements

The stream flow measurements completed by DST during the 2011-2012 field seasons were compared to the field measurements that were completed by Fracflow from June to September 2020. Five of DST's original hydrometric stations were instrumented (flumes or weirs with Leveloggers) with periodic current meter measurements in 2020 during June to September. The stream flows that were measured cannot be used as an extension of the data because they were based on simple height measurements of the natural channel. Natural channels often overflow the stream banks into natural flood-plains, and may have interflow through nearby roots in the river

banks. By constraining the channel with a standardized device, repeatable measurements can be made to extend measured data.

The data plots provided by DST matched the observed characteristic shape seen for F5-HS5. The flow curve for F5-HS5 is marked by sharp flow increases after a storm event. One anomalous period with no precipitation can be seen in the data from two monitored areas, F5-HS5 and F11-HS2 with an increase in Cromarty and Springpole outflows. This is a result of stored snow melt coinciding with rising spring temperatures. Flowrate curves observed from the Cromarty and Springpole outflows demonstrated the same shape. However both river locations had a much lower peak discharge amplitude. The peak discharge of 22 m^3/s (22,000 L/s) was measured on July 3, 2020 by Fracflow at the Cromarty outflow (F7-HS1), and was compared to the DST's measurement of 65,291 L/s which was measured on July 4, 2012. The previous year had less precipitation, resulting in a maximum flow of 16,200 L/s, which was measured on June 17, 2011.

Flow measurements in flumes installed in 2020 did not capture this spring freshet flow, but observed similar flow rates to those described in 2012 within the hydrology baseline report. The flow rates in 2011 appeared to be lower than those measured in 2012 and in 2020, which indicates a relatively drier year in 2011.

2.1.4 Meteorological Program

This work includes data from the 2020 weather station at the Springpole Lake camp site and data from nearby and regional weather stations which is the data set that is needed to develop a water budget, taking into account expected meteorological trends.

2.2 Aquasphera Conseil Inc.

2.2.1 Hydrology Program

Aquasphera Conseil Inc. (Aquasphera) of Quebec City, Quebec was retained by First Mining Gold (FMG)/Gold Canyon Resources (GCR) to provide services relating to the hydrology baseline study.

Drainage basin outlines from Aquasphera were used to obtain watershed basin catchment areas, as well as the numbering and identification of stream locations which were used in the 2020 hydrology program.

2.3 North Rock Environmental

2.3.1 Groundwater Monitoring Program

The North Rock Environmental reports provide additional seasonal data on surface water and groundwater for the project site. The surface water data in those reports are included in this hydrology report.

2.4 Monitoring at Previous Programs Sites

Components of the monitoring system used by DST in DST's initial field work were still in place at a number of monitoring locations in 2020. From the seven locations referenced in the DST reports (DST, 2013a and 2013b), components of four were still installed (as of September 2020). These were F7-HS1, F11-HS2, F5-HS5, and F10-HS6. Based on the poor condition of the sites and damaged sensors, it was apparent that those devices have not been maintained and have not been collecting useful data for some period of time. However, the documented data that were provided in the DST reports do provide useful seasonal data for reference (DST, 2013b).

Additional monitoring devices were installed in a number of sites along Springpole (Pickerel) East Arm based partially on the recommendations by DST and Aquasphera.

3.0 METEOROLOGICAL MONITORING

3.1 Local Weather Station Monitoring

The 2020 weather station, chosen and installed by FMG, is located on high ground close to the existing Springpole Project camp site. The exact location of the historical (DST) site weather station was not determined but is understood to have been located immediately northeast of the current Springpole camp site. The weather station data are summarized in the DST reports and provide useful multi-season local weather data. The data from the 2020 weather station provides a record of local rainfall events and evaporation rates, for comparison with regional weather station data and estimates of evaporation. The local rainfall and evaporation rates, when combined with flume measurements and changes in lake levels, provide the basis for water budget estimates and water balance calculations.

3.1.1 2020 Weather Station

The current weather station was installed in June 2020, with the first day of data recording starting on June 8, 2020. A number of maintenance activities were completed during the commissioning phase.

The weather station is comprised of a temperature and relative humidity sensor, wind and gust speed sensor, wind direction sensor, barometer, rain gauge, and evaporation pan gauge. These six sensors measure eight parameters, and report to a data logger on a fixed interval basis.

The software package used to measure the data converts it from the proprietary logger file type to a regular data file type, and reports each parameter measured during a specific time interval. The raw data file was provided by the Client. Analysis for the report included ascertaining a monthly rain and evapouration rate for water budget calculations. Evaporation rates, based on the local weather station evaporation pan, were calculated by Ausenco.

3.1.2 2011 Weather Station

The various DST project files and reports were reviewed to extract relevant hydrology data of a seasonal nature.

Meteorological data were monitored by DST using a weather station at the camp site, and logged on a Campbell Scientific CR200-200X series datalogger. The DST weather station data files have not been located, but if located, the raw data will be appended and processed to extract seasonal weather data, including rainfall data and snow thickness data as available.

3.2 Regional Monitoring Stations

Climatic data have been extracted from the publically available Environment Canada records for the regional weather stations: Pickle Lake, Red Lake and Sioux Lookout. The available stations were selected based on a proximity search to the Springpole Lake camp. Locations were chosen based on completeness of data, proximity, and direction. The data have been processed and are presented as monthly precipitation totals as well as the normal monthly distribution data which are presented as a box plot.

A number of data gaps have been identified in the Pickle Lake, Red Lake, and Sioux Lookout weather station data. These gaps are a result of intermittent data collection issues with the precipitation gauges, but each area reports some precipitation records continuously from 1939 to 2020 (**Appendix C**).

Seasonal precipitation generally consists of twice as much rainfall by comparison to the snow water equivalent. Yearly averages were tallied for the three weather monitoring stations. Yearly precipitation averages are approximately 690 mm for the primary data interval, and 720 mm for the past 30 years (1990 to 2020). The large difference in these values can be attributed to the increased precipitation observed in Red Lake and Sioux lookout from 1990 to 2010, which had an average of 750 mm over the 20-year period. This suggests that during the proposed life of the annual precipitation rates may vary significantly.

Local data for the period of June to September 2020 were plotted on the relevant box plots. The observed monthly temperature mean for the Springpole Lake Project site is closest to Red Lake. However July temperatures exceeded the fourth quartile of all three weather stations. A similar trend can be observed with Springpole Lake monthly rainfall amounts, where the trend aligns closest to precipitation rates which were observed at Red Lake. July precipitation was overall lower, located in the first quartile, or low second quartile amongst the three plots.

4.0 HYDROLOGY MEASUREMENTS

Northern Section of Springpole Lake: Topography around this part of Springpole Lake is a mix of gently sloping hills and depressions filled with peat or organic material, most often overlying a silty/clayey layer which in turn is underlain by a granular layer, which rests upon bedrock. Stream flows in this area were measured using devices such as a channel at F3-HS4, and flumes at F4, F6, and F10-HS6m (**Figure 4.1**). F3-HS4 accepts water from two large lakes, approximately 115,000 m^2 and 95,300 m^2, though a 76 mm square channel. Flume F4 is a 76 mm modified Parshall flume that accepts water from a number of small ponds (~58,900 m^2) that have been impounded by beaver activity. Flume F6 is a stream location that was subject to a significant water release from the failure of the beaver dam, which had created an up-stream 1,329,900 m^2 pond, after the flume had been installed. The 76 mm wooden flume was washed out by the large flow, and was later found on the shore near the eastern shore of the proposed western cofferdam. Flume F10-HS6 is downstream from a 15,200 m^2 pond, but with aerial images indicating an overall marshy/wetland area of approximately 85,000 m^2. Overall, the flow contributions to Springpole Lake are relatively low in the northern section of Springpole Lake area, and with ponds upstream moderating flow, they are not considered to be flashy during rainfall events.

Springpole Lake East (Pickerel) Arm: Topography in the area is generally steep near the lake shore, with a number of small coves and areas of small islands and rocky outcrops running parallel to the arm. The near shore slope of the northern side of the East Arm is significantly steeper than the south side, and has relatively fewer streams that are not ephemeral. Stream measuring devices in this area are flumes F11-HS2 and V-notch weir F12 on the northern side of the lake, and F13, F14, F15 along the south side of East Arm. In addition, manual measurements of river flow were completed periodically at F7-HS1 (outflow from Cromarty Lake), and F8-HS7 (outflow from Springpole Lake East Arm into Birch River (F8-HS7)).

Flume F11-HS2 measures water flow in a steady flowing stream, which drains a drainage basin that is approximately 647,100 m^2 in area and includes a number of interconnected lakes and ponds. Stream flow in this area is consistently strong, with little fluctuation. Weir F12 receives water directly from a small pond approximately 7,400 m^2 in surface area that is at the bottom of a drainage basin with extensive marshy areas and a drainage basin area of approximately 561,600 m^2. This weir is constructed in an old beaver dam that was created at the narrow entrance to a cove. Flume F13 accepts water from a relatively long chain of interconnected watercourses like ponds and lakes (382,300 m^2 in area) with marshy interconnected marshy sections (195,000 m^2 in area). Flume F14 accepts water directly from approximately 283,300 m^2 of lakes and small ponds that flow into the southern-most section of Springpole Lake (East Arm). Flume F14, similar to F12, is located on an old beaver dam that severely altered the upstream environment. Flume F15 accepts water from a stream leading from a water area of approximately 526,700 m^2 in area, with a very rocky streambed and shoreline.

Birch Lake East: Topography in this area is similar to the northern section of Springpole Lake , and the topography and relief are very similar on both sides of the drainage divide that separates Springpole Lake and Birch Lake surface water drainage. Stream-measuring devices in this area consist of a rectangular channel at F9-A (Dole Lake South), and a V-notch weir F9-B (Dole Lake East). Dole Lake is an area that collects surface water run-off before emptying into Birch Lake via a shallow, sandy stream which is characterized by sandy gravel shoals on the approach to both lakes.

The weir at F9-B is typically dry, and only contains run-off in consistently wet periods where surface runoff is sufficient to collect overland flow and direct it into the lake. Channel F9-A is located downstream from a beaver dam in an especially sandy stream. It accepts water from a small pond, and marshy area with a combined area of approximately 46,400 m^2. The stream separating Birch Lake and Dole Lake was originally labelled as F9, however stream installations in this area would likely be destroyed by local guides and hunters, and flume construction would prevent access for surface water quality monitoring in Dole Lake.

Birch Lake West: Topography in this area is similar to the area around the northern section of Springpole Lake, but has steeper relief close to the Birch Lake shoreline than areas of Birch Lake East. Stream monitoring devices in this location are V-notch weir F1-A, and flume F5-HS5. Flume F5-HS5 is downstream from the proposed TMF area that will occupy the area known currently as Jamie Lake. Flume F1-A is located in an area of low relief downstream from the proposed mine rock storage area, and an unnamed pond. Flume F1-A is located in an area of heavy beaver activity. Damage to the flume was noted during a site visit demonstrating that wood construction may not be appropriate for this location.

4.1 Relevant Drainage Basin Characterization

Within each lake area (Springpole Lake and the immediate Birch Lake area) there are a number of drainage basins, as outlined in **Figure 1.1**. In **Table 4.1** and **Table 4.2** the sub-basins and their pertinent hydrology features are outlined. The flow monitoring stations installed by DST are shown in **Table 4.1**, and have been separated from the remainder of the sub-basins in **Table 4.2**. The presence of water features within the sub-basin has been highlighted to show their ability to regulate stream flow.

The areas located inside the northern section of Springpole Lake, the area contained by the planned cofferdams has also been provided in **Table 4.3**. Once the mine is in operation the cofferdams will act as a drainage divide, and outflow from these nine sub-basins will be diverted.

Table 4.1 Summary of Sub-Basins features previously monitored by DST.

Sub-Basin	Flow Monitoring Station	Streams	Ponds	Total Area (From Figure) (m^2)	Land Area (Estimate) (m^2)	Water Area (Estimate) (m^2)	Outflow to
HS1	F7-HS1	No	No	1,268,976,736	N/C	N/C	Springpole Lake
HS2	F11-HS2	Yes	Yes	9,302,049	8,654,923	647,126	Springpole Lake
HS3		Yes	Yes	12,599,169	10,349,169	2,250,000	Birch Lake
HS4	F3-HS4	Yes	Yes	1,508,789	1,393,789	115,000	Springpole Lake
HS5	F5-HS5	Yes	Yes	1,535,626	1,368,248	167,378	Birch Lake
HS6	F10-HS6	Yes	Yes	1,706,924	1,691,673	15,251	Springpole Lake
HS7	F8-HS7	No	Yes	50,028,949	29,868,949	20,160,000	Gull Lake

Notes:
N/C – Not Computed

Table 4.2 Summary of Lake Drainage Sub-Basin features.

Sub-Basin	Flow Monitoring Station	Stream	Ponds	Total Area (Figure) (m^2)	Land Area (Estimate) (m^2)	Water Area (Estimate) (m^2)	Outflow to
1		Yes	No	159,704	159,704		Birch Lake
2		Yes	No	209,275	209,275		
3		No	No	55,672	55,672		
4	F1-A	Yes	Yes	651,758	592,858	58,900	
5		Yes	No	250,243	250,243		
6	F9	Yes	Yes	6,359,316	5,029,416	1,329,900	
7	F2	Yes	Yes	732,203	567,603	164,600	Dole Lake
8		Yes	No	334,268	334,268		Springpole Lake
9		Yes	No	365,922	365,922		
10	F4	Yes	Yes	572,445	527,445	45,000	
11		Yes	No	308,617	308,617		
12	F6	Yes	Yes	1,201,272	1,116,172	85,100	
13		Yes	Yes	391,082	373,082	18,000	
14		Yes	No	131,255	131,255		
15		Yes	No	190,029	190,029		
16		Yes	No	163,321	163,321		
17		Yes	No	560,799	560,799		
18		Yes	No	157,561	157,561		
19		Yes	No	183,790	183,790		
20		Yes	No	813,145	813,145		
21		Yes	No	473,240	473,240		

Sub-Basin	Flow Monitoring Station	Stream	Ponds	Total Area (Figure) (m^2)	Land Area (Estimate) (m^2)	Water Area (Estimate) (m^2)	Outflow to
22		Yes	No	311,780	311,780		
23		Yes	No	250,930	250,930		
24		Yes	Yes	1,006,958	945,658	61,300	
25		Yes	No	320,958	320,958		
26		Yes	No	599,535	599,535		
27	F13	Yes	Yes	3,509,960	3,127,660	382,300	
28		Yes	No	713,614	713,614		
29		Yes	No	538,485	538,485		
30		Yes	No	133,878	133,878		
31	F12	Yes	Yes	4,687,712	4,680,312	7,400	
32		Yes	No	434,407	434,407		
33	F14	Yes	Yes	4,424,891	4,141,591	283,300	
34		No	No	95,532	95,532		
35		Yes	No	159,084	159,084		
36		Yes	Yes	1,392,286	1,149,086	243,200	
37		Yes	No	483,804	483,804		
38		Yes	Yes	1,100,726	1,066,826	33,900	
39	F15	Yes	Yes	3,494,591	2,967,891	526,700	
40		Yes	No	758,546	758,546		
41		Yes	No	387,904	387,904		
42		Yes	No	1,341,173	1,341,173		
43		Yes	No	862,138	862,138		
44	F16	Yes	Yes	2,827,999	2,618,599	209,400	
45		No	No	99,361	99,361		
46		Yes	No	458,102	458,102		
47		Yes	No	542,997	542,997		

Table 4.3 Summary of Northern Springpole Lake Drainage Sub-Basin features.

Sub-Basin	Flow Monitoring Station	Streams	Ponds	Total Area (Estimate) (m^2)	Land Area (Estimate) (m^2)	Water Area (Estimate) (m^2)	Outflow to
West of Camp		No	No	729,844	729,844		Springpole Lake North Basin
Camp		No	No	608,698	608,698		
Old Plant Site		No	No	315,799	315,799		
East Cofferdam		No	No	190,593	190,593		
Small Island		No	No	48,507	48,507		
Johnson Island		No	No	400,699	400,699		
10	F4	Yes	Yes	572,445	527,445	45,000	
11		Yes	No	308,617	308,617		
HS4	F3-HS4	Yes	Yes	1,508,789	1,393,789	115,000	
			Totals	4,683,991	4,523,991	160,000	

4.2 Field Methodology

4.2.1 Lake Inflow and Outflow Measurements

Inflows and outflows in and from the river sections were measured using a consistent field procedure. Flow velocities and water depths were measured using fixed points at each river bank, with a rope marked at 2 m intervals secured across the river channel. The edges (or zero points) of the river cross section were established during a relatively high flow event. As the river flow decreases, the river edge will retreat. The same starting point was used for continuity during repeat river flow measurements; therefore, subsequent readings during low flows were recorded as zero for some areas near the river banks. The profile views of Cromarty Lake outflow (F7-HS1) and Springpole Lake (F8-HS7) outflow are provided in **Figure 4.2** and **Figure 4.3**, with a photograph of each shown in **Figure 4.4** and **Figure 4.5**.

To measure the river flow, field staff equipped with chest waders, survey measuring rod, and current flow meter traversed the river. Where permitted by water depth and current velocity, water velocity measurements were taken at 1 m increments at 20%, 60%, and 80% of maximum depth, using the 2 m mark on the guide rope as reference. At locations where the velocity or water depth was too great, the measurements were taken using an anchored boat at 2 m increments. Measurements were taken at 20%, 60%, 80%, or maximum current metre depth (1.8 m) where water exceeded 2.25 m. The three-section telescopic handle on the current meter allowed for such ranges.

Water velocity was measured in feet per second rather than metres per second. The resolution provided by the water meter in feet per second was more favourable (0.03 m/s converted from ft/s rather than 0.1 m/s when recorded in m/s). All velocity calculations were averaged as feet per second, whereas volume was expressed in cubic metres per second.

From the measured depths and chainage, the river cross section was divided into polygons. The average water velocity was determined for each polygon, and then multiplied by the respective polygon area to obtain the flow. The polygon's flows were summed to obtain an overall river flow measurement in cubic metres per second.

The major inflows and outflows that were measured had to meet minimum river depth and stream velocity requirements to make acceptable measurements of river discharge. Generally, the depth and width must be sufficient to observe a water velocity that is measureable using the flow meter. The large, rocky widths along the river from Exit Bay on Birch Lake to Cromarty Lake resulted in a difficult profile, with no observable or measureable water flow velocity. Seagrave Lake measurements were completed at the first encountered rapids due to the availability of a defined channel, with a measureable stream velocity.

4.2.2 Site Selection

The method and criteria for choosing whether to use a flume, weir or channel, and what size, at each site is discussed as part of the overall QA/QC work for the hydrology program.

Preliminary locations were marked in watershed basins that terminated at streams into Springpole Lake (**Figure 1.3** and **Table 4.4**). Each site was assigned a priority level dependent on its proximity to the mining site, and the proposed road. Lowest priority was assigned to site along the southern shore of Springpole Arm.

Each site was visited over the span of two days to determine an approximate flow rate and based on the riverbed characteristics, to determine the preferred type in-stream measuring device and its dimensions. The criteria for site selection were competent river banks, smooth soft river bottom, and a small elevation drop at the end of a section (for flumes). The potential impact to migratory fish was also evaluated, and the ideal device for data collection which had minimal environmental impact being the modified Parshall flume. A detailed site selection and installation procedure is outlined in a previous report (Fracflow, 2020).

Table 4.4 Flow Monitoring Station Locations

Identification	Flow Measuring Device		UTM Coordinates (NAD83 - Zone15)		Outflow to Lake
	Type	Dimension	Easting	Northing	
F1-A	V-Notch Weir	30°	547533.0	5695001.0	Birch Lake
F3-HS4	Channel	76 mm	550118.1	5693996.5	Springpole Lake
F4	Flume	76 mm	549230.8	5693189.8	Springpole Lake
F5-HS5	Flume	152 mm	547210.3	5692389.5	Birch Lake
F6	Not Installed	N/A	548057.6	5691566.5	Springpole Lake
F9-A	Channel	305 mm	553565.0	5693438.6	Dole Lake
F10-HS6	Flume	152 mm	552040.6	5690046.1	Springpole Lake
F11-HS2	Flume	305 mm	555820.5	5688875.5	Springpole Lake
F12	V-Notch Weir	90°	557164.4	5688255.5	Springpole Lake
F13	Flume	305 mm	553134.0	5687619.3	Springpole Lake
F14	Flume	152 mm	555307.2	5686142.3	Springpole Lake
F15	Flume	305 mm	560626.4	5687076.6	Springpole Lake

4.2.3 Modified Parshall Flumes

Construction

Each site required a flume of specific size (outlet width, **Table 4.5**) to accommodate the expected range of flows. Each flume was fully assembled at Springpole camp before being transported to the field. The flume was constructed of plywood and lumber. Some light sanding of exposed plywood edges was used to minimize turbulence in the water flow.

Table 4.5 Modified Parshall Flumes dimensions and flow ranges.

Nominal Size (in)	Inlet width A (mm)	Narrowing cross-section length B (mm)	Fixed cross-section length C (mm)	Outlet width D (mm)	Inlet height E (mm)	Outlet Height F (mm)	Maximum Flow Q_{max} (m^3/s)	Maximum Flow Q_{max} (LPM)
3"	197	305	152	76	229	286	0.031	1,867
6"	394	610	305	152	457	572	0.110	6,626
9"	590	914	457	229	686	857	0.252	15,121
12"	787	1220	610	305	914	1143	0.456	27,354

The above table was used as a reference to select and design each flume, with **Figure 4.1** showing the for overall construction drawing. The sizes were obtained from a reference 76 mm drawing (USGS, 1963), and scaled upwards to accommodate larger flows.

Installation

Each flume was installed in a relatively flat section of the stream, with a slight elevation drop at the end to accommodate the narrowing cross-section to minimize submergence at higher flows. Where necessary, the upstream section of the flume was supported using sand bags to help level the device. Plastic, sandbags, and clay/bentonite were used to seal the sides. A detailed installation procedure is provided in a previous report (Fracflow, 2020).

A monitoring device (Levelogger) was placed in a slotted PVC pipe, and attached to the upstream headwall to measure hourly water levels at each location. Those levels where then correlated to the measurements obtained from periodic current meter and water level/height readings as discussed below.

Measurements

Water depth flowing through the flume is read from a section of fibreglass measuring tape stapled to the side of the upstream and downstream walls. The tape is placed with a zero or base ten mark at the flume bottom. This permits an accurate reading to be taken without the use of a measuring tape. Where base ten is used, incorrect recording of the tape marking are obvious when compared against the design height. Thorough photo documentation is also included with the measurement track spreadsheet. That is to say, a 76 mm flume cannot have a height of water 0.337 m flowing through it when the walls are only 0.229 m. In this case, the photos can be examined to see that zero reading is actually 0.30 m, therefore having a flow depth of 0.037 m.

Water velocity is measured with the current meter, as one would with the river outflow measurements. When measuring water velocities, the left and right frames of reference are

determined as if one were looking downstream. That is, when facing downstream left is left. This has been marked on a majority of the flumes to provide directions to field staff when recording data.

Velocity measurements must be taken by placing the current meter rod perpendicular to the flow, with the arrow pointing downstream, as per manufacturer's specifications. The flow is recorded at 60% depth and averaged across three locations, 25% from the left, 50%, and 25% from the right. The same process is applied to the downstream section. However to maintain the flow meter perpendicular to the water surface, the handle must be held 20.6 degrees from vertical (based on the design and construction of flumes for this project). Measuring locations for the flumes, with the appropriate measuring angle for the downstream section, can be found in **Appendix A**.

4.2.4 Rectangular Channels

Construction

Water velocity and flow data gathered during the initial site visits were used to design an appropriate rectangular channel (**Table 4.6**). The minimum width required to measure (from the meter dimensions) is roughly 76 mm, and construction of any smaller dimensioned devices is difficult.

Table 4.6 Rectangular Channel Dimensions.

Inlet Width **A** **(mm)**	**Channel Length** **B** **(mm)**	**Outlet Width** **A** **(mm)**	**Inlet height** **C** **(mm)**	**Outlet Height** **C** **(mm)**
76	406	76	305	305
305	406	305	305	305

To ensure that the stream provided measurable velocities, and that the probe was at least mostly submerged, the area of the channel was reduced from the original stream dimensions. The dimensions of the two channels that were installed are provided in **Table 4.5**.

Installation

The channels were installed in relatively flat, slow moving streams. The channel was placed and levelled, then filled with soil and bentonite around the side walls. A more comprehensive description can be found in a previous report (Fracflow, 2020). A monitoring device (Levelogger) was placed in a slotted PVC pipe, and attached to the upstream headwall to measure hourly water levels at each location. These levels correlate to the measurements obtained from height readings and current velocities discussed below.

Measurement

The procedure to measure the rectangular channels is similar to that which was used to measure flow in the modified Parshall flumes. The upstream and downstream heights are typically similar, as well as the velocities due to the consistent channel width. The average between the upstream and downstream measurements is used to compute the flow.

4.2.5 V-Notch Weirs

Selection of sites that were most amenable to monitoring devices being constructed as V-notch weirs was completed based on the anticipated absence of fish upstream from the weir, as well as the overall elevation difference between upstream and downstream at lake level. Installations were either constructed in an area of the stream bed at the top of a sharp elevation rise between the impounded area and the lake over a relatively short distance, or in streams that have no visible surface water in the immediate upstream area (i.e., flowing beneath root mat).

Construction

Initial site visits were used to select the angle and height of the V-notch weirs. Due to the response of flow to the height of the water behind the weir, a lower angle construction provides a more precise flow resolution. Streams with smaller overall flows were equipped with 30 degree V-notch weirs, with the height of the V-notch being chosen based on the maximum probable flow, allowing for some freeboard. For a weir of 30 degrees with a V-notch height of 0.20 m, a maximum flow of 400 Lpm (litres per minute) can be obtained, whereas with a height of 0.30 m the same V-notch will permit a discharge of 1,100 Lpm. **Table 4.7** encompasses the various weirs that were installed, and provides the relation between maximum flows versus V-notch angle.

Table 4.7 V-Notch Weir dimensions and flow ranges.

V-Notch Angle θ (Degrees)	**V-Notch Angle Coefficients**	**Height H (mm)**	**Maximum Flow Q**	
			(m^3/s)	**(LPM)**
30	0.373	203	0.0069	416
		254	0.0121	728
		305	0.0192	1151
60	0.797	305	0.0409	2456
90	1.380	305	0.0709	4255

The V-notch weirs were constructed using 5-ply plywood and formed using a circular saw and rasp. The triangle with specified angle and depth was scribed, then the circular saw with a bevel feature was used to form the sharp edge required for the weir. A rasp was used to dress the sides and bottom edges of the V-notch.

Installation

The location for each weir installation was chosen by identifying those sections of the stream with well-formed banks of material that could be easily excavated and where the stream bed material consisted of soft sediment. The river banks were notched using a spade/shovel and the V-notch weir plywood was driven into the banks using a hammer. The upstream side was sealed with bentonite where the weir contacted the stream bank. Ten-mil (0.254 mm) polyethylene (plastic) sheeting was added to control erosion and to minimize weir bypass. The plastic was held in place with sand bags filled with native fill from nearby areas. The weir was braced against the downstream force of the water by adding wood placed at a diagonal from the top section of the weir, to the stream bottom.

A monitoring device (Levelogger) was placed in a slotted PVC pipe, and attached to the upstream headwall to measure hourly water levels at each location. Those water levels correlate to the measurements obtained from height readings discussed below.

Measurement

The height of the discharge flows through the weir was read using a measuring tape that was attached vertically to the plywood. The height from the bottom of the V-notch is read directly from these tapes, and averaged to account for any uneven installations. The nappe is described as the level of the water flowing over the sharp crest of the V-notch weir. A free nappe, where the water does not cling to the downstream face of the weir plywood, provides an accurate measurement. Partial to complete clinging may result in an actual flow measurement that is 7 to 30% greater than observed (Code Cogs, 2020).

The flows are obtained using the following relationship:

$$Q = \alpha * H_m^{2.5}$$

where,

Q = flow in cubic metres per second;
H_m = the height above the bottom of the V-notch in metres; and
α = the discharge coefficient correlating to the angle of the V-notch.

V-notch weirs currently installed are either 30 degrees, or 90 degrees. The coefficients for 30, 60, and 90 degrees are 0.3732, 0.7967, and 1.380 respectively (Skrenter, 1988).

4.2.6 Lake Monitoring Station

Fixed Point Monitoring Station

Two loggers are currently installed using an open-ended pipe that is mounted to the rock face at the lake elevation monitoring station – one at the top of the outflow channel from Cromarty Lake (F7-HS1) and one at the top of the outflow from Springpole Lake East Arm (F8-HS7). This pipe installation allows the logger to be fixed in a stable position in the lake. Elevation surveys conducted in October 2020 determined the elevation of a fixed point at or near these fixed-point installations (**Figure 1.3**). This allows the true elevation of the lake surface to be determined at any point in time. The objective was to correlate the monitoring device (Levelogger) readings of water height above the sensor to a true water elevation.

Lake Installation

Where fixed point stations could not be installed due to shallow water conditions or high vertical rock faces at the monitoring location, subsurface monitoring stations were used. These Leveloggers (for temperature and water level) are attached to the anchor of a buoy and monitor changes in lake level within a few tens of meters of the benchmark. The buoys at each location, to facilitate recover of the Levelogger, are located approximately 1 m below the water surface, to prevent capture by ice. Elevation data for nearby benchmark points were surveyed in October 2020, and were used to relate the measuring device measurements to lake elevation. The vertical distance from the benchmark to the lake water surface is measured when the logger is read and used to compensate the Levelogger reading before and after removal. Based on available logger data recorded and collected before and after the elevation survey, a graph of lake elevation fluctuations was prepared (**Appendix A)**.

4.3 Tabulation of Lake Outflow Measurements

The outflow from Cromarty Lake into Springpole Lake (F7-HS1) takes place through a relatively shallow channel, with exposed boulders and rock outcrops with the water depth being dependent on the rainfall events. The approximate width at the location where the flow is measured is 30 m, with a maximum depth of 1.3 m at 22 to 24 m from the south bank of the river at the time the initial measurements were made in June 2020. The overall shape and profile of the channel are shown in a vertically exaggerated scale in **Figure 4.2**, and in a photo looking downstream in **Figure 4.4**.

The outflow from Springpole Lake (F8-HS7) (at the end of East Arm) into Birch River and Gull Lake is the last downstream location in which the flow is monitored. The outflow channel is primarily exposed bedrock outcrops with a rocky bottom and rocky channel sides. The maximum depth observed was 3.6 m (July 20, 2020). Rock anchors installed by previous field programs were utilized to attach the measuring rope. The Eastern bank was chosen at the zero point, and is

characterized as a rocky plateau 4 m in width, that occasionally sees water flowing over this rock outcrop at water depths of 0.4 m. From 4 to 6 m, the depth drops sharply to 3.5 m. The measured water velocity was generally less than 2 ft/s, with the overall average ranging from 0.9 to 1.4 ft/s. The overall shape of the channel is shown in a vertically exaggerated scale in **Figure 4.3** and in a photo looking downstream in **Figure 4.5**. At this location, the outflow is part of Birch River and drops rapidly through a boulder filled set of rapids and then flows into Gull Lake.

4.3.1 Observations of Seasonal Fluctuations

The data collected from the monitoring locations from June 20 through to mid-September 2020 were tabulated and plotted (**Appendix B** and **Table 4.8**). The changes in flow at the Springpole Lake outflow (F8-HS7) and the Cromarty Lake outflow (F7-HS1) **Figure 4.6** can be related to the pattern of the rise and fall of the Springpole Lake level, including the northern section of Springpole Lake. Monthly precipitation amounts for this time period can be found in **Table 4.10**. Flow rating curves were derived from the monitoring station data sets using flow rating curves (**Figure 4.7**). The data plotted in show that flows from Cromarty Lake into Springpole Lake (F7-HS1) remained greater than Springpole Lake outflow into Gull Lake (F8-HS7) until July 13, 2020. After which, the flows out of Springpole Lake (F8-HS7) remained consistently higher than inflows from Cromarty Lake (F7-HS1). This demonstrated that the water levels of Springpole Lake were rising until July 13, 2020. After which, lake levels began falling. Data from lake monitoring station L5-FFC demonstrated that lake levels remained high during this period, peaking at 391.551 m on July 5, 2020 at 23:30. It can be inferred that the water levels of Springpole Lake begin rising at some point in April or May at the start of the spring freshet.

Cromarty Lake outflow (F7-HS1) was first measured at 19.84 m^3/s on June 22, 2020 and then remained at a consistently high outflow with a slow upward trend until it reached 22 m^3/s (calculated) around July 3, 2020. After this date, the flowrate began falling approximately linearly until the second week of August, at which time the flowrate reached an approximately steady state of 8.0 m^3/s (calculated). Flowrates after this date increased with periods of rain, but otherwise remained relatively steady. Measurements on September 14, 2020 show that the flow from Cromarty Lake was 7.89 m^3/s.

Springpole Lake outflow (F8-HS7) was measured at 16.87 m^3/s on June 23, 2020. The flow gradually increased until July 5, 2020 at which time the flowrate was 18.5 m^3/s (calculated). From July to mid-August, the flow saw an approximately linear decrease to 11.5 m^3/s (calculated). Large rain events in August provided a small rises in outflow levels that were followed by an approximately linear decrease. The rate of decrease lessened from July to August when Cromarty outflow (F7-HS1) reached a consistent outflow. Readings from September 14, 2020 showed that the outflow from Springpole Lake (F8-HS7) was 9.82 m^3/s. A summary of the monthly volume changes can be found in **Table 4.11** with some commentary in **Table 4.12**.

Table 4.8 Springpole Lake monthly levels and major contributory flows.

Data Interval Start Date	Data Interval End Date	Average Inflow from Cromarty F7 - HS1 (m^3/s)	Volume In Springpole Lake (m^3)	Average Outflow F8 - HS7 (m^3/s)	Volume Out Springpole Lake (m^3)	Lake Level (m)	Change in Level (m)	Change in Lake Storage (m^3)
Jun/20/2020	Jul/1/2020	19.82	18,832,482	17.58	16,711,171	391.381	0.144	2,903,040
Jul/1/2020	Aug/1/2020	16.79	44,960,304	17.05	45,674,050	391.525	-0.198	-3,991,680
Aug/1/2020	Sep/1/2020	8.76	23,452,694	11.76	31,510,109	391.327	-0.279	-5,616,576
Sep/1/2020	Oct/1/2020	8.17	21,175,014	10.10	26,179,885	391.048	-0.117	-2,350,656
Oct/1/2020	Oct/30/2020	*8.00*	*20,044,800*	*10.00*	*25,056,000*	390.932	-0.067	*-1,340,640*
Oct/30/2020	--	--	--	--	--	390.865	--	--

Lake Area used for calculations	20,160,000	Maximum Lake Elevation	391.572
		Minimum Lake Elevation	390.865

Table 4.9 Springpole Lake monthly minor contributory flows.

Data Interval Start Date	Data Interval End Date	Total (m^3/s)	Volume In Streams (m^3)	Flumes, Weirs, Channels							
				F3 (m^3/s)	F4 (m^3/s)	F10 - HS6 (m^3/s)	F11 - HS2 (m^3/s)	F12 (m^3/s)	F13 (m^3/s)	F14 (m^3/s)	F15 (m^3/s)
Jun/20/2020	Jul/1/2020	--	--	--	--	--	--	--	--	--	--
Jul/1/2020	Aug/1/2020	0.120	322,747	*0.00039*	0.00080	0.00208	0.05663	*0.01368*	0.01122	0.01860	0.01710
Aug/1/2020	Sep/1/2020	0.196	524,904	*0.00032*	0.00014	0.00003	0.07219	*0.01124*	0.04864	0.03732	0.02610
Sep/1/2020	Oct/1/2020	0.787	2,041,187	0.00122	0.00053	0.00145	0.56461	0.04241	0.05689	0.08432	0.03606
Oct/1/2020	Oct/30/2020	1.470	3,682,013	0.00269	0.00087	0.01147	*1.08801*	*0.08173*	0.05277	*0.16249*	*0.06949*
Oct/30/2020	--	--	--	--	--	--	--	--	--	--	--

Legend: - *Estimated Values*

- -- No Data

Table 4.10 Springpole Lake Weather Station observed metrics.

Data Interval		Observed Evapouration Pan Changes	Observed Precipitation	Evapouration over Water	Evapouration over Land	Rainfall over Land	Rainfall over Water
Start Date	End Date	(mm/month)	(mm/month)	(m^3)	(m^3)	(m^3)	(m^3)
Jun/7/2020	Jun/30/2020	61.90	86.60	1,413,361	4,319,196	6,624,712	1,977,336
Jul/1/2020	Jul/31/2020	93.88	60.60	2,143,560	7,181,616	4,635,769	1,383,678
Aug/1/2020	Aug/31/2020	78.46	83.80	1,791,475	6,002,020	6,410,518	1,913,403
Sep/1/2020	Sep/24/2020	27.68	53.60	632,017	2,117,460	4,100,284	1,223,848

Table 4.11 Springpole Lake volumetric balance from major and minor contributory flows.

Data Interval		Volume In Springpole Lake	Volume Out Springpole Lake	Change in Lake Storage	Volume In Streams	Evapouration over Water	Evapouration over Land	Rainfall over Land	Rainfall over Water	Observed Mass Balance
Start Date	End Date	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)	(m^3)
Jun/20/2020	Jun/30/2020	18,832,482	16,711,171	2,903,040	--	*613,399*	*1,874,531*	*2,875,125*	*858,164*	463,630
Jul/1/2020	Jul/31/2020	44,960,304	45,674,050	-3,991,680	322,747	2,143,560	7,181,616	4,635,769	1,383,678	-27,795
Aug/1/2020	Aug/31/2020	23,452,694	31,510,109	-5,616,576	524,904	1,791,475	6,002,020	6,410,518	1,913,403	-1,910,413
Sep/1/2020	Sep/30/2020	21,175,014	26,179,885	-2,350,656	2,041,187	*790,021*	*2,646,825*	*5,125,355*	*1,529,809*	564,103
Oct/1/2020	Oct/30/2020	*20,044,800*	*25,056,000*	*-1,340,640*	3,682,013	--	--	--	--	--
Oct/30/2020	--	--	--	--	--	--	--	--	--	--

Legend: - *Estimated Values*
- *Normalized to match data intervals*
- -- No Data

Table 4.12 Comments on Springpole Lake volumetric metrics

Data Interval		Observed Mass Balance (m^3)	Comments on Observed Mass Balance
Start Date	End Date		
Jun/20/2020	Jun/30/2020	653,017	Estimates of outflows from Springpole Lake may be underrepresented
Jul/1/2020	Jul/31/2020	-27,795	Evapouration over land may be over-estimated
Aug/1/2020	Aug/31/2020	-1,910,413	Evapouration over land may be over-estimated
Sep/1/2020	Sep/30/2020	1,677,403	Estimates of outflows from Springpole Lake or shallow groundwater storage are under-represer
Oct/1/2020	Oct/30/2020	--	Data gap for evapouration, rainfall, and volumetric flows
Oct/30/2020	--	--	Data gap for evapouration, rainfall, and volumetric flows

4.4 Tabulation of Flume and Weir Measurements

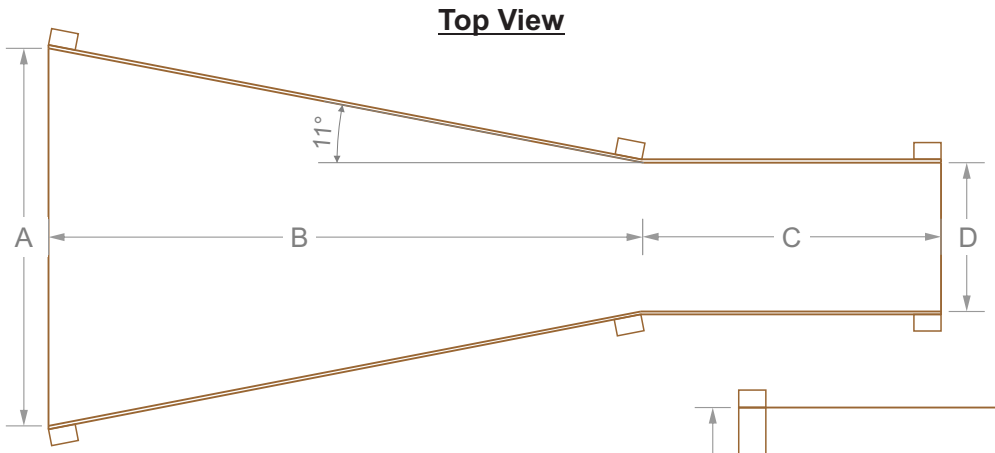
The extent of the spring freshet effects on flumes was not observed as late into the spring and early summer as was observed for the river outflows and the lake elevations. The flumes were characterised by response to general precipitation trends (e.g., weeks with no rain, and intensity, duration, and frequency) as well as a general decrease with what was perceived to be summer evaporation. With repairs and changes to specific site installations, some measuring device locations were adjusted to maintain a greater depth of water over the sensor to ensure and maintain data continuity. Some compensation was required to account for small variations between flume readings and device readings to prevent data gaps. The graphs for the flumes are provided in **Appendix A**, with the average monthly flows provided in **Table 4.9**.

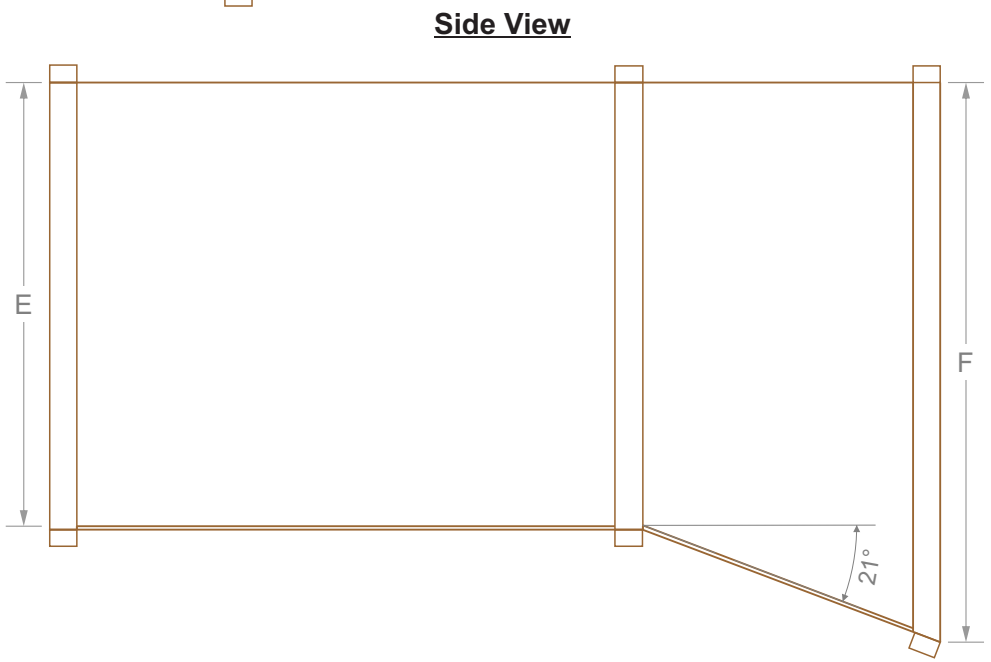
4.5 Field Data Correlation

Data measured in the field can be compiled for each location and graphed to provide a flow versus depth relation. This line of best fit can then be applied to field depth readings. From measuring device data, the line of best fit can be used to obtain a detailed flow versus time graph. Based on the hourly readings the flow response of the stream to a rainfall period can be observed. Graphs of the field data, and calculated flows are presented **Appendix B**.

The comparison of real-life rainfall events to the streamflow runoff model predictions can be used to further refine the parameters of the model. This allows for more accurate model predictions as more rainfall events become available. The micro events of the rainfalls and flume outflows were not individually tallied, but rather examined on a macro scale to obtain monthly totals for water budget analysis.

To view the correlation on a micro scale, one of the smaller flumes can be referenced. **Figure B6** in **Appendix B** for flume F4 shows a number of sharp increases around August 15, 2020 and September 6, 2020 that resulted from overnight rainfall events of 27.8 and 23.4 mm, respectively. The weather station recorded a moderate intensity rainfall event throughout the night from August 14-15 that resulted in an immediate increase in flume flow with a peak flow occurring approximately 5.5 hours after the original rainfall even start. Conversely, on September 6, the overnight rainfall was less intense but with an extended duration. The flume responded approximately 2.5 hours later, and peaked 5 hours later.





Flume Sections

A: Inlet width

B: Narrowing cross section length

C: Fixed cross section length

D: Outlet width

E: Inlet height

F: Outlet Height

Figure 4.1 Schematic of Modified Parshall Flume design after USGS Hydrological Laboratory, 1963.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

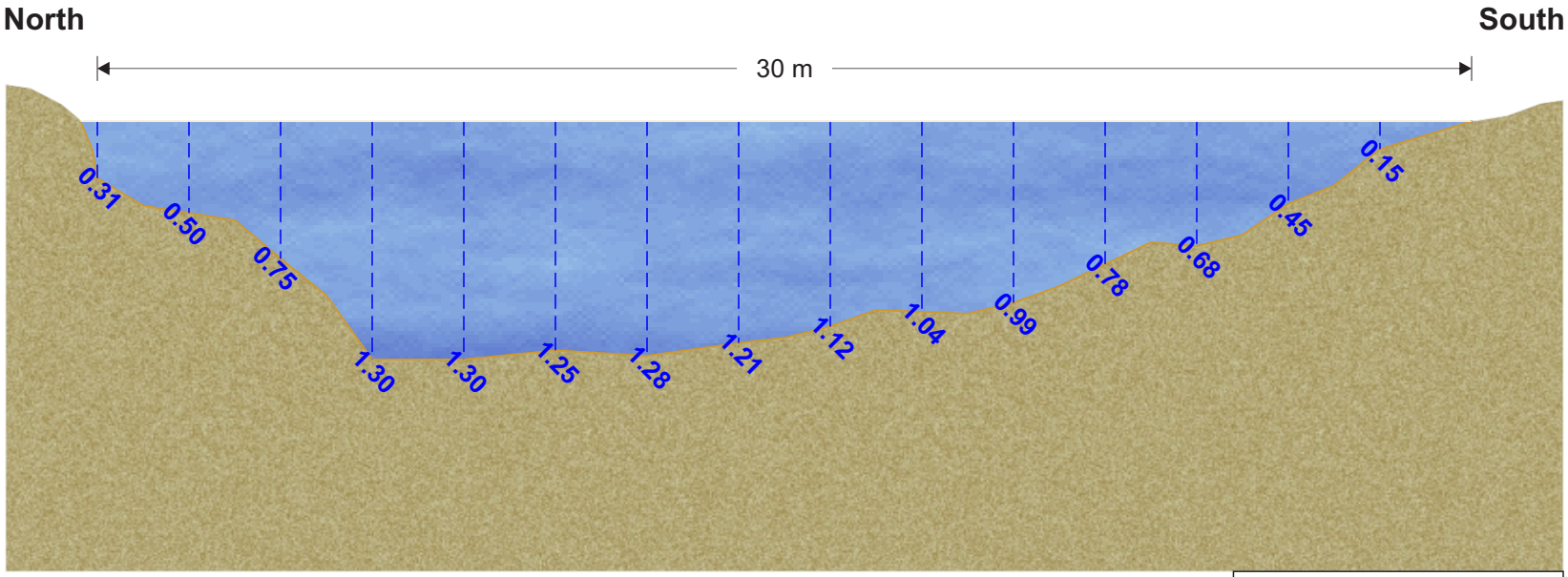
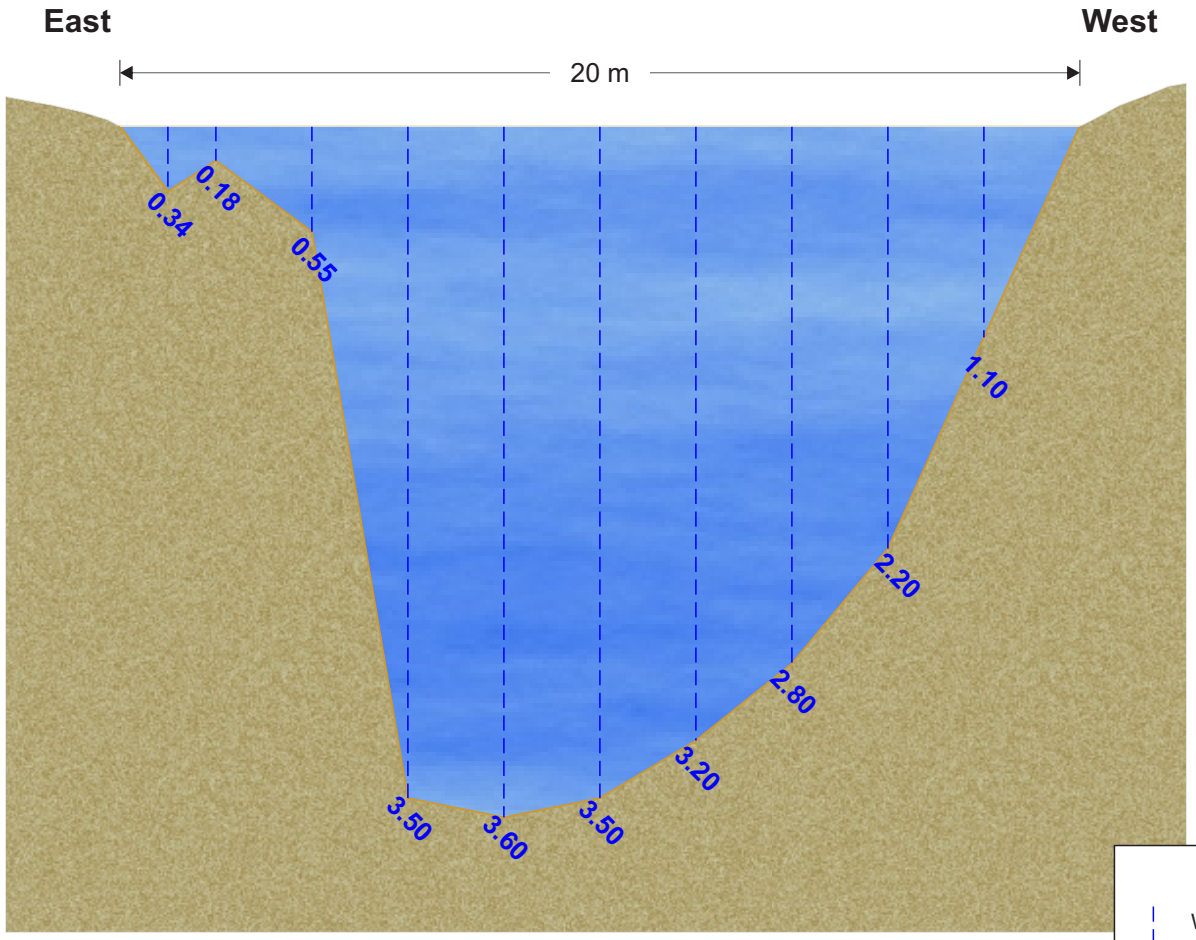


Figure 4.2 Water depths measured at Cromarty Lake (F7-HS1) outflow reference cross-section at which current velocities were measured to determine discharge into Springpole Lake (looking downstream).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole Lake, ON	December 2020

FFC



Note: Vertical exaggeration = 4.

Figure 4.3 Water depths measured at Springpole Lake (F8-HS7) outflow reference cross-section at which current velocities were measured to determine discharge into Gull Lake (looking downstream).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole Lake, ON	December 2020

FFC

Figure 4.4 Photo of Cromarty Lake (F7-HS1) outflow reference cross-section at which current velocities were measured to determine discharge into Springpole Lake (looking downstream).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole Lake, ON	February 2021

FFC

Figure 4.5 Photo of Springpole Lake (F8-HS7) outflow reference cross-section at which current velocities were measured to determine discharge into Gull Lake (looking downstream).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole Lake, ON	February 2021

FFC

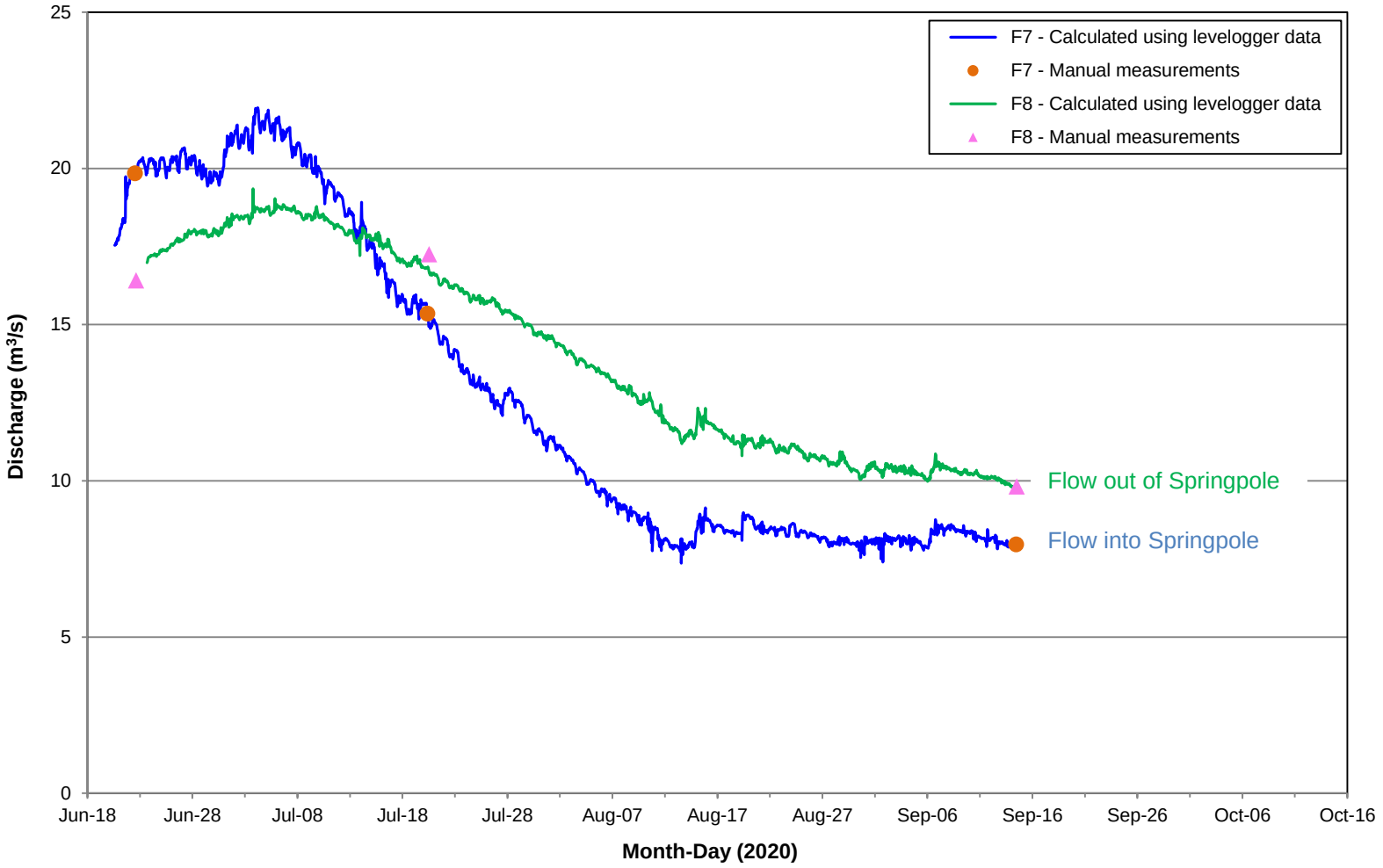
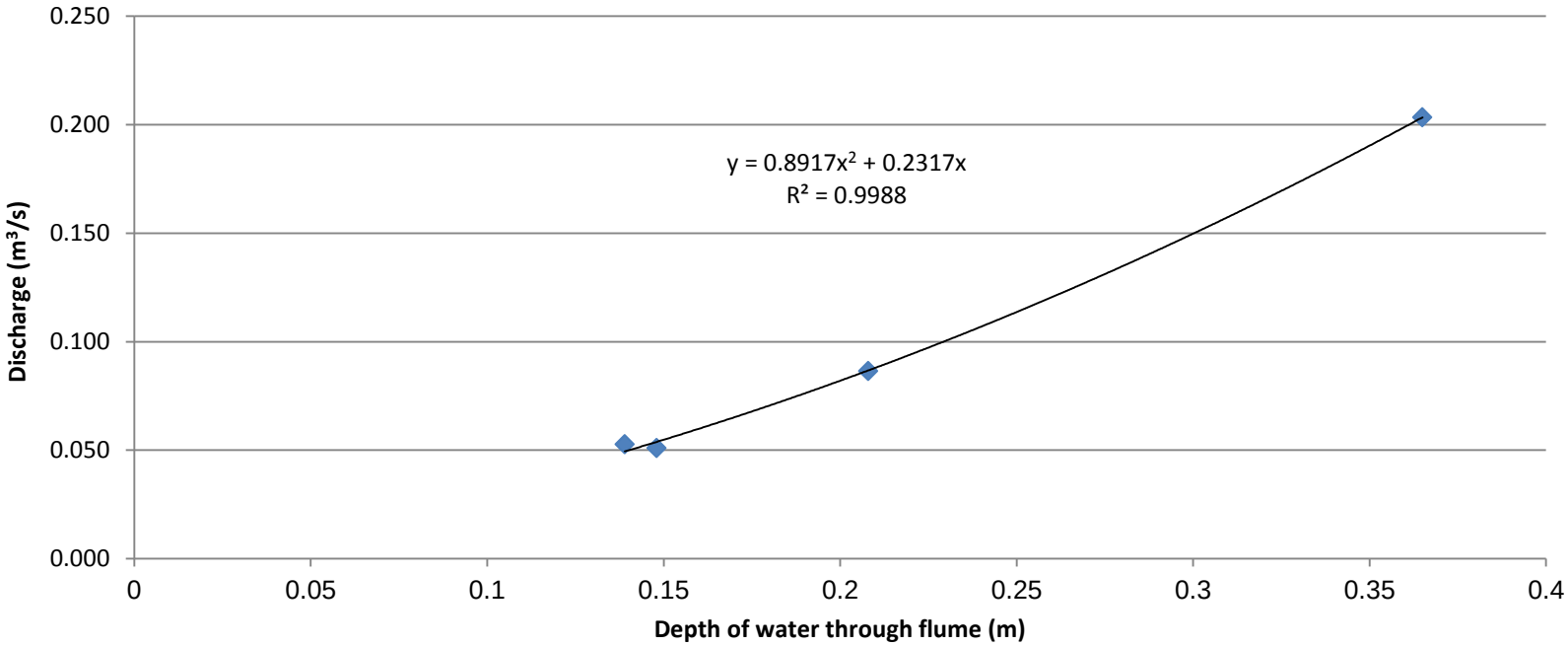


Figure 4.6 Discharge data for Cromarty Lake outflow into Springpole Lake (F7-HS1) and Springpole Lake outflow into Gull Lake (F8-HS7) during June to September 2020.

Project No.	Document Reference
3134	FFC-NL-3134-007-Final
Location	Date
Springpole, ON	February 2021

FFC



Date dd-mmm-yy	Time	Depth (m)	Calculated Average Flow (m^3/s)
02-Jul-20	9:10	0.238	0.203
18-Jul-20	11:20	0.080	0.053
09-Sep-20	10:15	0.118	0.086
18-Sep-20	14:00	0.078	0.051

Figure 4.7 Flow-depth rating curve for Modified Parshall Flume F11-HS2.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

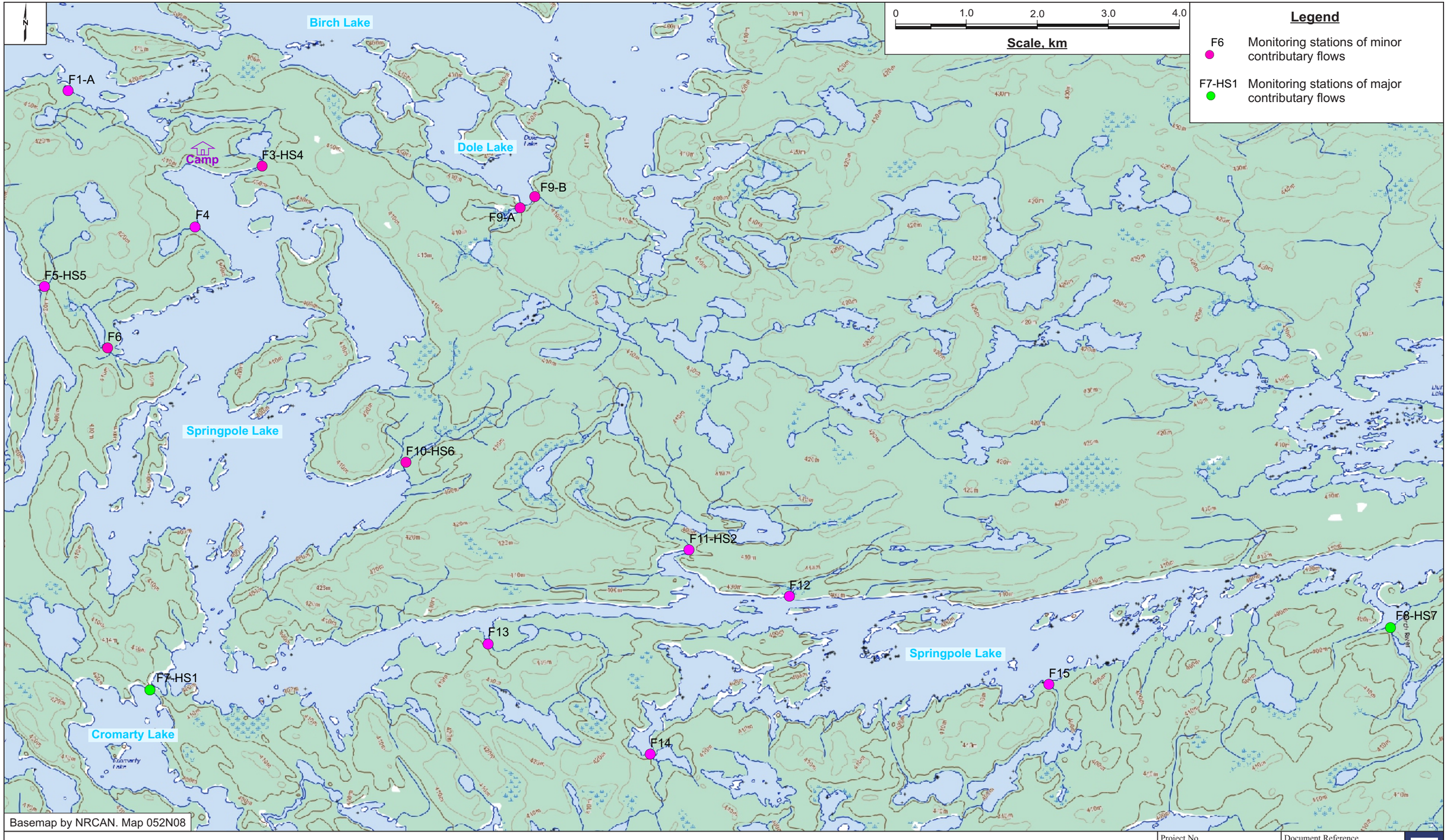


Figure 4.8 Birch Lake and Springpole Lake flow monitoring station locations.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

5.0 AQUEOUS GEOCHEMISTRY OF SURFACE WATER

Aqueous geochemical data collected at surface water monitoring stations are presented in factual format. Analytical data were not compared with guideline values as requested by FMG's peer reviewers.

5.1 Water Sampling Locations, Field and Analytical Methods

5.1.1 Sampling Locations

There are currently 27 stations being monitored. These sampling locations can be found in **Figure 5.1** and are summarized in **Table 5.1** with coordinates. Samples were collected by Fracflow at the following locations in 2020:

- July: SW-1 to SW-16, and SW-18 to SW-26;
- September: SW-1 to SW-8, SW-10 to SW-16, SW-18 to SW-28; and
- November: SW-1, SW-2, SW-6, SW-15 and SW-25.

Table 5.1 Surface water sampling locations.

Sample ID	UTM Coordinates (NAD83 - Zone 15		Lake
	Easting	Northing	
SP-SW-01	549 752	5 692 997	Springpole Lake
SP-SW-02	550 202	5 690 383	Springpole Lake
SP-SW-03	547 814	5 695 321	Birch Lake
SP-SW-04	543 193	5 693 701	Birch Lake
SP-SW-05	556 004	5 680 888	Seagrave Lake
SP-SW-06	549 977	5 691 730	Springpole Lake
SP-SW-07	559 997	5 687 606	Springpole Lake
SP-SW-08	548 614	5 686 939	Cromarty Lake
SP-SW-09	547 852	5 693 454	Jamie Lake
SP-SW-10	555 119	5 683 654	Seagrave Lake
SP-SW-11	554 151	5 681 294	Seagrave Lake
SP-SW-12	556 426	5 682 432	Seagrave Lake

Sample ID	UTM Coordinates (NAD83 - Zone 15		Lake
	Easting	Northing	
SP-SW-13	560 475	5 682 458	Seagrave Lake
SP-SW-14	557 194	5 679 680	Seagrave Lake
SP-SW-15	551 876	5 689 893	Springpole Lake
SP-SW-16	555 633	5 688 623	Springpole Lake
SP-SW-17	556 797	5 689 205	Sample Removed
SP-SW-18	546 849	5 692 115	Birch Lake
SP-SW-19	551 135	5 695 634	Birch Lake
SP-SW-20	555 130	5 694 364	Birch Lake
SP-SW-21	552 212	5 694 796	Dole Lake
SP-SW-22	565 364	5 687 538	Springpole Lake Outflow
SP-SW-23	549 892	5 695 935	Birch Lake
SP-SW-24	546 386	5 693 618	Birch Lake
SP-SW-25	548 486	5 691 592	Springpole Lake
SP-SW-26	548 869	5 692 912	Unnamed Beaver Pond
SP-SW-27	565 179	5 687 985	Springpole Lake
SP-SW-28	553 005	5 698 794	Birch Lake

The above table outlines the UTM coordinates of each sampling location, including the previously proposed locations of samples that were removed from the program.

5.1.2 Sampling Methods

Laboratory-supplied bottles were used to collect surface water samples from Springpole Lake and Birch Lake. Samples collected by Fracflow were collected by dipping the bottles into the surface water body or water course, without disturbing bottom sediments where such sediments were present.

Where applicable, sample bottles were pre-charged by the laboratory with the appropriate preservative and field filtering was completed as required. The samples were stored in insulated containers in an effort to maintain a consistent temperature during transport to the laboratory.

5.1.3 Field-Measured Water Quality Readings

Water quality parameters that were measured at each surface water sampling station were pH, specific conductance, oxidation/reduction potential (ORP), temperature, and dissolved oxygen (DO). Those readings were made using a calibrated YSI multi-meter supplied by FMG. Turbidity was also measured using a Lamotte turbidity meter. Detailed results for each sampling station are presented in **Tables 5.2, 5.3** and **5.14**. Statistical summaries are provided below for the three sampling events in 2020.

Table 5.2 Statistical summary of field-measured parameters in July 2020.

Parameter	Min.	Max.	Avg.	St. Dev.	n
pH (Std. Units)	6.29	7.35	6.73	0.26	25
Specific Conductance (µS/cm)	57.8	119	69.4	15.3	25
ORP (mV)	---	---	---	---	---
Temperature (°C)	24.9	29.6	27.2	1.30	25
Dissolved Oxygen (mg/L)	7.5	8.4	7.9	0.27	25
Turbidity (NTU)	0.1	0.7	0.3	0.15	25

Table 5.3 Statistical summary of field-measured parameters in September 2020.

Parameter	Min.	Max.	Avg.	St. Dev.	n
pH (Std. Units)	7.48	8.22	7.69	0.18	27
Specific Conductance (µS/cm)	49.5	106	60.4	13.2	27
ORP (mV)	103	215	182	24.0	27
Temperature (°C)	13.2	15.7	14.1	0.59	27
Dissolved Oxygen (mg/L)	9.8	12.2	10.3	0.49	27
Turbidity (NTU)	0.00	10.3	0.54	2.06	26

Table 5.4 Statistical summary of field-measured parameters in November 2020.

Parameter	Min.	Max.	Avg.	St. Dev.	n
pH (Std. Units)	7.77	7.94	7.88	0.07	5
Specific Conductance (µS/cm)	62.7	64.3	63.5	0.60	5
ORP (mV)	213	234	222	8.41	5
Temperature (℃)	2.00	2.90	2.46	0.39	5
Dissolved Oxygen (mg/L)	12.8	13.3	13.0	0.22	5
Turbidity (NTU)	0.00	0.00	0.00	0.00	5

The above results show that all surface waters were fresh, circumneutral to alkaline, and well oxidized. There was little variability in quality from station to station, which is reflected by the low calculated values for standard deviations for each parameter.

5.1.4 Sampling Handling, Shipping and Analyses

Water samples were analyzed for a range of physical parameters, cations, anions, nutrients, total metals and dissolved metals. All bottles, acids, sample labels, chain of custody forms, and coolers were supplied by ALS Environmental (Thunder Bay, ON). Field staff handled all equipment and samples with nitrile gloves, and field-filtered the samples for dissolved metals analysis using 0.45 micron filters.

All samples were stored in the refrigerator at the Springpole Project site until they could be shipped to Sioux Lookout via Slate Falls Airways or Bamaji Air Inc. Staff from FMG took custody of the samples when they arrived in Sioux Lookout, and shipped those samples to ALS Environmental for analysis.

5.1.5 Quality Assurance and Quality Control

Surface water sampling was completed in accordance with industry standards. Shipment of water samples to ALS occurred under a Chain of Custody protocol. ALS is an accredited Standards Council of Canada (SCC) laboratory and, as such, follows internal QAQC procedures to verify and validate analytical results, including analysis of internal laboratory duplicates, reference standards, matrix spikes, and blanks. Blind duplicates and trip blanks were also collected in the field and submitted to ALS for analysis.

5.2 Analytical Data

2019 Results

Fracflow collected one surface water sample from the TMA area, sample TMA-RS. Analytical data for that sample are presented in **Table 5.5**.

2020 Results

Analytical chemistry for surface water samples collected at the Springpole Project site in 2020 are summarized in **Table 5.6** (July), **Table 5.7** (September) and **Table 5.8** (November).

5.3 Data Analysis and Interpretation

5.3.1 General Character of Sampled Water

Total dissolved solids (TDS) concentrations of surface water samples collected in 2020 (n = 57) ranged between 33 mg/L and 93 mg/L, averaging 48.6 mg/L (St. Dev. 12.1 mg/L). The pH was circumneutral to alkaline and ranged between 6.73 and 7.97, averaging 7.53 (St. Dev. 0.23). Those waters were fresh and generally classified as calcium-bicarbonate ($Ca\text{-}HCO_3$) type.

5.3.2 Redox and Trace Metal Chemistry

All surface water samples were well oxygenated and all trace metals present in those samples were likely to exist in their oxidized forms.

The concentrations of total metals relative to dissolved metals in surface water were generally similar, with notable exceptions being iron, manganese and zinc.

- Total iron was higher than dissolved iron, on average, by a factor of 2.
- Total manganese was higher than dissolved manganese, on average, by a factor of 8.2.
- Total zinc was higher than dissolved zinc, on average, by a factor of 2.8.

Higher concentrations of total iron, total manganese and total zinc relative to their respective dissolved concentrations indicate that a significant portion of those metal concentrations are associated with suspended or particulate matter in surface water. Most other metals that were detected in surface water samples had similar concentrations of both dissolved and total metals.

5.4 Surface Water – Groundwater Interactions

The interactions between surface water and groundwater will require analyses that are supported by 3D flow and transport model simulations. That analysis will also allow one to examine specific measurement variances - for example Dole Lake is 120 µs/cm versus the 60 µs/cm observed elsewhere on Birch Lake.

5.5 Potable Water Sources

The current potable water source for the current Springpole Project site is located approximately 20 m from the lake shoreline, approximately equidistance from the southern (summer) and northern (winter) docks. A small submersible pump held within a large cage pumps water approximately 85 m in insulated piping which ran sub-grade to the treatment system located in the Kitchen building. The treatment system consists of a multi-component approach that includes a line of sediment filters, and chlorine dosing before storage in holding tanks.

Groundwater in the area has been identified as non-potable. A reference borehole will be drilled outside the potential project impact area to provide background or reference groundwater data during the life of the project. The well is located outside the drainage divide area that encompasses the open pit and plant site. Pit dewatering effects and plant site activities are not expected to significantly affect the groundwater chemistry in this area during the life of the mine.

Table 5.5 General Chemistry and metals data for the surface and groundwater samples collected in 2019. (1 of 4)

Parameter	Units	Client Sample ID	3134-BL98-40M	3134-BL98-238M	3134-BL24-49M	3134-BL24-238M	3134-BL111-60M	3134-BL111-138M	3134-BL111-238M	3134-BL111-338M
		Date Sampled	18-Aug-2019	19-Aug-2019	19-Aug-2019	19-Aug-2019	20-Aug-2019	20-Aug-2019	20-Aug-2019	21-Aug-2019
		Time Sampled	15:30	10:05	13:30	18:00	11:00	13:40	16:53	10:43
		Media	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
		ALS Sample ID	L2332873-1	L2332873-2	L2332873-3	L2332873-4	L2334537-1	L2334537-2	L2334537-3	L2334537-4
Physical Tests										
Conductivity	uS/cm		486	484	444	494	394	400	399	460
Hardness (as CaCO3)	mg/L		255	242	230	251	207	211	210	233
pH	pH		8.49	8.50	8.43	8.40	8.45	8.46	8.45	8.50
Total Suspended Solids	mg/L		4.0	10.4	44.0	184	21.0	45.4	47.8	18.0
Total Dissolved Solids	mg/L		297	292	275	327	236	246	239	279
Dissolved Organic Carbon	mg/L		---	---	---	---	---	---	---	---
Anions and Nutrients (Water)										
Acidity (as CaCO3)	mg/L		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Alkalinity, Total (as CaCO3)	mg/L		265	277	227	256	230	227	216	251
Ammonia, Total (as N)	mg/L		0.255	0.254	0.052	0.076	0.257	0.233	0.231	0.346
Bromide (Br)	mg/L		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	0.14
Chloride (Cl)	mg/L		0.72	1.9	0.7	0.42	0.57	0.55	0.38	6.17
Fluoride (F)	mg/L		0.136	0.1	0.03	0.034	0.205	0.265	0.215	0.237
Nitrate (as N)	mg/L		<0.020	0.03	<0.020	<0.020	0.041	0.059	0.062	<0.020
Nitrite (as N)	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Phosphorus (P)-Total	mg/L		0.0129	0.0239	0.0486	0.237	0.0800	0.124	0.153	0.0534
Silica, Reactive (as SiO2)	mg/L		14	14.5	9.5	9.2	11.8	11.9	12.1	11.7
Sulfate (SO4)	mg/L		21.6	6.97	23.1	28.2	24.8	24.7	25.4	28.6
Total Metals (compared with guideline val										
Aluminum (Al)-Total	mg/L		0.0304	0.0272	1.36	3.34	0.223	0.423	0.703	0.200
Antimony (Sb)-Total	mg/L		0.00017	0.0003	0.0004	0.00063	0.00051	0.00066	0.00100	0.00060
Arsenic (As)-Total	mg/L		0.0063	0.0158	0.0132	0.0304	0.00353	0.00619	0.00845	0.00404
Barium (Ba)-Total	mg/L		0.116	0.134	0.0432	0.0839	0.228	0.263	0.274	0.222
Beryllium (Be)-Total	mg/L		0.00071	0.00151	0.00092	0.00477	0.00123	0.00186	0.00303	0.00133
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		0.017	0.027	<0.010	0.011	0.017	0.018	0.018	0.022
Cadmium (Cd)-Total	mg/L		0.0000322	0.0000135	0.0000428	0.000173	0.0000782	0.000131	0.000168	0.000107
Calcium (Ca)-Total	mg/L		78.2	76	78.4	89.8	58.5	62.0	63.3	70.6
Cesium (Cs)-Total	mg/L		0.000293	0.000378	0.00105	0.00258	0.000415	0.000581	0.000921	0.000655
Chromium (Cr)-Total	mg/L		0.00173	0.00234	0.0065	0.0125	0.00186	0.00248	0.00349	0.00190
Cobalt (Co)-Total	mg/L		0.00192	0.00223	0.00472	0.0191	0.00330	0.00779	0.0144	0.00867
Copper (Cu)-Total	mg/L		0.0241	0.00758	0.0644	0.322	0.0644	0.0967	0.168	0.0867
Iron (Fe)-Total	mg/L		1.07	2.69	2.34	5.96	3.28	5.72	7.20	2.35
Lead (Pb)-Total	mg/L		0.00266	0.00218	0.00981	0.0472	0.0137	0.0217	0.0418	0.00961
Lithium (Li)-Total	mg/L		0.0024	0.0027	0.0016	0.0037	0.0028	0.0029	0.0034	0.0031
Magnesium (Mg)-Total	mg/L		19.7	18.2	13.1	15.2	12.4	12.8	13.2	12.5
Manganese (Mn)-Total	mg/L		1.43	3.39	0.274	0.603	0.528	0.885	1.17	2.02
Mercury (Hg)	mg/L		---	---	---	---	---	---	---	---
Molybdenum (Mo)-Total	mg/L		0.00172	0.0015	0.000553	0.00047	0.000716	0.000763	0.00100	0.00343
Nickel (Ni)-Total	mg/L		0.00398	0.00156	0.00411	0.00919	0.00240	0.00516	0.00796	0.00568
Phosphorus (P)-Total	mg/L		<0.050	<0.050	<0.050	0.218	0.092	0.141	0.151	0.059
Potassium (K)-Total	mg/L		2.31	2.21	1	1.29	2.36	2.55	2.80	2.74
Rubidium (Rb)-Total	mg/L		0.00201	0.00187	0.00221	0.00342	0.00380	0.00487	0.00616	0.00588
Selenium (Se)-Total	mg/L		0.000092	0.000075	0.000089	0.000098	0.000121	0.000103	0.000124	0.000053
Silicon (Si)-Total	mg/L		6.6	6.69	6.05	7.02	5.92	6.47	7.21	5.88
Silver (Ag)-Total	mg/L		<0.000010	<0.000010	0.000082	0.000121	0.000168	0.000203	0.000309	0.000069
Sodium (Na)-Total	mg/L		4.5	6.76	2.07	3.05	4.29	4.37	4.51	10.7
Strontium (Sr)-Total	mg/L		1.19	1.12	0.374	0.448	1.40	1.48	1.52	2.62
Sulfur (S)-Total	mg/L		8.06	2.73	9.44	10.8	9.18	9.34	9.69	10.9
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.00022	<0.00020	0.00025
Thallium (Tl)-Total	mg/L		0.000021	<0.000010	0.000021	0.000048	0.000063	0.000120	0.000176	0.000090
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	0.0002	0.00061	<0.00010	<0.00010	0.00014	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	0.00011	<0.00010	<0.00010	<0.00010	0.00017	<0.00010
Titanium (Ti)-Total	mg/L		0.00103	0.00113	0.0401	0.0413	0.0121	0.0242	0.0419	0.0100
Tungsten (W)-Total	mg/L		0.00223	0.00172	0.00214	0.00142	0.00642	0.00822	0.0128	0.00495
Uranium (U)-Total	mg/L		0.000297	0.000374	0.00026	0.000372	0.000481	0.000535	0.000597	0.000723
Vanadium (V)-Total	mg/L		0.00127	0.00209	0.00342	0.008	0.00092	0.00220	0.00337	0.00120
Zinc (Zn)-Total	mg/L		0.17	0.129	0.145	0.456	0.181	0.150	0.190	0.176
Zirconium (Zr)-Total	mg/L		0.00303	0.0054	0.00259	0.00436	0.00195	0.00378	0.00498	0.00278
Dissolved Metals (compared with guidelin										
Aluminum (Al)-Dissolved	mg/L		0.0045	0.0041	0.0196	0.0206	0.0025	0.0028	0.0039	0.0036
Antimony (Sb)-Dissolved	mg/L		0.00014	0.00023	0.00019	0.0003	0.00012	0.00013	0.00014	0.00037
Arsenic (As)-Dissolved	mg/L		0.00263	0.00709	0.00382	0.00514	0.00028	0.00039	0.00040	0.00106
Barium (Ba)-Dissolved	mg/L		0.107	0.12	0.0354	0.0392	0.206	0.206	0.203	0.198
Beryllium (Be)-Dissolved	mg/L		0.00038	0.00069	0.00014	0.00028	0.00039	0.00048	0.00064	0.00056
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		0.016	0.023	<0.010	<0.010	0.025	0.018	0.019	0.023
Cadmium (Cd)-Dissolved	mg/L		<0.0000050	<0.0000050	0.0000214	0.000023	0.0000300	0.0000395	0.0000421	0.0000702
Calcium (Ca)-Dissolved	mg/L		72.5	70.5	73.4	80.9	63.0	64.1	64.0	73.3
Cesium (Cs)-Dissolved	mg/L		0.000279	0.000375	0.000543	0.00063	0.000265	0.000320	0.000376	0.000503
Chromium (Cr)-Dissolved	mg/L		0.00037	0.00308	0.00018	0.00025	0.00052	<0.00010	<0.00010	<0.00010
Cobalt (Co)-Dissolved	mg/L		0.00166	0.00176	0.00155	0.00463	0.00055	0.00043	0.00038	0.00547
Copper (Cu)-Dissolved	mg/L		0.00115	0.00023	0.00393	0.00265	0.0154	0.0184	0.0269	0.0276
Iron (Fe)-Dissolved	mg/L		0.262	1.1	0.069	0.087	0.058	0.068	0.068	0.016
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	0.000136	0.000125	<0.000050	0.000056	0.000059	<0.000050
Lithium (Li)-Dissolved	mg/L		0.003	0.0028	<0.0010	0.0011	0.0029	0.0029	0.0028	0.0029
Magnesium (Mg)-Dissolved	mg/L		18	16	11.4	11.8	12.1	12.4	12.1	12.0
Manganese (Mn)-Dissolved	mg/L		1.27	3.27	0.224	0.413	0.114	0.0962	0.0868	1.71
Mercury (Hg)	mg/L		---	---	---	---	---	---	---	---
Molybdenum (Mo)-Dissolved	mg/L		0.00169	0.00166	0.000535	0.00102	0.000581	0.000620	0.000782	0.00389
Nickel (Ni)-Dissolved	mg/L		0.00354	0.00162	0.00112	0.00149	0.00095	0.00103	0.00148	0.00417
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		2.25	2.11	0.855	0.954	2.25	2.32	2.35	2.53
Rubidium (Rb)-Dissolved	mg/L		0.00186	0.00176	0.0013	0.00165	0.00280	0.00313	0.00330	0.00520
Selenium (Se)-Dissolved	mg/L		0.000065	<0.000050	0.000063	0.000054	0.000068	0.000062	0.000056	<0.000050
Silicon (Si)-Dissolved	mg/L		6.25	6.6	4.29	4.25	5.45	5.56	5.50	5.41
Silver (Ag)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Dissolved	mg/L		4.27	6.36	1.95	2.86	4.23	4.19	4.13	10.3
Strontium (Sr)-Dissolved	mg/L		1.1	1.03	0.354	0.397	1.47	1.48	1.51	2.62
Sulfur (S)-Dissolved	mg/L		8.21	2.53	9.32	10.3	9.30	9.31	9.25	10.5
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		0.000011	<0.000010	<0.000010	<0.000010	0.000013	0.000024	0.000029	0.000049
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	0.00051	0.00041	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L		0.00172	0.00172	0.00033	0.00078	0.00311	0.00224	0.00184	0.00340
Uranium (U)-Dissolved	mg/L		0.0003	0.00037	0.000234	0.000241	0.000388	0.000398	0.000409	0.000649
Vanadium (V)-Dissolved	mg/L		0.0007	0.00108	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		0.15	0.0354	0.131	0.242	0.160	0.0983	0.113	0.144
Zirconium (Zr)-Dissolved	mg/L		0.00198	0.00269	0.00224	0.00125	0.000592	0.000565	0.000522	0.000816

Table 5.5 General Chemistry and metals data for the surface and groundwater samples collected in 2019. (2 of 4)

Parameter	Units	Client Sample ID	3134-BL49-60M	3134-BL49-214M	3134-BL0034-60M	3134-BL0034-138M	3134-BL0034-288M	3134-BL0034-448M	3134-BL0385-108M	3134-BLDUP-1
		Date Sampled	21-Aug-2019	21-Aug-2019	22-Aug-2019	22-Aug-2019	22-Aug-2019	22-Aug-2019	24-Aug-2019	24-Aug-2019
		Time Sampled	13:11	16:00	10:40	13:40	16:45	11:10	10:15	0:01
		Media	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
		ALS Sample ID	L2334537-5	L2334537-6	L2336229-1	L2336229-2	L2336229-3	L2336229-4	L2338207-1	L2338207-2
Physical Tests										
Conductivity	uS/cm		467	578	519	521	606	648	509	502
Hardness (as CaCO3)	mg/L		258	344	271	271	296	308	265	266
pH	pH		8.45	8.25	7.92	7.93	7.92	8.01	7.55	7.49
Total Suspended Solids	mg/L		50.9	264	7.9	8.4	93.7	9.7	3.9	5.9
Total Dissolved Solids	mg/L		303	422	362	368	385	380	300	317
Dissolved Organic Carbon	mg/L		---	---	---	---	---	---	---	---
Anions and Nutrients (Water)										
Acidity (as CaCO3)	mg/L		<1.0	<1.0	3.6	<1.0	2.9	<1.0	<1.0	<1.0
Alkalinity, Total (as CaCO3)	mg/L		264	348	379	398	388	432	281	258
Ammonia, Total (as N)	mg/L		0.522	1.65	0.382	0.364	0.543	0.591	0.144	0.118
Bromide (Br)	mg/L		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10
Chloride (Cl)	mg/L		2.36	0.72	1.09	0.56	1.42	2.97	8.58	8.65
Fluoride (F)	mg/L		0.179	0.114	0.184	0.147	0.102	0.114	0.059	0.059
Nitrate (as N)	mg/L		<0.020	<0.020	<0.020	0.030	0.024	6.26	<0.020	<0.020
Nitrite (as N)	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Phosphorus (P)-Total	mg/L		0.0732	0.546	0.0724	0.0838	0.121	0.0439	0.0069	0.0079
Silica, Reactive (as SiO2)	mg/L		14.7	11.4	19.4	19.4	15.6	14.7	12.9	12.4
Sulfate (SO4)	mg/L		27.7	11.6	13.8	13.6	20.8	26.8	25.1	25.5
Total Metals (compared with guideline val										
Aluminum (Al)-Total	mg/L		0.576	1.58	0.0590	0.0792	0.271	0.196	0.0448	0.0476
Antimony (Sb)-Total	mg/L		0.00336	0.00690	0.00060	0.00129	0.00159	0.00091	0.00120	0.00127
Arsenic (As)-Total	mg/L		0.0267	0.486	0.0535	0.0615	0.0435	0.0162	0.00379	0.00399
Barium (Ba)-Total	mg/L		0.284	0.455	0.205	0.207	0.356	0.351	0.136	0.140
Beryllium (Be)-Total	mg/L		0.00161	0.0112	0.00256	0.00441	0.00528	0.00329	0.00019	0.00023
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		0.014	0.014	0.012	0.012	0.015	0.016	0.019	0.020
Cadmium (Cd)-Total	mg/L		0.000317	0.00153	0.0000140	0.0000178	0.0000430	0.0000237	0.0000165	0.0000175
Calcium (Ca)-Total	mg/L		78.0	107	90.4	92.1	97.6	102	88.5	91.0
Cesium (Cs)-Total	mg/L		0.000612	0.00121	0.000364	0.000475	0.000770	0.000666	0.000331	0.000342
Chromium (Cr)-Total	mg/L		0.00340	0.00630	0.00296	0.00361	0.00426	0.00374	0.00161	0.00159
Cobalt (Co)-Total	mg/L		0.00190	0.00660	0.00472	0.00655	0.00558	0.00217	0.00121	0.00125
Copper (Cu)-Total	mg/L		0.100	0.564	0.0570	0.0754	0.177	0.0542	0.00154	0.00184
Iron (Fe)-Total	mg/L		6.26	44.8	8.27	9.03	6.04	2.70	1.56	1.58
Lead (Pb)-Total	mg/L		0.0224	0.0591	0.00142	0.00275	0.00654	0.00243	0.000227	0.000199
Lithium (Li)-Total	mg/L		0.0054	0.0076	0.0037	0.0036	0.0036	0.0034	0.0014	0.0016
Magnesium (Mg)-Total	mg/L		16.8	19.9	14.4	13.7	18.0	19.5	16.2	16.3
Manganese (Mn)-Total	mg/L		0.774	1.22	1.05	1.05	0.799	0.594	0.316	0.312
Mercury (Hg)	mg/L		---	---	---	---	---	---	---	---
Molybdenum (Mo)-Total	mg/L		0.00375	0.00676	0.00533	0.00686	0.00709	0.00306	0.00448	0.00468
Nickel (Ni)-Total	mg/L		0.00371	0.00936	0.00528	0.00772	0.00640	0.00214	0.00207	0.00210
Phosphorus (P)-Total	mg/L		0.065	0.572	0.067	0.086	0.116	0.058	<0.050	<0.050
Potassium (K)-Total	mg/L		2.19	2.38	1.72	1.72	2.15	2.31	1.16	1.18
Rubidium (Rb)-Total	mg/L		0.00325	0.00439	0.00182	0.00192	0.00307	0.00315	0.00202	0.00203
Selenium (Se)-Total	mg/L		0.000193	0.000317	0.000102	0.000066	0.000084	<0.000050	0.000083	0.000054
Silicon (Si)-Total	mg/L		7.96	8.20	9.00	8.97	7.63	7.02	5.71	5.81
Silver (Ag)-Total	mg/L		0.000058	0.000058	0.000016	0.000016	0.000018	0.000024	<0.000010	<0.000010
Sodium (Na)-Total	mg/L		2.71	2.86	2.18	2.05	4.20	4.82	3.95	4.13
Strontium (Sr)-Total	mg/L		0.865	0.889	0.448	0.503	2.69	3.27	1.43	1.51
Sulfur (S)-Total	mg/L		10.9	5.41	5.13	5.15	8.16	9.59	9.18	9.26
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	0.00028	0.00040	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		0.000092	0.000307	<0.000010	<0.000010	0.000019	0.000013	<0.000010	<0.000010
Thorium (Th)-Total	mg/L		0.00034	0.00053	0.00041	0.00043	0.00027	0.00015	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L		0.0237	0.0383	0.0128	0.0143	0.0185	0.0114	<0.0015	0.00110
Tungsten (W)-Total	mg/L		0.00582	0.0136	0.00071	0.00075	0.00287	0.00294	0.00106	0.00108
Uranium (U)-Total	mg/L		0.00292	0.00702	0.000407	0.000440	0.000425	0.000389	0.000290	0.000300
Vanadium (V)-Total	mg/L		0.00332	0.0175	0.00757	0.00807	0.00638	0.00427	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L		0.198	0.692	0.382	0.379	0.345	0.169	0.0527	0.0545
Zirconium (Zr)-Total	mg/L		0.00940	0.0172	0.0115	0.0119	0.0103	0.00883	0.000840	0.000905
Dissolved Metals (compared with guidelin										
Aluminum (Al)-Dissolved	mg/L		0.0453	0.0545	0.0365	0.0365	0.0280	0.0280	0.0049	0.0054
Antimony (Sb)-Dissolved	mg/L		0.00075	0.00198	0.00036	0.00083	0.00113	0.00048	0.00086	0.00083
Arsenic (As)-Dissolved	mg/L		0.0203	0.406	0.0385	0.0418	0.0189	0.0106	0.00223	0.00223
Barium (Ba)-Dissolved	mg/L		0.253	0.330	0.174	0.175	0.301	0.319	0.132	0.133
Beryllium (Be)-Dissolved	mg/L		0.00055	0.00167	0.00202	0.00364	0.00263	0.00256	0.00016	0.00014
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		0.013	0.013	0.011	0.011	0.013	0.015	0.016	0.015
Cadmium (Cd)-Dissolved	mg/L		0.0000143	0.0000055	0.0000084	0.0000103	0.0000064	<0.0000050	0.0000128	0.0000108
Calcium (Ca)-Dissolved	mg/L		77.5	108	86.8	87.1	90.5	92.9	82.2	81.9
Cesium (Cs)-Dissolved	mg/L		0.000224	0.000477	0.000323	0.000419	0.000528	0.000515	0.000316	0.000317
Chromium (Cr)-Dissolved	mg/L		0.00029	0.00075	0.00147	0.00142	0.00127	0.00119	<0.00010	0.00014
Cobalt (Co)-Dissolved	mg/L		0.00065	0.00179	0.00438	0.00598	0.00322	0.00118	0.00114	0.00114
Copper (Cu)-Dissolved	mg/L		0.00179	0.00576	0.0219	0.0290	0.00391	0.00198	<0.00020	<0.00020
Iron (Fe)-Dissolved	mg/L		4.83	34.7	5.31	5.72	2.47	1.71	0.951	0.944
Lead (Pb)-Dissolved	mg/L		0.000649	0.000315	0.000535	0.00115	0.000427	0.000257	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L		0.0046	0.0065	0.0033	0.0032	0.0027	0.0028	0.0019	0.0019
Magnesium (Mg)-Dissolved	mg/L		15.8	18.2	13.1	13.1	17.0	18.5	14.6	14.9
Manganese (Mn)-Dissolved	mg/L		0.742	0.919	0.996	0.999	0.643	0.521	0.272	0.267
Mercury (Hg)	mg/L		---	---	---	---	---	---	---	---
Molybdenum (Mo)-Dissolved	mg/L		0.00269	0.00574	0.00478	0.00607	0.00644	0.00246	0.00488	0.00464
Nickel (Ni)-Dissolved	mg/L		0.00148	0.00185	0.00482	0.00692	0.00418	0.00125	0.00170	0.00170
Phosphorus (P)-Dissolved	mg/L		<0.050	0.209	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		1.99	2.18	1.74	1.71	2.12	2.23	1.14	1.15
Rubidium (Rb)-Dissolved	mg/L		0.00198	0.00314	0.00177	0.00194	0.00267	0.00285	0.00194	0.00200
Selenium (Se)-Dissolved	mg/L		0.000084	0.000132	0.000071	0.000086	0.000089	0.000125	0.000105	0.000091
Silicon (Si)-Dissolved	mg/L		7.05	6.50	8.96	8.99	7.15	6.67	5.55	5.64
Silver (Ag)-Dissolved	mg/L		0.000013	0.000014	0.000016	0.000013	0.000011	0.000012	<0.000010	<0.000010
Sodium (Na)-Dissolved	mg/L		2.63	2.70	2.00	1.92	3.83	4.51	3.65	3.59
Strontium (Sr)-Dissolved	mg/L		0.816	0.878	0.415	0.487	2.52	3.14	1.29	1.27
Sulfur (S)-Dissolved	mg/L		9.97	5.31	5.06	5.12	8.19	9.60	9.56	9.46
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	0.00030	0.00033	0.00012	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	<0.00010	0.00111	<0.00010	<0.00010	0.00094	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L		0.00176	0.00353	0.00917	0.00903	0.00362	0.00243	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L		0.00077	0.00719	0.00055	0.00052	0.00189	0.00234	0.00130	0.00122
Uranium (U)-Dissolved	mg/L		0.00208	0.00283	0.000349	0.000371	0.000279	0.000238	0.000279	0.000257
Vanadium (V)-Dissolved	mg/L		0.00105	0.00705	0.00538	0.00555	0.00345	0.00302	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		0.113	0.161	0.372	0.362	0.194	0.0997	0.0498	0.0493
Zirconium (Zr)-Dissolved	mg/L		0.00601	0.00806	0.00948	0.00975	0.00767	0.00775	0.000652	0.000665

Table 5.5 General Chemistry and metals data for the surface and groundwater samples collected in 2019. (3 of 4)

Parameter	Units	Client Sample ID	3134-BL354-104M	3134-BL52-60M	3134-BL52-138M	3134-BL52-238M	3134-BL52-435M	3134-BL-310-60M	3134-MW2	3134-BL341-60M
		Date Sampled	24-Aug-2019	24-Aug-2019	25-Aug-2019	25-Aug-2019	25-Aug-2019	25-Aug-2019	26-Aug-2019	26-Aug-2019
		Time Sampled	14:35	18:20	10:45	14:15	18:35	12:15	15:30	0:01
		Media	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater	Groundwater
		ALS Sample ID	L2338207-3	L2338207-4	L2338207-5	L2338207-6	L2338207-7	L2338207-8	L2338207-9	L2338207-10
Physical Tests										
Conductivity	uS/cm		430	551	543	575	589	614	479	440
Hardness (as CaCO3)	mg/L		226	279	282	296	302	324	290	228
pH	pH		7.02	7.51	7.55	7.46	7.52	7.28	7.68	7.30
Total Suspended Solids	mg/L		115	15.2	14.1	31.7	27.1	9.1	2680	45.2
Total Dissolved Solids	mg/L		274	336	334	355	371	386	442	277
Dissolved Organic Carbon	mg/L		---	---	---	---	---	---	---	---
Anions and Nutrients (Water)										
Acidity (as CaCO3)	mg/L		3.4	1.6	<1.0	<1.0	<1.0	6.7	<1.0	1.8
Alkalinity, Total (as CaCO3)	mg/L		247	289	268	235	143	318	277	294
Ammonia, Total (as N)	mg/L		<0.020	0.246	0.247	<0.020	<0.020	0.154	<0.020	0.037
Bromide (Br)	mg/L		<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.20	<0.10
Chloride (Cl)	mg/L		0.69	1.49	1.33	2.50	4.02	9.54	1.10	0.15
Fluoride (F)	mg/L		0.038	0.100	0.129	0.068	0.062	0.061	0.057	0.047
Nitrate (as N)	mg/L		0.373	0.107	0.117	0.262	0.083	0.128	0.034	<0.020
Nitrite (as N)	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	0.013	<0.020	<0.010
Phosphorus (P)-Total	mg/L		0.091	0.0162	0.0193	0.0318	0.0270	0.0270	0.81	0.0633
Silica, Reactive (as SiO2)	mg/L		12.0	13.1	12.7	12.9	13.1	13.0	17.3	9.3
Sulfate (SO4)	mg/L		19.0	36.4	35.8	45.0	41.0	31.8	5.36	28.5
Total Metals (compared with guideline val										
Aluminum (Al)-Total	mg/L		1.03	0.127	0.0215	0.0409	0.0399	0.0334	4.69	0.628
Antimony (Sb)-Total	mg/L		0.00099	0.00045	0.00024	0.00062	0.00093	0.00066	0.0167	0.00046
Arsenic (As)-Total	mg/L		0.0536	0.00471	0.00098	0.00167	0.00145	0.00605	0.00173	0.00910
Barium (Ba)-Total	mg/L		0.0193	0.108	0.0793	0.0495	0.0535	0.153	0.109	0.0291
Beryllium (Be)-Total	mg/L		0.00018	0.00055	0.00050	0.00181	0.00203	0.00021	0.00025	0.00021
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		<0.010	0.036	0.039	0.036	0.045	0.027	0.017	<0.010
Cadmium (Cd)-Total	mg/L		0.0000424	0.0000350	0.0000220	0.0000607	0.0000601	0.0000177	0.000164	0.000396
Calcium (Ca)-Total	mg/L		76.7	90.6	72.0	80.1	75.3	81.6	176	74.1
Cesium (Cs)-Total	mg/L		0.000578	0.00105	0.000829	0.000535	0.000699	0.000200	0.000388	0.000452
Chromium (Cr)-Total	mg/L		0.00626	0.00162	0.00011	0.00017	0.00017	0.00055	0.0105	0.00286
Cobalt (Co)-Total	mg/L		0.00392	0.00253	0.00041	0.00077	0.00204	0.00263	0.00333	0.00254
Copper (Cu)-Total	mg/L		0.0190	0.0278	0.0284	0.0870	0.106	0.00706	0.0167	0.0129
Iron (Fe)-Total	mg/L		11.1	2.32	0.236	0.454	0.255	0.898	5.53	3.25
Lead (Pb)-Total	mg/L		0.00268	0.00137	0.000133	0.000510	0.000888	0.000130	0.0193	0.0131
Lithium (Li)-Total	mg/L		0.0025	0.0024	<0.0010	0.0018	0.0016	0.0016	0.0114	0.0013
Magnesium (Mg)-Total	mg/L		12.6	20.6	17.6	17.5	16.8	16.9	40.2	16.4
Manganese (Mn)-Total	mg/L		0.445	0.467	0.115	0.221	0.380	0.782	0.241	0.597
Mercury (Hg)	mg/L		---	---	---	---	---	---	---	---
Molybdenum (Mo)-Total	mg/L		0.000302	0.000705	0.00119	0.00102	0.00125	0.00183	0.000476	0.00169
Nickel (Ni)-Total	mg/L		0.00678	0.00343	0.00126	0.00295	0.00405	0.00313	0.00879	0.00437
Phosphorus (P)-Total	mg/L		0.096	<0.050	<0.050	<0.050	<0.050	<0.050	0.680	<0.050
Potassium (K)-Total	mg/L		0.764	1.63	1.23	0.868	0.921	1.35	2.39	2.49
Rubidium (Rb)-Total	mg/L		0.00210	0.00240	0.00176	0.00146	0.00167	0.00198	0.00963	0.00703
Selenium (Se)-Total	mg/L		0.000255	0.000100	0.000091	0.000155	0.000132	0.000094	<0.000050	0.000112
Silicon (Si)-Total	mg/L		6.67	6.05	5.48	5.53	5.51	5.63	14.2	4.64
Silver (Ag)-Total	mg/L		0.000276	0.000014	<0.000010	0.000011	<0.000010	0.000017	0.000023	0.000149
Sodium (Na)-Total	mg/L		1.45	8.59	8.15	7.88	9.33	7.26	3.50	1.29
Strontium (Sr)-Total	mg/L		0.203	3.98	3.48	1.38	1.46	0.865	0.172	0.316
Sulfur (S)-Total	mg/L		6.86	13.2	14.8	16.6	19.4	13.8	1.96	12.1
Tellurium (Te)-Total	mg/L		<0.00020	0.00034	0.00035	<0.00020	0.00021	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		0.000067	0.000029	0.000014	0.000019	0.000017	0.000013	0.000062	0.000160
Thorium (Th)-Total	mg/L		0.00012	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00204	0.00012
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00066	<0.00010
Titanium (Ti)-Total	mg/L		0.0275	0.00634	0.00066	0.00149	0.00136	<0.0015	0.220	0.0309
Tungsten (W)-Total	mg/L		0.00275	0.00232	0.00263	0.00113	0.00126	0.00241	0.00028	0.00358
Uranium (U)-Total	mg/L		0.000107	0.000249	0.000220	0.000259	0.000300	0.000483	0.000760	0.000845
Vanadium (V)-Total	mg/L		0.00383	0.00093	<0.00050	<0.00050	<0.00050	0.00102	0.0152	0.00243
Zinc (Zn)-Total	mg/L		0.159	0.113	0.142	0.551	0.338	0.0663	0.101	0.0967
Zirconium (Zr)-Total	mg/L		0.000988	0.00216	0.00147	0.000654	0.000663	0.00534	0.00328	0.00278
Dissolved Metals (compared with guidelin										
Aluminum (Al)-Dissolved	mg/L		0.0112	0.0032	0.0039	0.0023	0.0027	0.0140	0.0122	0.0430
Antimony (Sb)-Dissolved	mg/L		0.00022	0.00022	0.00026	0.00056	0.00074	0.00069	0.00340	0.00023
Arsenic (As)-Dissolved	mg/L		0.00072	0.00055	0.00048	0.00077	0.00077	0.00541	0.00024	0.00086
Barium (Ba)-Dissolved	mg/L		0.00957	0.0930	0.101	0.0576	0.0654	0.193	0.0286	0.0214
Beryllium (Be)-Dissolved	mg/L		<0.00010	0.00019	0.00039	0.00137	0.00151	0.00018	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		<0.010	0.030	0.034	0.031	0.035	0.022	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		0.0000115	0.0000124	0.0000175	0.0000575	0.0000637	0.0000156	0.0000127	0.000190
Calcium (Ca)-Dissolved	mg/L		70.8	80.8	81.0	86.6	88.9	98.6	83.4	66.4
Cesium (Cs)-Dissolved	mg/L		0.000116	0.000993	0.00109	0.000615	0.000764	0.000231	<0.000010	0.000072
Chromium (Cr)-Dissolved	mg/L		0.00011	0.00044	0.00099	0.00134	0.00098	0.00180	0.00466	0.00021
Cobalt (Co)-Dissolved	mg/L		0.00016	0.00040	0.00052	0.00096	0.00258	0.00408	0.00019	0.00135
Copper (Cu)-Dissolved	mg/L		0.00502	0.00721	0.0189	0.0700	0.0637	0.00436	0.00189	0.00334
Iron (Fe)-Dissolved	mg/L		0.070	0.048	0.035	0.012	0.012	0.773	0.027	0.127
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000303
Lithium (Li)-Dissolved	mg/L		0.0020	0.0022	0.0023	0.0021	0.0025	0.0025	0.0047	0.0012
Magnesium (Mg)-Dissolved	mg/L		11.8	18.7	19.3	19.4	19.3	19.0	19.7	15.1
Manganese (Mn)-Dissolved	mg/L		0.0197	0.0844	0.104	0.204	0.423	0.904	0.0317	0.402
Mercury (Hg)	mg/L		---	---	---	---	---	---	---	---
Molybdenum (Mo)-Dissolved	mg/L		0.000205	0.00111	0.00115	0.00108	0.00127	0.00161	0.000692	0.00209
Nickel (Ni)-Dissolved	mg/L		0.00200	0.00098	0.00124	0.00294	0.00371	0.00381	0.00291	0.00244
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		0.609	1.56	1.62	1.09	1.23	1.82	1.26	2.04
Rubidium (Rb)-Dissolved	mg/L		0.00117	0.00219	0.00235	0.00188	0.00222	0.00267	0.00119	0.00380
Selenium (Se)-Dissolved	mg/L		0.000180	0.000082	0.000090	0.000206	0.000136	0.000126	<0.000050	0.000090
Silicon (Si)-Dissolved	mg/L		5.47	5.62	5.75	5.78	5.86	5.83	7.73	4.05
Silver (Ag)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000015	0.000012
Sodium (Na)-Dissolved	mg/L		1.33	7.68	8.63	8.44	10.3	8.52	5.23	1.13
Strontium (Sr)-Dissolved	mg/L		0.170	3.50	3.71	1.41	1.62	0.932	0.0956	0.270
Sulfur (S)-Dissolved	mg/L		7.16	13.3	13.6	16.1	17.8	12.3	2.40	12.1
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	0.000012	0.000012	0.000014	<0.000010	<0.000010	0.000042
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00022	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00066	0.00059	0.00087
Tungsten (W)-Dissolved	mg/L		0.00011	0.00225	0.00272	0.00094	0.00107	0.00207	<0.00010	0.00094
Uranium (U)-Dissolved	mg/L		0.000058	0.000239	0.000215	0.000284	0.000307	0.000463	0.000443	0.000738
Vanadium (V)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00088	0.00176	<0.00050
Zinc (Zn)-Dissolved	mg/L		0.136	0.0891	0.179	0.687	0.438	0.0950	0.0214	0.0751
Zirconium (Zr)-Dissolved	mg/L		0.000089	0.00117	0.00131	0.000324	0.000333	0.00467	0.000139	0.00186

Table 5.5 General Chemistry and metals data for the surface and groundwater samples collected in 2019. (4 of 4)

Parameter	Units	Client Sample ID	3134 - MW - B000 - WS1	3134 - MW - E080 - WS1	3134 - MW - K034 - WS1	3134 - TMA - RS - WS1
		Date Sampled	29-Sep-2019	29-Sep-2019	29-Sep-2019	29-Sep-2019
		Time Sampled	14:45	13:50	16:20	16:00
		Media	Groundwater	Groundwater	Groundwater	Surface Water
		ALS Sample ID	L2358839-1	L2358839-2	L2358839-3	L2358839-4
Physical Tests						
Conductivity	uS/cm		484	177	431	63.0
Hardness (as CaCO3)	mg/L		317	272	249	38.1
pH	pH		7.80	7.14	6.83	7.13
Total Suspended Solids	mg/L		385	4850	1760	<2.0
Total Dissolved Solids	mg/L		320	159	298	79
Dissolved Organic Carbon	mg/L		23.1	19.5	29.8	21.7
Anions and Nutrients (Water)						
Acidity (as CaCO3)	mg/L		13.4	18.8	87.7	5.2
Alkalinity, Total (as CaCO3)	mg/L		298	105	258	32.9
Ammonia, Total (as N)	mg/L		1.09	0.846	2.48	<0.020
Bromide (Br)	mg/L		<0.10	<0.10	<0.10	<0.10
Chloride (Cl)	mg/L		0.54	0.39	0.14	0.17
Fluoride (F)	mg/L		0.029	0.024	<0.020	0.022
Nitrate (as N)	mg/L		0.132	<0.020	<0.020	<0.020
Nitrite (as N)	mg/L		<0.010	<0.010	<0.010	<0.010
Phosphorus (P)-Total	mg/L		0.221	0.411	0.204	0.0088
Silica, Reactive (as SiO2)	mg/L		---	---	---	---
Sulfate (SO4)	mg/L		0.43	0.37	<0.30	1.08
Total Metals (compared with guideline val						
Aluminum (Al)-Total	mg/L		1.76	2.18	2.23	0.0643
Antimony (Sb)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00010
Arsenic (As)-Total	mg/L		0.00066	0.00076	0.00067	0.00054
Barium (Ba)-Total	mg/L		0.0888	0.105	0.103	0.0141
Beryllium (Be)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00010
Bismuth (Bi)-Total	mg/L		<0.00025	<0.00025	<0.00025	<0.000050
Boron (B)-Total	mg/L		<0.050	<0.050	<0.050	<0.010
Cadmium (Cd)-Total	mg/L		0.000029	0.000028	0.000029	<0.0000050
Calcium (Ca)-Total	mg/L		111	98.9	96.1	13.2
Cesium (Cs)-Total	mg/L		0.000238	0.000269	0.000250	<0.000010
Chromium (Cr)-Total	mg/L		0.00629	0.0148	0.0147	0.00103
Cobalt (Co)-Total	mg/L		0.00152	0.00181	0.00177	<0.00010
Copper (Cu)-Total	mg/L		0.0048	0.0071	0.0082	0.00066
Iron (Fe)-Total	mg/L		4.64	20.4	19.9	0.150
Lead (Pb)-Total	mg/L		0.00100	0.00117	0.00118	<0.000050
Lithium (Li)-Total	mg/L		0.0060	0.0078	<0.0050	<0.0010
Magnesium (Mg)-Total	mg/L		10.0	6.01	5.88	1.02
Manganese (Mn)-Total	mg/L		0.569	0.449	0.431	0.00398
Mercury (Hg)	mg/L)		<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L		0.00040	0.00072	0.00064	0.000095
Nickel (Ni)-Total	mg/L		0.0044	0.0056	0.0056	0.00057
Phosphorus (P)-Total	mg/L		<0.25	<0.25	<0.25	<0.050
Potassium (K)-Total	mg/L		3.35	2.46	2.37	0.828
Rubidium (Rb)-Total	mg/L		0.0062	0.0050	0.0051	0.00176
Selenium (Se)-Total	mg/L		<0.00025	<0.00025	<0.00025	0.000079
Silicon (Si)-Total	mg/L		11.6	13.6	13.8	2.29
Silver (Ag)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000010
Sodium (Na)-Total	mg/L		3.74	2.76	2.79	0.674
Strontium (Sr)-Total	mg/L		0.149	0.117	0.111	0.0187
Sulfur (S)-Total	mg/L		<2.5	<2.5	<2.5	<0.50
Tellurium (Te)-Total	mg/L		<0.0010	<0.0010	<0.0010	<0.00020
Thallium (Tl)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000010
Thorium (Th)-Total	mg/L		<0.00050	0.00113	0.00102	<0.00010
Tin (Sn)-Total	mg/L		0.00226	0.00052	0.00050	<0.00010
Titanium (Ti)-Total	mg/L		0.117	0.170	0.165	0.00063
Tungsten (W)-Total	mg/L		<0.00050	0.00065	0.00060	<0.00010
Uranium (U)-Total	mg/L		0.000246	0.000278	0.000284	<0.000010
Vanadium (V)-Total	mg/L		0.0063	0.0196	0.0186	<0.00050
Zinc (Zn)-Total	mg/L		<0.015	<0.015	<0.015	<0.0030
Zirconium (Zr)-Total	mg/L		<0.0010	0.0039	0.0047	<0.00020
Dissolved Metals (compared with guidelin						
Aluminum (Al)-Dissolved	mg/L		---	---	0.0660	0.0671
Antimony (Sb)-Dissolved	mg/L		---	---	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L		---	---	0.00032	0.00051
Barium (Ba)-Dissolved	mg/L		---	---	0.0945	0.0145
Beryllium (Be)-Dissolved	mg/L		---	---	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		---	---	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		---	---	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		---	---	<0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L		---	---	93.0	13.6
Cesium (Cs)-Dissolved	mg/L		---	---	<0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L		---	---	0.00651	0.00076
Cobalt (Co)-Dissolved	mg/L		---	---	0.00042	<0.00010
Copper (Cu)-Dissolved	mg/L		---	---	0.00026	0.00066
Iron (Fe)-Dissolved	mg/L		---	---	16.6	0.165
Lead (Pb)-Dissolved	mg/L		---	---	0.000122	<0.000050
Lithium (Li)-Dissolved	mg/L		---	---	0.0036	<0.0010
Magnesium (Mg)-Dissolved	mg/L		---	---	3.99	1.02
Manganese (Mn)-Dissolved	mg/L		---	---	0.398	0.00505
Mercury (Hg)	mg/L)		---	---	---	---
Molybdenum (Mo)-Dissolved	mg/L		---	---	0.000717	0.000089
Nickel (Ni)-Dissolved	mg/L		---	---	0.00142	0.00058
Phosphorus (P)-Dissolved	mg/L		---	---	0.113	<0.050
Potassium (K)-Dissolved	mg/L		---	---	2.06	0.861
Rubidium (Rb)-Dissolved	mg/L		---	---	0.00106	0.00196
Selenium (Se)-Dissolved	mg/L		---	---	0.000156	0.000116
Silicon (Si)-Dissolved	mg/L		---	---	10.2	2.34
Silver (Ag)-Dissolved	mg/L		---	---	<0.000010	<0.000010
Sodium (Na)-Dissolved	mg/L		---	---	2.79	0.699
Strontium (Sr)-Dissolved	mg/L		---	---	0.107	0.0184
Sulfur (S)-Dissolved	mg/L		---	---	<0.50	<0.50
Tellurium (Te)-Dissolved	mg/L		---	---	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		---	---	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L		---	---	0.00029	<0.00010
Tin (Sn)-Dissolved	mg/L		---	---	0.00021	<0.00010
Titanium (Ti)-Dissolved	mg/L		---	---	0.0177	0.00059
Tungsten (W)-Dissolved	mg/L		---	---	0.00060	<0.00010
Uranium (U)-Dissolved	mg/L		---	---	0.000056	<0.000010
Vanadium (V)-Dissolved	mg/L		---	---	0.0120	<0.00050
Zinc (Zn)-Dissolved	mg/L		---	---	0.0014	<0.0010
Zirconium (Zr)-Dissolved	mg/L				0.00715	<0.00020

Table 5.6 General chemistry and metals data for surface water samples collected in July 2020. (Page 1 of 4)

Parameter	Units	Client Sample ID	SP-SW-1	SP-SW-2	SP-SW-3	SP-SW-4	SP-SW-5	SP-SW-6	SP-SW-7	SP-SW-8
		Date Sampled	5-Jul-2020	5-Jul-2020	5-Jul-2020	5-Jul-2020	4-Jul-2020	5-Jul-2020	4-Jul-2020	4-Jul-2020
		Time Sampled	10:23	8:49	16:58	11:50	11:52	9:55	17:49	15:20
		Media	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
		ALS Sample ID	L2471801-15	L2471801-12	L2471801-23	L2471801-16	L2471801-3	L2471801-14	L2471801-9	L2471801-7
Physical Tests										
Conductivity	uS/cm		63	61	59	62	52	66	55	55
Hardness (as CaCO3)	mg/L		28.4	27.9	26.5	26.5	23	28.5	25.4	25.2
pH	pH		7.71	7.65	7.62	7.60	7.55	7.55	7.57	7.55
Total Suspended Solids	mg/L		<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Total Dissolved Solids	mg/L		54	48	37	45	40	52	45	48
Anions and Nutrients										
Alkalinity, Total (as CaCO3)	mg/L		31.6	31.1	29.2	29.5	25.8	31.5	27.9	27.8
Ammonia, Total (as N)	mg/L		0.383	0.410	0.332	0.770	0.512	0.192	0.428	0.355
Fluoride (F)	mg/L		0.032	0.032	0.030	0.031	0.027	0.032	0.031	0.031
Orthophosphate (as PO)	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Phosphorus (P)-Total	mg/L		0.0062	0.0050	0.01	0.0042	0.0031	0.0048	0.0060	0.006
Organic/Inorganic Carbon										
Dissolved Organic Carbon	mg/L		12	11	11	13	8.5	10	13	12
Total Organic Carbon	mg/L									
Total Metals (compared with guideline values for compliance purposes)										
Aluminum (Al)-Total	mg/L		0.0103	0.0121	0.01	0.0106	0.0222	0.010	0.028	0.032
Antimony (Sb)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L		0.00054	0.0006	0.00088	0.00086	0.0003	0.0005	0.0006	0.00076
Barium (Ba)-Total	mg/L		0.007	0.006	0.005	0.005	0.00554	0.006	0.006	0.006
Beryllium (Be)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L		9.9	9.7	9	8.9	8.06	10	8.7	8.8
Cesium (Cs)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total	mg/L		0.00089	0.0008	0.0006	0.00069	0.00065	0.0008	0.001	0.001
Iron (Fe)-Total	mg/L		0.03	0.03	0.02	0.03	0.027	0.03	0.05	0.06
Lead (Pb)-Total	mg/L		<0.000050	<0.000050	0.0001	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total	mg/L		1.4	1.4	1.3	1.4	1.06	1.4	1.3	1.4
Manganese (Mn)-Total	mg/L		0.002	0.00	0.002	0.002	0.00167	0.002	0.003	0.01
Mercury (Hg)-Total	mg/L)		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L		0.00011	0.00010	0.000077	0.00010	0.000055	0.00011	0.00010	0.00010
Nickel (Ni)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00094	0.00051
Phosphorus (P)-Total	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L		0.61	0.60	0.48	0.51	0.718	0.60	0.59	0.60
Rubidium (Rb)-Total	mg/L		0.00157	0.00161	0.00138	0.00150	0.00161	0.00165	0.00155	0.00166
Selenium (Se)-Total	mg/L		0.000084	0.000088	0.00008	0.000079	0.000074	0.000085	0.000087	0.000090
Silicon (Si)-Total	mg/L		0.86	0.86	1.0	1.04	1.19	0.86	0.89	0.87
Silver (Ag)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Total	mg/L		0.68	0.67	0.61	0.64	0.677	0.67	0.66	0.67
Strontium (Sr)-Total	mg/L		0.02	0.023	0.020	0.02	0.015	0.02	0.020	0.02
Sulfur (S)-Total	mg/L		0.67	0.62	<0.50	<0.50	0.72	0.62	0.5	0.52
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	0.0003	0.0005
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L		0.000014	0.000015	0.000019	0.000019	0.000013	0.000015	0.00002	0.000021
Vanadium (V)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals (for modelling purposes)										
Aluminum (Al)-Dissolved	mg/L		<0.0050	0.0081	0.0069	0.0055	0.0184	0.0054	0.0215	0.0194
Antimony (Sb)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L		0.00051	0.0005	0.00090	0.00085	0.00031	0.0005	0.0006	0.00071
Barium (Ba)-Dissolved	mg/L		0.006	0.006	0.0049	0.005	0.00527	0.006	0.006	0.006
Beryllium (Be)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	0.0000113	<0.0000050	<0.0000050	0.0000059	<0.0000050
Calcium (Ca)-Dissolved	mg/L		9.2	9.0	8.4	8.4	7.55	9.2	8.1	8.0
Cesium (Cs)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000011
Chromium (Cr)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L		0.00062	0.0006	0.00053	0.00053	0.00048	0.00061	0.00063	0.0006
Iron (Fe)-Dissolved	mg/L		0.011	0.02	0.014	0.014	0.015	0.01	0.03	0.034
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	0.000084	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Dissolved	mg/L		1.4	1.3	1.3	1.3	0.999	1.3	1.2	1.3
Manganese (Mn)-Dissolved	mg/L		<0.00050	<0.00050	0.0006	0.001	<0.00050	<0.00050	0.001	0.0013
Mercury (Hg) - Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L		0.00007	0.00008	0.000074	0.00007	<0.000050	0.00010	0.00008	0.000067
Nickel (Ni)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		0.57	0.57	0.49	0.49	0.69	0.57	0.55	0.58
Rubidium (Rb)-Dissolved	mg/L		0.00162	0.00155	0.00156	0.00146	0.00155	0.00155	0.00147	0.00158
Selenium (Se)-Dissolved	mg/L		0.000077	0.000095	0.000078	0.000092	0.000093	0.000080	0.000112	0.000109
Silicon (Si)-Dissolved	mg/L		0.80	0.78	0.92	0.93	1.14	0.80	0.82	0.78
Silver (Ag)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Dissolved	mg/L		0.63	0.64	0.61	0.61	0.641	0.63	0.65	0.64
Strontium (Sr)-Dissolved	mg/L		0.02	0.020	0.0192	0.02	0.0146	0.02	0.019	0.02
Sulfur (S)-Dissolved	mg/L		0.57	0.56	<0.50	<0.50	0.58	0.53	0.51	<0.50
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00034	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L		0.000013	0.000013	0.000016	0.000016	0.000011	0.000013	0.00002	0.000019
Vanadium (V)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		<0.0010	0.002	0.0018	0.0013	<0.0010	<0.0010	0.002	<0.0010
Zirconium (Zr)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Speciated Metals										
Chromium, Hexavalent	ug/L									
Methylmercury (as MeHg)-Total	ug/L							0.000028	0.000044	0.000059
Radiological Parameters (Water)										
Ra-226	ug/L									

Table 5.6 General chemistry and metals data for surface water samples collected in July 2020. (Page 2 of 4)

Parameter	Units	Client Sample ID	SP-SW-9	SP-SW-10	SP-SW-11	SP-SW-12	SP-SW-13	SP-SW-14	SP-SW-15	SP-SW-16
		Date Sampled	6-Jul-2020	4-Jul-2020	4-Jul-2020	4-Jul-2020	4-Jul-2020	4-Jul-2020	5-Jul-2020	4-Jul-2020
		Time Sampled	9:07	13:30	12:20	13:05	10:28	11:22	8:30	18:15
		Media	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
		ALS Sample ID	L2471801-24	L2471801-6	L2471801-4	L2471801-5	L2471801-1	L2471801-2	L2471801-11	L2471801-10
Physical Tests										
Conductivity	uS/cm		73	53	52	53	48.6	52	61	55
Hardness (as CaCO3)	mg/L		35.2	22.8	22.8	22.8	21.7	23.1	27.8	25.5
pH	pH		7.74	7.55	7.55	7.55	7.56	7.57	7.63	7.55
Total Suspended Solids	mg/L		4.2	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Total Dissolved Solids	mg/L		66	39	42	40	45	38	49	48
Anions and Nutrients										
Alkalinity, Total (as CaCO3)	mg/L		38.6	25.6	25.6	25.4	23.9	25.7	31.1	27.9
Ammonia, Total (as N)	mg/L		0.800	0.207	0.187	0.419	0.141	0.288	1.050	0.28
Fluoride (F)	mg/L		0.023	0.029	0.028	0.029	0.032	0.028	0.032	0.030
Orthophosphate (as PO)	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Phosphorus (P)-Total	mg/L		0.0143	<0.0030	0.0031	<0.0030	<0.0030	<0.0030	0.0054	0.007
Organic/Inorganic Carbon										
Dissolved Organic Carbon	mg/L		16	10	15.4	9	16.9	8.7	12	13
Total Organic Carbon	mg/L									
Total Metals (compared with guideline values for compliance pu										
Aluminum (Al)-Total	mg/L		0.027	0.028	0.0245	0.026	0.0435	0.0257	0.0150	0.03
Antimony (Sb)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L		0.00050	0.00032	0.00028	0.00031	0.00038	0.00034	0.0006	0.001
Barium (Ba)-Total	mg/L		0.0016	0.005	0.0055	0.005	0.00524	0.00569	0.007	0.007
Beryllium (Be)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L		14.2	7.9	8.18	8.1	7.49	8.13	9.7	9
Cesium (Cs)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total	mg/L		<0.00050	0.0007	0.00063	0.0007	0.00059	0.00063	0.0008	0.001
Iron (Fe)-Total	mg/L		0.05	0.03	0.027	0.03	0.056	0.041	0.04	0.1
Lead (Pb)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total	mg/L		0.7	1.1	1.06	1.1	1.14	1.05	1.4	1.3
Manganese (Mn)-Total	mg/L		0.059	0.002	0.00154	0.001	0.003	0.00408	0.00	0.00
Mercury (Hg)-Total	mg/L)		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L		<0.000050	0.000063	0.000055	0.000058	0.000075	0.00006	0.00011	0.00010
Nickel (Ni)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00066
Phosphorus (P)-Total	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L		0.34	0.72	0.723	0.716	0.692	0.715	0.60	0.58
Rubidium (Rb)-Total	mg/L		0.00093	0.00169	0.00166	0.00	0.0018	0.00168	0.00158	0.00153
Selenium (Se)-Total	mg/L		0.000064	0.000087	0.000069	0.00007	0.000081	0.00008	0.000085	0.000072
Silicon (Si)-Total	mg/L		0.29	1.20	1.2	1.200000	1.35	1.2	0.89	0.95
Silver (Ag)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Total	mg/L		0.41	0.70	0.672	0.693000	0.703	0.675	0.67	0.65
Strontium (Sr)-Total	mg/L		0.014	0.01	0.015	0.01	0.0145	0.015	0.022	0.020
Sulfur (S)-Total	mg/L		<0.50	0.71	0.75	0.73	0.63	0.71	0.60	0.54
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	0.0003	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	0.00035	<0.00030	0.0003	0.0004
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L		0.000013	0.000017	0.000012	0.00002	0.000023	0.000014	0.000015	0.00002
Vanadium (V)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals (for modelling purposes)										
Aluminum (Al)-Dissolved	mg/L		0.0232	0.0220	0.0188	0.0214	0.0375	0.0218	0.0098	0.0224
Antimony (Sb)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L		0.00056	0.00028	0.00028	0.00030	0.00036	0.00031	0.0005	0.001
Barium (Ba)-Dissolved	mg/L		0.0014	0.005	0.00536	0.005	0.00516	0.00563	0.007	0.006
Beryllium (Be)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L		12.9	7.4	7.47	7.4	6.87	7.59	8.9	8
Cesium (Cs)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	0.000011	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L		0.00026	0.0005	0.00046	0.0005	0.00049	0.00047	0.0006	0.00061
Iron (Fe)-Dissolved	mg/L		0.011	0.017	0.015	0.016	0.037	0.025	0.03	0.0
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Dissolved	mg/L		0.7	1.0	0.996	1.0	1.11	1	1.3	1.2
Manganese (Mn)-Dissolved	mg/L		0.002	<0.00050	<0.00050	<0.00050	0.00072	0.00109	0.001	0.002
Mercury (Hg) - Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00008	0.00006
Nickel (Ni)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		0.33	0.68	0.693	0.68	0.677	0.686	0.58	0.55
Rubidium (Rb)-Dissolved	mg/L		0.00093	0.00174	0.0017	0.00165	0.00177	0.00158	0.00160	0.00151
Selenium (Se)-Dissolved	mg/L		0.000086	0.000080	0.000061	0.000090	0.000088	0.00009	0.000093	0.000086
Silicon (Si)-Dissolved	mg/L		0.26	1.12	1.12	1.11	1.3	1.17	0.83	0.91
Silver (Ag)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Dissolved	mg/L		0.42	0.66	0.651	0.66	0.682	0.641	0.64	0.62
Strontium (Sr)-Dissolved	mg/L		0.014	0.01	0.0141	0.01	0.0141	0.0142	0.021	0.019
Sulfur (S)-Dissolved	mg/L		<0.50	0.64	0.66	0.65	0.53	0.6	0.61	0.57
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L		<0.000010	0.000013	0.000011	0.000014	0.00002	0.000012	0.000014	0.00002
Vanadium (V)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		0.0024	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium (Zr)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Speciated Metals										
Chromium, Hexavalent	ug/L									
Methylmercury (as MeHg)-Total	ug/L					0.000034				
Radiological Parameters (Water)										
Ra-226	ug/L									

Table 5.6 General chemistry and metals data for surface water samples collected in July 2020. (Page 3 of 4)

Parameter	Units	Client Sample ID	SP-SW-18	SP-SW-19	SP-SW-20	SP-SW-21	SP-SW-22	SP-SW-23	SP-SW-24	SP-SW-25
		Date Sampled	5-Jul-2020	5-Jul-2020	5-Jul-2020	5-Jul-2020	4-Jul-2020	5-Jul-2020	5-Jul-2020	5-Jul-2020
		Time Sampled	12:40	15:11	14:23	15:51	17:06	16:27	13:19	9:23
		Media	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
		ALS Sample ID	L2471801-17	L2471801-20	L2471801-19	L2471801-21	L2471801-8	L2471801-22	L2471801-18	L2471801-13
Physical Tests										
Conductivity	uS/cm		58	60	58	104	55	58	58	62
Hardness (as CaCO3)	mg/L		26.1	27.1	26.9	51	25.1	26.4	25.9	28
pH	pH		7.60	7.63	7.62	7.97	7.55	7.64	7.61	7.67
Total Suspended Solids	mg/L		<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Total Dissolved Solids	mg/L		40	46	51	74	49	42	40	45
Anions and Nutrients										
Alkalinity, Total (as CaCO3)	mg/L		29.8	30.7	29.7	56.3	27.8	29.3	29.7	31.3
Ammonia, Total (as N)	mg/L		1.24	0.407	0.495	0.281	0.347	0.083	0.652	0.790
Fluoride (F)	mg/L		0.031	0.031	0.030	0.031	0.030	0.032	0.031	0.032
Orthophosphate (as PO)	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Phosphorus (P)-Total	mg/L		0.004	0.0043	0.0073	0.0064	0.0073	0.0041	0.0033	0.004
Organic/Inorganic Carbon										
Dissolved Organic Carbon	mg/L		10	11	12	14	12	10	10	11
Total Organic Carbon	mg/L									
Total Metals (compared with guideline values for compliance pu										
Aluminum (Al)-Total	mg/L		0.01	0.0094	0.0141	0.0059	0.029	0.0098	0.012	0.012
Antimony (Sb)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L		0.0009	0.00091	0.00095	0.00042	0.00064	0.00089	0.00092	0.0005
Barium (Ba)-Total	mg/L		0.0053	0.0052	0.0053	0.0066	0.006	0.005	0.005	0.006
Beryllium (Be)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L		9.0	9.3	9.7	17.5	8.4	9.0	8.9	9.7
Cesium (Cs)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total	mg/L		0.0007	0.0007	0.0008	<0.00050	0.0009	0.00060	0.0007	0.001
Iron (Fe)-Total	mg/L		0.025	0.025	0.031	0.022	0.05	0.020	0.03	0.03
Lead (Pb)-Total	mg/L		<0.000050	<0.000050	0.000279	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total	mg/L		1.4	1.5	1.4	2.9	1.3	1.3	1.4	1.4
Manganese (Mn)-Total	mg/L		0.002	0.002	0.003	0.010	0.00	0.002	0.002	0.002
Mercury (Hg)-Total	mg/L)		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L		0.000094	0.00009	0.00011	0.00006	0.00010	0.00008	0.000101	0.00012
Nickel (Ni)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	0.00056	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Total	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L		0.519	0.503	0.53	0.350	0.59	0.49	0.51	0.61
Rubidium (Rb)-Total	mg/L		0.00149	0.00156	0.00144	0.00105	0.00159	0.00140	0.00146	0.00159
Selenium (Se)-Total	mg/L		0.000088	0.000071	0.000078	0.000059	0.000079	0.000080	0.000076	0.000086
Silicon (Si)-Total	mg/L		1.03	1.00	0.97	1.55	0.87	0.94	1.03	0.86
Silver (Ag)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Total	mg/L		0.65	0.64	0.68	0.77	0.7	0.64	0.65	0.67
Strontium (Sr)-Total	mg/L		0.020	0.02	0.02	0.03	0.02	0.019	0.02	0.02
Sulfur (S)-Total	mg/L		<0.50	<0.50	0.5	<0.50	0.5	<0.50	<0.50	0.61
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	0.00017	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	0.0004	<0.00030	0.00031	0.0004
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L		0.000019	0.000019	0.000019	0.000013	0.000021	0.000020	0.000018	0.000015
Vanadium (V)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L		<0.0030	<0.0030	0.005	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals (for modelling purposes)										
Aluminum (Al)-Dissolved	mg/L		<0.0050	<0.0050	0.0075	<0.0050	0.0222	0.0058	<0.0050	0.0051
Antimony (Sb)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L		0.00090	0.00095	0.00096	0.00044	0.00061	0.00093	0.00089	0.0005
Barium (Ba)-Dissolved	mg/L		0.00490	0.0049	0.005	0.0065	0.006	0.005	0.0050	0.006
Beryllium (Be)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L		8.3	8.6	8.7	15.5	8.0	8.4	8.2	9.0
Cesium (Cs)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L		0.00055	0.0005	0.0005	0.0003	0.0007	0.00054	0.00052	0.00058
Iron (Fe)-Dissolved	mg/L		0.012	0.012	0.014	<0.010	0.032	0.020	0.013	0.01
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000237	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Dissolved	mg/L		1.3	1.4	1.3	3.0	1.2	1.3	1.3	1.3
Manganese (Mn)-Dissolved	mg/L		0.0009	0.001	0.001	0.001	0.00	0.001	0.0008	<0.00050
Mercury (Hg) - Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L		0.000080	0.00007	0.00006	0.00006	0.00007	0.00007	0.00007	0.00009
Nickel (Ni)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		0.487	0.48	0.51	0.36	0.57	0.48	0.50	0.57
Rubidium (Rb)-Dissolved	mg/L		0.00145	0.00139	0.00144	0.00102	0.00154	0.00145	0.00153	0.00153
Selenium (Se)-Dissolved	mg/L		0.000111	0.000087	0.000072	0.000065	0.000095	0.000092	0.000064	0.000081
Silicon (Si)-Dissolved	mg/L		0.99	0.94	0.91	1.57	0.82	0.93	0.97	0.79
Silver (Ag)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Dissolved	mg/L		0.60	0.61	0.64	0.8	0.7	0.61	0.61	0.63
Strontium (Sr)-Dissolved	mg/L		0.019	0.02	0.02	0.03	0.02	0.019	0.02	0.02
Sulfur (S)-Dissolved	mg/L		<0.50	<0.50	<0.50	<0.50	0.5	<0.50	<0.50	<0.50
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L		0.000016	0.000015	0.000014	0.000012	0.000017	0.000017	0.000016	0.000012
Vanadium (V)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		<0.0010	<0.0010	0.003	0.003	0.002	<0.0010	<0.0010	<0.0010
Zirconium (Zr)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Speciated Metals										
Chromium, Hexavalent	ug/L									
Methylmercury (as MeHg)-Total	ug/L			0.000027		0.000025			0.000028	
Radiological Parameters (Water)										
Ra-226	ug/L									

Table 5.6 General chemistry and metals data for surface water samples collected in July 2020. (Page 4 of 4)

Parameter	Units	Client Sample ID	SP-SW-26	SP-SW-DUP-1	SP-SW-DUP-2	SP-SW-DUP-3	SW TRIP BLANK
		Date Sampled	6-Jul-2020	4-Jul-2020	5-Jul-2020	6-Jul-2020	4-Jul-2020
		Time Sampled	11:30	0:01	0:01	0:01	0:01
		Media	Surface Water	Duplicate	Duplicate	Duplicate	Blank
		ALS Sample ID	L2471801-25	L2471801-26	L2471801-27	L2471801-28	L2471801-29
Physical Tests							
Conductivity	uS/cm		110	55	60	109	1.3
Hardness (as CaCO3)	mg/L		57	23.7	27.8	55.7	<0.50
pH	pH		7.83	7.59	7.67	7.86	6.77
Total Suspended Solids	mg/L		<3.0	<3.0	<3.0	<3.0	<3.0
Total Dissolved Solids	mg/L		93	50	44	92	<10
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	mg/L		57.7	28.0	30.9	57.9	<2.0
Ammonia, Total (as N)	mg/L		0.41	0.513	0.51	0.43	<0.010
Fluoride (F)	mg/L		0.027	0.030	0.031	0.025	<0.020
Orthophosphate (as PO)	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Phosphorus (P)-Total	mg/L		0.006	0.006	0.005	0.007	<0.0030
Organic/Inorganic Carbon							
Dissolved Organic Carbon	mg/L		22.4	17.7	15.3	23.7	<0.50
Total Organic Carbon	mg/L						
Total Metals (compared with guideline values for compliance pu							
Aluminum (Al)-Total	mg/L		0.01	0.03	0.01	0.01	<0.0050
Antimony (Sb)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L		0.00036	0.00060	0.00087	0.00038	<0.00010
Barium (Ba)-Total	mg/L		0.0066	0.006	0.005	0.007	<0.00010
Beryllium (Be)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L		22	8.8	9.5	21.9	<0.050
Cesium (Cs)-Total	mg/L		0.000011	<0.000010	<0.000010	0.000011	<0.000010
Chromium (Cr)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total	mg/L		0.0006	0.0007	0.0006	0.0006	<0.00050
Iron (Fe)-Total	mg/L		0.05	0.043	0.019	0.047	<0.010
Lead (Pb)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total	mg/L		1.1	1.22	1.45	1.12	<0.0050
Manganese (Mn)-Total	mg/L		0.015	0.003	0.002	0.015	<0.00050
Mercury (Hg)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L		0.00006	0.00009	0.00008	0.00006	<0.000050
Nickel (Ni)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Total	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L		0.24	0.54	0.48	0.24	<0.050
Rubidium (Rb)-Total	mg/L		0.0006	0.0015	0.0014	0.0006	<0.00020
Selenium (Se)-Total	mg/L		0.000086	0.000076	0.000078	0.000082	<0.000050
Silicon (Si)-Total	mg/L		1.2	0.8	1.0	1.2	<0.10
Silver (Ag)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Total	mg/L		0.57	0.62	0.61	0.57	<0.050
Strontium (Sr)-Total	mg/L		0.024	0.019	0.020	0.024	<0.0010
Sulfur (S)-Total	mg/L		0.78	<0.50	<0.50	0.85	<0.50
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L		<0.00030	0.000	<0.00030	<0.00030	<0.00030
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L		0.000010	0.000020	0.000018	<0.000010	<0.000010
Vanadium (V)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals (for modelling purposes)							
Aluminum (Al)-Dissolved	mg/L		0.0103	0.0213	<0.0050	0.0100	<0.0050
Antimony (Sb)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L		0.00042	0.00062	0.00093	0.00040	<0.00010
Barium (Ba)-Dissolved	mg/L		0.00652	0.00613	0.0051	0.0066	<0.00010
Beryllium (Be)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L		21	7.51	8.9	20.5	<0.050
Cesium (Cs)-Dissolved	mg/L		0.000011	<0.000010	<0.000010	0.000012	<0.000010
Chromium (Cr)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Cobalt (Co)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L		0.00062	0.00065	0.00053	0.00062	<0.00020
Iron (Fe)-Dissolved	mg/L		0.029	0.034	0.0	0.0	<0.010
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Dissolved	mg/L		1.09	1.2	1.36	1.08	<0.0050
Manganese (Mn)-Dissolved	mg/L		0.00294	0.0014	0.001	0.003	<0.00050
Mercury (Hg) - Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L		0.000056	0.000067	0.000072	0.000060	<0.000050
Nickel (Ni)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		0.237	0.548	0.48	0.23	<0.050
Rubidium (Rb)-Dissolved	mg/L		0.00065	0.0016	0.00139	0.00062	<0.00020
Selenium (Se)-Dissolved	mg/L		0.000096	0.00011	0.000091	0.000087	<0.000050
Silicon (Si)-Dissolved	mg/L		1.18	0.786	0.9	1.2	<0.050
Silver (Ag)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Sodium (Na)-Dissolved	mg/L		0.551	0.618	0.60	0.54	<0.050
Strontium (Sr)-Dissolved	mg/L		0.0229	0.0168	0.019	0.023	<0.0010
Sulfur (S)-Dissolved	mg/L		0.72	<0.50	<0.50	0.77	<0.50
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	0.00023	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L		<0.000010	0.000015	0.000017	<0.000010	<0.000010
Vanadium (V)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		0.0013	0.0015	0.0011	<0.0010	<0.0010
Zirconium (Zr)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Speciated Metals							
Chromium, Hexavalent	ug/L						
Methylmercury (as MeHg)-Total	ug/L				0.000024		
Radiological Parameters (Water)							
Ra-226	ug/L						

Table 5.7 General chemistry and metals data for surface water samples collected in September 2020. (Page 1 of 4)

Parameter	Units	Client Sample ID	SP-SW-1	SP-SW-2	SP-SW-3	SP-SW-4	SP-SW-5	SP-SW-6	SP-SW-7	SP-SW-8
		Date Sampled	12-Sep-2020	11-Sep-2020	13-Sep-2020	13-Sep-2020	11-Sep-2020	12-Sep-2020	12-Sep-2020	11-Sep-2020
		Time Sampled	15:30	17:19	14:53	9:46	13:23	15:05	13:08	15:57
		Media	L2503878-28	L2503878-21	L2503878-8	L2503878-29	L2503878-15	L2503878-27	L2503878-24	L2503879-19
		ALS Sample ID	Water	Water	Water	Water	Water	Water	Water	Water
Physical Tests										
Conductivity	uS/cm		64	64	59	59	53	64	58	58
Hardness (as CaCO3)	mg/L		32.3	31.9	29.4	29.8	24.9	32.3	28.9	28.9
pH	pH		7.60	6.74	7.59	7.56	7.50	7.59	7.52	7.55
Total Suspended Solids	mg/L		<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Total Dissolved Solids	mg/L		49	51	50	36	45	51	55	50
Anions and Nutrients										
Alkalinity, Total (as CaCO3)	mg/L		37.2	35.7	32.5	33.3	26.9	35.5	32.2	32.0
Ammonia, Total (as N)	mg/L		0.030	0.096	0.0141	0.263	0.0129	<0.0050	0.102	0.044
Fluoride (F)	mg/L		0.021	0.025	0.022	0.023	0.022	0.023	0.023	0.022
Orthophosphate (as PO)	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Phosphorus (P)-Total	mg/L		0.0084	0.0093	0.01	0.0094	0.0038	0.0086	0.0086	0.012
Organic/Inorganic Carbon										
Dissolved Organic Carbon	mg/L		9	11	7	9	11.3	9	14	10
Total Organic Carbon	mg/L		19.3000	10.9000	11.00	15.4000	10	13.1000	12.3000	12.600
Total Metals (compared with guideline values for compliance pu										
Aluminum (Al)-Total	mg/L		0.0069	0.0078	0.01	0.0113	0.0181	0.008	0.015	0.027
Antimony (Sb)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L		0.00062	0.0006	0.00109	0.00115	0.00033	0.0006	0.0008	0.00085
Barium (Ba)-Total	mg/L		0.007	0.007	0.005	0.006	0.00608	0.007	0.006	0.006
Beryllium (Be)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L		10.0	10.1	9	9.2	8.44	10	9.1	9.1
Cesium (Cs)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Total	mg/L		0.00018	0.00011	0.0001	0.00015	0.00014	0.00027	0.00014	0.00017
Cobalt (Co)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total	mg/L		0.00076	0.0007	0.0006	0.00065	0.00053	0.0007	0.001	0.001
Iron (Fe)-Total	mg/L		0.02	0.03	0.04	0.04	0.018	0.03	0.05	0.07
Lead (Pb)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total	mg/L		1.5	1.4	1.4	1.5	1.03	1.5	1.4	1.4
Manganese (Mn)-Total	mg/L		0.004	0.01	0.004	0.006	0.00171	0.006	0.011	0.01
Mercury (Hg)-Total	mg/L)		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L		0.00006	0.00007	0.000060	0.00007	<0.000050	0.00008	0.00006	0.00005
Nickel (Ni)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Total	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L		0.67	0.64	0.53	0.57	0.762	0.67	0.59	0.58
Rubidium (Rb)-Total	mg/L		0.00176	0.00169	0.00160	0.00160	0.00174	0.00171	0.00181	0.00173
Selenium (Se)-Total	mg/L		0.000074	0.000076	0.000093	0.000090	0.000062	0.000085	0.000092	0.000104
Silicon (Si)-Total	mg/L		0.84	0.92	1.1	1.11	1.14	0.91	0.97	1.05
Silver (Ag)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total	mg/L		0.70	0.68	0.63	0.67	0.689	0.72	0.65	0.67
Strontium (Sr)-Total	mg/L		0.02	0.023	0.020	0.02	0.0147	0.02	0.020	0.02
Sulfur (S)-Total	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L		<0.00030	<0.00030	0.000	0.00031	<0.00030	<0.00030	<0.00030	0.0008
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L		0.000014	0.000012	0.000015	0.000021	0.000012	0.000015	0.00002	0.000020
Vanadium (V)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	0.006	<0.0030
Zirconium (Zr)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals (for modelling purposes)										
Aluminum (Al)-Dissolved	mg/L		0.0023	0.0027	0.0019	0.0019	0.0129	0.0027	0.0082	0.0091
Antimony (Sb)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L		0.00048	0.0005	0.00098	0.00103	0.00028	0.0005	0.0007	0.00077
Barium (Ba)-Dissolved	mg/L		0.007	0.007	0.0056	0.005	0.00563	0.007	0.009	0.006
Beryllium (Be)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L		10.5	10.4	9.4	9.5	8.26	10.5	9.3	9.2
Cesium (Cs)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L		0.00012	<0.00010	0.00011	0.00011	0.00012	<0.00010	0.00013	0.00013
Cobalt (Co)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L		0.00055	0.0006	0.00047	0.00046	0.00044	0.00058	0.00053	0.0005
Iron (Fe)-Dissolved	mg/L		<0.010	<0.010	0.013	0.012	0.01	<0.010	0.02	0.031
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Dissolved	mg/L		1.5	1.5	1.5	1.5	1.05	1.5	1.4	1.5
Manganese (Mn)-Dissolved	mg/L		0.000	0.001	0.0004	0.000	0.00025	0.001	0.001	0.0007
Mercury (Hg) - Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L		0.00007	0.00007	0.000057	0.00005	<0.000050	0.00008	0.00006	0.000055
Nickel (Ni)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		0.65	0.64	0.54	0.54	0.776	0.65	0.60	0.57
Rubidium (Rb)-Dissolved	mg/L		0.00163	0.00173	0.00159	0.00164	0.00167	0.00171	0.00164	0.00157
Selenium (Se)-Dissolved	mg/L		0.000092	0.000082	0.000071	0.000077	0.000074	0.000060	0.000082	0.000059
Silicon (Si)-Dissolved	mg/L		0.83	0.89	1.03	1.06	1.12	0.85	0.92	0.98
Silver (Ag)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Dissolved	mg/L		0.68	0.68	0.66	0.65	0.67	0.68	0.67	0.69
Strontium (Sr)-Dissolved	mg/L		0.02	0.024	0.0201	0.02	0.0146	0.02	0.020	0.02
Sulfur (S)-Dissolved	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	0.00155	<0.00030
Tungsten (W)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L		0.000011	0.000013	0.000016	0.000014	0.00001	0.000010	0.00002	0.000016
Vanadium (V)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.001	<0.0010
Zirconium (Zr)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Speciated Metals										
Chromium, Hexavalent	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylmercury (as MeHg)-Total	ug/L							<0.000020	0.000036	0.000028
Radiological Parameters (Water)										
Ra-226	ug/L							<0.010		

Table 5.7 General chemistry and metals data for surface water samples collected in September 2020. (Page 2 of 4)

Parameter	Units	Client Sample ID	SP-SW-10	SP-SW-11	SP-SW-12	SP-SW-13	SP-SW-14	SP-SW-15	SP-SW-16	SP-SW-18
		Date Sampled	11-Sep-2020	11-Sep-2020	11-Sep-2020	11-Sep-2020	11-Sep-2020	11-Sep-2020	12-Sep-2020	13-Sep-2020
		Time Sampled	14:20	13:11	14:09	11:56	12:29	16:47	13:38	10:22
		Media	L2503878-18	L2503878-14	L2503878-16	L2503878-12	L2503878-13	L2503878-20	L2503878-25	L2503878-1
		ALS Sample ID	Water	Water	Water	Water	Water	Water	Water	Water
Physical Tests										
Conductivity	uS/cm		53	53	52	51	52.9	64	58	59
Hardness (as CaCO3)	mg/L		25.1	25.1	25.2	25.3	25.2	31.9	30.1	30.1
pH	pH		7.49	7.50	7.50	7.47	7.49	6.77	7.56	7.58
Total Suspended Solids	mg/L		<3.0	<3.0	<3.0	<3.0	<3.0	13.8	<3.0	<3.0
Total Dissolved Solids	mg/L		45	46	49	47	40	54	48	40
Anions and Nutrients										
Alkalinity, Total (as CaCO3)	mg/L		26.8	27.3	27.9	27.5	27.2	35.6	32.7	32.4
Ammonia, Total (as N)	mg/L		<0.0050	<0.0050	0.352	<0.0050	0.159	0.0485	0.124	0.015
Fluoride (F)	mg/L		0.023	0.022	0.022	0.022	0.021	0.026	0.022	<0.020
Orthophosphate (as PO)	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Phosphorus (P)-Total	mg/L		0.0049	<0.0030	0.0049	<0.0030	0.0048	0.0113	0.0116	0.008
Organic/Inorganic Carbon										
Dissolved Organic Carbon	mg/L		9	6	9.1	9	11.0	9.2	10	7
Total Organic Carbon	mg/L		10.4000	8.200	14.7	13.0000	11.4	10.4	16.2000	10.700
Total Metals (compared with guideline values for compliance pu										
Aluminum (Al)-Total	mg/L		0.021	0.018	0.0206	0.028	0.0275	0.118	0.0177	0.01
Antimony (Sb)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L		0.00035	0.00031	0.00034	0.00040	0.00035	0.00061	0.0009	0.001
Barium (Ba)-Total	mg/L		0.0055	0.006	0.00559	0.006	0.00592	0.00904	0.007	0.006
Beryllium (Be)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	0.000068	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.000007	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L		8.3	8.3	8.08	7.9	8.46	10.1	9.4	10
Cesium (Cs)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.000025	<0.000010	<0.000010
Chromium (Cr)-Total	mg/L		0.00022	0.00015	0.00015	0.00015	0.00017	0.00035	0.00019	0.00016
Cobalt (Co)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.00014	<0.00010	<0.00010
Copper (Cu)-Total	mg/L		0.0006	0.0006	0.00051	0.0005	0.00058	0.00086	0.0007	0.001
Iron (Fe)-Total	mg/L		0.02	0.02	0.029	0.04	0.043	0.205	0.10	0.0
Lead (Pb)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000079	<0.000050	<0.000050
Lithium (Li)-Total	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total	mg/L		1.1	1.0	1.09	1.2	1.03	1.44	1.4	1.5
Manganese (Mn)-Total	mg/L		0.002	0.002	0.00162	0.002	0.00306	0.0213	0.01	0.00
Mercury (Hg)-Total	mg/L)		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000076	0.00006	0.00006
Nickel (Ni)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Total	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L		0.76	0.77	0.747	0.744	0.752	0.629	0.63	0.55
Rubidium (Rb)-Total	mg/L		0.00175	0.00168	0.00175	0.00	0.00159	0.00188	0.00163	0.00165
Selenium (Se)-Total	mg/L		0.000071	0.000095	0.000075	0.00008	0.000058	0.000115	0.000081	0.000072
Silicon (Si)-Total	mg/L		1.08	1.12	1.13	1.260000	1.22	1.09	1.09	1.13
Silver (Ag)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total	mg/L		0.69	0.68	0.696	0.721000	0.706	0.674	0.70	0.68
Strontium (Sr)-Total	mg/L		0.015	0.01	0.0143	0.01	0.0148	0.0229	0.021	0.021
Sulfur (S)-Total	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L		<0.00030	<0.00030	0.00035	<0.00030	0.00035	0.0061	<0.00030	0.0006
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L		0.000015	0.000013	0.000013	0.00002	0.000015	0.000022	0.000018	0.00002
Vanadium (V)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.00051	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals (for modelling purposes)										
Aluminum (Al)-Dissolved	mg/L		0.0161	0.0129	0.0157	0.0225	0.0201	0.0062	0.0110	0.0019
Antimony (Sb)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L		0.00032	0.00029	0.0003	0.00033	0.0003	0.00053	0.0008	0.001
Barium (Ba)-Dissolved	mg/L		0.0055	0.006	0.00553	0.005	0.00597	0.00672	0.006	0.006
Beryllium (Be)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L		8.2	8.3	8.24	8.1	8.34	10.4	9.7	10
Cesium (Cs)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L		0.00013	0.0001	0.00012	0.00015	0.00013	0.00012	0.00017	0.00013
Cobalt (Co)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L		0.00043	0.0004	0.00041	0.0004	0.00042	0.00058	0.0005	0.00051
Iron (Fe)-Dissolved	mg/L		0.014	<0.010	0.013	0.022	0.026	0.013	0.05	0.0
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Dissolved	mg/L		1.1	1.1	1.13	1.2	1.07	1.47	1.4	1.5
Manganese (Mn)-Dissolved	mg/L		0.000	0.0003	0.00026	0.000	0.00107	0.00183	0.001	0.000
Mercury (Hg) - Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.000068	0.00006	0.00007
Nickel (Ni)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		0.79	0.77	0.778	0.75	0.76	0.638	0.59	0.54
Rubidium (Rb)-Dissolved	mg/L		0.00173	0.00168	0.00171	0.00175	0.00164	0.00164	0.00158	0.00155
Selenium (Se)-Dissolved	mg/L		0.000076	0.000053	0.000067	0.000077	0.000065	0.000099	0.000076	0.000092
Silicon (Si)-Dissolved	mg/L		1.06	1.16	1.1	1.22	1.2	0.919	1.06	1.07
Silver (Ag)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Dissolved	mg/L		0.69	0.69	0.71	0.74	0.694	0.687	0.67	0.66
Strontium (Sr)-Dissolved	mg/L		0.015	0.01	0.0146	0.01	0.0149	0.0236	0.020	0.021
Sulfur (S)-Dissolved	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L		0.000016	0.000011	0.000014	0.000017	0.000013	0.000011	0.000014	0.00002
Vanadium (V)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium (Zr)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Speciated Metals										
Chromium, Hexavalent	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylmercury (as MeHg)-Total	ug/L				0.000028					
Radiological Parameters (Water)										
Ra-226	ug/L				<0.010					

Table 5.7 General chemistry and metals data for surface water samples collected in September 2020. (Page 3 of 4)

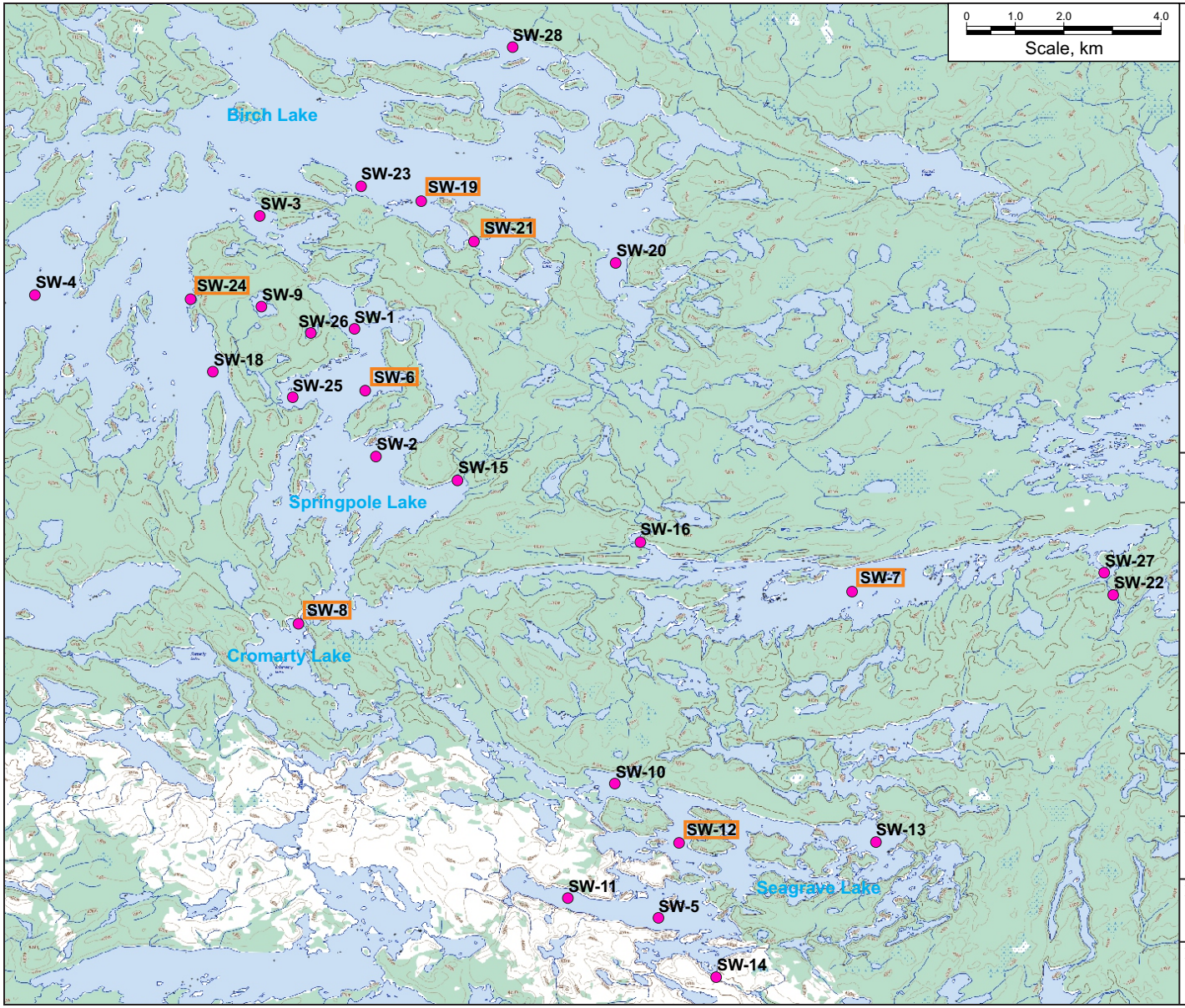
Parameter	Units	Client Sample ID	SP-SW-19	SP-SW-19	SP-SW-20	SP-SW-21	SP-SW-22	SP-SW-23	SP-SW-24	SP-SW-25
		Date Sampled	13-Sep-2020	13-Sep-2020	13-Sep-2020	13-Sep-2020	12-Sep-2020	13-Sep-2020	13-Sep-2020	12-Sep-2020
		Time Sampled	16:27	13:37	11:52	13:24	11:21	14:06	10:43	14:45
		Media	L2503878-9	L2503878-6	L2503878-3	L2503878-5	L2503878-22	L2503878-7	L2503878-2	L2503879-26
		ALS Sample ID	Water	Water	Water	Water	Water	Water	Water	Water
Physical Tests										
Conductivity	uS/cm		76	59	59	109	57	59	59	63
Hardness (as CaCO3)	mg/L		39.8	29.2	29.3	54.9	28.8	29.1	29.6	32.1
pH	pH		7.71	7.58	7.56	7.82	6.73	7.57	7.57	7.61
Total Suspended Solids	mg/L		3	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
Total Dissolved Solids	mg/L		66	41	42	80	40	41	36	41
Anions and Nutrients										
Alkalinity, Total (as CaCO3)	mg/L		42.6	33.7	32.2	60.9	32.9	31.5	33.6	34.7
Ammonia, Total (as N)	mg/L		0.0207	0.0174	0.168	0.0141	0.031	0.007	0.026	0.006
Fluoride (F)	mg/L		<0.020	0.022	0.022	0.022	0.024	0.023	0.023	0.025
Orthophosphate (as PO)	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Phosphorus (P)-Total	mg/L		0.014	0.0074	0.0083	0.0150	0.0107	0.0083	0.0097	0.007
Organic/Inorganic Carbon										
Dissolved Organic Carbon	mg/L		14	5	5	6	11	8	7	8
Total Organic Carbon	mg/L		20.300	10.9000	12.8000	13.0000	12.8000	10.8000	12.4000	13.300
Total Metals (compared with guideline values for compliance pu										
Aluminum (Al)-Total	mg/L		0.02	0.0072	0.0083	0.0057	0.019	0.0090	0.011	0.007
Antimony (Sb)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L		0.0006	0.00110	0.00102	0.00057	0.00081	0.00108	0.00106	0.0006
Barium (Ba)-Total	mg/L		0.0026	0.0058	0.0059	0.0077	0.006	0.006	0.006	0.007
Beryllium (Be)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L		14.1	9.4	9.6	17.2	9.4	9.6	9.5	10.0
Cesium (Cs)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Total	mg/L		<0.00010	0.00024	0.00024	0.00012	0.00016	0.00037	0.00017	0.00013
Cobalt (Co)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total	mg/L		<0.00050	0.0006	0.0007	<0.00050	0.0007	0.00063	0.0006	0.001
Iron (Fe)-Total	mg/L		0.104	0.024	0.024	0.199	0.07	0.026	0.03	0.02
Lead (Pb)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total	mg/L		0.8	1.5	1.4	3.2	1.4	1.5	1.4	1.5
Manganese (Mn)-Total	mg/L		0.049	0.004	0.004	0.055	0.01	0.004	0.004	0.005
Mercury (Hg)-Total	mg/L)		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L		<0.000050	0.00006	0.00007	<0.000050	0.00007	0.00007	0.000063	0.00008
Nickel (Ni)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Total	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L		0.275	0.544	0.54	0.402	0.60	0.54	0.55	0.68
Rubidium (Rb)-Total	mg/L		0.00074	0.00154	0.00158	0.00119	0.00171	0.00166	0.00164	0.00169
Selenium (Se)-Total	mg/L		0.000072	0.000074	0.000091	0.000056	0.000072	0.000096	0.000096	0.000111
Silicon (Si)-Total	mg/L		0.26	1.04	0.97	2.07	0.91	1.06	1.08	1.19
Silver (Ag)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total	mg/L		0.45	0.63	0.63	0.82	0.7	0.64	0.66	0.72
Strontium (Sr)-Total	mg/L		0.014	0.02	0.02	0.03	0.02	0.020	0.02	0.02
Sulfur (S)-Total	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.94
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L		<0.00030	0.00042	<0.00030	<0.00030	0.0004	<0.00030	0.00068	<0.00030
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L		<0.000010	0.000016	0.000017	0.000010	0.000018	0.000014	0.000017	0.000012
Vanadium (V)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals (for modelling purposes)										
Aluminum (Al)-Dissolved	mg/L		0.0177	0.0016	0.0023	<0.0010	0.0105	0.0021	0.0018	0.0023
Antimony (Sb)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L		0.00057	0.00101	0.00094	0.00048	0.00071	0.00100	0.00098	0.0005
Barium (Ba)-Dissolved	mg/L		0.00230	0.0056	0.006	0.0068	0.006	0.006	0.0056	0.007
Beryllium (Be)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L		14.7	9.3	9.3	16.8	9.2	9.2	9.4	10.3
Cesium (Cs)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	0.00016	0.00012	0.00011	0.00011
Cobalt (Co)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L		<0.00020	0.0005	0.0005	<0.00020	0.0005	0.00049	0.00053	0.00059
Iron (Fe)-Dissolved	mg/L		0.026	<0.010	<0.010	0.079	0.040	0.015	0.011	<0.010
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Dissolved	mg/L		0.8	1.4	1.5	3.2	1.4	1.5	1.5	1.5
Manganese (Mn)-Dissolved	mg/L		0.0023	0.000	0.000	0.001	0.00	0.000	0.0005	0.001
Mercury (Hg) - Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L		<0.000050	0.00005	0.00005	<0.000050	0.00006	<0.000050	0.00006	0.00008
Nickel (Ni)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		0.270	0.53	0.54	0.39	0.60	0.54	0.55	0.64
Rubidium (Rb)-Dissolved	mg/L		0.00072	0.00160	0.00160	0.00121	0.00165	0.00155	0.00167	0.00161
Selenium (Se)-Dissolved	mg/L		<0.000050	0.000084	0.000099	0.000053	0.000093	0.000101	0.000087	0.000075
Silicon (Si)-Dissolved	mg/L		0.25	1.00	0.96	2.04	0.84	1.16	1.09	0.87
Silver (Ag)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Dissolved	mg/L		0.47	0.66	0.66	0.8	0.7	0.66	0.66	0.68
Strontium (Sr)-Dissolved	mg/L		0.015	0.02	0.02	0.03	0.02	0.020	0.02	0.02
Sulfur (S)-Dissolved	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L		<0.000010	0.000016	0.000014	0.000011	0.000019	0.000015	0.000019	0.000011
Vanadium (V)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium (Zr)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Speciated Metals										
Chromium, Hexavalent	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methylmercury (as MeHg)-Total	ug/L			<0.000020		0.000022			<0.000020	
Radiological Parameters (Water)										
Ra-226	ug/L			<0.010		<0.010			<0.010	

Table 5.7 General chemistry and metals data for surface water samples collected in September 2020. (Page 4 of 4)

Parameter	Units	Client Sample ID	SP-SW-26	SP-SW-27	SP-SW-28	FIELD BLANK	SP-SW-DUP-01
		Date Sampled	13-Sep-2020	13-Sep-2020	12-Sep-2020	13-Sep-2020	11-Sep-2020
		Time Sampled	17:43	12:23	12:26	16:27	12:01
		Media	L2503878-11	L2503878-4	L2503878-23	L2503878-10	L2503878-17
		ALS Sample ID	Water	Water	Water	Water	Water
Physical Tests							
Conductivity	uS/cm		102	59	61	1	52.6
Hardness (as CaCO3)	mg/L		53.1	29.6	29.7	<0.50	25.1
pH	pH		7.59	7.60	6.91	5.40	7.50
Total Suspended Solids	mg/L		8	<3.0	<3.0	<3.0	<3.0
Total Dissolved Solids	mg/L		88	41	53	<10	44
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	mg/L		59.5	33.6	31.2	<2.0	28.9
Ammonia, Total (as N)	mg/L		0.12	0.073	0.022	0.09	0.0195
Fluoride (F)	mg/L		<0.020	<0.020	0.024	<0.020	0.021
Orthophosphate (as PO)	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Phosphorus (P)-Total	mg/L		0.016	0.009	0.009	<0.0030	0.0045
Organic/Inorganic Carbon							
Dissolved Organic Carbon	mg/L		<5.0	5.6	11.3	0.8	9.1
Total Organic Carbon	mg/L		22.900	10.800	12.200	1.880	15.4000
Total Metals (compared with guideline values for compliance pu							
Aluminum (Al)-Total	mg/L		0.02	0.01	0.02	<0.0030	0.0198
Antimony (Sb)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Total	mg/L		0.00045	0.00115	0.00079	<0.00010	0.00033
Barium (Ba)-Total	mg/L		0.0072	0.006	0.007	<0.00010	0.0056
Beryllium (Be)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L		20	9.4	9.2	<0.050	8.1
Cesium (Cs)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Total	mg/L		0.00017	0.0002	0.0002	<0.00010	0.00026
Cobalt (Co)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total	mg/L		0.0083	0.0006	0.0007	<0.00050	<0.00050
Iron (Fe)-Total	mg/L		0.08	0.026	0.077	<0.010	0.021
Lead (Pb)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total	mg/L		1.2	1.49	1.38	<0.0050	1.09
Manganese (Mn)-Total	mg/L		0.018	0.004	0.010	<0.00010	0.00157
Mercury (Hg)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L		<0.000050	<0.000050	0.00006	<0.000050	<0.000050
Nickel (Ni)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Total	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L		0.17	0.54	0.62	<0.050	0.757
Rubidium (Rb)-Total	mg/L		0.0004	0.0016	0.0017	<0.00020	0.00171
Selenium (Se)-Total	mg/L		0.000092	0.000073	0.000087	<0.000050	0.000084
Silicon (Si)-Total	mg/L		1.8	1.0	0.9	<0.10	1.10
Silver (Ag)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total	mg/L		0.57	0.64	0.67	<0.050	0.693
Strontium (Sr)-Total	mg/L		0.025	0.020	0.021	<0.00020	0.0145
Sulfur (S)-Total	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	0.00012	<0.00010
Titanium (Ti)-Total	mg/L		0.000	<0.00030	0.000	<0.00030	<0.00030
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L		0.000014	0.000015	0.000019	<0.000010	0.000015
Vanadium (V)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals (for modelling purposes)							
Aluminum (Al)-Dissolved	mg/L		0.011	0.0021	0.0112	<0.0010	0.0162
Antimony (Sb)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L		0.00037	0.00102	0.00069	<0.00010	0.00030
Barium (Ba)-Dissolved	mg/L		0.00678	0.00557	0.0061	<0.00010	0.0053
Beryllium (Be)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L		19.2	9.41	9.5	<0.050	8.2
Cesium (Cs)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L		0.00011	0.00088	0.00013	<0.00010	0.00013
Cobalt (Co)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L		0.00038	0.00049	0.00058	<0.00020	0.00042
Iron (Fe)-Dissolved	mg/L		0.043	0.014	0.0	<0.010	0.013
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Dissolved	mg/L		1.25	1.48	1.44	<0.0050	1.11
Manganese (Mn)-Dissolved	mg/L		0.00733	0.00052	0.001	<0.00010	0.00026
Mercury (Hg) - Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L		<0.000050	0.000051	0.000067	<0.000050	<0.000050
Nickel (Ni)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		0.422	0.538	0.61	<0.050	0.764
Rubidium (Rb)-Dissolved	mg/L		0.0008	0.00153	0.00158	<0.00020	0.00172
Selenium (Se)-Dissolved	mg/L		0.00009	0.000067	0.000067	<0.000050	0.000067
Silicon (Si)-Dissolved	mg/L		1.83	0.96	0.8	<0.050	1.10
Silver (Ag)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Dissolved	mg/L		0.57	0.666	0.70	<0.050	0.703
Strontium (Sr)-Dissolved	mg/L		0.0237	0.0196	0.021	<0.00020	0.0146
Sulfur (S)-Dissolved	mg/L		<0.50	<0.50	<0.50	<0.50	<0.50
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		0.00022	<0.00010	<0.00010	0.00011	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L		<0.000010	0.000013	0.000018	<0.000010	0.000015
Vanadium (V)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		<0.0010	<0.0010	0.0010	<0.0010	<0.0010
Zirconium (Zr)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Speciated Metals							
Chromium, Hexavalent	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50
Methylmercury (as MeHg)-Total	ug/L						
Radiological Parameters (Water)							
Ra-226	ug/L						

Table 5.8 General chemistry and metals data for surface water samples collected in November 2020. (Page 1 of 1)

Parameter	Units	Client Sample ID	SP-SW-15	SP-SW-02	SP-SW-25	SP-SW-06	SP-SW-01
		Date Sampled	8-Nov-2020	8-Nov-2020	8-Nov-2020	8-Nov-2020	8-Nov-2020
		Time Sampled	9:38	10:04	10:40	11:32	11:50
		Media	Surface Water	Surface Water	Surface Water	Surface Water	Surface Water
		ALS Sample ID	L2527922-1	L2527922-2	L2527922-3	L2527922-4	L2527922-5
Physical Tests							
Conductivity	uS/cm		64.1	63	65	64	72
Hardness (as CaCO3)	mg/L		30.8	30.9	33.5	33.3	33.8
pH	pH		7.51	7.53	7.54	7.54	7.57
Total Suspended Solids	mg/L						
Total Dissolved Solids	mg/L		49	45	49	33	41
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	mg/L		31.2	31.3	31.2	32	33.2
Ammonia, Total (as N)	mg/L		0.788	0.441	0.848	0.0762	0.063
Fluoride (F)	mg/L		0.036	0.035	0.033	<0.020	0.020
Orthophosphate (as PO)	mg/L		<0.0030	<0.0030	0.0033	0.0035	0.003
Phosphorus (P)-Total	mg/L		0.0095	0.0111	0.011	0.0113	0.0104
Organic/Inorganic Carbon							
Dissolved Organic Carbon	mg/L		8.8	8.7	9.8	9	7.180
Total Organic Carbon	mg/L		8.91	8.77	8.61	8.58	8.20
Total Metals (compared with guideline values for compliance purposes)							
Aluminum (Al)-Total	mg/L		0.0074	0.0101	0.0072	0.0069	0.007
Antimony (Sb)-Total	mg/L		<0.00010	<0.00010	0.00117	<0.00010	<0.00010
Arsenic (As)-Total	mg/L		0.00066	0.00067	0.00065	0.00067	0.00064
Barium (Ba)-Total	mg/L		0.00712	0.00723	0.0074	0.00775	0.008
Beryllium (Be)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Total	mg/L		<0.015	<0.015	<0.015	<0.015	<0.015
Cadmium (Cd)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Total	mg/L		10.8	10.7	11	11	11.0
Cesium (Cs)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Total	mg/L		<0.00010	<0.00010	<0.00010	0.00065	0.00025
Cobalt (Co)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Total	mg/L		0.00066	0.00066	0.00067	0.00077	0.0007
Iron (Fe)-Total	mg/L		0.035	0.073	0.039	0.044	0.04
Lead (Pb)-Total	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Total	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Magnesium (Mg)-Total	mg/L		1.61	1.61	1.63	1.66	1.6
Manganese (Mn)-Total	mg/L		0.00441	0.00488	0.0079	0.00812	0.008
Mercury (Hg)-Total	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Total	mg/L		0.000122	0.00012	0.000122	0.000115	0.000122
Nickel (Ni)-Total	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Total	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Total	mg/L		0.693	0.684	0.701	0.718	0.704
Rubidium (Rb)-Total	mg/L		0.00175	0.00183	0.00184	0.00188	0.00
Selenium (Se)-Total	mg/L		0.000095	0.000054	0.000076	0.000112	0.00011
Silicon (Si)-Total	mg/L		1.16	1.16	1.29	1.29	1.310000
Silver (Ag)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Total	mg/L		0.767	0.736	0.752	0.773	0.771000
Strontium (Sr)-Total	mg/L		0.0253	0.0248	0.0263	0.0263	0.03
Sulfur (S)-Total	mg/L		<0.50	0.5	0.56	<0.50	<0.50
Tellurium (Te)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Total	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Thorium (Th)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Total	mg/L		<0.00030	0.00077	<0.00030	<0.00030	<0.00030
Tungsten (W)-Total	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Total	mg/L		0.000013	0.000012	0.000013	0.000011	0.00001
Vanadium (V)-Total	mg/L		<0.00050	0.00057	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Total	mg/L		<0.0030	<0.0030	<0.0030	<0.0030	<0.0030
Zirconium (Zr)-Total	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Dissolved Metals (for modelling purposes)							
Aluminum (Al)-Dissolved	mg/L		0.0022	0.0013	0.0024	0.0016	0.0013
Antimony (Sb)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Arsenic (As)-Dissolved	mg/L		0.00053	0.00054	0.00054	0.00053	0.00053
Barium (Ba)-Dissolved	mg/L		0.00661	0.00657	0.00709	0.00701	0.007
Beryllium (Be)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Bismuth (Bi)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Boron (B)-Dissolved	mg/L		<0.010	<0.010	<0.010	<0.010	<0.010
Cadmium (Cd)-Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Calcium (Ca)-Dissolved	mg/L		9.92	9.92	10.8	10.8	11.0
Cesium (Cs)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Chromium (Cr)-Dissolved	mg/L		0.00011	<0.00010	0.00017	0.00012	0.00017
Cobalt (Co)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Copper (Cu)-Dissolved	mg/L		0.00058	0.00062	0.00061	0.00064	0.0007
Iron (Fe)-Dissolved	mg/L		0.012	<0.010	<0.010	<0.010	<0.010
Lead (Pb)-Dissolved	mg/L		<0.000050	<0.000050	<0.000050	<0.000050	<0.000050
Lithium (Li)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	0.001	0.0010
Magnesium (Mg)-Dissolved	mg/L		1.45	1.49	1.59	1.55	1.6
Manganese (Mn)-Dissolved	mg/L		0.00047	0.0002	0.00035	0.00033	0.000
Mercury (Hg) - Dissolved	mg/L		<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050
Molybdenum (Mo)-Dissolved	mg/L		0.000085	0.000101	0.000121	0.000112	0.000115
Nickel (Ni)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Phosphorus (P)-Dissolved	mg/L		<0.050	<0.050	<0.050	<0.050	<0.050
Potassium (K)-Dissolved	mg/L		0.666	0.65	0.696	0.711	0.70
Rubidium (Rb)-Dissolved	mg/L		0.00169	0.00169	0.00173	0.00173	0.00169
Selenium (Se)-Dissolved	mg/L		0.000097	0.000087	0.000052	0.000073	0.000067
Silicon (Si)-Dissolved	mg/L		1.02	1	1.27	1.27	1.33
Silver (Ag)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	<0.000010	<0.000010
Sodium (Na)-Dissolved	mg/L		0.676	0.675	0.739	0.795	0.77
Strontium (Sr)-Dissolved	mg/L		0.0233	0.0236	0.0257	0.0252	0.03
Sulfur (S)-Dissolved	mg/L		0.79	0.71	<0.50	<0.50	<0.50
Tellurium (Te)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Thallium (Tl)-Dissolved	mg/L		<0.000010	<0.000010	<0.000010	0.00001	<0.000010
Thorium (Th)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Tin (Sn)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Titanium (Ti)-Dissolved	mg/L		<0.00030	<0.00030	<0.00030	<0.00030	<0.00030
Tungsten (W)-Dissolved	mg/L		<0.00010	<0.00010	<0.00010	<0.00010	<0.00010
Uranium (U)-Dissolved	mg/L		0.000014	0.000015	0.000014	0.000013	0.000011
Vanadium (V)-Dissolved	mg/L		<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Zinc (Zn)-Dissolved	mg/L		<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Zirconium (Zr)-Dissolved	mg/L		<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
Speciated Metals							
Chromium, Hexavalent	ug/L		<0.50	<0.50	<0.50	<0.50	<0.50
Methylmercury (as MeHg)-Total	ug/L					<0.000020	
Radiological Parameters (Water)							
Ra-226	ug/L					<0.010	



Legend

SW-1 Sample location and sample ID

SW-6 Standard sample set accompanied by methyl mercury (MeHg) and Radium-226 (Ra-226)

Basemap by NRCAN. Map identification 052N08

Figure 5.1

Surface water sampling location map.

Project No.
3134

Location
Springpole, ON

Document Reference
FFC-NL-3134-007

Date
February 2021

FFC

6.0 GROUND PENETRATING RADAR (GPR) IMAGES OF LAKE SEDIMENTS

Ground Penetrating Radar (GPR) surveys were conducted using a GPR unit that was pulled along selected survey lines in five areas of the Springpole Project site. The original intention was to conduct the GPR surveys on the winter ice using a snowmobile or ARGO unit to tow the GPR unit on a sled. However, the ice was multi-layered and only two areas (**Figure 6.1**), one of the cofferdam areas and the proposed stockpile area, could be surveyed before public health issues forced the cancellation of the winter field program. The GPR surveys were subsequently completed in the summer of 2020 by towing the GPR unit behind a boat (**Figure 6.2, Figure 6.3**, and **Figure 6.4**). The boat was difficult to maneuverer in the wind and the survey lines are irregular (**Figures 6.2, 6.3**, and **6.4**).

The five GPR survey areas are, 1) the area west of the first cofferdam which was identified as a potential location for the mine water discharge – the outflow area, 2) Jamie lake which is located in the proposed mine rock and tailings storage area, 3) the proposed stockpile location, 4) Cofferdam East, and 5) Cofferdam West.

Since GPR signals travel much slower through water than through the underlying sediments and bedrock, corrections have to be made to the recovered GPR image to show the correct water depth and/or the correct thickness of the underling sediment and bedrock. All of the GPR images are provided in **Appendix E** with a preliminary interpretation of the distribution of suspended sediments, soft sediments, areas of silty-clay, and areas with boulders embedded in the underlying granular material. A final interpretation of the GPR images will require the recovery of shallow piston cores, using hand-pushed sediment piston tubes while ice acceptable ice cover exists, in selected locations to calibrate the GPR images.

Figure 6.5 shows one GPR profile through Jamie Lake (Profile Jamie-02 [page 1]) where the underlying boulders are very obvious but what appears to be a layer of suspended sediments is poorly defined. **Figure 6.6** shows a profile in the proposed mine water discharge area (Profile Outflow-07 [page 1]) where the soft sediments are obvious by the sub-horizontal layering and where the till or bedrock areas, have by contrast, a very irregular surface.

Figure 6.1 Locations of the GPR survey conducted on the ice (lake) surface along the proposed Cofferdam and Stockpile areas in March 2020.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	**Date**
Springpole, ON	February 2021

FFC

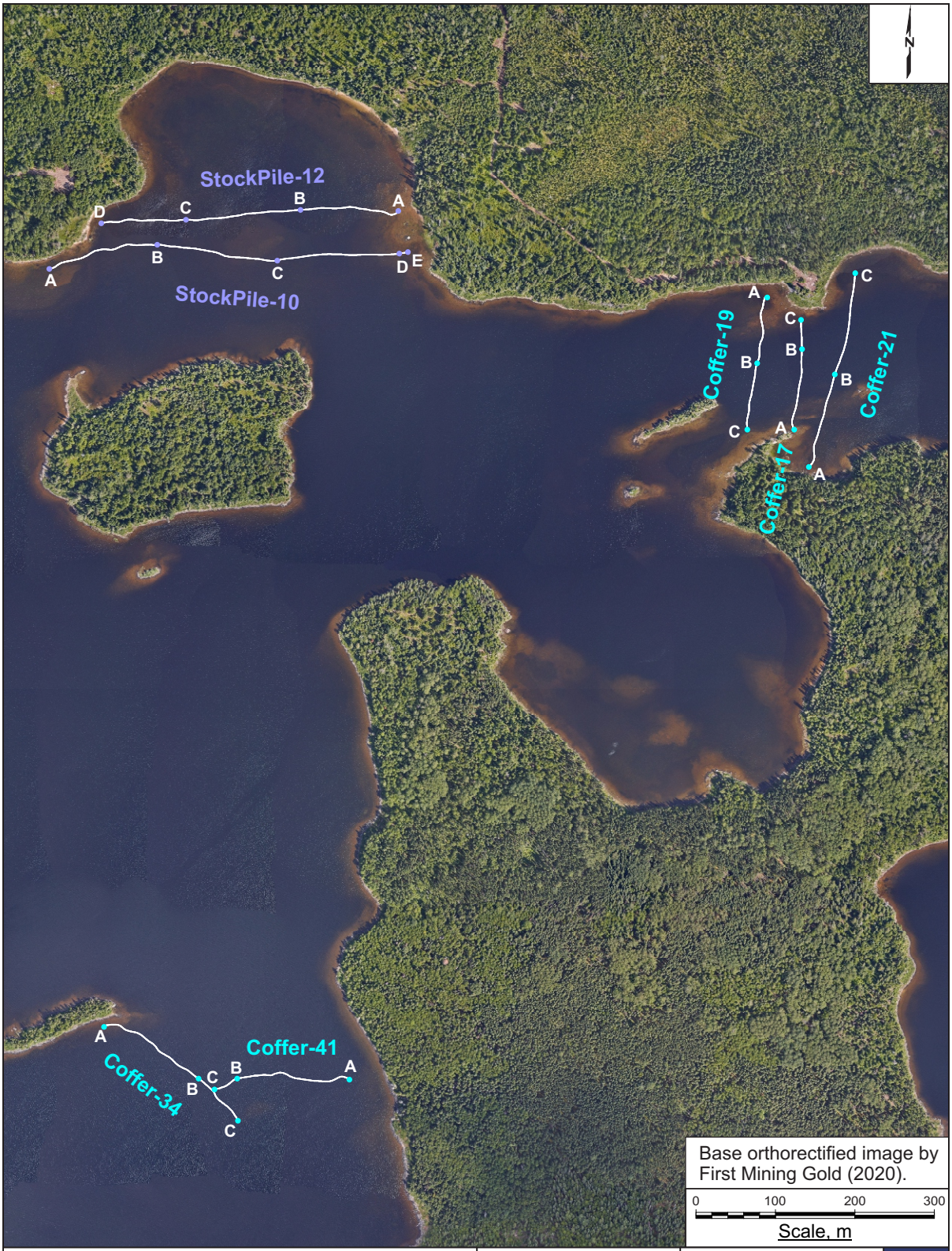


Figure 6.2 Location of the GPR survey conducted on the water surface along the proposed Cofferdam and Stockpile areas in August 2020.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	**Date**
Springpole, ON	February 2021

FFC

Figure 6.3 Location of the GPR survey conducted on the water (lake) surface along the proposed Outflow area area in August 2020.

Project No.	Document Reference
3131	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

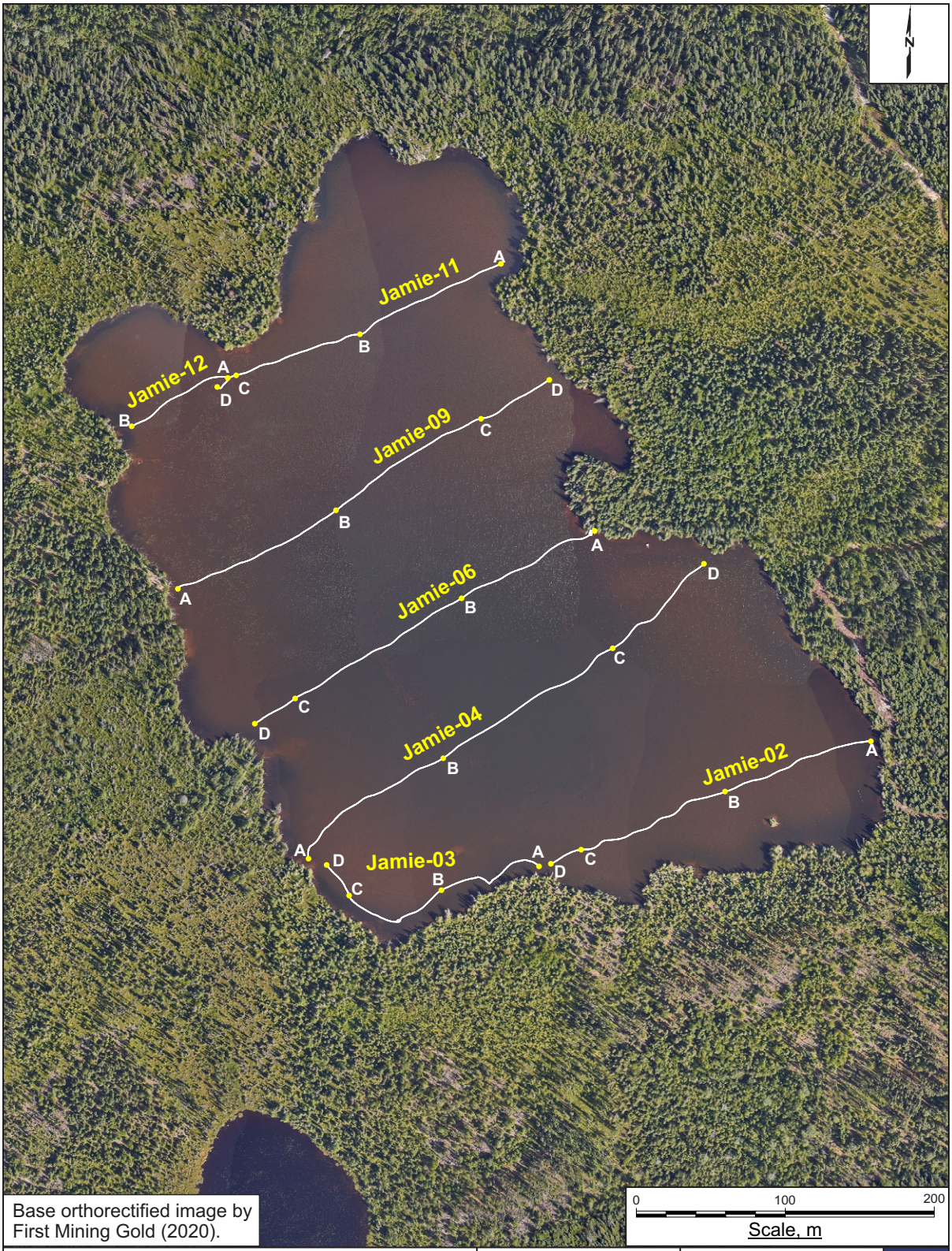


Figure 6.4 Location of the GPR survey conducted on the water (lake) surface at Jamie Lake in August 2020.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

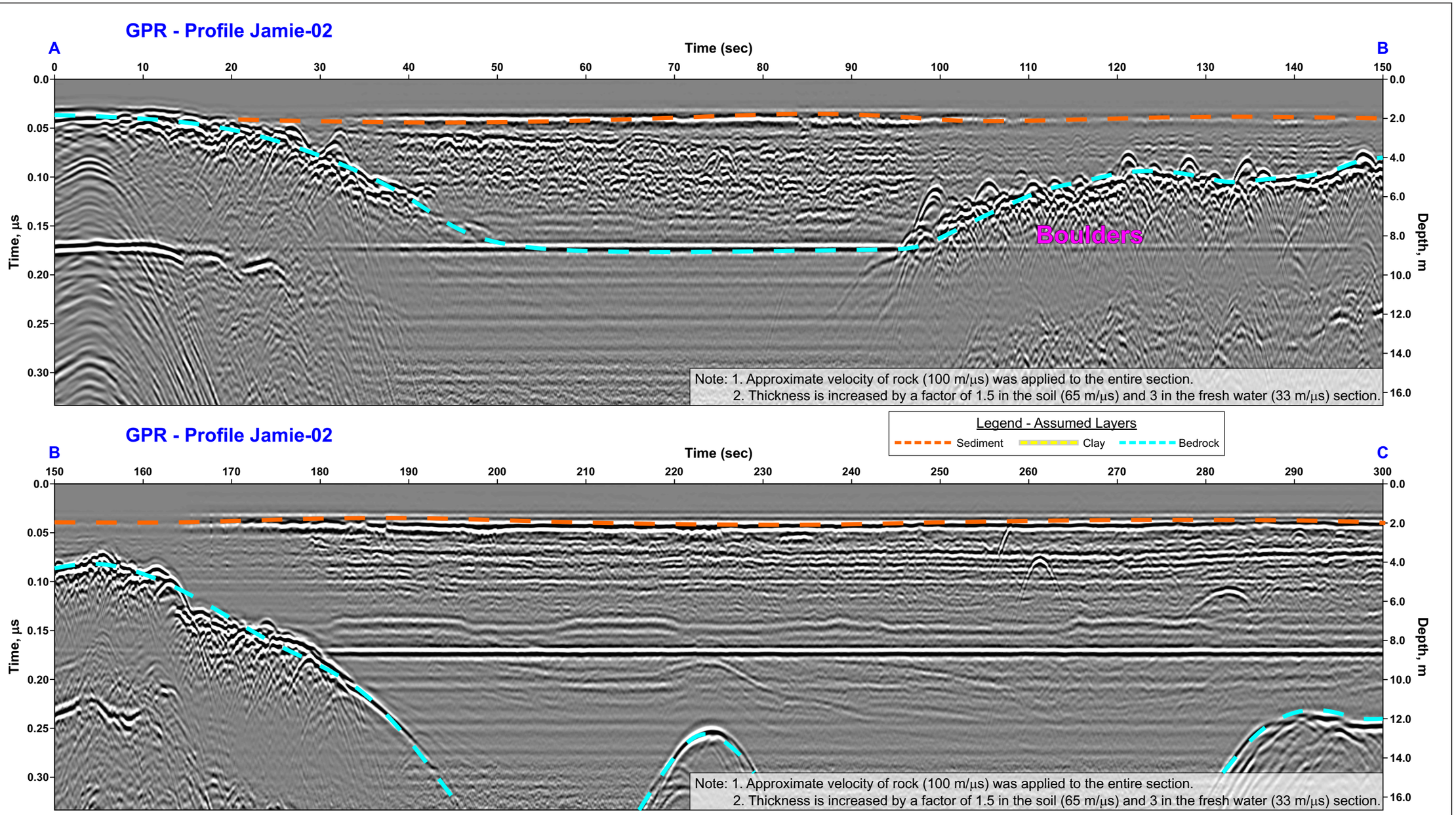


Figure 6.5 Ground penetrating radar survey on water (lake) surface using 170 MHz antenna for Profile Jamie-02 at the Springpole site, ON (Page 1 of 2).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

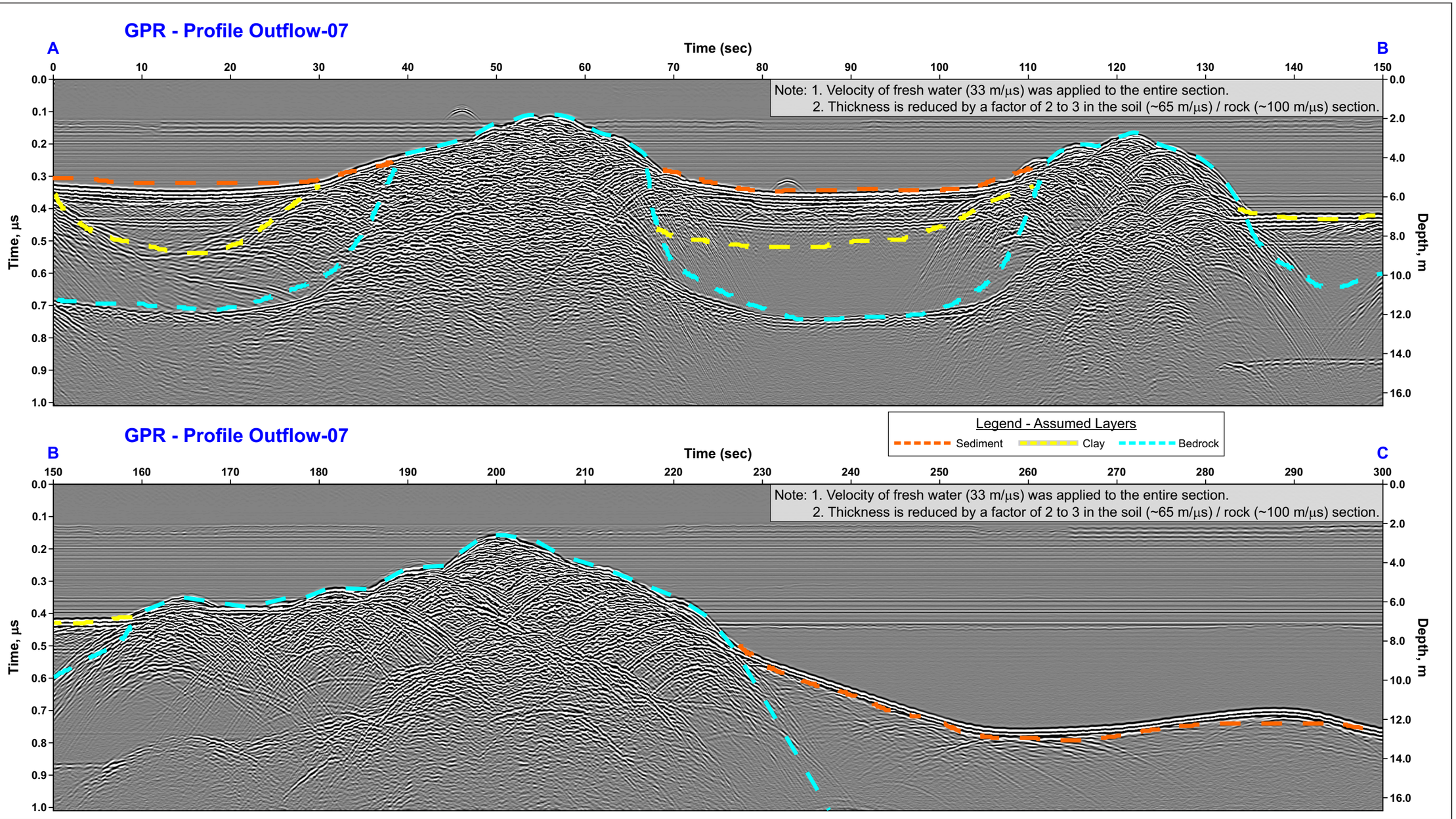


Figure 6.6 Ground penetrating radar survey on water (lake) surface using 170 MHz antenna for Profile Outflow-07 at the Springpole site, ON (Page 1 of 3).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

7.0 REFERENCES

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APPENDIX A

Field Data Collection

Project: 3134 - First Mining Gold **Station ID:** Cromarty Outlet into Springpole

Location: Springpole, ON **Date:** June 22, 2020

Distance (m)	Station Depth (m)	Polygon Width (m)	Polygon Area (m^2)	Velocity at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Flowrate (m^3/s)
0	0.00	--	--	--	--	--	--	--
2	0.15	2	0.15	--	2	--	1.00	0.046
3	0.35	1	0.25	--	3.7	--	2.85	0.217
4	0.45	1	0.40	--	3.5	--	3.60	0.439
5	0.62	1	0.54	--	3.3	--	3.40	0.554
6	0.68	1	0.65	--	3.9	--	3.60	0.713
7	0.66	1	0.67	--	3.9	--	3.90	0.796
8	0.78	1	0.72	--	3.7	--	3.80	0.834
9	0.90	1	0.84	--	3.1	--	3.40	0.871
10	0.99	1	0.95	--	3.2	--	3.15	0.907
11	1.05	1	1.02	3.4	3.2	2.8	3.15	0.979
12	1.04	1	1.05	3.2	3.2	2.8	3.10	0.987
13	1.03	1	1.04	3.1	2.9	2.7	2.98	0.941
14	1.12	1	1.08	3	2.8	2.6	2.85	0.934
15	1.18	1	1.15	2.8	2.7	2.8	2.78	0.976
16	1.21	1	1.20	3.2	2.9	2.9	2.88	1.050
18	1.28	2	2.49	--	1.8	--	2.70	2.049
20	1.25	2	2.53	--	2.5	--	2.15	1.658
22	1.30	2	2.55	--	2.4	0.9	1.93	1.503
24	1.30	2	2.60	--	2.2	--	1.83	1.453
25	0.95	1	1.13	2.6	2	1.3	2.03	0.694
26	0.75	1	0.85	2.4	2	1.5	1.97	0.510
27	0.54	1	0.65	--	1.3	--	1.80	0.354
28	0.50	1	0.52	--	0.9	--	1.10	0.174
29	0.46	1	0.48	--	0.9	--	0.90	0.132
30	0.31	1	0.39	--	0.3	--	0.60	0.070

Overall	Average Depth (m)	Total Width (m)	Total Area (m^2)	Avg. Vel. at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Total Flowrate (m^3/s)
Result	0.80	30	25.86	2.96	2.57	2.26	2.54	19.84

Notes: - 1 ft/s = 0.3048 m/s

- Distance measured from the south-east river bank

-- No data measurements

Project: 3134 - First Mining Gold **Station ID:** Cromarty Outlet into Springpole

Location: Springpole, ON **Date:** July 20, 2020

Distance (m)	Station Depth (m)	Polygon Width (m)	Polygon Area (m^2)	Velocity at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Flowrate (m^3/s)
0	0.00	--	--	--	--	--	--	--
1	0.31	1	0.16	--	2.4	--	1.20	0.057
2	0.40	1	0.36	--	2.8	--	2.60	0.281
3	0.52	1	0.46	--	2.7	--	2.75	0.386
4	0.63	1	0.58	3.2	2.9	2.7	2.88	0.504
5	0.68	1	0.66	3.2	3.0	2.8	2.97	0.592
6	0.72	1	0.70	3.0	3.1	2.9	3.00	0.640
7	0.83	1	0.78	2.8	2.6	2.5	2.82	0.665
8	0.92	1	0.88	2.7	2.5	2.5	2.60	0.693
9	0.96	1	0.94	2.9	2.8	2.5	2.65	0.759
10	0.98	1	0.97	2.6	2.7	2.1	2.60	0.769
11	1.00	1	0.99	2.4	2.5	2.1	2.40	0.724
12	0.99	1	1.00	2.7	2.6	2.4	2.45	0.743
13	1.14	1	1.07	2.6	2.4	2.0	2.45	0.795
14	1.10	1	1.12	2.4	2.4	2.1	2.32	0.791
15	1.18	1	1.14	2.2	2.0	1.8	2.15	0.747
16	1.17	1	1.18	1.8	2.2	1.7	1.95	0.698
17	1.14	1	1.16	2.3	2.3	1.8	2.02	0.710
18	1.18	1	1.16	2.2	1.7	1.4	1.95	0.689
19	1.21	1	1.20	2.1	2.0	1.4	1.80	0.656
20	1.23	1	1.22	2.1	1.9	1.4	1.82	0.676
21	1.21	1	1.22	1.7	1.7	1.1	1.65	0.614
22	1.20	1	1.21	1.8	1.9	1.8	1.67	0.612
23	1.16	1	1.18	2.1	1.7	1.2	1.75	0.629
24	0.68	1	0.92	--	1.6	--	1.65	0.463
25	0.44	1	0.56	--	1.0	--	1.30	0.222
26	0.46	1	0.45	--	0.8	--	0.90	0.123
27	0.37	1	0.42	--	0.5	--	0.65	0.082
28	0.00	1	0.19	--	--	--	0.50	0.028
29	0.00	1	0.00	--	--	--	0.00	0.000
30	0.00	1	0.00	--	--	--	0.00	0.000

Overall	Average Depth (m)	Total Width (m)	Total Area (m^2)	Avg. Vel. at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Total Flowrate (m^3/s)
Result	0.77	30	23.81	2.44	2.17	2.01	1.91	15.35

Notes: - 1 ft/s = 0.3048 m/s

- Distance measured from the south-east river bank

-- No data measurements

Project: 3134 - First Mining Gold **Station ID:** Cromarty Outlet into Springpole

Location: Springpole, ON **Date:** September 14, 2020

Distance (m)	Station Depth (m)	Polygon Width (m)	Polygon Area (m^2)	Velocity at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Flowrate (m^3/s)
0	0.00	--	--	--	--	--	--	--
1	0.00	1	0.00	--	0	--	0.00	0.000
2	0.15	1	0.08	--	1.7	--	0.85	0.019
3	0.20	1	0.18	--	2.1	--	1.90	0.101
4	0.34	1	0.27	--	2.0	--	2.05	0.169
5	0.48	1	0.41	2.5	2.1	2.1	2.18	0.272
6	0.52	1	0.50	2.7	2.8	2.6	2.47	0.376
7	0.54	1	0.53	2.5	2.1	2.2	2.48	0.401
8	0.66	1	0.60	2.5	2.4	2.2	2.32	0.424
9	0.72	1	0.69	2.2	2.2	1.7	2.20	0.463
10	0.75	1	0.74	2.0	2.1	1.7	1.98	0.444
11	0.75	1	0.75	2.0	1.9	1.9	1.93	0.442
12	0.85	1	0.80	2.0	1.9	1.8	1.92	0.467
13	0.86	1	0.86	1.9	1.8	1.7	1.85	0.482
14	0.84	1	0.85	1.7	1.8	1.5	1.73	0.449
15	0.89	1	0.87	1.8	1.7	1.4	1.65	0.435
16	0.91	1	0.90	1.7	1.5	1.4	1.58	0.434
17	0.95	1	0.93	1.7	1.5	0.7	1.42	0.402
18	0.85	1	0.90	1.6	1.4	1.2	1.35	0.370
19	0.98	1	0.92	1.6	1.5	0.9	1.37	0.381
20	0.95	1	0.97	1.5	1.0	0.7	1.20	0.353
21	0.85	1	0.90	1.6	1.3	0.8	1.15	0.315
22	0.80	1	0.83	1.4	0.6	0.9	1.10	0.277
23	0.68	1	0.74	1.4	1.3	0.9	1.08	0.244
24	0.40	1	0.54	--	0.9	--	1.13	0.185
25	0.25	1	0.33	--	0.1	--	0.50	0.050
26	0.20	1	0.23	--	0.0	--	0.05	0.003
27	0.00	1	0.10	--	0.0	--	0.00	0.000
28	0.00	1	0.00	--	--	--	0.00	0.000
29	0.00	1	0.00	--	--	--	0.00	0.000
30	0.00	1	0.00	--	--	--	0.00	0.000

Overall	Average Depth (m)	Total Width (m)	Total Area (m^2)	Avg. Vel. at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Total Flowrate (m^3/s)
Result	0.53	30	16.37	1.91	1.47	1.49	1.31	7.96

Notes: - 1 ft/s = 0.3048 m/s

- Distance measured from the south-east river bank

-- No data measurements

Project: 3134 - First Mining Gold **Station ID:** Springpole Outlet into Gull

Location: Springpole, ON **Date:** June 22, 2020

Distance (m)	Station Depth (m)	Polygon Width (m)	Polygon Area (m^2)	Velocity at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Flowrate (m^3/s)
0	0	--	--	--	--	--	--	--
1	0.34	1	0.17	--	0.9	--	0.45	0.023
2	0.18	1	0.26	--	1.8	--	1.35	0.107
4	0.55	2	0.73	--	1.4	--	1.60	0.356
6	3.5	2	4.05	1.4	1.6	--	1.47	1.811
8	3.6	2	7.10	1.4	1.4	--	1.45	3.138
10	3.5	2	7.10	1.3	1.3	--	1.35	2.922
12	3.2	2	6.70	0.9	1.3	--	1.20	2.451
14	2.8	2	6.00	1.3	1.3	--	1.20	2.195
16	2.2	2	5.00	1.2	1.4	--	1.30	1.981
18	1.1	2	3.30	1.3	1.0	--	1.23	1.232
20	0	2	1.10	0	0.0	--	0.58	0.193

Overall	Average Depth (m)	Total Width (m)	Total Area (m^2)	Avg. Vel. at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Total Flowrate (m^3/s)
Result	1.75	20	41.51	1.10	1.22	N/A	1.20	16.41

Notes: - 1 ft/s = 0.3048 m/s
- Distance measured from the eastern river bank
- Rock anchor 1.7 m from eastern edge.

Project: 3134 - First Mining Gold **Station ID:** Springpole Outlet into Gull

Location: Springpole, ON **Date:** July 20, 2020

Distance (m)	Station Depth (m)	Polygon Width (m)	Polygon Area (m^2)	Velocity at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Flowrate (m^3/s)
0	0	--	--	--	--	--	--	--
1	0.26	1	0.13	--	1.6	--	0.80	0.032
2	0.18	1	0.22	--	2.0	--	1.80	0.121
3	0.30	1	0.24	--	1.9	--	1.95	0.143
4	0.42	1	0.36	--	2.0	--	1.95	0.214
6	3.66	2	4.08	1.2	1.2	--	1.47	1.824
8	3.68	2	7.34	0.9	1.3	--	1.15	2.573
10	3.62	2	7.3	1.3	1.0	--	1.13	2.503
12	3.56	2	7.18	1.3	1.3	--	1.23	2.681
14	3.27	2	6.83	1.5	0.9	--	1.25	2.602
16	2.40	2	5.67	1.5	1.5	--	1.35	2.333
18	1.22	2	3.62	1.9	1.9	--	1.70	1.876
20	--	2	1.22	0.0	0.0	--	0.95	0.353

Overall	Average Depth (m)	Total Width (m)	Total Area (m^2)	Avg. Vel. at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Total Flowrate (m^3/s)
Result	1.88	20	44.19	1.20	1.38	N/A	1.39	17.25

Notes: - 1 ft/s = 0.3048 m/s
- Distance measured from the eastern river bank
- Rock anchor 1.7 m from eastern edge.

Project: 3134 - First Mining Gold **Station ID:** Springpole Outlet into Gull

Location: Springpole, ON **Date:** September 14, 2020

Distance (m)	Station Depth (m)	Polygon Width (m)	Polygon Area (m^2)	Velocity at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Flowrate (m^3/s)
0	0	--	--	--	--	--	--	--
1	0.00	1	0.00	--	--	--	--	--
2	0.00	1	0.00	--	--	--	--	--
3	0.00	1	0.00	--	--	--	--	--
3.4	0.00	0.4	0.00	--	0.8	--	0.80	--
6	3.05	2.6	3.97	0.9	0.8	--	0.83	1.007
8	3.15	2	6.20	0.9	1.0	--	0.90	1.701
10	3.10	2	6.25	0.9	0.9	--	0.93	1.762
12	3.00	2	6.10	1.0	0.9	--	0.93	1.720
14	2.60	2	5.60	1.0	1.0	--	0.98	1.664
16	1.65	2	4.25	1.1	0.9	0.1	0.82	1.062
18	0.85	2	2.50	1.1	1.2	1.0	1.08	0.819
19	0	1	0.43	--	0.4	--	0.68	0.087
20	0	1	0.00	--	--	--	--	--

Overall	Average Depth (m)	Total Width (m)	Total Area (m^2)	Avg. Vel. at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Total Flowrate (m^3/s)
Result	1.34	19	35.29	0.99	0.88	N/A	0.88	9.82

Notes: - 1 ft/s = 0.3048 m/s
- Distance measured from the eastern river bank
- Rock anchor 1.7 m from eastern edge.

Project: 3134 - First Mining Gold **Station ID:** Seagrave Outlet to Springpole

Location: Springpole, ON **Date:** September 14, 2020

Distance (m)	Station Depth (m)	Polygon Width (m)	Polygon Area (m^2)	Velocity at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Flowrate (m^3/s)
Section 1 (North-west)								
0	0.15	--	--	--	--	--	--	--
0.1	0.15	0.1	0.02	--	0.7	--	0.70	0.003
0.55	0.00	0.45	0.03	--	--	--	--	--
0.6	0.45	0.05	0.01	--	1.9	--	1.90	0.007
0.9	0.62	0.3	0.16	--	2.2	--	2.05	0.100
1.2	0.68	0.3	0.20	--	2.2	--	2.20	0.131
1.5	0.66	0.3	0.20	--	2.5	--	2.35	0.144
1.8	0.78	0.3	0.22	--	2.9	--	2.70	0.178
2.1	0.90	0.3	0.25	--	2.6	--	2.75	0.211
2.4	0.99	0.3	0.28	--	1.7	--	2.15	0.186
2.7	1.05	0.3	0.31	--	0.6	--	1.15	0.107
Section 2 (North-west)								
0	1.03	--	--	--	0.3	--	--	--
0.3	1.12	0.3	0.32	--	0.7	--	0.50	0.049
0.6	1.18	0.3	0.35	--	0.6	--	0.65	0.068
0.9	1.21	0.3	0.36	--	0.3	--	0.45	0.049
1.2	1.28	0.3	0.37	--	0.4	--	0.35	0.040
1.5	1.25	0.3	0.38	--	0.4	--	0.40	0.046
1.9	1.30	0.4	0.51	--	0.3	--	0.35	0.054
2.05	1.30	0.15	0.20	--	0.4	--	0.35	0.021

Overall	Average Depth (m)	Total Width (m)	Total Area (m^2)	Avg. Vel. at Percent Depth 20% (ft/s)	60% (ft/s)	80% (ft/s)	Average Velocity (ft/s)	Total Flowrate (m^3/s)
Result	0.85	4.75	4.16	N/A	1.22	N/A	1.31	1.39

Notes: - 1 ft/s = 0.3048 m/s

- Distance measured (0 to 2.7 m) runs from south-east to north-west (away from river centre)
- Distance measured (0 to 2.05 m) runs from south-east to north-west (towards river centre)

Project: 3134

Location: Springpole, ON

Measuring Location: F1-A **Date Installed:** July 17, 2020

Measuring Device: V-Notch Weir

Angle (degrees): 30

Height (inches): 12

Date (dd-mmm-yy)	Time	Upstream Head Depth (m)	Weir Head Depth (m)		Napped (Y/N)	Flow		
			Left Side	*Right Side*		(m^3/s)	(L/min)	(USgpm)
17-Jul-20	14:10	N/A	0.136	0.137	No	0.0026	154.1	40.7
21-Jul-20	17:23	N/A	0.109	0.108	No	0.0014	86.8	22.9
22-Sep-20	8:15	Destroyed, Beaver	--	--	--	--	--	--

V-Notch Weir Depth Rating Table

Depth (m)	Flow (m^3/s)	Flow (L/min)	Flow (USgpm)
0.050	2.1E-04	12.51	3.305
0.100	1.2E-03	70.77	18.696
0.150	3.3E-03	195.02	51.520
0.200	6.7E-03	400.35	105.760
0.250	1.2E-02	699.38	184.755
0.305	1.9E-02	1147.88	303.239

Discharge Coefficients

C_{30} = 0.3733

C_{60} = 0.7967

C_{90} = 1.3803

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole, ON

Measuring Location: F1-A **Date Installed:** July 17, 2020

Height Measurement

- Upstream

Project: 3134

Location: Springpole, ON

Measuring Location: F3 - HS4 **Date Installed:** July 19, 2020

Measuring Device: Channel **Inlet Width:** 0.076 m

Size (inches): 3 **Outlet Width:** 0.076 m

Date	Time	Upstream					Downstream					Calculated Flows				
		Depth	Velocity (ft/s)			Avg	Depth	Velocity (ft/s)			Avg	Up-stream	Down-stream	Average		
(dd-mmm-yy)		(m)	*Left*	*Centre*	*Right*	(m/s)	(m)	*Left*	*Centre*	*Right*	(m/s)	(m^3/s)	(m^3/s)	(m^3/s)	(L/min)	(USgpm)
19-Jul-20	15:36	0.044	--	1.1	--	0.335	0.021	--	0.9	--	0.274	0.0011	0.0004	0.0008	46.9	12.4
23-Sep-20	11:40	0.052	--	1.4	--	0.427	0.030	--	1.4	--	0.427	0.0017	0.0010	0.0013	80.0	21.1
23-Sep-20	11:40	0.040	--	1.1	--	0.335	Side channel from pond					0.0019	--	0.0019	112.7	29.8
30-Oct-20	13:18	0.058	--	1.3	--	0.396	0.029	--	1.5	--	0.457	0.0018	0.0010	0.0014	82.8	21.9

Rectangular Channel

Size	Inlet		Outlet	
(in)	(in)	(m)	(in)	(m)
3	3	0.076	3	0.076
6	6	0.152	6	0.152
9	9	0.229	9	0.229
12	12	0.305	12	0.305

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole, ON

Measuring Location: F3 - HS4

Date Installed: July 19, 2020

Velocity Measurement
- Upstream

Velocity Measurement
- Downstream

Height Measurement
- Upstream

Height Measurement
- Downstream

Project: 3134

Location: Springpole, ON

Measuring Location: F4 **Date Installed:** June 29, 2020

Measuring Device: Modified Parshall Flume **Inlet Width:** 0.197 m

Size (inches): 3 **Outlet Width:** 0.076 m

Date	Time	Upstream Depth	Upstream Velocity (ft/s)			Upstream Avg	Downstream Depth	Downstream Velocity (ft/s)			Downstream Avg	Sub-merged	Calculated Flows Up-stream	Down-stream	Average		
(dd-mmm-yy)		(m)	*Left*	*Centre*	*Right*	(m/s)	(m)	*Left*	*Centre*	*Right*	(m/s)	(Y/N)	(m^3/s)	(m^3/s)	(m^3/s)	(L/min)	(USgpm)
29-Jun-20	9:32	0.088	--	1.6	--	0.488	0.062	--	5.9	--	1.798	N	0.0084	0.0085	0.0085	508.3	134.3
18-Jul-20	9:09	0.051	1.2	--	1.2	0.366	0.026	--	4.3	--	1.311	N	0.0037	0.0026	0.0031	188.1	49.7
22-Jul-20	8:53	0.037	0.8	0.8	0.8	0.244	0.016	--	2.8	--	0.853	N	0.0018	0.0010	0.0014	84.5	22.3
18-Sep-20	16:44	0.012	N/A	N/A	N/A	--	0.006	--	1.1	--	0.335	N	--	0.0002	0.0002	9.2	2.4
28-Oct-20	8:37	0.028	0.5	0.5	0.5	0.152	0.011	--	2.4	--	0.732	N	0.0008	0.0006	0.0007	43.6	11.5

Modified Parshall Flume

Size	Inlet		Flat Length		Slope Length		Outlet	
(in)	(in)	(m)	(in)	(m)	(in)	(m)	(in)	(m)
3	7.75	0.197	12	0.305	6	0.152	3	0.076
6	15.5	0.394	24	0.610	12	0.305	6	0.152
9	23.25	0.591	36	0.914	18	0.457	9	0.229
12	31	0.787	48	1.219	24	0.610	12	0.305

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole, ON

Measuring Location: F4

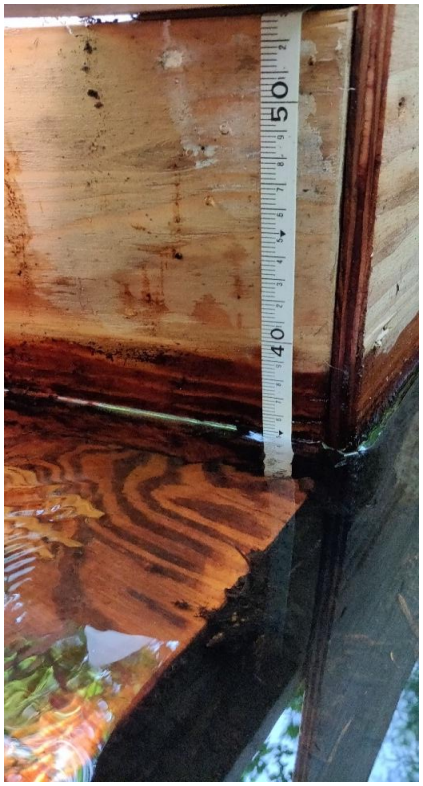
Date Installed: June 29, 2020

Measuring Device: Modified Parshall Flume

Velocity Measurement
- Upstream

Velocity Measurement
- Downstream

Height Measurement
- Upstream



Height Measurement
- Downstream

Project: 3134

Location: Springpole, ON

Measuring Location: F5 - HS5 **Date Installed:** July 8, 2020

Measuring Device: Modified Parshall Flume **Inlet Width:** 0.394 m

Size (inches): 6 **Outlet Width:** 0.152 m

Date	Time	Upstream Depth	Upstream Velocity (ft/s)			Upstream Avg	Downstream Depth	Downstream Velocity (ft/s)			Downstream Avg	Sub-merged	Calculated Flows Up-stream	Down-stream	Average		
(dd-mmm-yy)		(m)	*Left*	*Centre*	*Right*	(m/s)	(m)	*Left*	*Centre*	*Right*	(m/s)	(Y/N)	(m^3/s)	(m^3/s)	(m^3/s)	(L/min)	(USgpm)
8-Jul-20	12:50	0.125	--	1.6	--	0.488	0.079	--	6.4	--	1.951	N	0.0240	0.0235	0.0237	1424.6	376.3
21-Jul-20	15:26	0.032	--	--	--	--	0.024	--	--	--	--	N	--	--	--	--	--
22-Sep-20	8:33	0.076	0.9	1.4	1.2	0.356	0.040	5.6	5.4	5.4	1.666	N	0.0106	0.0102	0.0104	623.9	164.8
28-Oct-20	14:09	0.043	1.2	1.1	1.1	0.345	0.034	4.8	4.6	4.3	1.392	N	0.0058	0.0072	0.0065	391.8	103.5

Modified Parshall Flume

Size	Inlet		Flat Length		Slope Length		Outlet	
(in)	(in)	(m)	(in)	(m)	(in)	(m)	(in)	(m)
3	7.75	0.197	12	0.305	6	0.152	3	0.076
6	15.5	0.394	24	0.610	12	0.305	6	0.152
9	23.25	0.591	36	0.914	18	0.457	9	0.229
12	31	0.787	48	1.219	24	0.610	12	0.305

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole, ON

Measuring Location: F5 - HS5

Date Installed: July 8, 2020

Measuring Device: Modified Parshall Flume

Velocity Measurement
- Upstream

Velocity Measurement
- Downstream

Project: 3134

Location: Springpole, ON

Measuring Location: F6 **Date Installed:** June 29, 2020

Measuring Device: Modified Parshall Flume **Inlet Width:** 0.197 m

Size (inches): 3 **Outlet Width:** 0.076 m

Date	Time	Upstream Depth	Upstream Velocity (ft/s)			Upstream Avg	Downstream Depth	Downstream Velocity (ft/s)			Downstream Avg	Sub-merged	Calculated Flows Up-stream	Down-stream	Average		
(dd-mmm-yy)		(m)	*Left*	*Centre*	*Right*	(m/s)	(m)	*Left*	*Centre*	*Right*	(m/s)	(Y/N)	(m^3/s)	(m^3/s)	(m^3/s)	(L/min)	(USgpm)
29-Jun-20	14:30	0.095	--	1.9	--	0.579	0.082	--	5.6	--	1.707	N	0.0108	0.0107	0.0107	644.9	170.4
22-Jul-20	--	Installation Destroyed					--	--	--	--	--	--	--	--	--	--	--

Modified Parshall Flume

Size	Inlet		Flat Length		Slope Length		Outlet	
(in)	(in)	(m)	(in)	(m)	(in)	(m)	(in)	(m)
3	7.75	0.197	12	0.305	6	0.152	3	0.076
6	15.5	0.394	24	0.610	12	0.305	6	0.152
9	23.25	0.591	36	0.914	18	0.457	9	0.229
12	31	0.787	48	1.219	24	0.610	12	0.305

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole, ON

Measuring Location: F9-A - Dole Lake South **Date Installed:** July 17, 2020

Measuring Device: Channel **Inlet Width:** 0.305 m

Size (inches): 12 **Outlet Width:** 0.305 m

Date	Time	Upstream					Downstream					Calculated Flows				
		Depth	Velocity (ft/s)			Avg	Depth	Velocity (ft/s)			Avg	Up-stream	Down-stream	Average		
(dd-mmm-yy)		(m)	*Left*	*Centre*	*Right*	(m/s)	(m)	*Left*	*Centre*	*Right*	(m/s)	(m^3/s)	(m^3/s)	(m^3/s)	(L/min)	(USgpm)
17-Jul-20	10:50	0.052	1.1	1.3	1.2	0.366	0.063	0.9	0.9	0.9	0.274	0.0058	0.0053	0.0055	331.9	87.7
21-Jul-20	16:20	0.041	--	--	--	--	0.053	--	--	--	--	--	--	--	--	--
22-Sep-20	9:32	0.034	1.2	1.4	1.3	0.396	0.046	1.2	1.3	1.4	0.396	0.0041	0.0056	0.0048	289.9	76.6
28-Oct-20	15:03	0.057	2.0	2.0	1.8	0.589	0.061	1.7	1.9	1.9	0.559	0.0102	0.0104	0.0103	618.8	163.5

Rectangular Channel

Size	Inlet		Outlet	
(in)	(in)	(m)	(in)	(m)
3	3	0.076	3	0.076
6	6	0.152	6	0.152
9	9	0.229	9	0.229
12	12	0.305	12	0.305

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole Lake, ON

Measuring Location: F9-A - Dole Lake South

Date Installed: July 17, 2020

Velocity Measurement
- Upstream

Velocity Measurement
- Downstream

Height Measurement
- Upstream

Height Measurement
- Downstream

Project: 3134

Location: Springpole, ON

Measuring Location: F10 - HS6 **Date Installed:** July 13, 2020

Measuring Device: Modified Parshall Flume **Inlet Width:** 0.394 m

Size (inches): 6 **Outlet Width:** 0.152 m

Date	Time	Upstream					Downstream					Sub-merged	Calculated Flows				
		Depth	Velocity (ft/s)			Avg	Depth	Velocity (ft/s)			Avg		Up-stream	Down-stream	Average		
(dd-mmm-yy)		(m)	*Left*	*Centre*	*Right*	(m/s)	(m)	*Left*	*Centre*	*Right*	(m/s)	(Y/N)	(m^3/s)	(m^3/s)	(m^3/s)	(L/min)	(USgpm)
13-Jul-20	15:00	0.064	0.9	0.9	1.0	0.284	0.029	5.4	5.5	5.4	1.656	N	0.0072	0.0073	0.0072	434.6	114.8
22-Jul-20	10:33	0.030	0.7	0.6	0.7	0.203	--	--	2.8	--	0.853	N	0.0024	--	0.0024	144.0	38.0
18-Sep-20	15:56	0	--	0	--	0	0	--	0	--	0	--	0.0000	0.0000	0.0000	0.0	0.0
28-Oct-20	9:30	0.094	0.9	1.2	1.3	0.345	0.040	6.0	5.4	5.8	1.748	N	0.0128	0.0107	0.0117	703.1	185.7

Modified Parshall Flume

Size	Inlet		Flat Length		Slope Length		Outlet	
(in)	(in)	(m)	(in)	(m)	(in)	(m)	(in)	(m)
3	7.75	0.197	12	0.305	6	0.152	3	0.076
6	15.5	0.394	24	0.610	12	0.305	6	0.152
9	23.25	0.591	36	0.914	18	0.457	9	0.229
12	31	0.787	48	1.219	24	0.610	12	0.305

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole Lake, ON

Measuring Location: F10 - HS6

Date Installed: July 13, 2020

Measuring Device: Modified Parshall Flume

Velocity Measurement - Upstream

Velocity Measurement - Downstream

Height Measurement - Upstream

Height Measurement - Downstream

Project: 3134

Location: Springpole, ON

Measuring Location: F11 - HS2 **Date Installed:** June 30, 2020

Measuring Device: Modified Parshall Flume **Inlet Width:** 0.787 m

Size (inches): 12 **Outlet Width:** 0.305 m

Date	Time	Upstream Depth	Upstream Velocity (ft/s)			Upstream Avg	Downstream Depth	Downstream Velocity (ft/s)			Downstream Avg	Sub-merged	Calculated Flows Up-stream	Down-stream	Average		
(dd-mmm-yy)		(m)	*Left*	*Centre*	*Right*	(m/s)	(m)	*Left*	*Centre*	*Right*	(m/s)	(Y/N)	(m^3/s)	(m^3/s)	(m^3/s)	(L/min)	(USgpm)
2-Jul-20	9:10	0.365	--	2.5	--	0.762	0.238	--	8.5	--	2.591	N	0.2190	0.1879	0.2035	12208.3	3225.1
18-Jul-20	11:20	0.139	1.5	1.7	1.4	0.467	0.080	7.2	7.4	7.3	2.225	Y	0.0512	0.0543	0.0527	3162.2	835.4
9-Sep-20	10:15	0.208	1.6	1.7	1.6	0.498	0.118	8.4	8.4	8.2	2.540	N	0.0815	0.0914	0.0864	5186.7	1370.2
18-Sep-20	14:00	0.148	1.4	1.4	1.3	0.417	0.078	7.4	7.2	7.5	2.245	Y	0.0485	0.0534	0.0510	3057.8	807.8

Modified Parshall Flume

Size	Inlet		Flat Length		Slope Length		Outlet	
(in)	(in)	(m)	(in)	(m)	(in)	(m)	(in)	(m)
3	7.75	0.197	12	0.305	6	0.152	3	0.076
6	15.5	0.394	24	0.610	12	0.305	6	0.152
9	23.25	0.591	36	0.914	18	0.457	9	0.229
12	31	0.787	48	1.219	24	0.610	12	0.305

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole Lake, ON

Measuring Location: F11 - HS2

Date Installed: June 30, 2020

Measuring Device: Modified Parshall Flume

Velocity Measurement - Upstream

Velocity Measurement - Downstream

Height Measurement - Upstream

Height Measurement - Downstream

Project: 3134

Location: Springpole, ON

Measuring Location: F12 **Date Installed:** July 22, 2020

Measuring Device: V-Notch Weir

Angle (degrees): 90

Height (inches): 12

Date (dd-mmm-yy)	Time	Upstream Head Depth (m)	Weir Head Depth (m)		Napped (Y/N)	Flow		
			Left Side	*Right Side*		(m^3/s)	(L/min)	(USgpm)
22-Jul-20	12:20	N/A	0	0	No	0	0	0
23-Aug-20	10:17	N/A	0.051	0.049	No	0.0008	46.3	12.2
9-Sep-20	15:13	N/A	0.300	0.300	No	0.0680	4082.5	1078.5
18-Sep-20	13:00	N/A	0.192	0.190	No	0.0220	1320.4	348.8

V-Notch Weir Depth Rating Table

Depth (m)	Flow (m^3/s)	Flow (L/min)	Flow (USgpm)
0.050	7.72E-04	46.30	12.230
0.100	4.36E-03	261.89	69.184
0.150	1.20E-02	721.68	190.648
0.200	2.47E-02	1481.47	391.363
0.250	4.31E-02	2588.02	683.683
0.305	7.08E-02	4247.71	1122.128

Discharge Coefficients

C_{30} = 0.3733

C_{60} = 0.7967

C_{90} = 1.3803

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole Lake, ON

Measuring Location: F12 **Date Installed:** July 22, 2020

Velocity Measurement

- Upstream

Project: 3134

Location: Springpole, ON

Measuring Location: F13 **Date Installed:** July 2, 2020

Measuring Device: Modified Parshall Flume **Inlet Width:** 0.787 m

Size (inches): 12 **Outlet Width:** 0.305 m

Date	Time	Upstream Depth	Upstream Velocity (ft/s)			Upstream Avg	Downstream Depth	Downstream Velocity (ft/s)			Downstream Avg	Sub-merged	Calculated Flows Up-stream	Down-stream	Average		
(dd-mmm-yy)		(m)	*Left*	*Centre*	*Right*	(m/s)	(m)	*Left*	*Centre*	*Right*	(m/s)	(Y/N)	(m^3/s)	(m^3/s)	(m^3/s)	(L/min)	(USgpm)
2-Jul-20	16:50	0.158	--	1.7	--	0.518	0.094	--	9.2	--	2.804	N	0.0645	0.0803	0.0724	4344.2	1147.6
11-Jul-20	10:34	0.087	1.6	1.6	1.6	0.488	0.053	--	7.9	--	2.408	N	0.0334	0.0389	0.0362	2169.2	573.0
9-Sep-20	16:55	0.197	1.9	1.9	1.9	0.579	0.117	9.6	9.7	9.7	2.946	N	0.0898	0.1051	0.0975	5847.2	1544.7
18-Sep-20	14:50	0.100	1.5	1.5	1.4	0.447	0.057	5.8	6.1	8	2.022	N	0.0352	0.0351	0.0352	2109.8	557.3
28-Oct-20	11:00	0.095	1.3	1.4	1.4	0.417	0.053	6.9	5.9	7.8	2.093	N	0.0312	0.0338	0.0325	1949.1	514.9

Modified Parshall Flume

Size	Inlet		Flat Length		Slope Length		Outlet	
(in)	(in)	(m)	(in)	(m)	(in)	(m)	(in)	(m)
3	7.75	0.197	12	0.305	6	0.152	3	0.076
6	15.5	0.394	24	0.610	12	0.305	6	0.152
9	23.25	0.591	36	0.914	18	0.457	9	0.229
12	31	0.787	48	1.219	24	0.610	12	0.305

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole Lake, ON

Measuring Location: F13 **Date Installed:** July 2, 2020

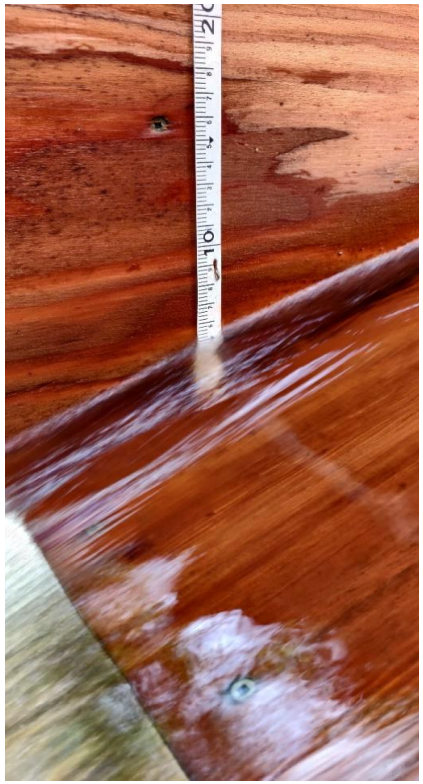
Measuring Device: Modified Parshall Flume

Velocity Measurement - Upstream

Velocity Measurement - Downstream

Height Measurement - Upstream

Height Measurement - Downstream



Project: 3134

Location: Springpole, ON

Measuring Location: F14 **Date Installed:** July 11, 2020

Measuring Device: Modified Parshall Flume **Inlet Width:** 0.394 m

Size (inches): 6 **Outlet Width:** 0.152 m

Date	Time	Upstream					Downstream					Sub-merged	Calculated Flows				
		Depth	Velocity (ft/s)			Avg	Depth	Velocity (ft/s)			Avg		Up-stream	Down-stream	Average		
(dd-mmm-yy)		(m)	*Left*	*Centre*	*Right*	(m/s)	(m)	*Left*	*Centre*	*Right*	(m/s)	(Y/N)	(m^3/s)	(m^3/s)	(m^3/s)	(L/min)	(USgpm)
22-Jul-20	16:48	0.048	3.0	2.9	2.8	0.884	0.018	0.3	0.3	0.4	0.102	N	0.0167	0.0003	0.0085	509.5	134.6
9-Sep-20	14:10	0.268	1.5	1.7	1.1	0.437	0.176	8.5	8.4	8.5	2.581	N	0.0461	0.0692	0.0577	5615.7	1483.5
9-Sep-20	14:10	0.076	3.8	4.0	4.1	1.209	--	--	--	--	--	N/A	0.0359	--	0.0359	6609.1	1745.9
18-Sep-20	11:40	0.183	1.3	1.4	1.4	0.417	0.105	7.2	7.2	7.2	7.400	N	0.0300	0.1184	0.0742	4452.8	1176.3

Modified Parshall Flume

Size	Inlet		Flat Length		Slope Length		Outlet	
(in)	(in)	(m)	(in)	(m)	(in)	(m)	(in)	(m)
3	7.75	0.197	12	0.305	6	0.152	3	0.076
6	15.5	0.394	24	0.610	12	0.305	6	0.152
9	23.25	0.591	36	0.914	18	0.457	9	0.229
12	31	0.787	48	1.219	24	0.610	12	0.305

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

Location: Springpole Lake, ON

Measuring Location: F14 **Date Installed:** July 11, 2020

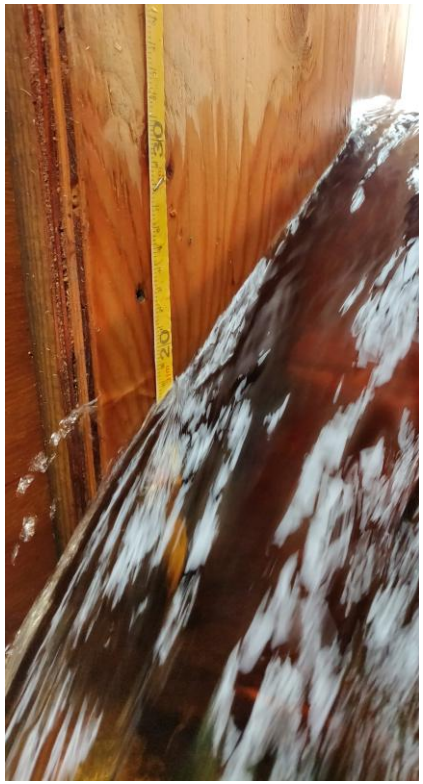
Measuring Device: Modified Parshall Flume

Velocity Measurement - Upstream

Velocity Measurement - Downstream

Height Measurement - Upstream

Height Measurement - Downstream



Project: 3134

Location: Springpole, ON

Measuring Location: F15 **Date Installed:** July 10, 2020

Measuring Device: Modified Parshall Flume **Inlet Width:** 0.787 m

Size (inches): 12 **Outlet Width:** 0.305 m

Date	Time	Upstream Depth	Upstream Velocity (ft/s)			Upstream Avg	Downstream Depth	Downstream Velocity (ft/s)			Downstream Avg	Sub-merged	Calculated Flows Up-stream	Down-stream	Average		
(dd-mmm-yy)		(m)	*Left*	*Centre*	*Right*	(m/s)	(m)	*Left*	*Centre*	*Right*	(m/s)	(Y/N)	(m^3/s)	(m^3/s)	(m^3/s)	(L/min)	(USgpm)
11-Jul-20	11:34	0.122	0.5	0.9	1.6	0.305	0.055	7.6	5.8	7.6	2.134	N	0.0293	0.0358	0.0325	1951.4	515.5
18-Jul-20	14:32	0.072	0.4	0.7	0.9	0.203	0.031	5.3	5.2	4.1	1.483	N	0.0115	0.0140	0.0128	766.1	202.4
9-Sep-20	13:18	0.135	0.6	1.1	1.6	0.335	0.062	7.2	7.4	8.0	2.296	N	0.0356	0.0434	0.0395	2371.0	626.3
18-Sep-20	10:10	0.097	0.7	0.8	1.0	0.254	0.044	7.1	6.9	5.8	2.012	N	0.0194	0.0270	0.0232	1391.4	367.6

Modified Parshall Flume

Size	Inlet		Flat Length		Slope Length		Outlet	
(in)	(in)	(m)	(in)	(m)	(in)	(m)	(in)	(m)
3	7.75	0.197	12	0.305	6	0.152	3	0.076
6	15.5	0.394	24	0.610	12	0.305	6	0.152
9	23.25	0.591	36	0.914	18	0.457	9	0.229
12	31	0.787	48	1.219	24	0.610	12	0.305

Conversion Factors

1 ft/s = 0.3048 m/s

1 m^3/s = 60000 L/min

1 USgal = 3.7854 L

Project: 3134

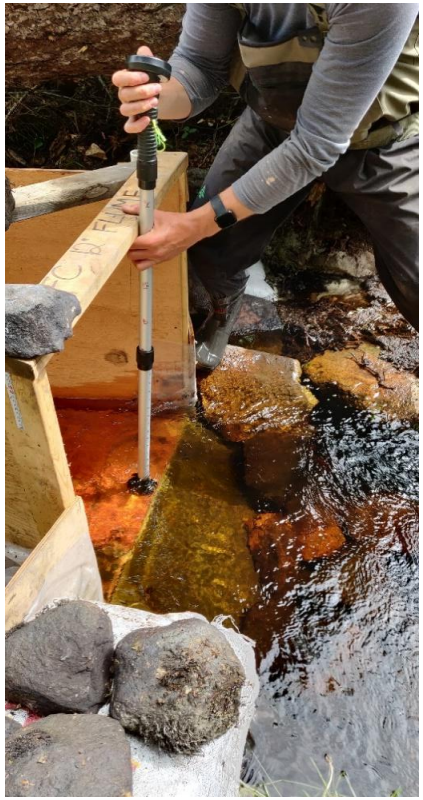
Location: Springpole Lake, ON

Measuring Location: F15

Date Installed: July 10, 2020

Measuring Device: Modified Parshall Flume

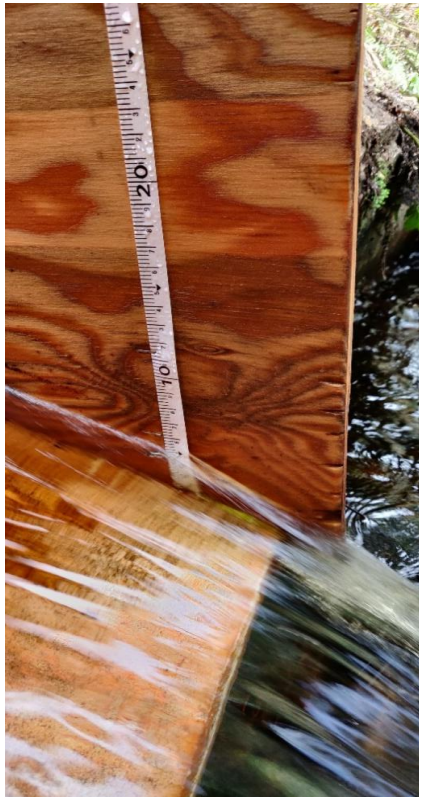
Velocity Measurement
- Upstream



Velocity Measurement
- Downstream

Height Measurement
- Upstream

Height Measurement
- Downstream



APPENDIX B

Levelogger Level-Discharge Relation Curves

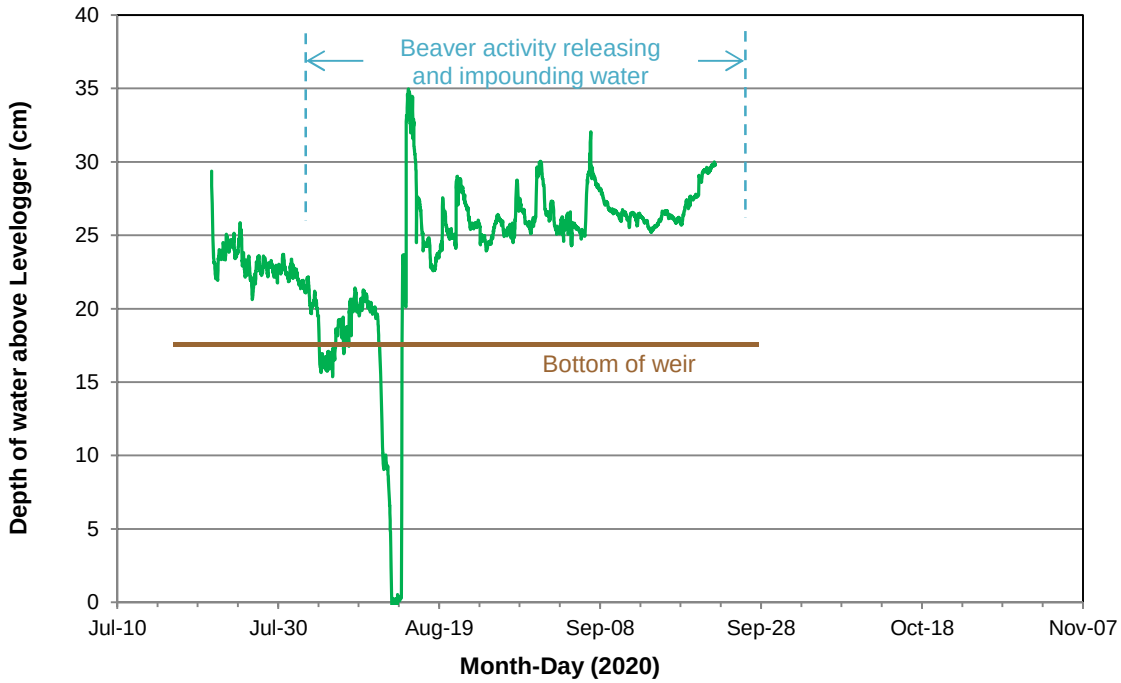


Figure B1 Compensated Levelogger data for V-Notch Weir (F1-A) for flow into Birch Lake during July to September 2020.

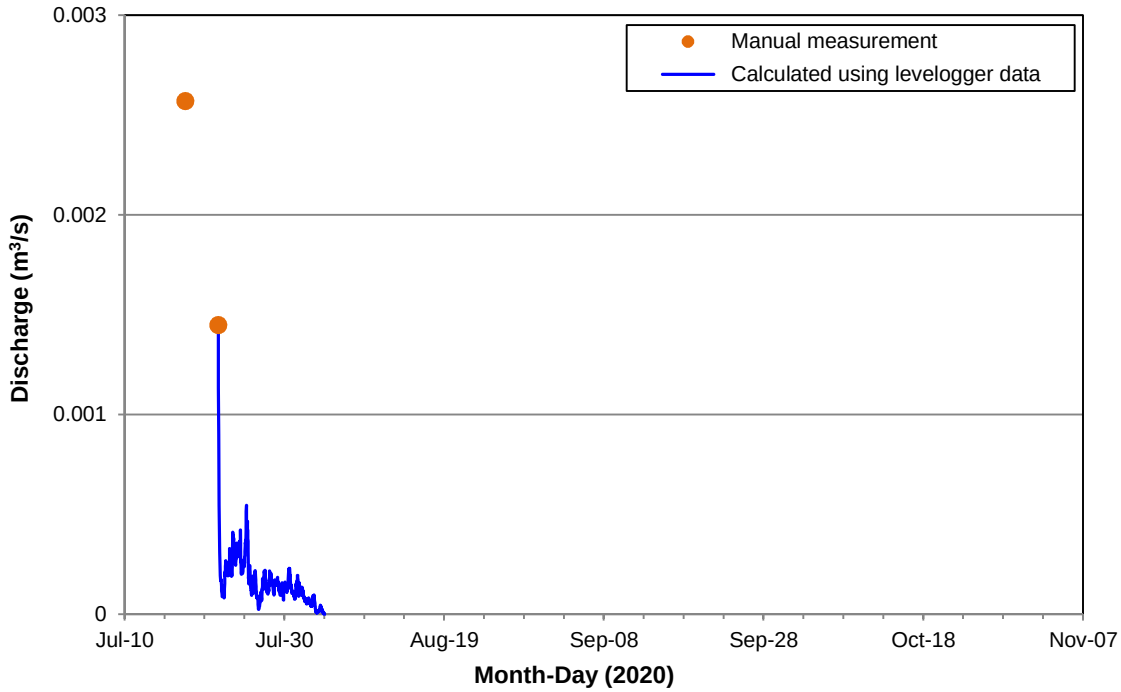


Figure B2 Discharge data for V-Notch Weir (F1-A) for flow into Birch Lake during July to September 2020.

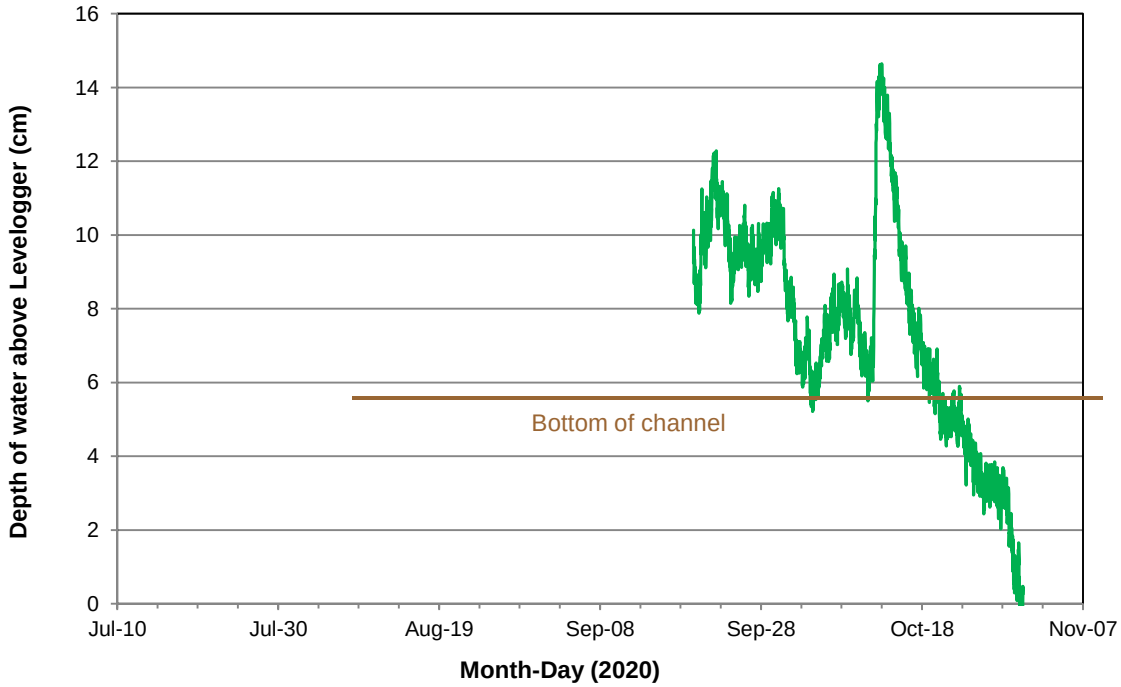


Figure B3 Compensated Levelogger data for Rectangular Channel (F3-HS4) for flow into Springpole Lake during September to October 2020.

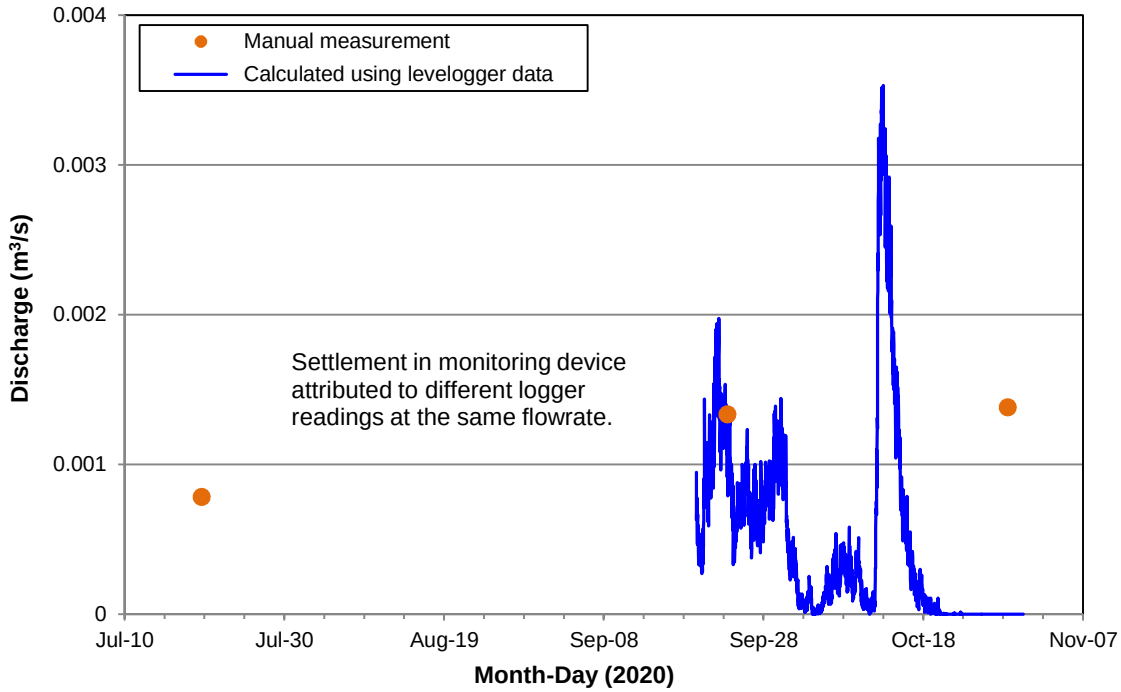


Figure B4 Discharge data for Rectangular Channel (F3-HS4) for flow into Springpole Lake during September to October 2020.

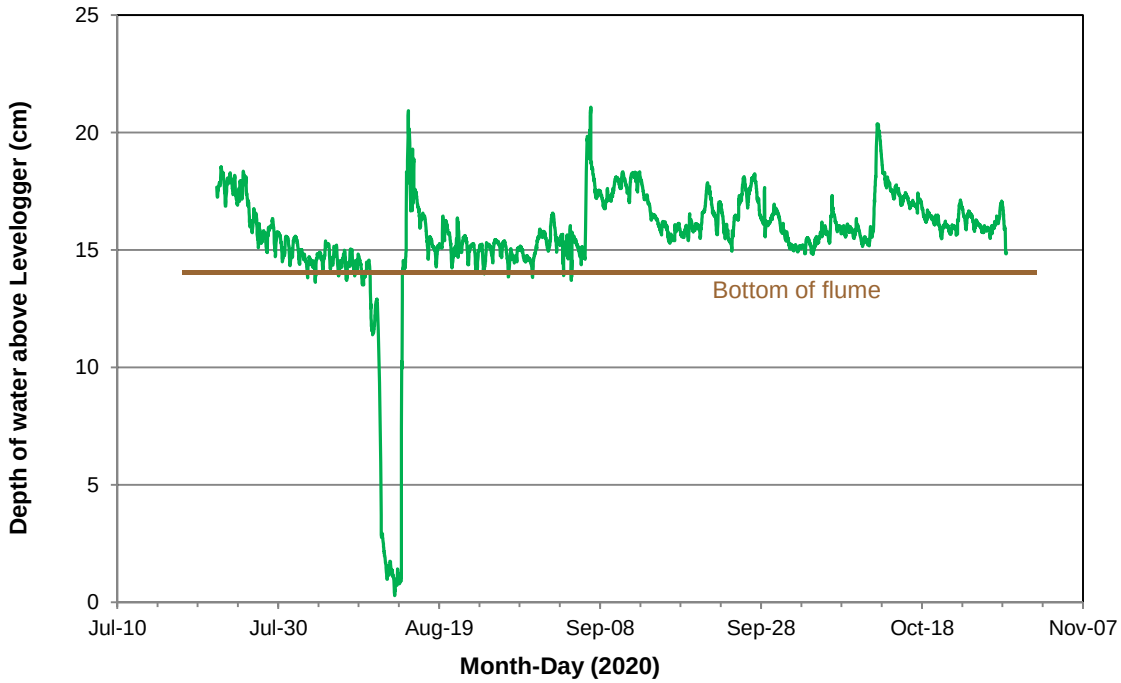


Figure B5 Compensated Levelogger data for Flume (F4) for flow into Springpole Lake during July to October 2020.

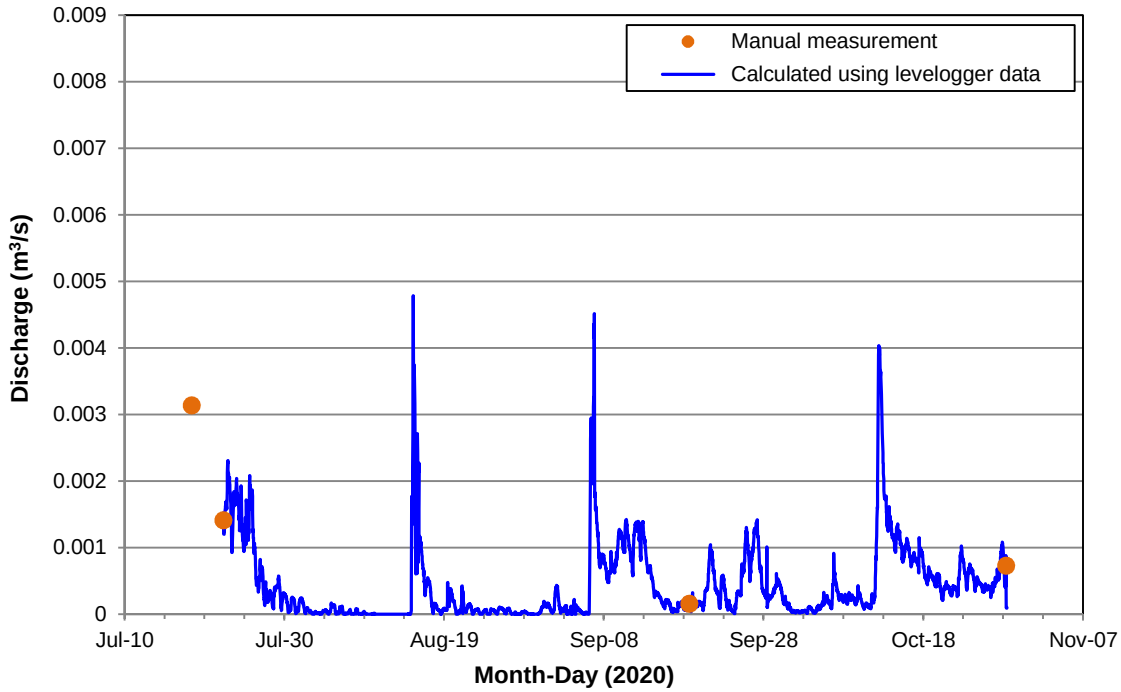


Figure B6 Discharge data for Flume (F4) for flow into Springpole Lake during July to October 2020.

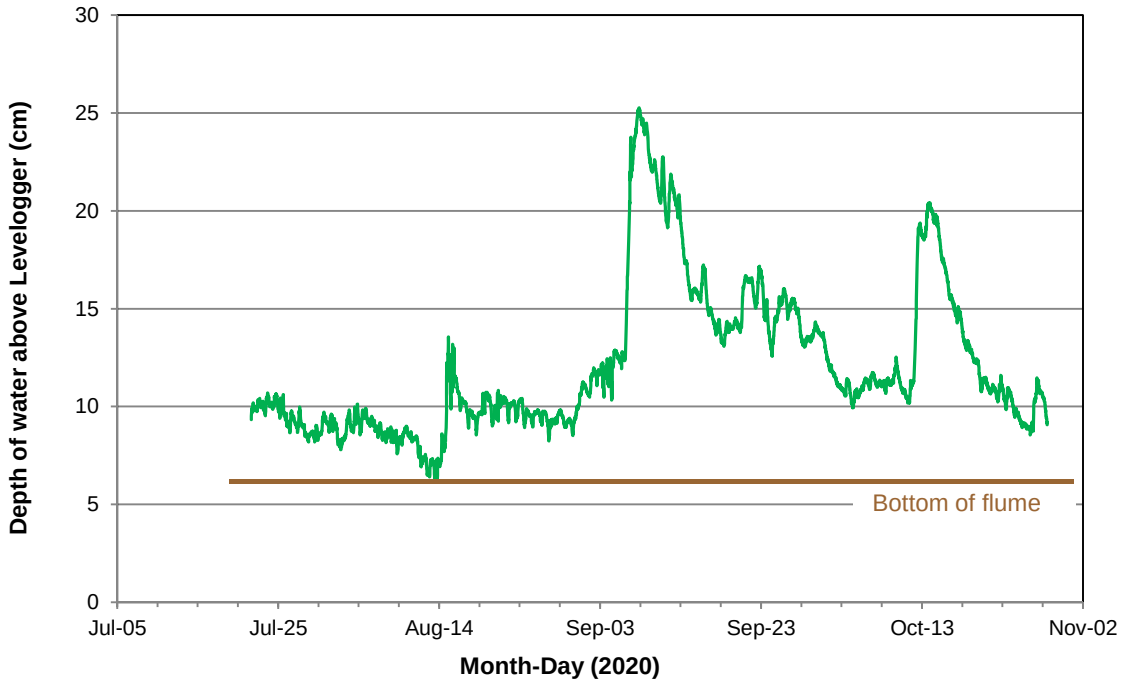


Figure B7 Compensated Levelogger data for Flume (F5-HS5) for flow into Birch Lake during July to October 2020.

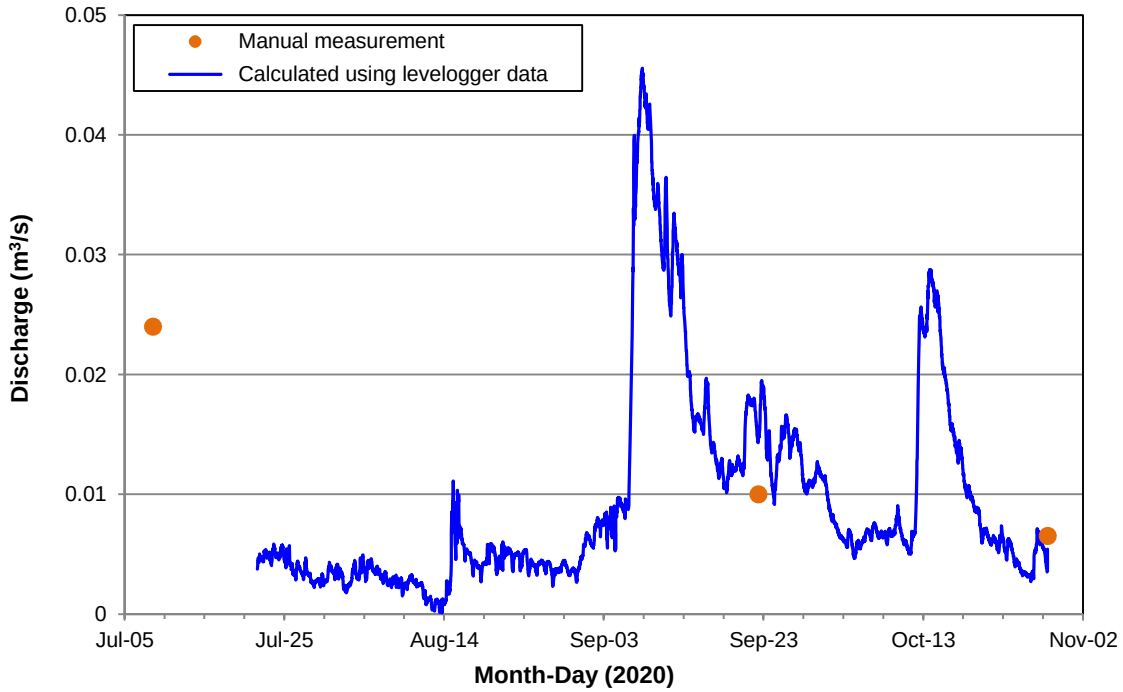


Figure B8 Discharge data for Flume (F5-HS5) for flow into Birch Lake during July to October 2020.

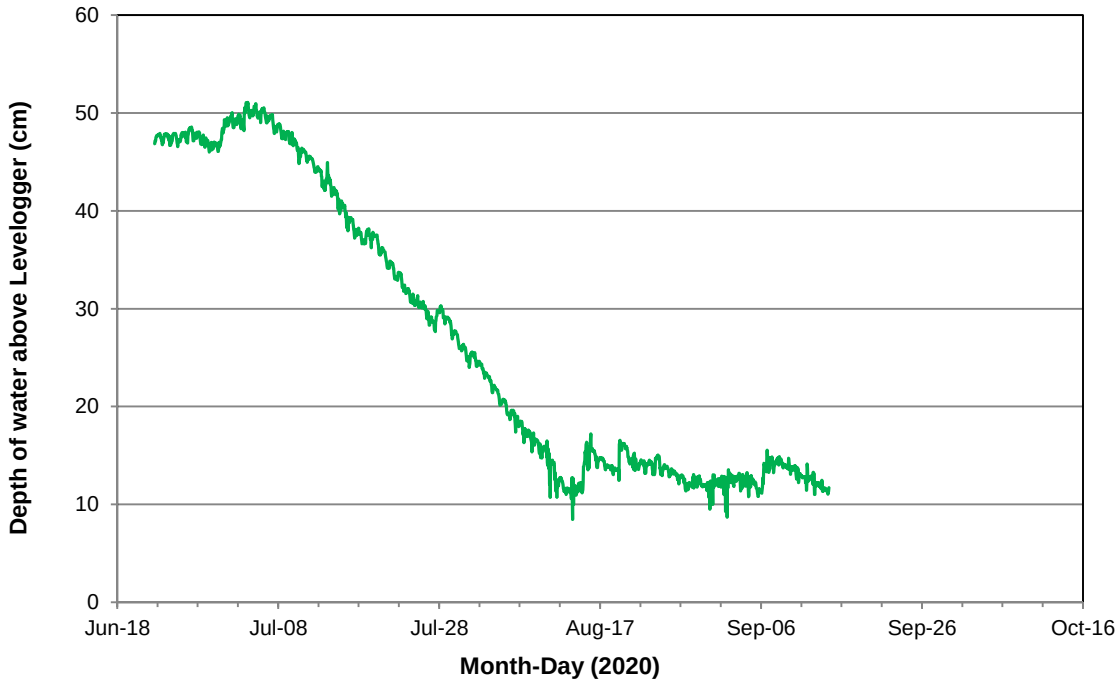


Figure B9 Compensated Levelogger data for Cromarty Lake outflow (F7-HS1) for flow into Springpole Lake during June to September 2020.

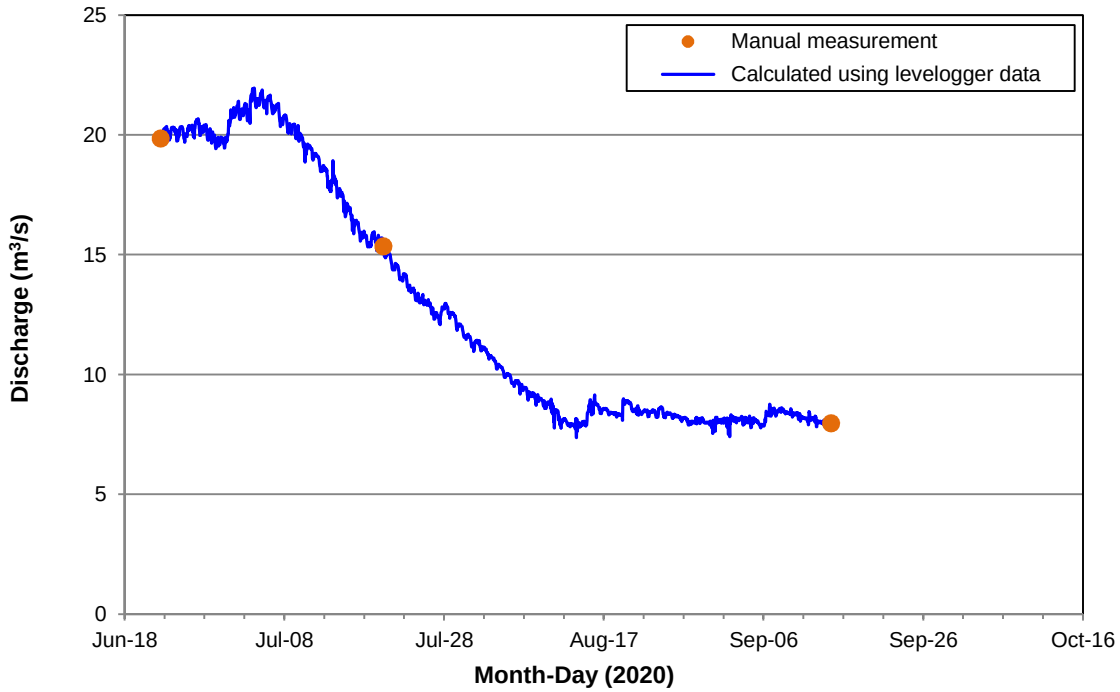


Figure B10 Discharge data for Cromarty Lake outflow (F7-HS1) for flow into Springpole Lake during June to September 2020.

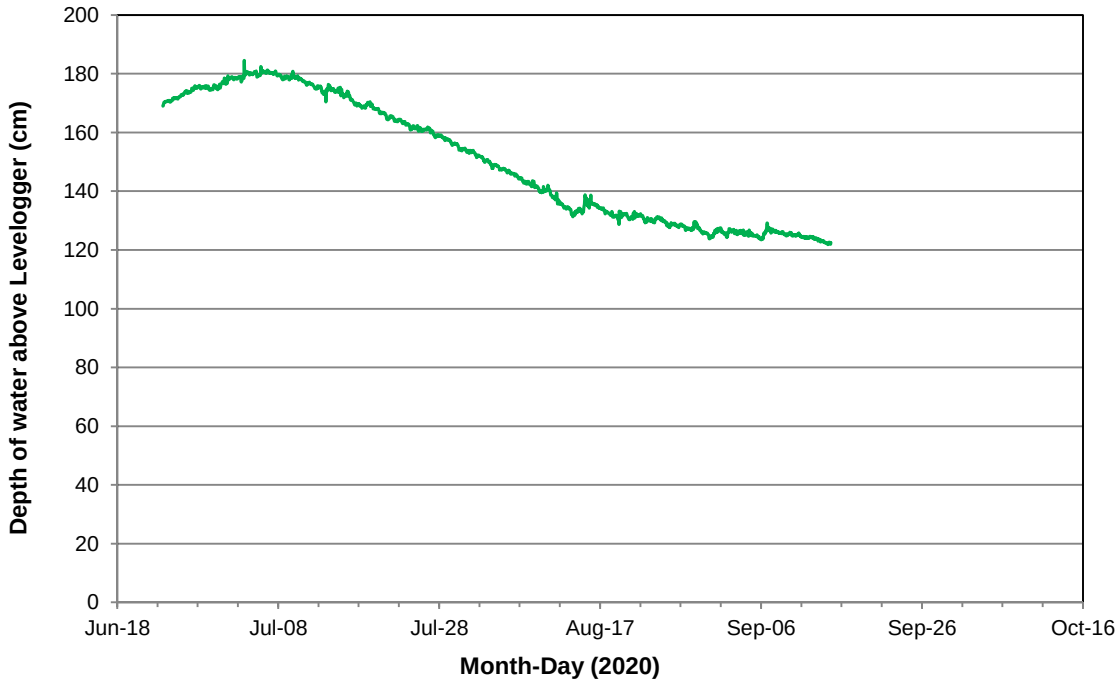


Figure B11 Compensated Levelogger data for Springpole Lake outflow (F8-HS7) for flow into Gull Lake during June to September 2020.

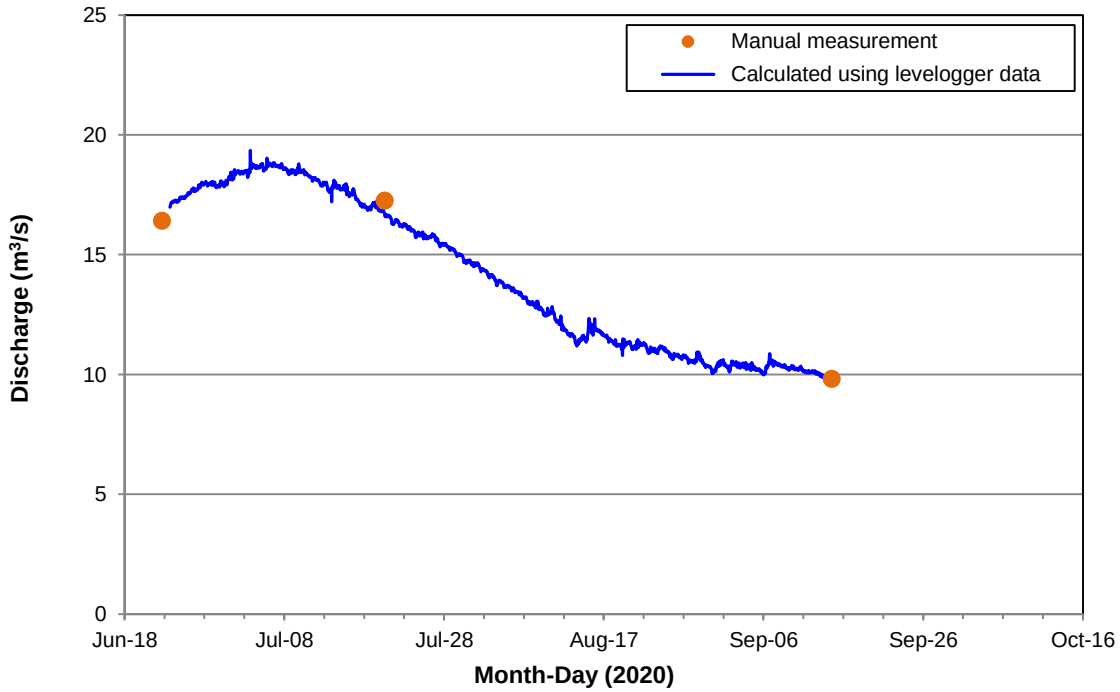


Figure B12 Discharge data for Springpole Lake outflow (F8-HS7) for flow into Gull Lake during June to September 2020.

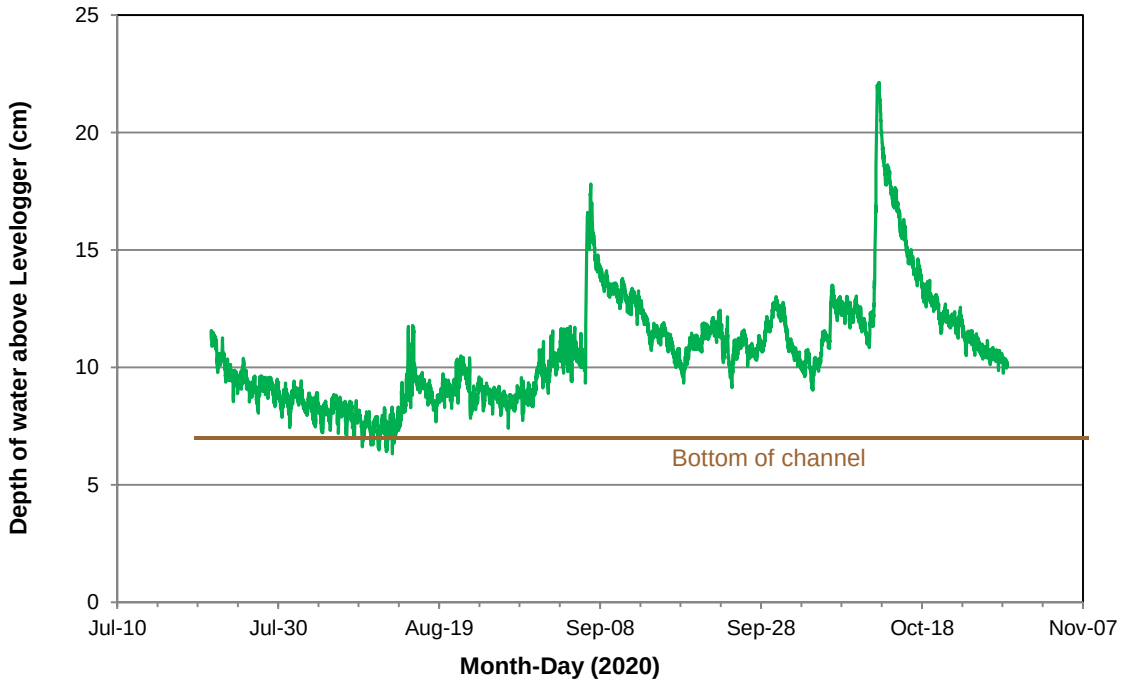


Figure B13 Compensated Levelogger data for Rectangular Channel (F9-A) for flow into Birch Lake during July to October 2020.

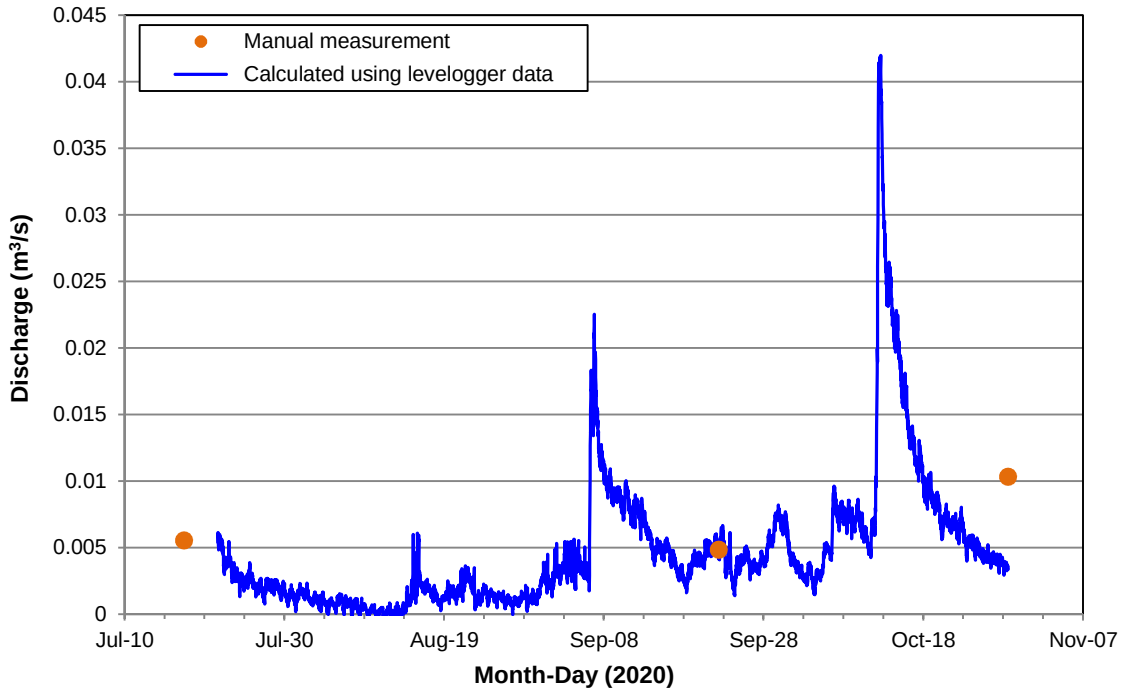


Figure B14 Discharge data for Rectangular Channel (F9-A) for flow into Birch Lake during July to October 2020.

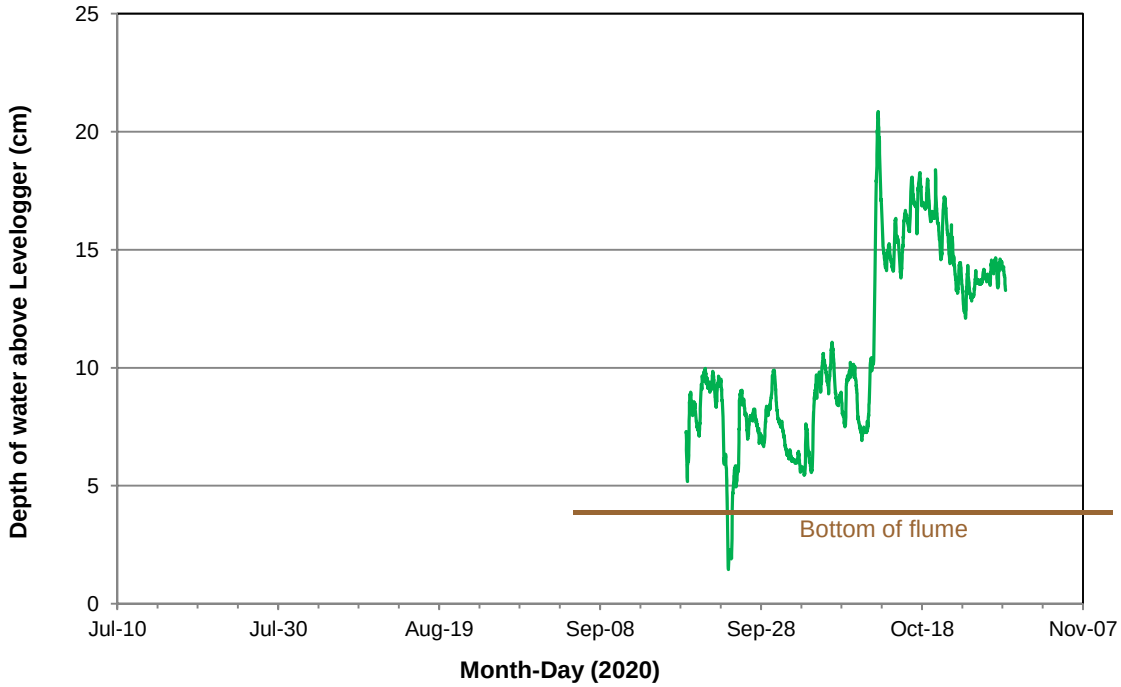


Figure B15 Compensated Levelogger data for Flume (F10-HS6) for flow into Springpole Lake during July to October 2020.

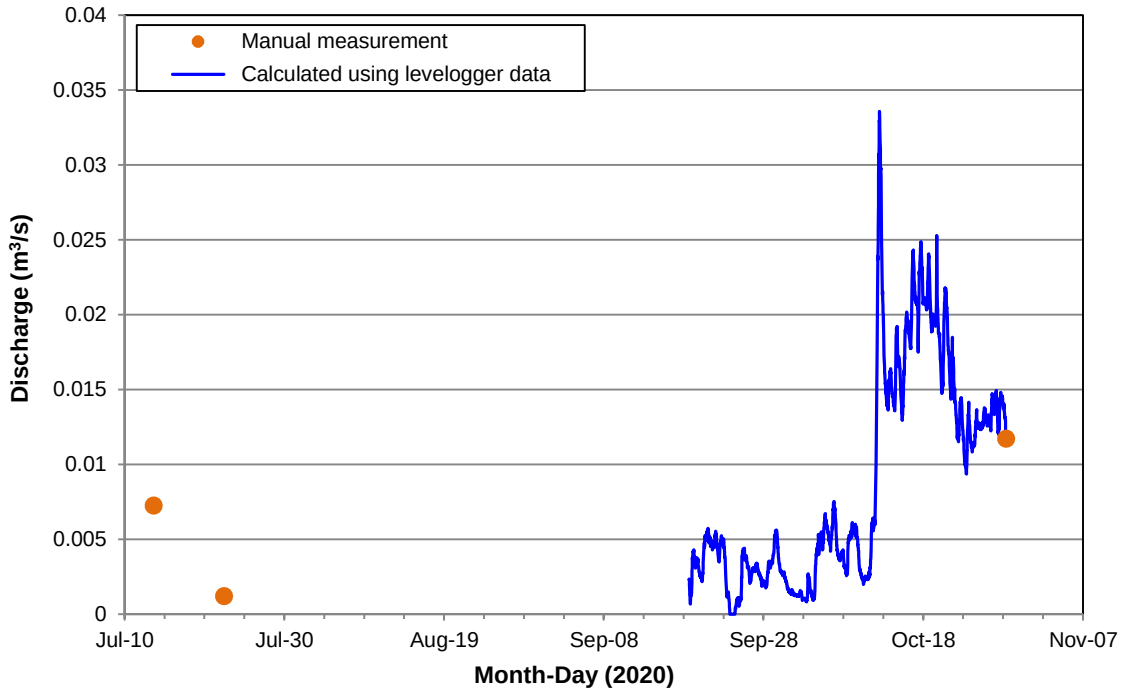


Figure B16 Discharge data for Flume (F10-HS6) for flow into Springpole Lake during July to October 2020.

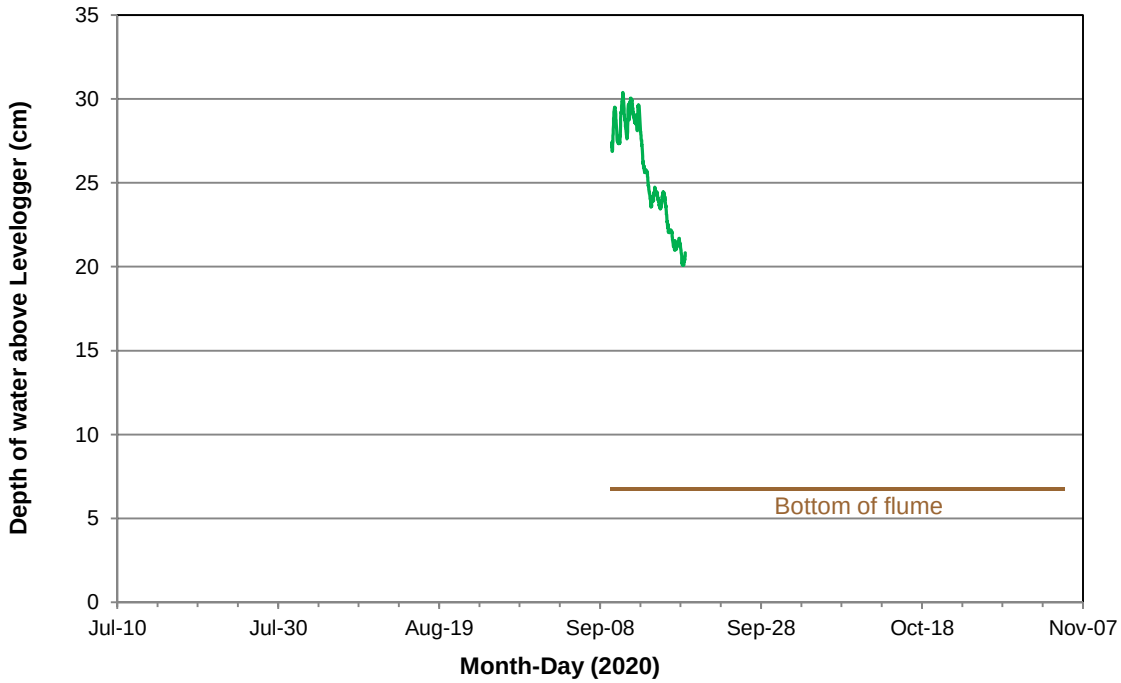


Figure B17 Compensated Levelogger data for Flume (F11-HS2) for flow into Springpole Lake during July to September 2020.

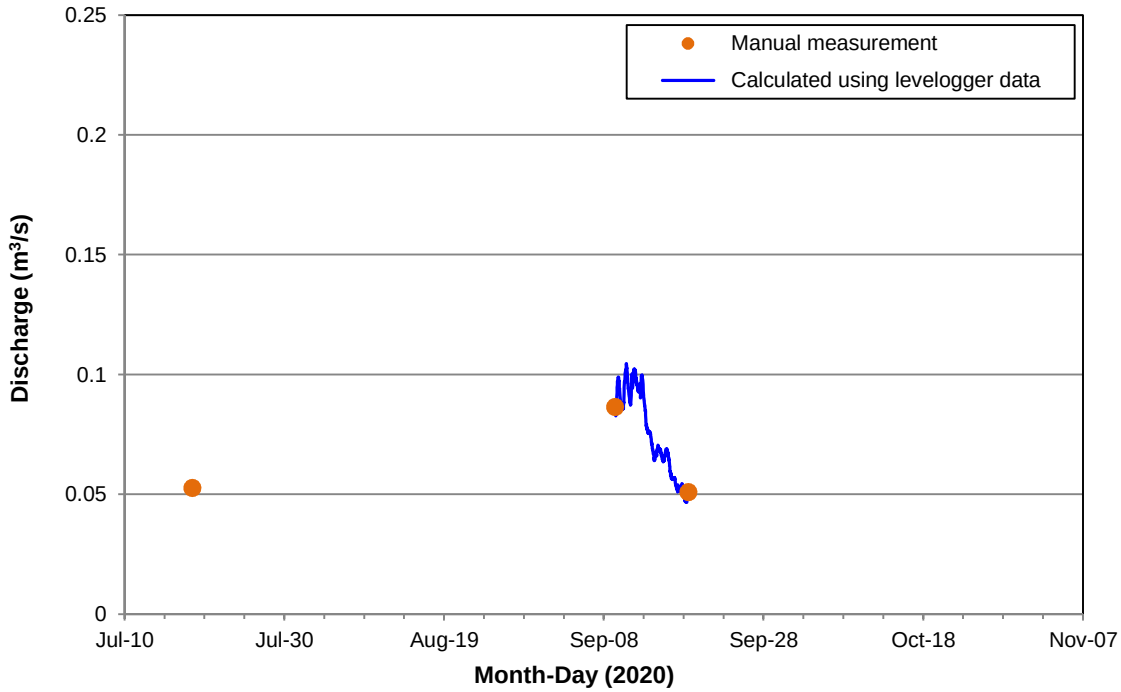


Figure B18 Discharge data for Flume (F11-HS2) for flow into Springpole Lake during July to September 2020.

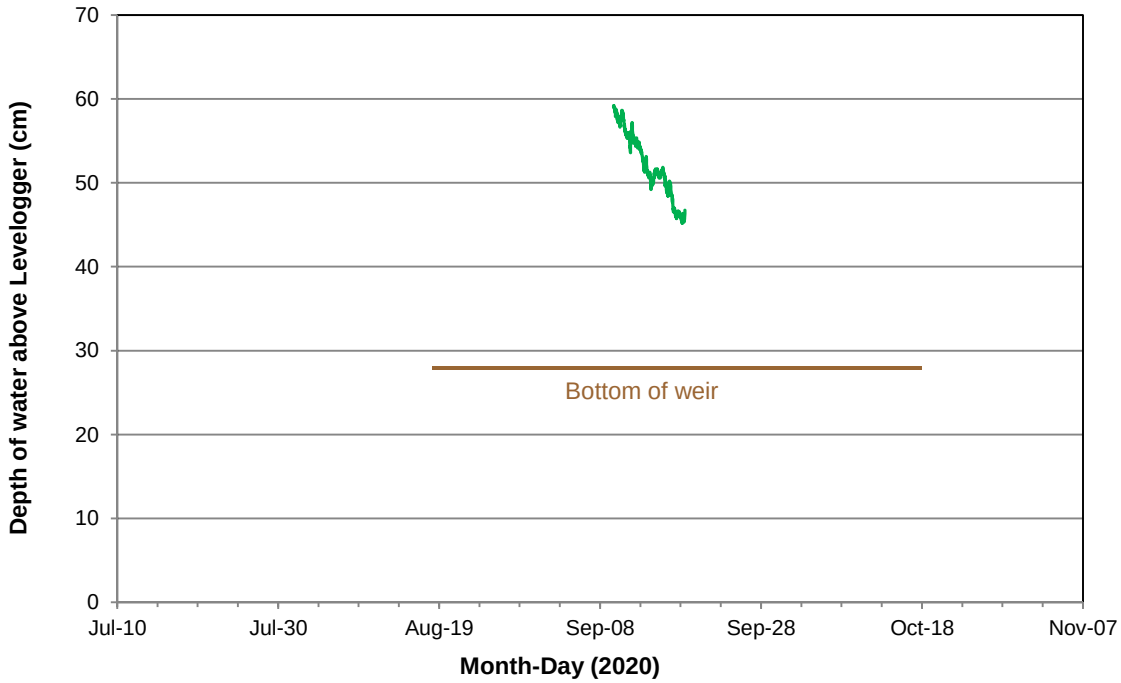


Figure B19 Compensated Levelogger data for V-Notch Weir (F12) for flow into Springpole Lake during September 2020.

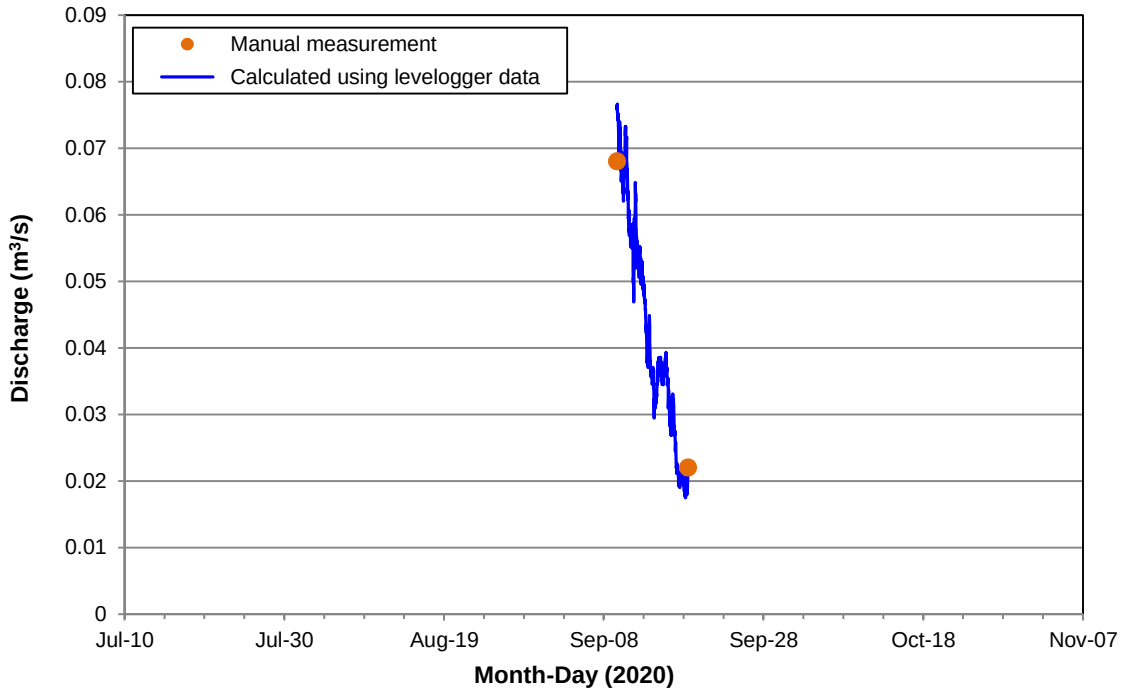


Figure B20 Discharge data for V-Notch Weir (F12) for flow into Springpole Lake during September 2020.

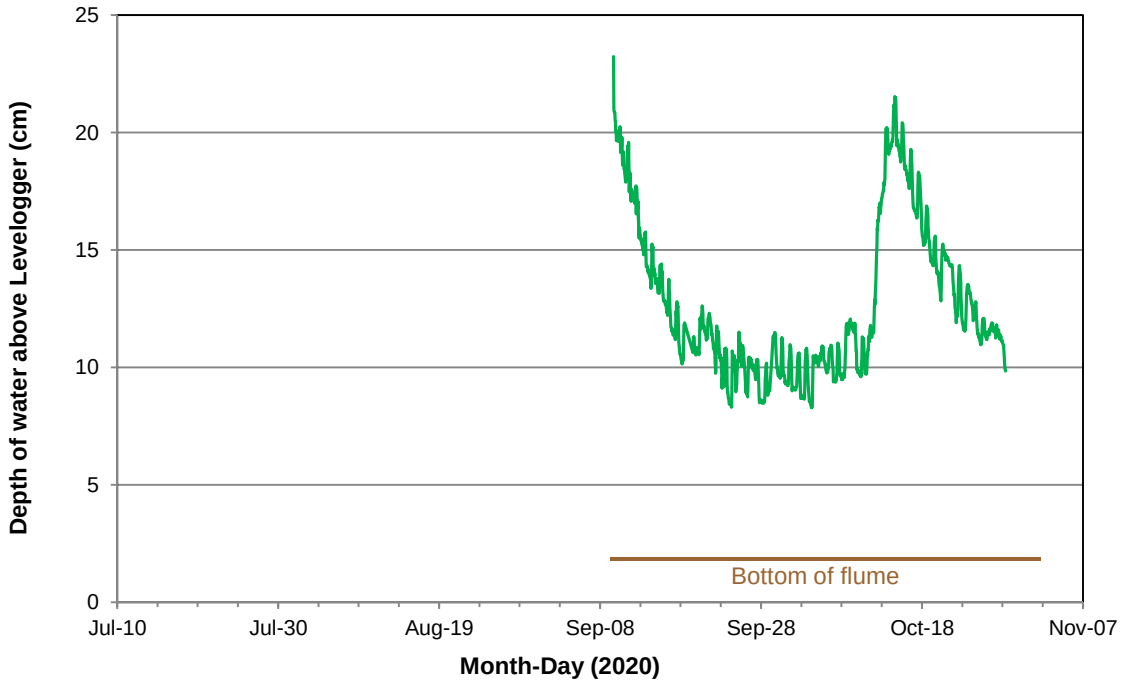


Figure B21 Compensated Levelogger data for Flume (F13) for flow into Springpole Lake during August to October 2020.

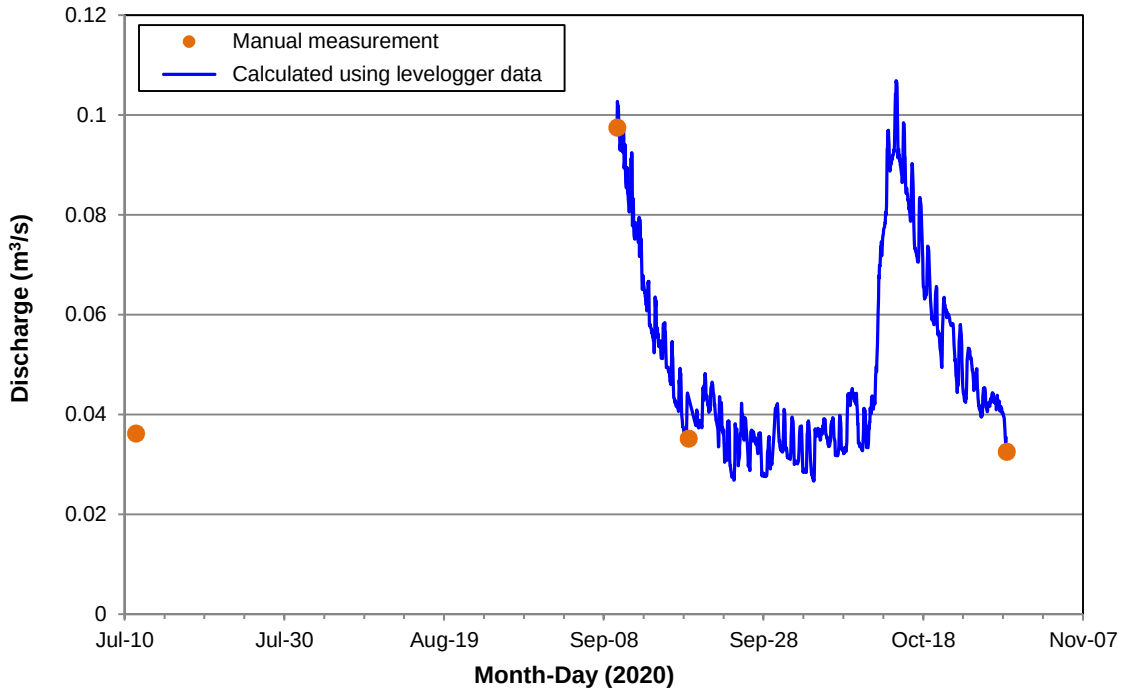


Figure B22 Discharge data for Flume (F13) for flow into Springpole Lake during August to October 2020.

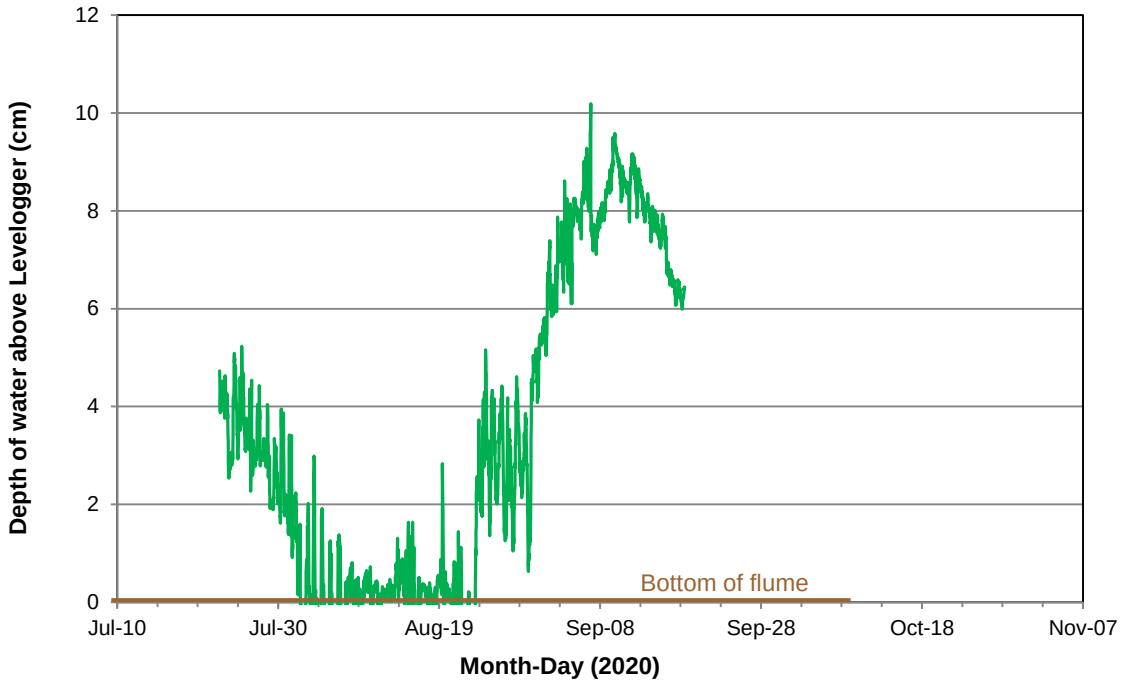


Figure B23 Compensated Levelogger data for Flume (F14) for flow into Springpole Lake during July to September 2020.

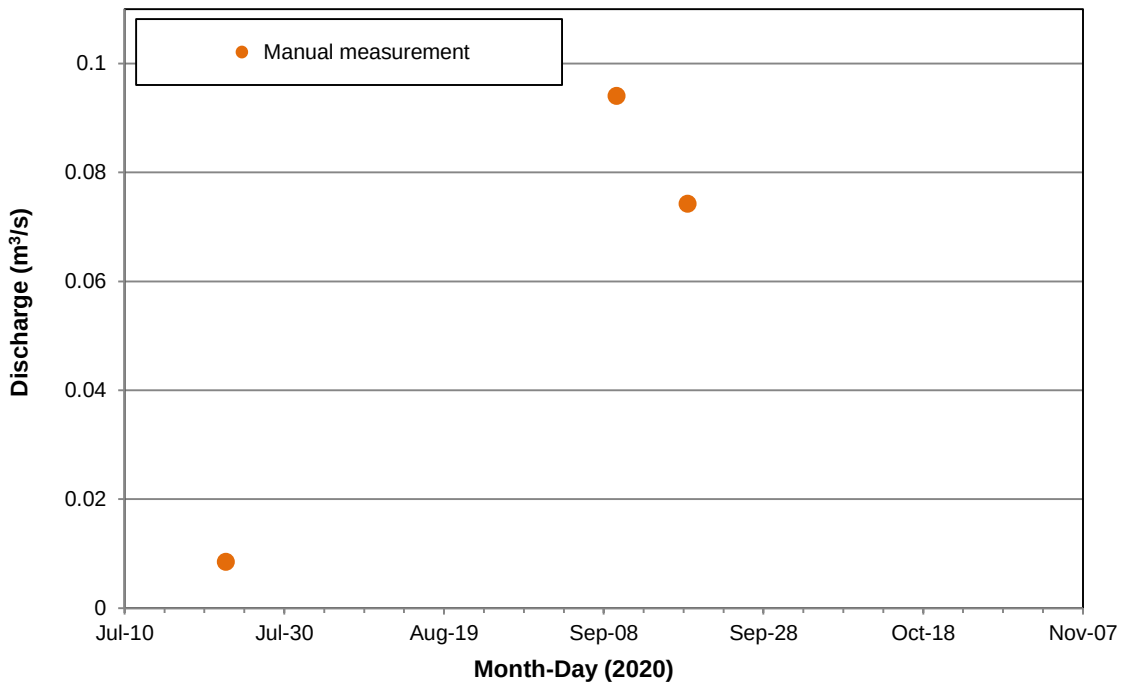


Figure B24 Discharge data for Flume (F14) for flow into Springpole Lake during July to September 2020.

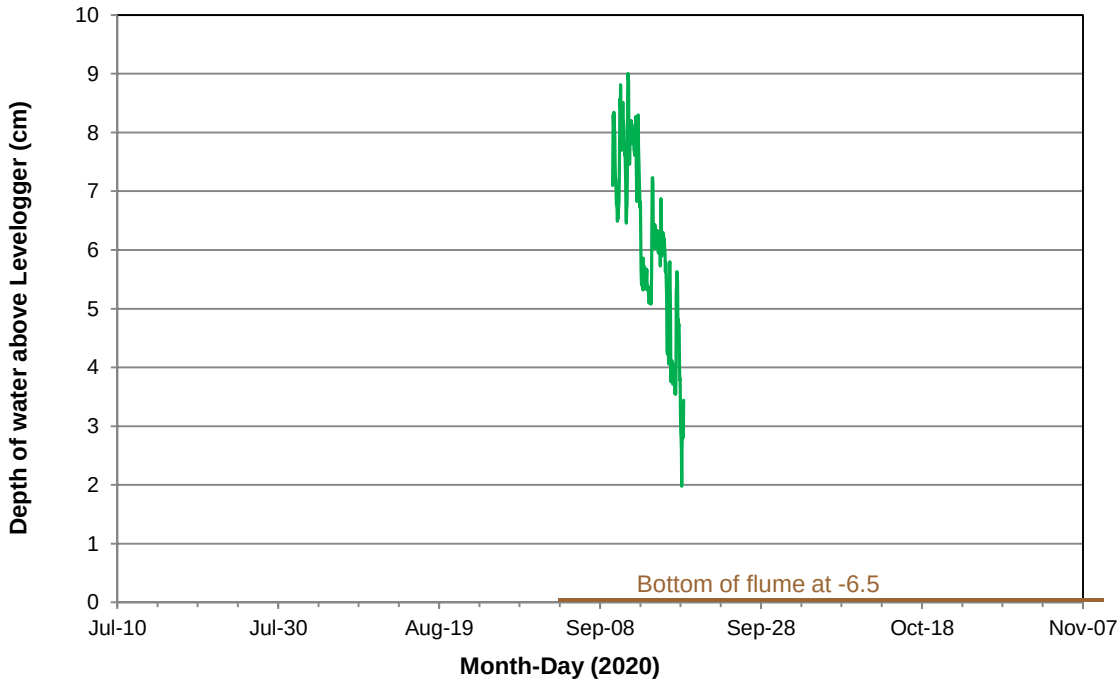


Figure B25 Compensated Levelogger data for Flume (F15) for flow into Springpole Lake during July to September 2020.

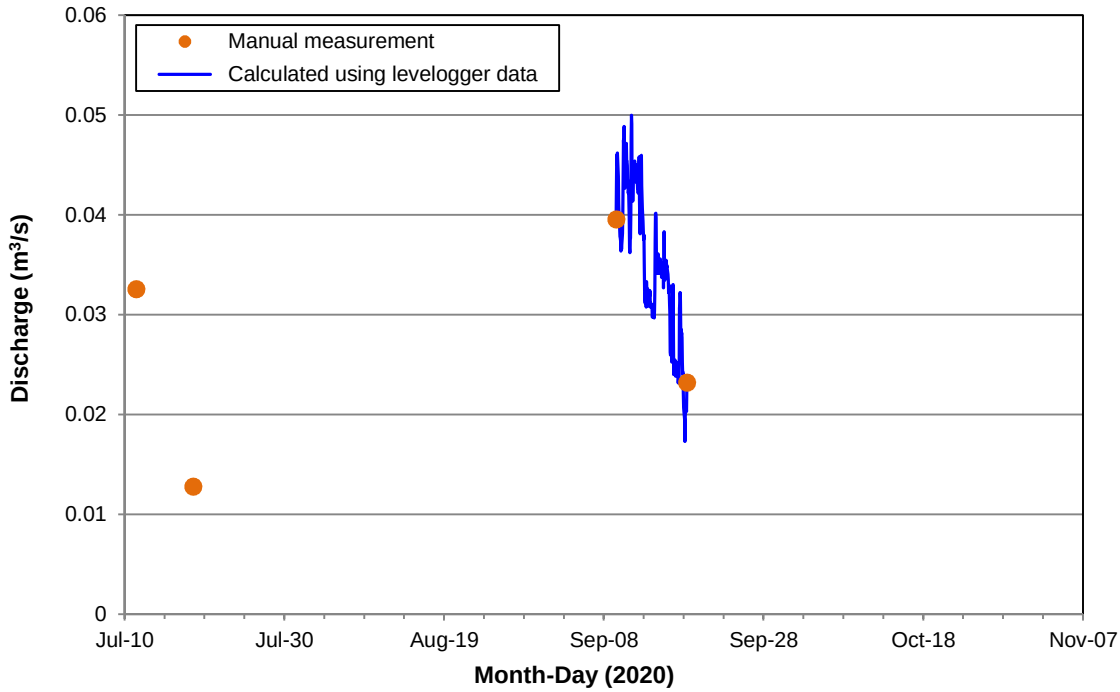


Figure B26 Discharge data for Flume (F15) for flow into Springpole Lake during July to September 2020.

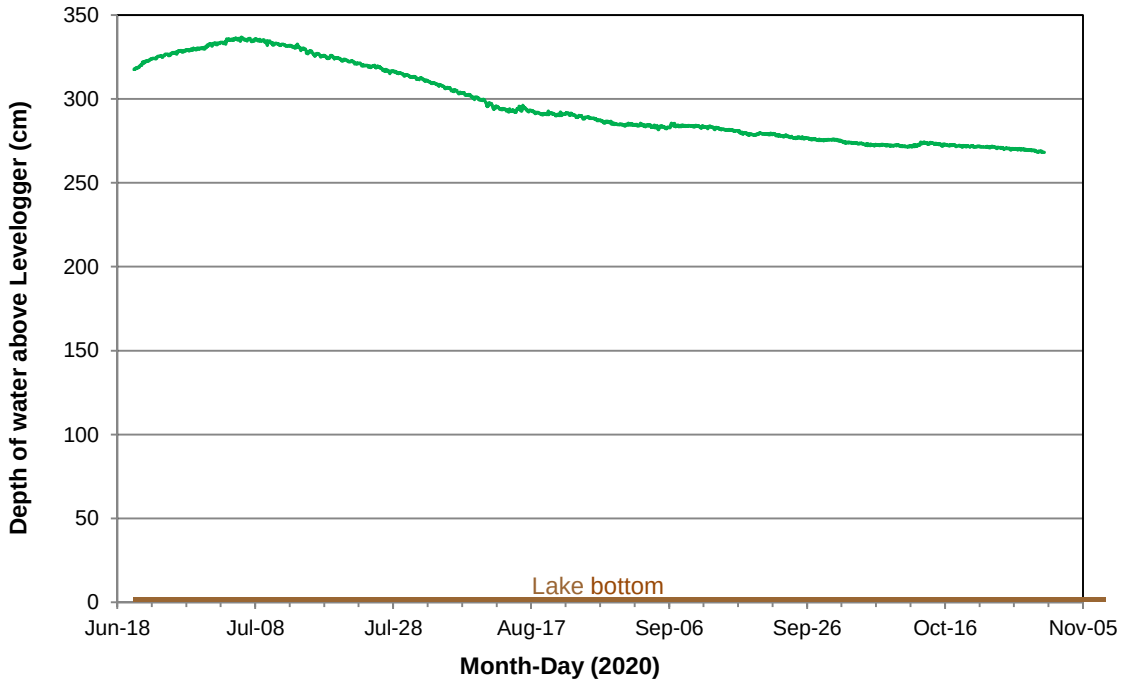


Figure B27 Compensated Levelogger data for Springpole Lake monitoring station (L5-FFC) during June to October 2020.

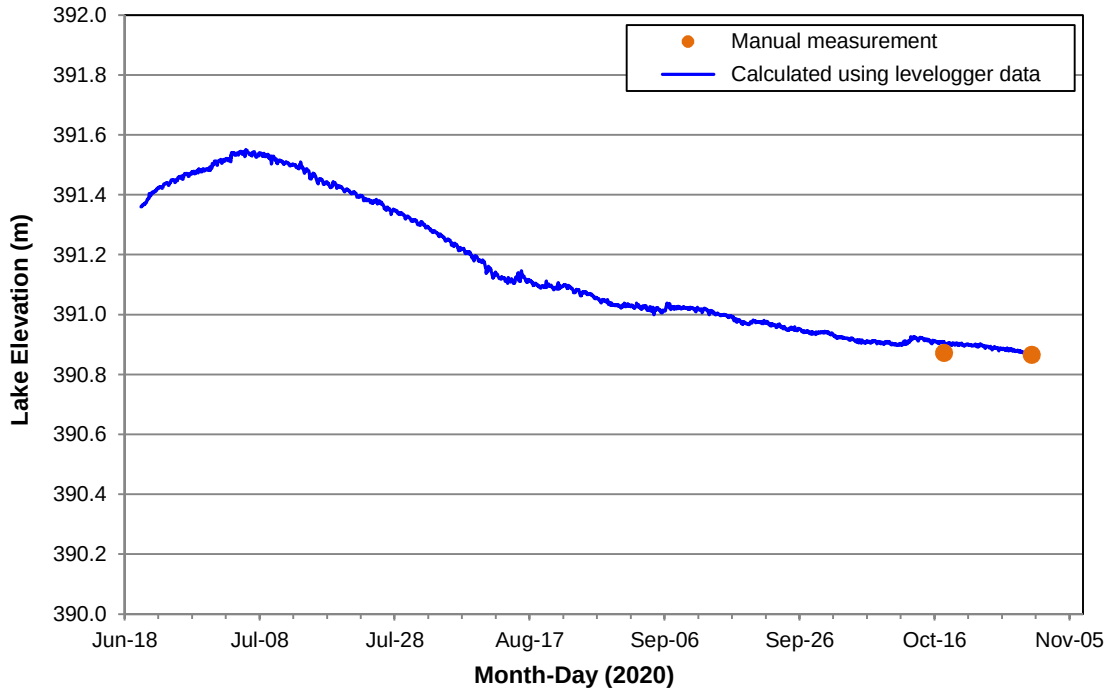


Figure B28 Lake elevation data for Springpole Lake monitoring station (L5-FFC) during June to October 2020.

APPENDIX C

Historical Data, Monthly and Yearly Totals

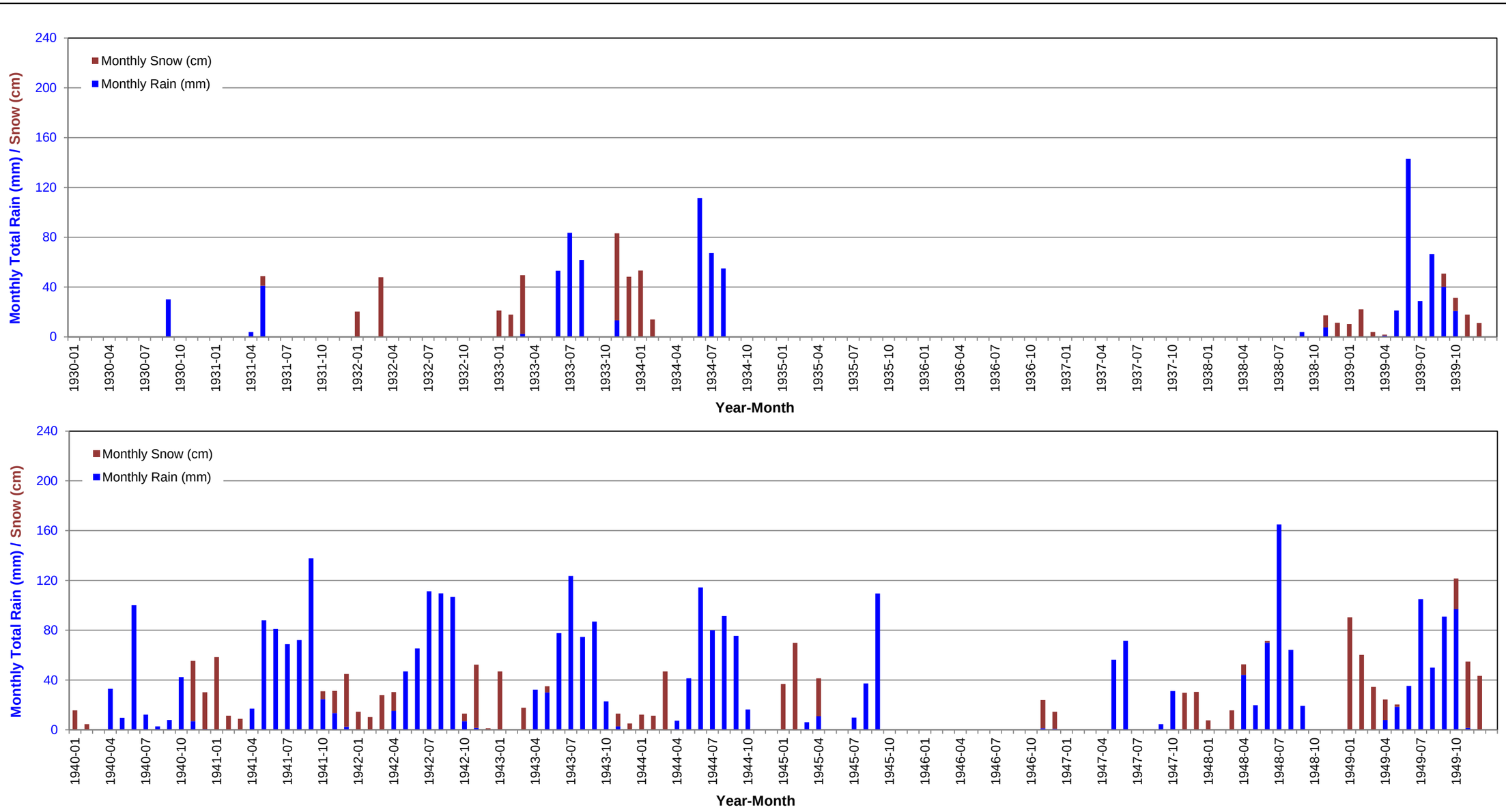


Figure C1 Monthly precipitation data from 1930 to 1949 from the Red Lake weather station.

Project No. 3134	Document Reference FFC-NL-3134-007
Location Springpole, ON	Date December 2020

FFC

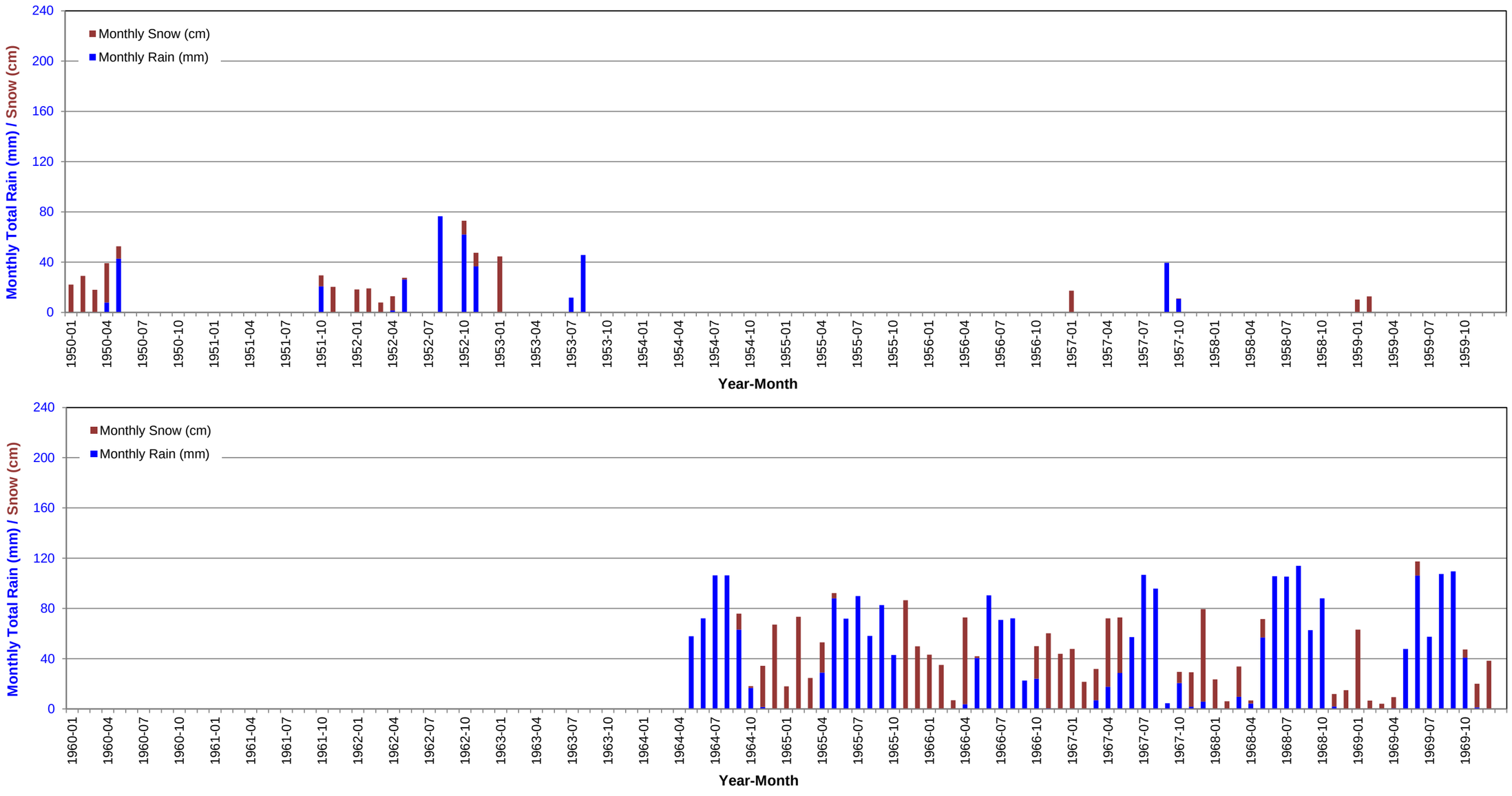


Figure C2 Monthly precipitation data from 1950 to 1969 from the Red Lake weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

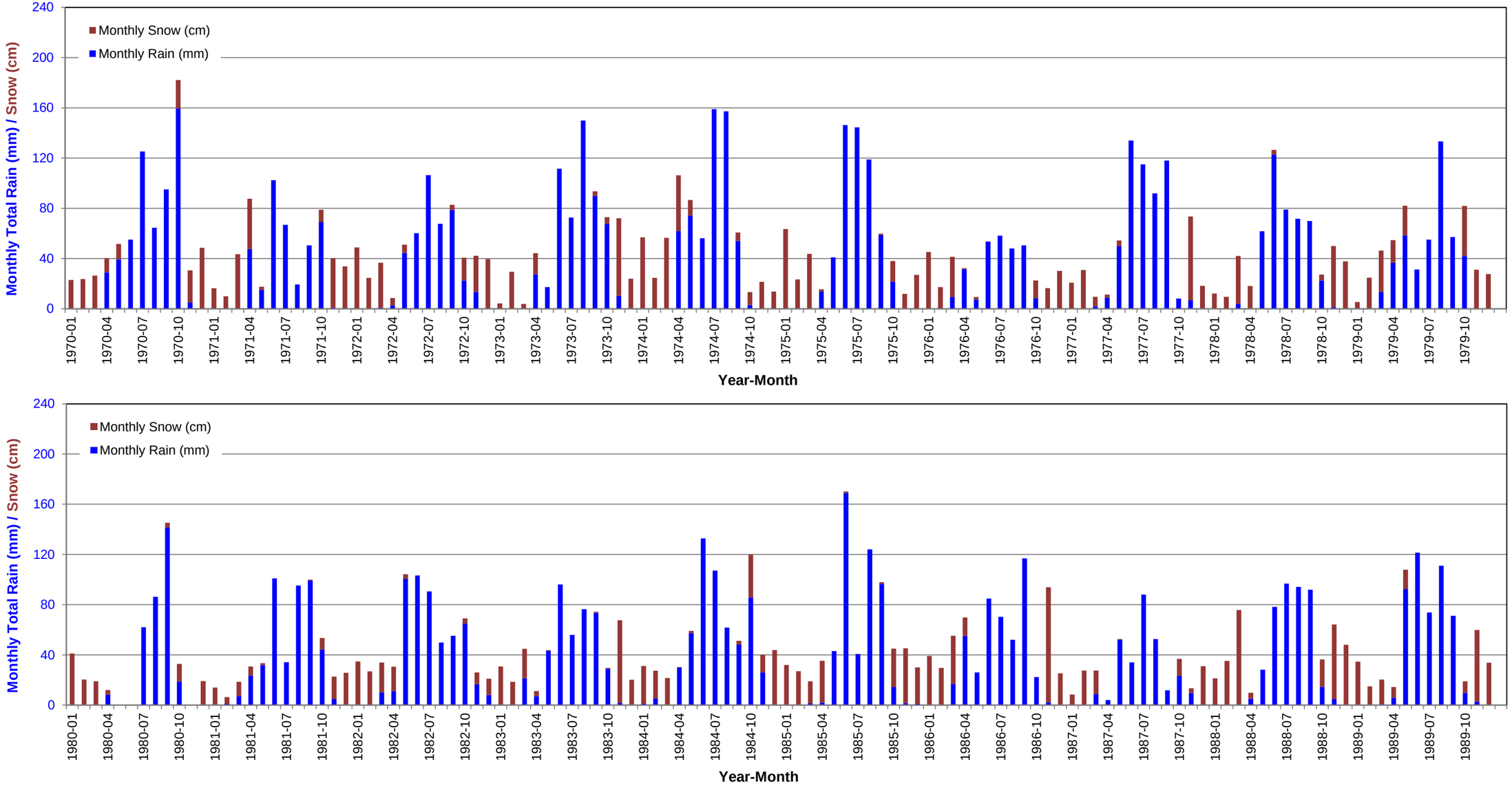


Figure C3 Monthly precipitation data from 1970 to 1989 from the Red Lake weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

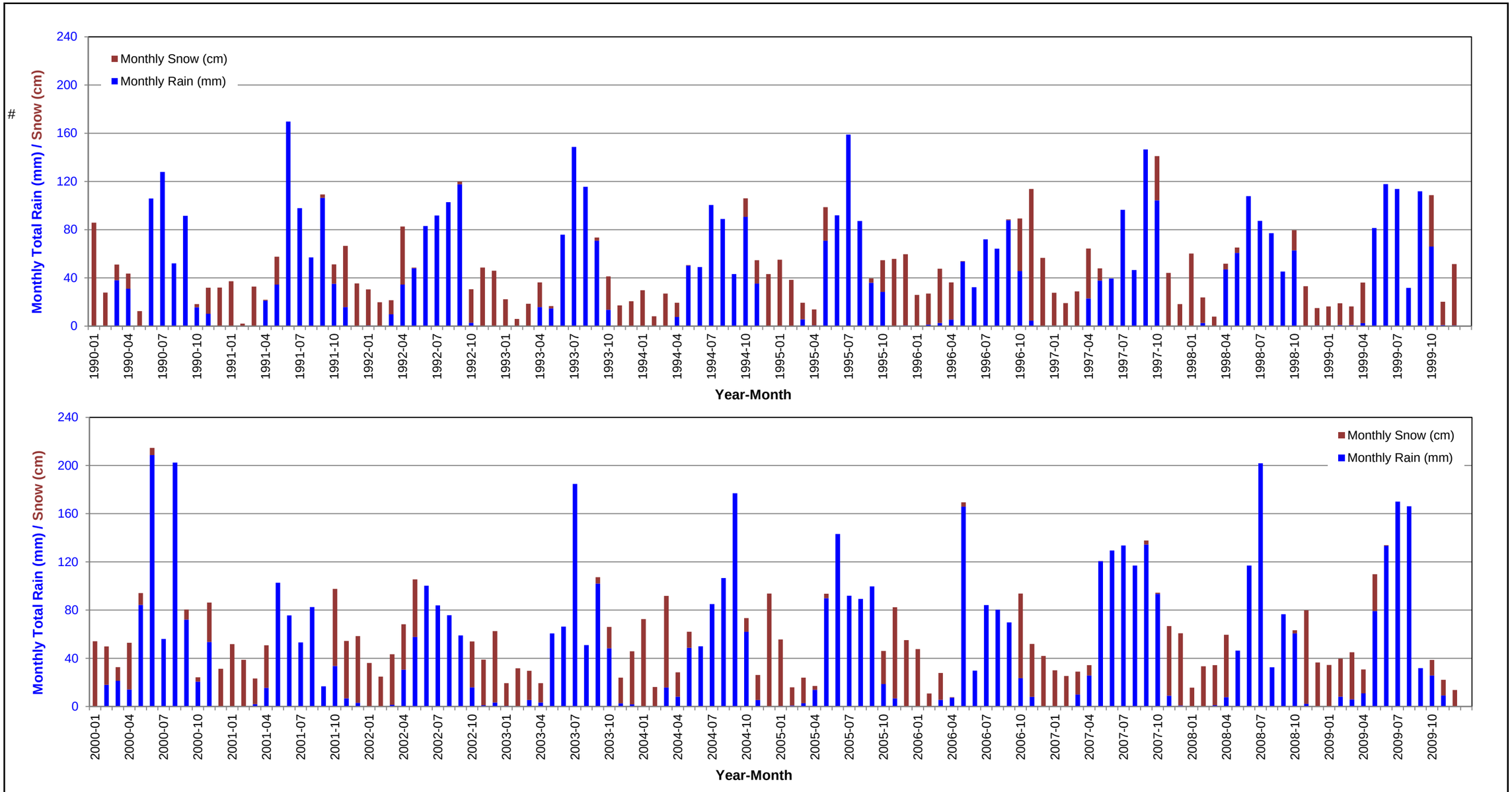


Figure C4 Monthly precipitation data from 1990 to 2009 from the Red Lake weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

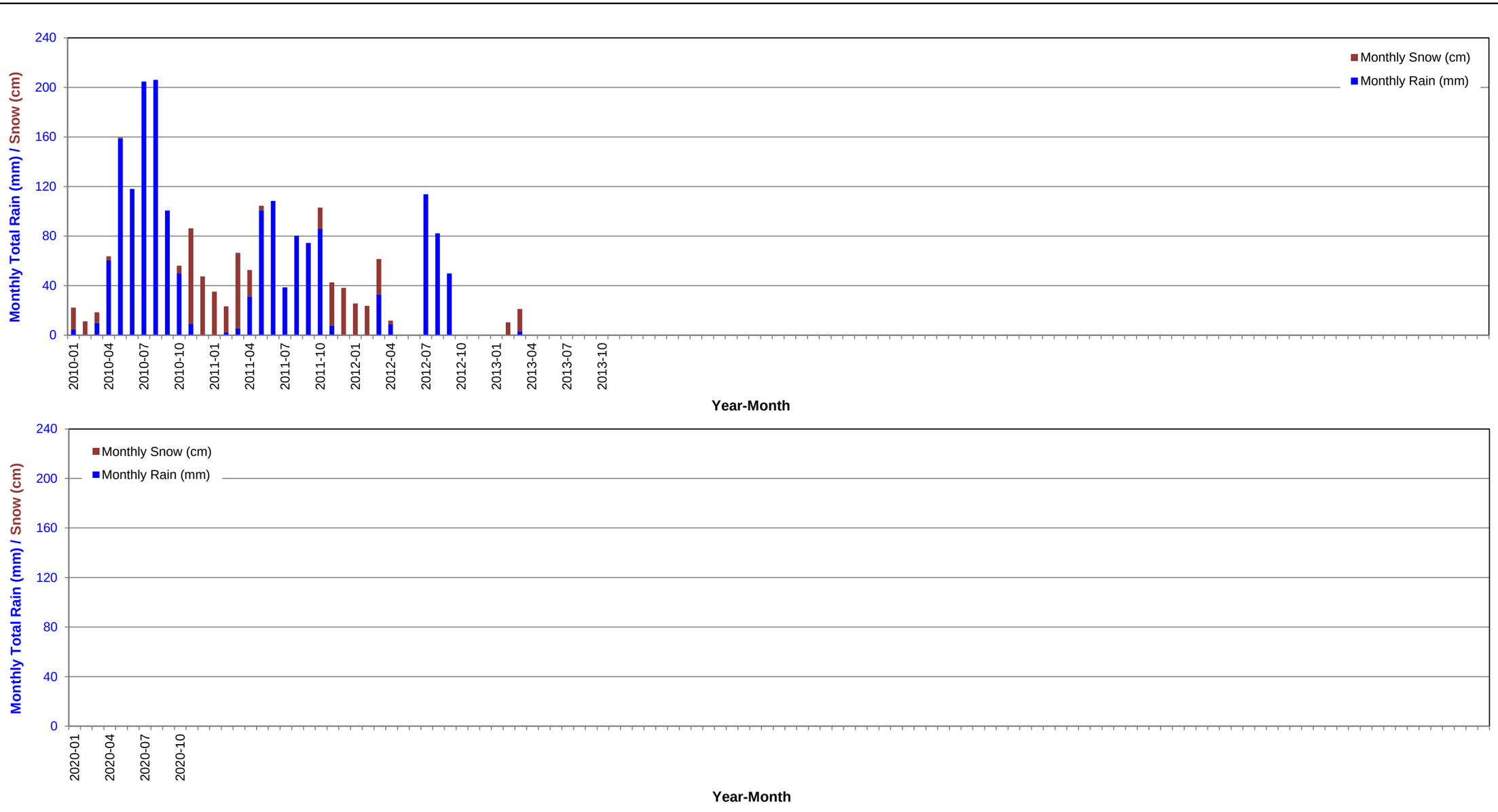


Figure C5 Monthly precipitation data from 2010 to 2013 from the Red Lake weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

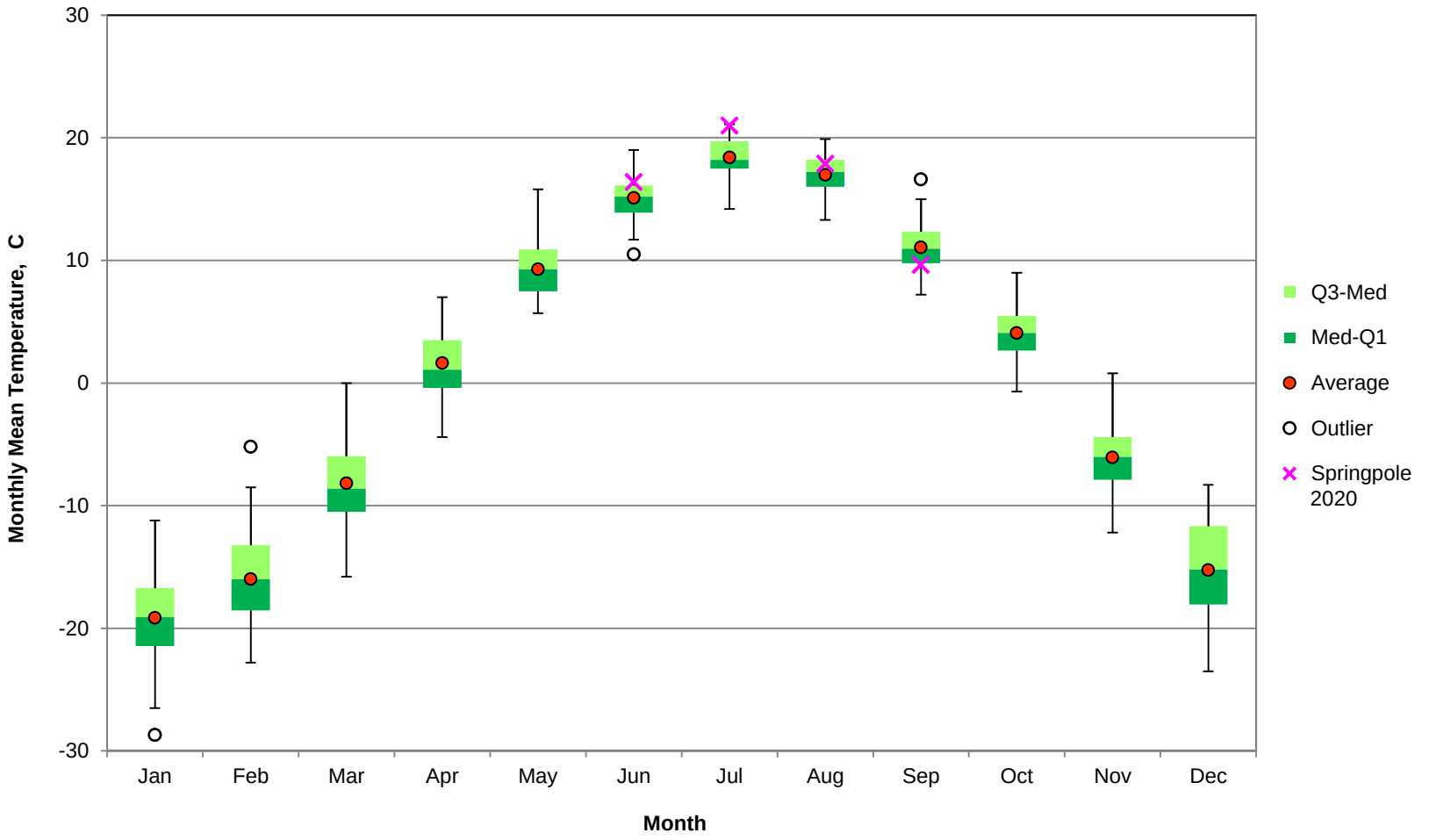


Figure C6 Monthly mean temperature from 1930 to 2020 at the Red Lake climate station (EC, 2020) with the 2020 Springpole site data (June - Sept.).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

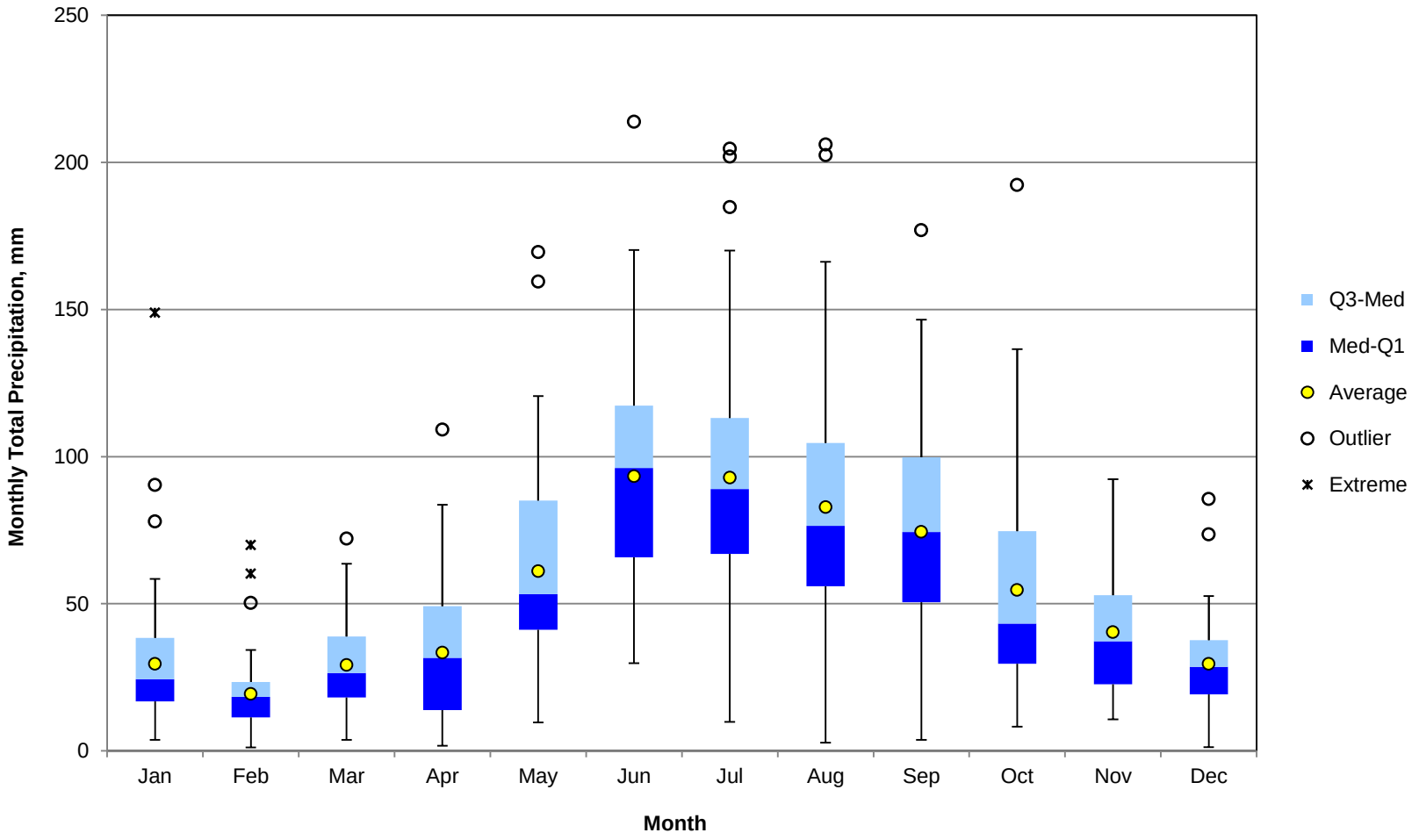


Figure C7 Monthly total precipitation from 1930 to 2020 at the Red Lake climate station (EC, 2020).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

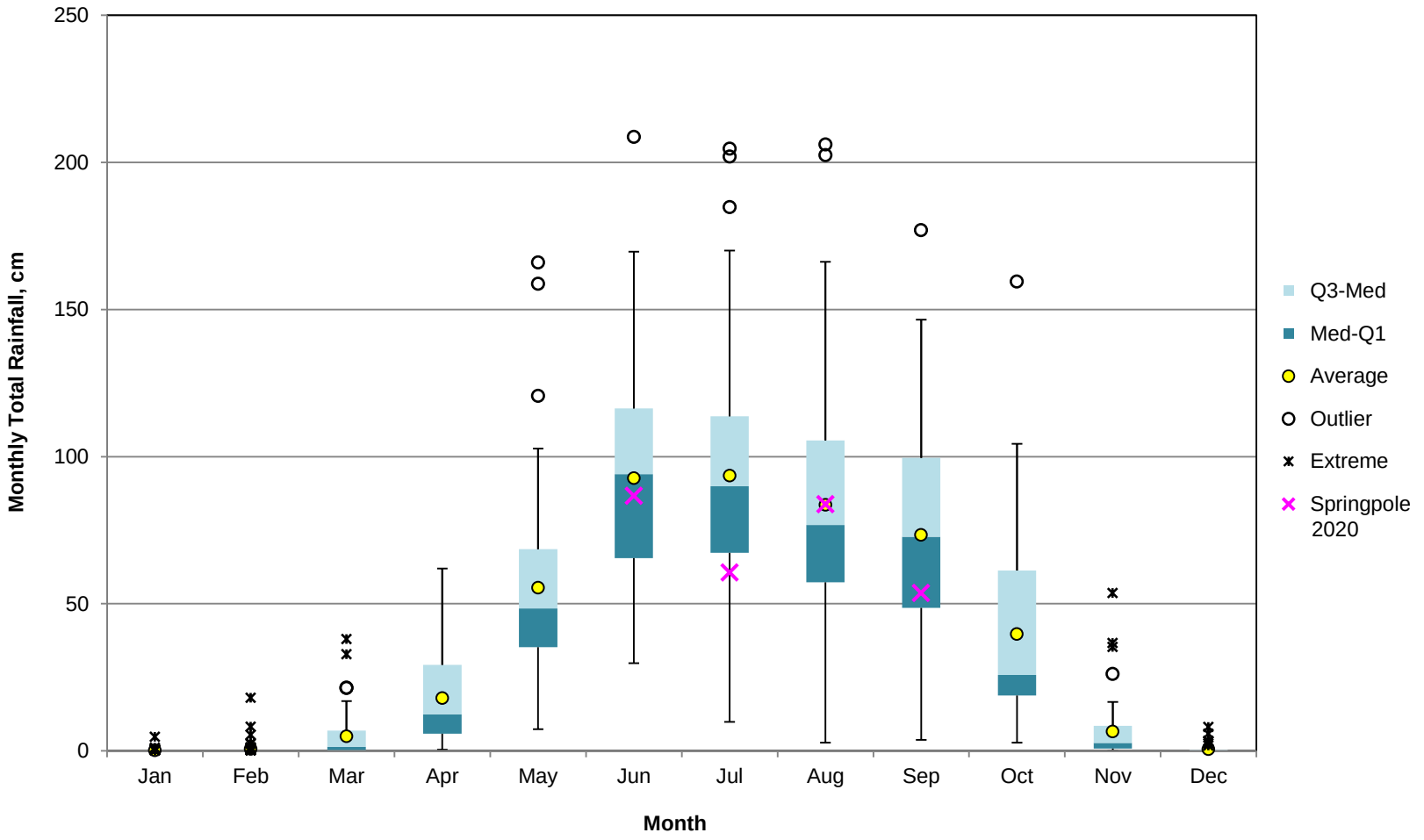


Figure C8 Monthly total rainfall from 1930 to 2020 at the Red Lake climate station (EC, 2020) with the 2020 Springpole site data (June - Sept.).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

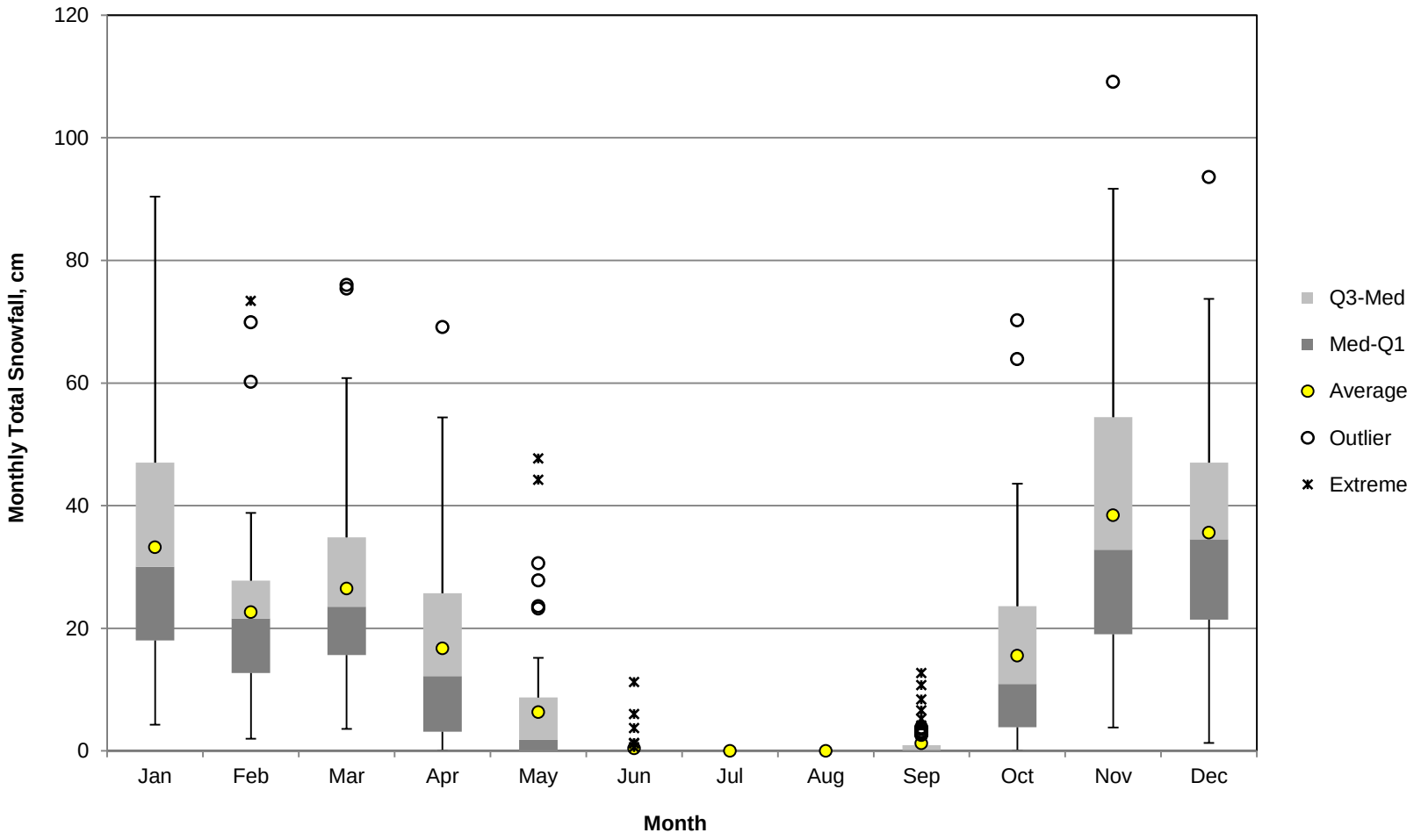


Figure C9 Monthly total snowfall from 1930 to 2020 at the Red Lake climate station (EC, 2020).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

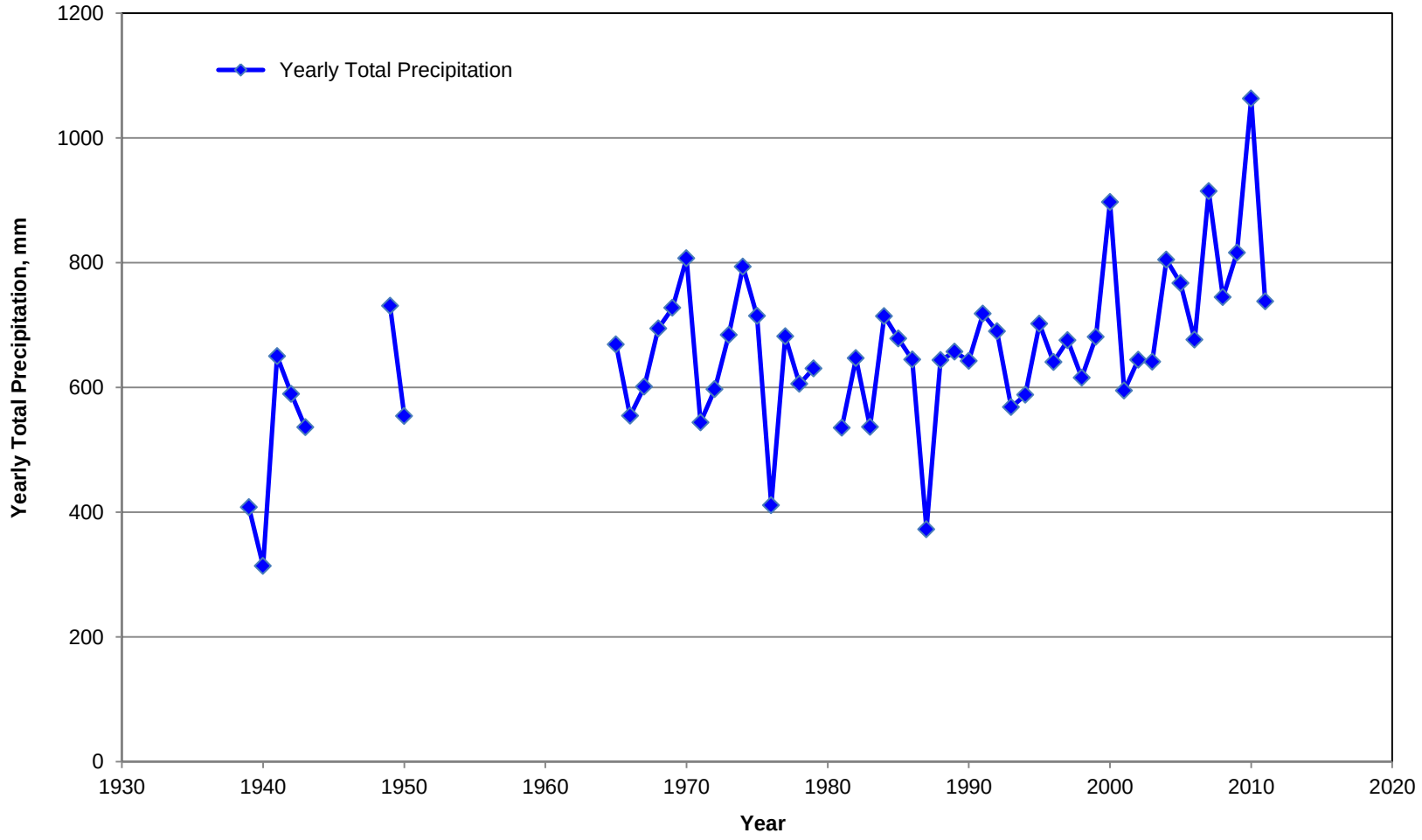


Figure C10 Yearly total precipitation from 1930 to 2020 at the Red Lake climate station (EC, 2020).

Project No. 3134	Document Reference FFC-NL-3134-007
Location Springpole, ON	Date December 2020

FFC

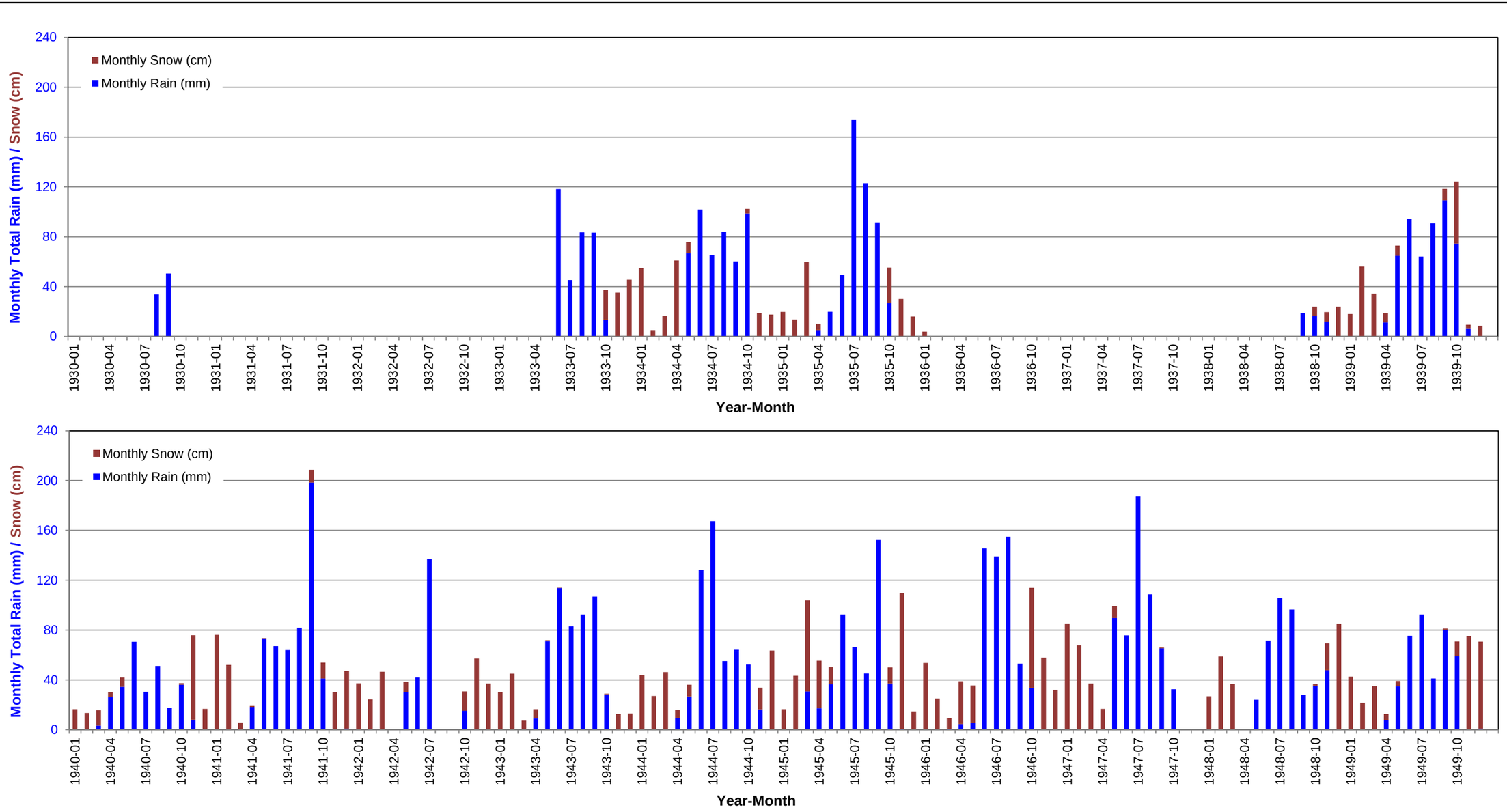


Figure C11 Monthly precipitation data from 1930 to 1949 from the Pickle Lake weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

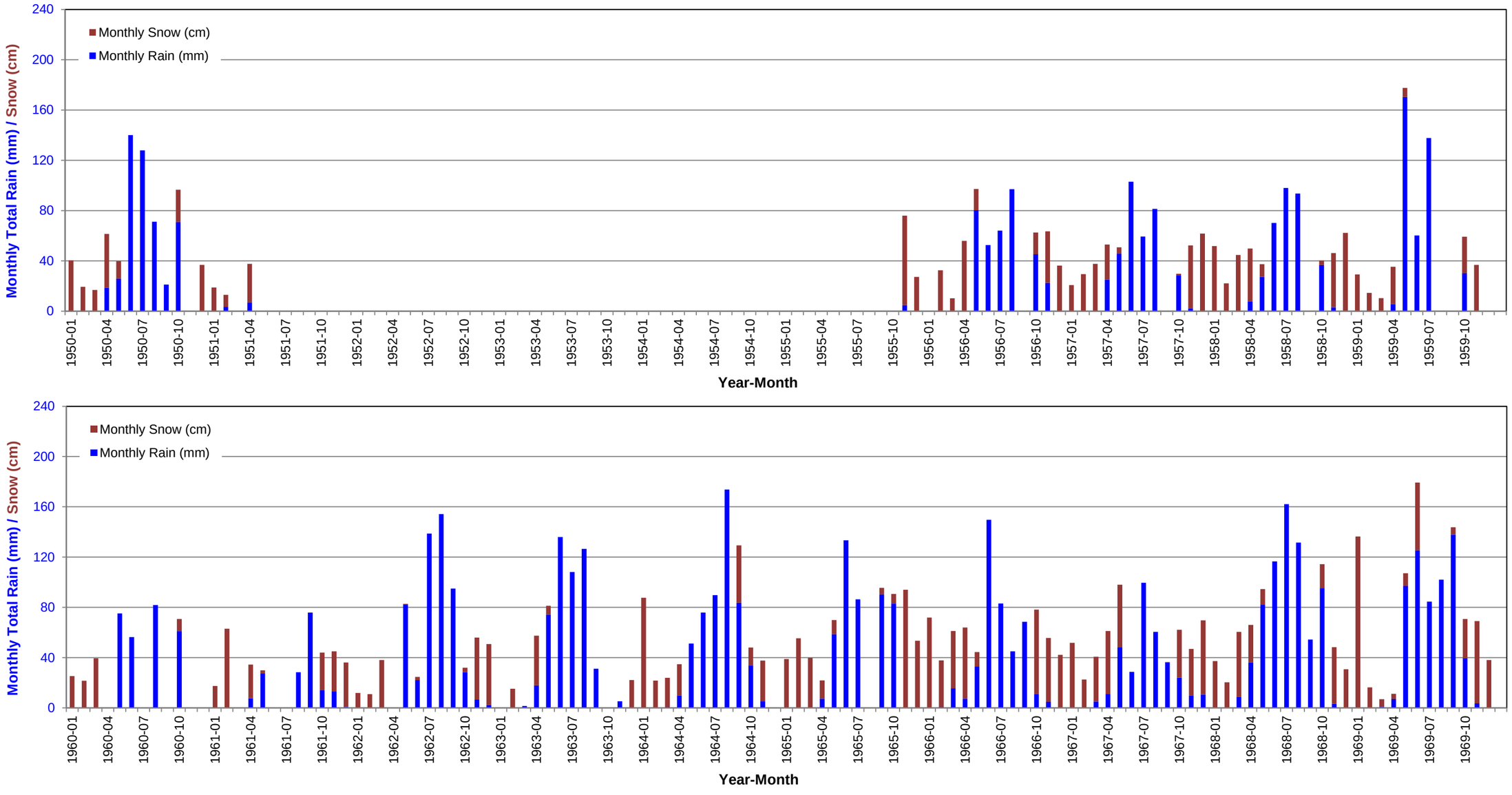


Figure C12 Monthly precipitation data from 1950 to 1969 from the Pickle Lake weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

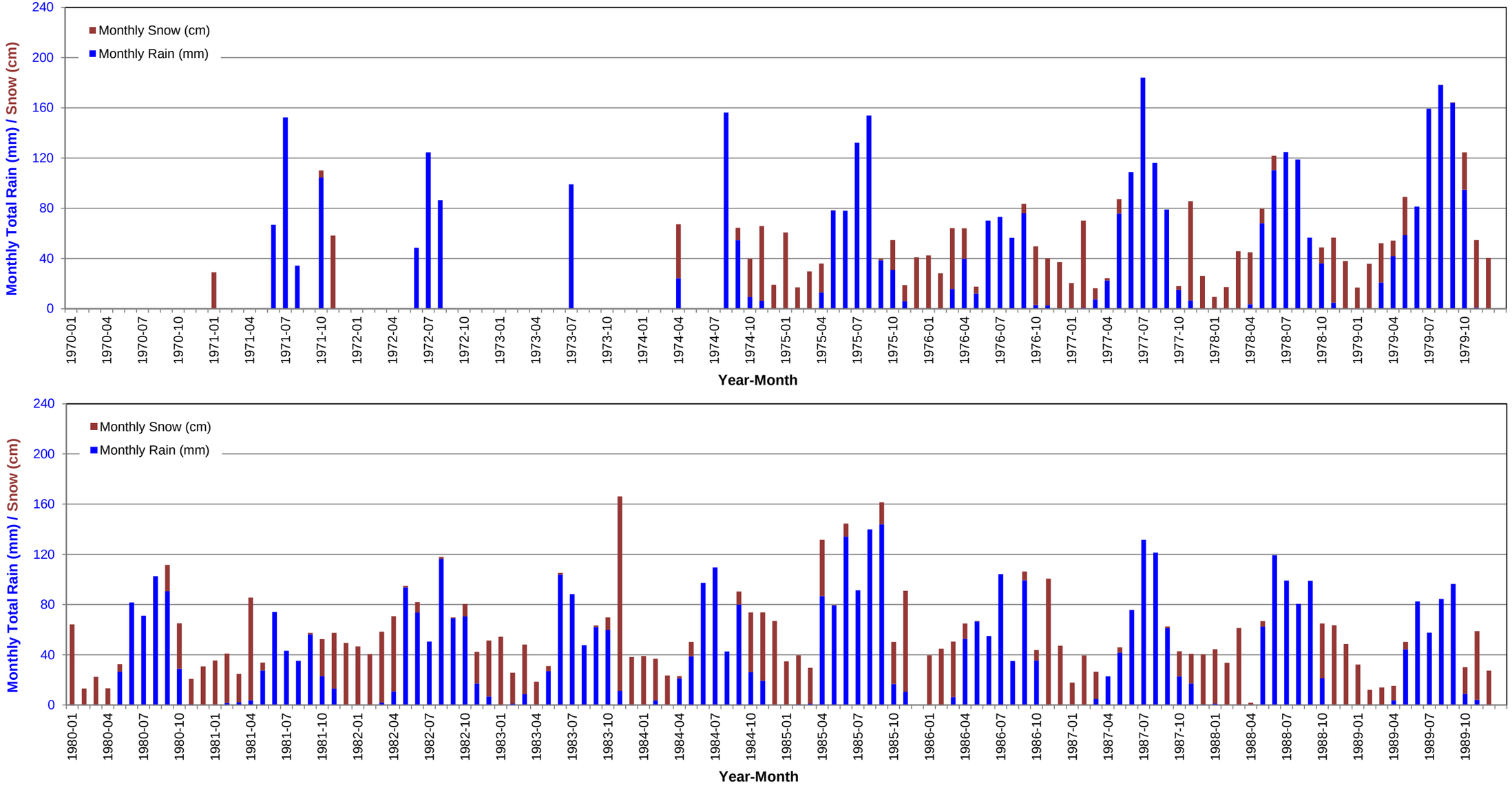


Figure C13 Monthly precipitation data from 1970 to 1989 from the Pickle Lake weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

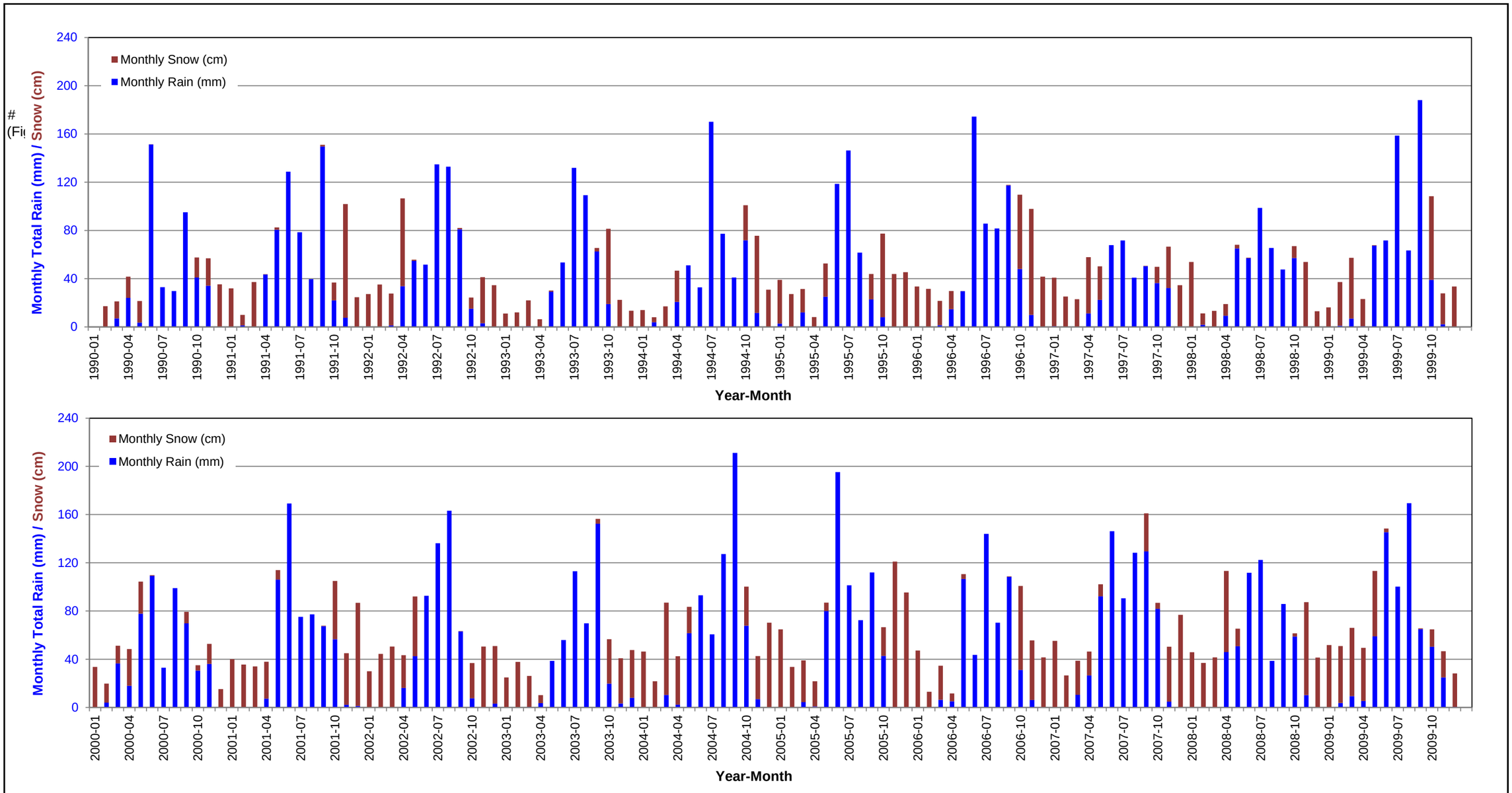


Figure C14 Monthly precipitation data from 1990 to 2009 from the Pickle Lake weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

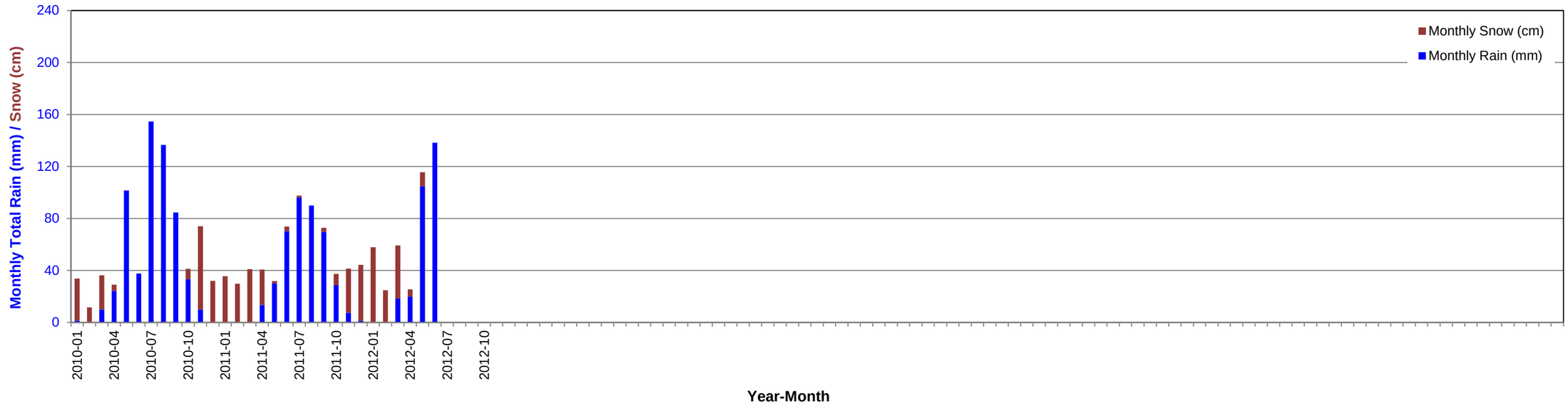


Figure C15 Monthly precipitation data from 2010 to 2012 from the Pickle Lake weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

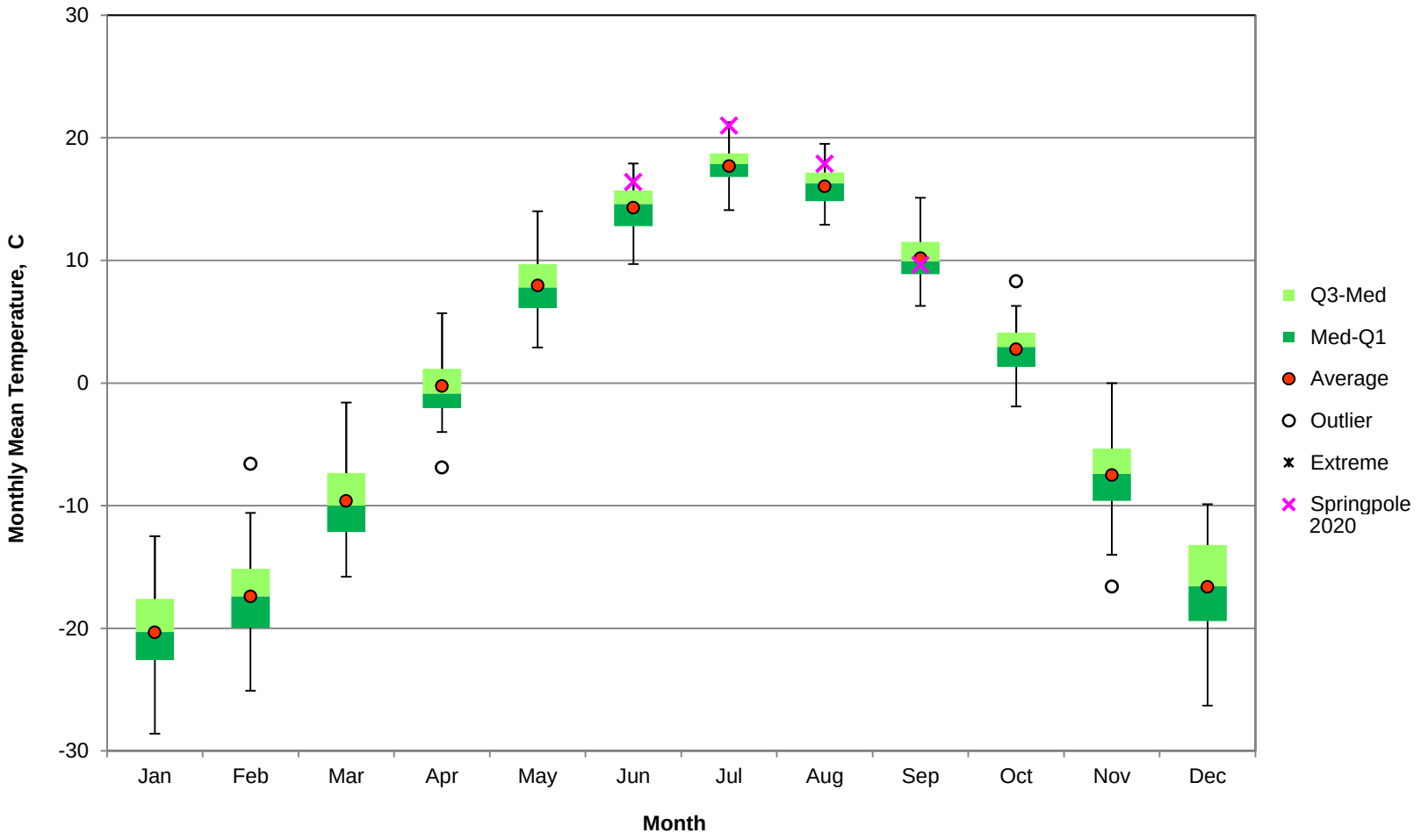


Figure C16 Monthly mean temperature from 1930 to 2020 at the Pickle Lake climate station (EC, 2020) with the 2020 Springpole site data (June - Sept.).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

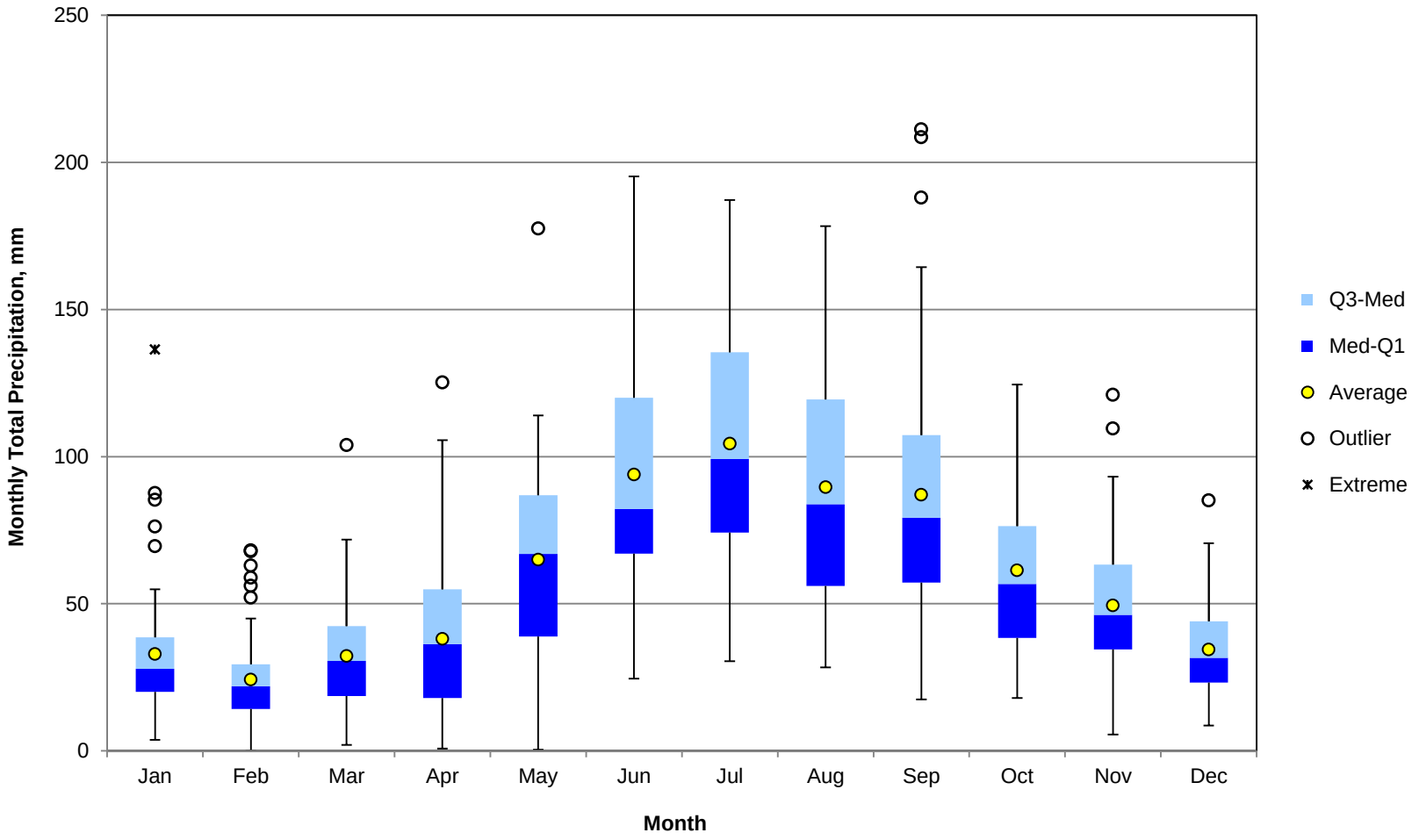


Figure C17 Monthly total precipitation from 1930 to 2020 at the Pickle Lake climate station (EC, 2020).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

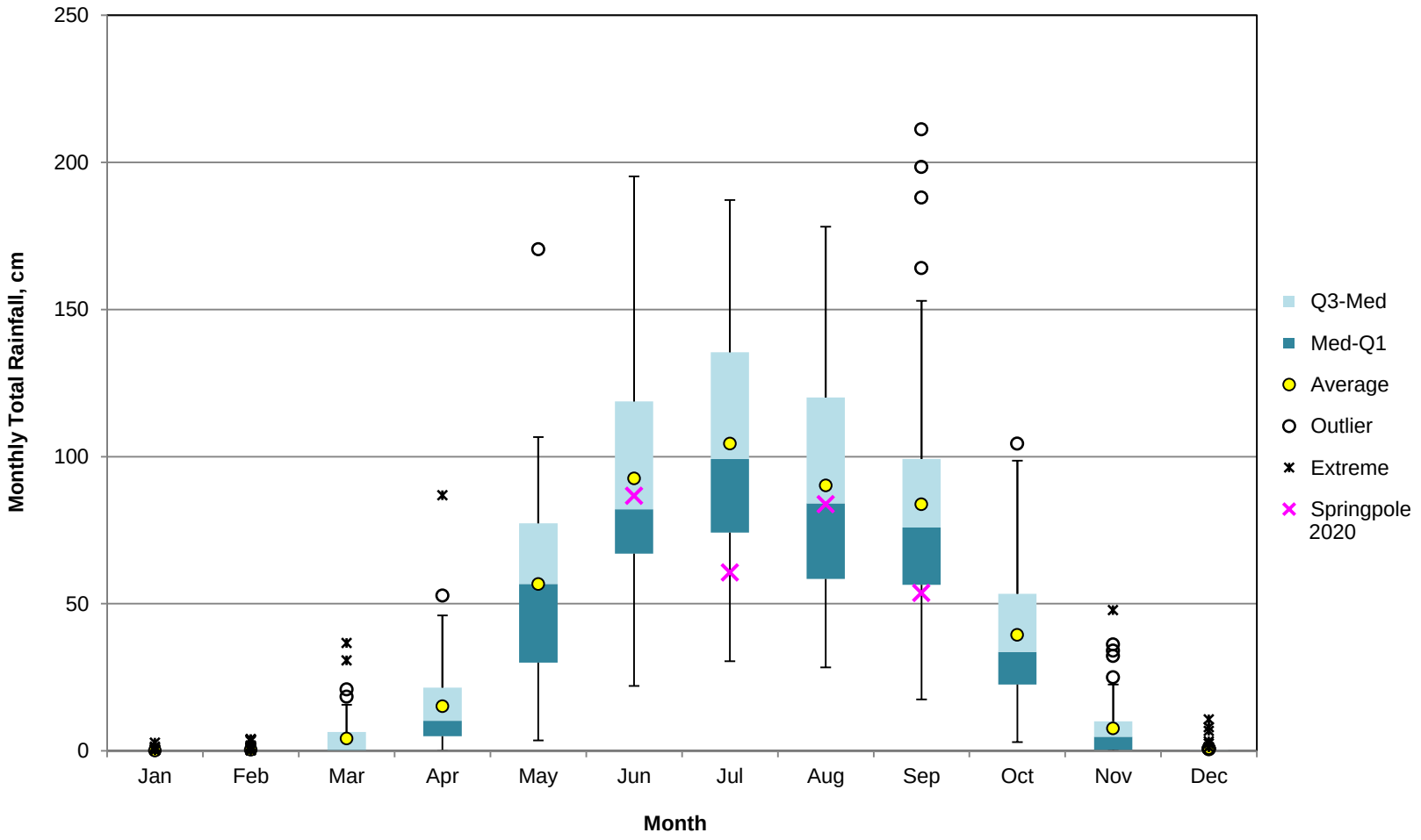


Figure C18 Monthly total rainfall from 1930 to 2020 at the Pickle Lake climate station (EC, 2020) with the 2020 Springpole site data (June - Sept.).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

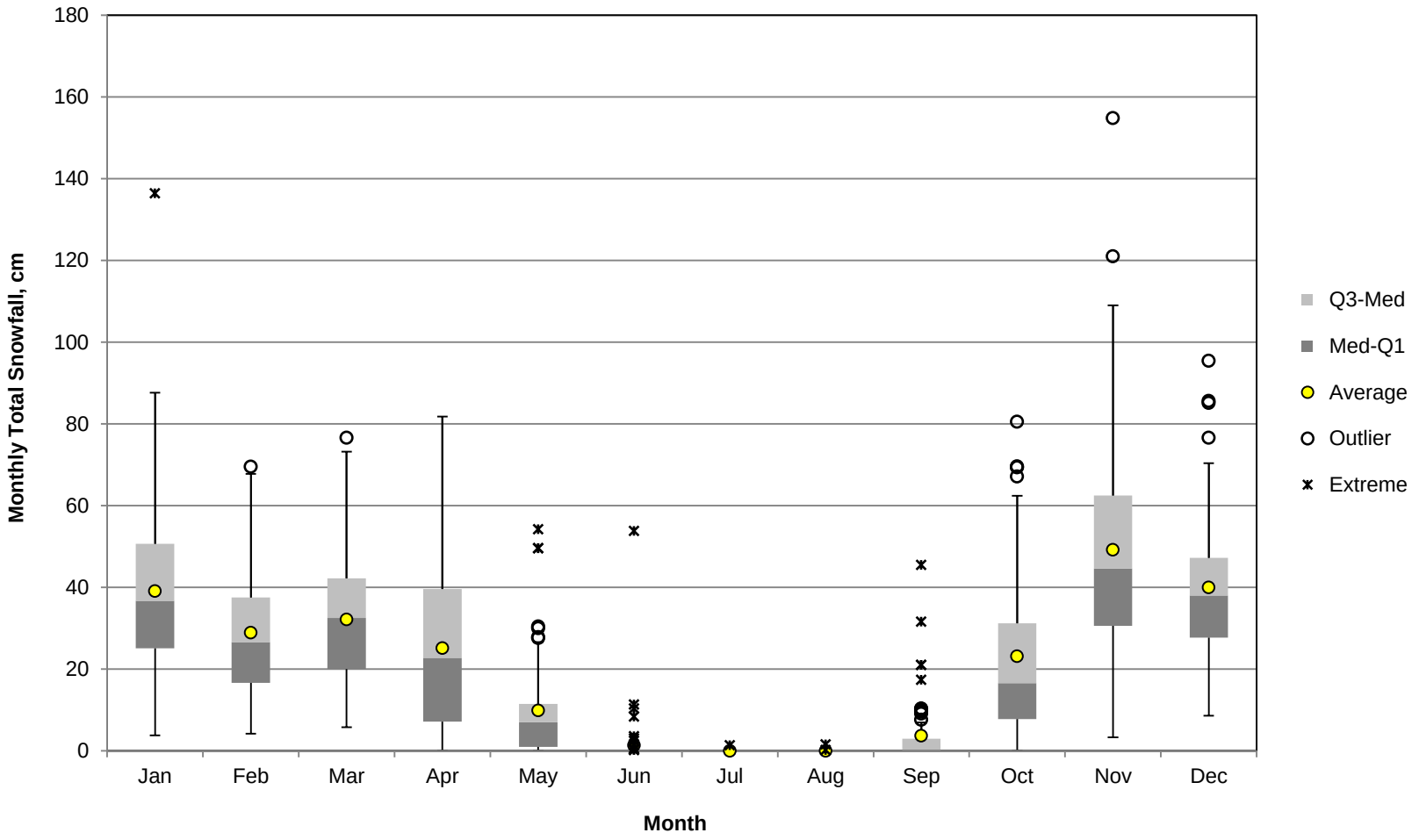


Figure C19 Monthly total snowfall from 1930 to 2020 at the Pickle Lake climate station (EC, 2020).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

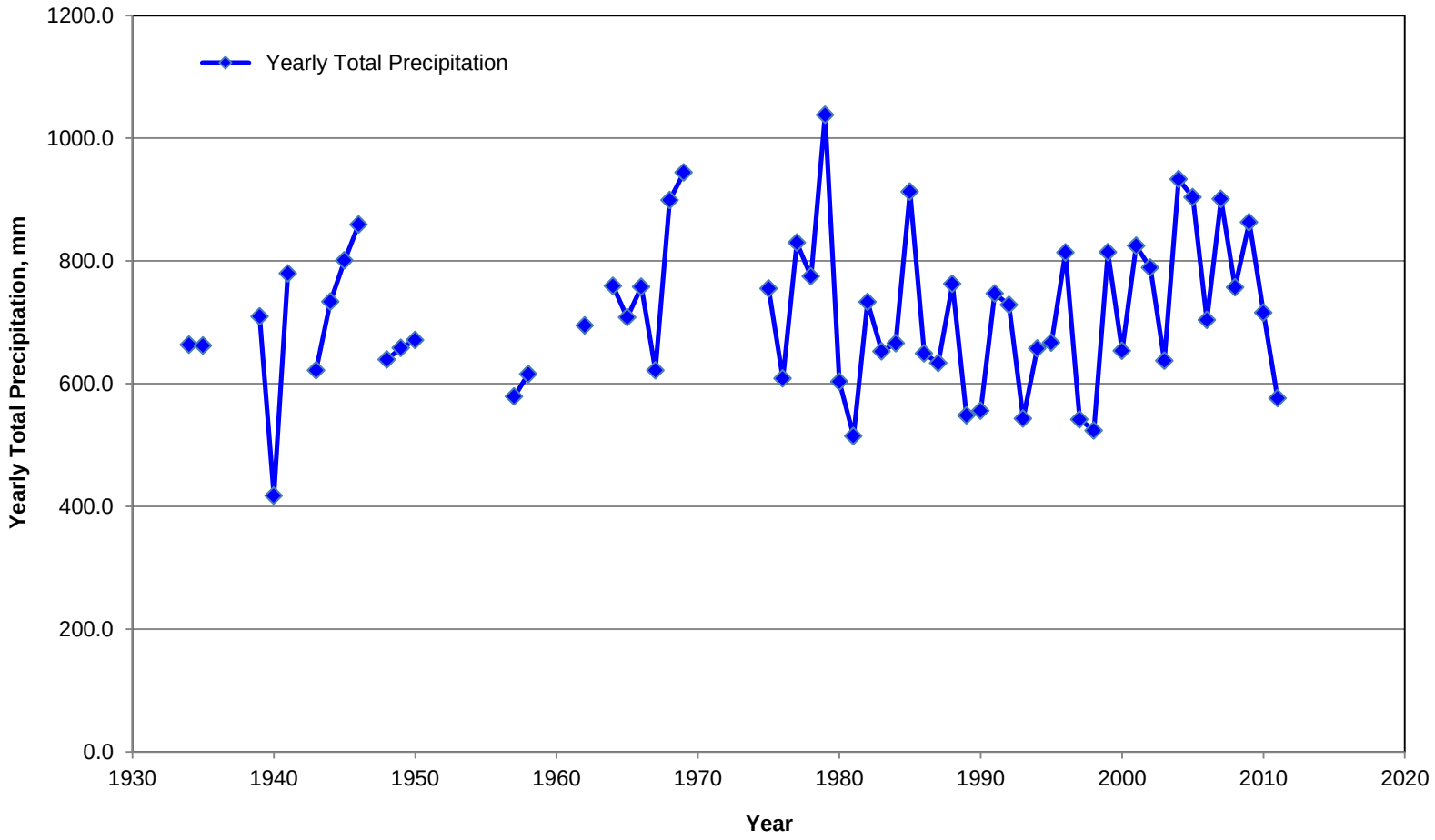


Figure C20 Yearly total precipitation from 1930 to 2020 at the Pickle Lake climate station (EC, 2020).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

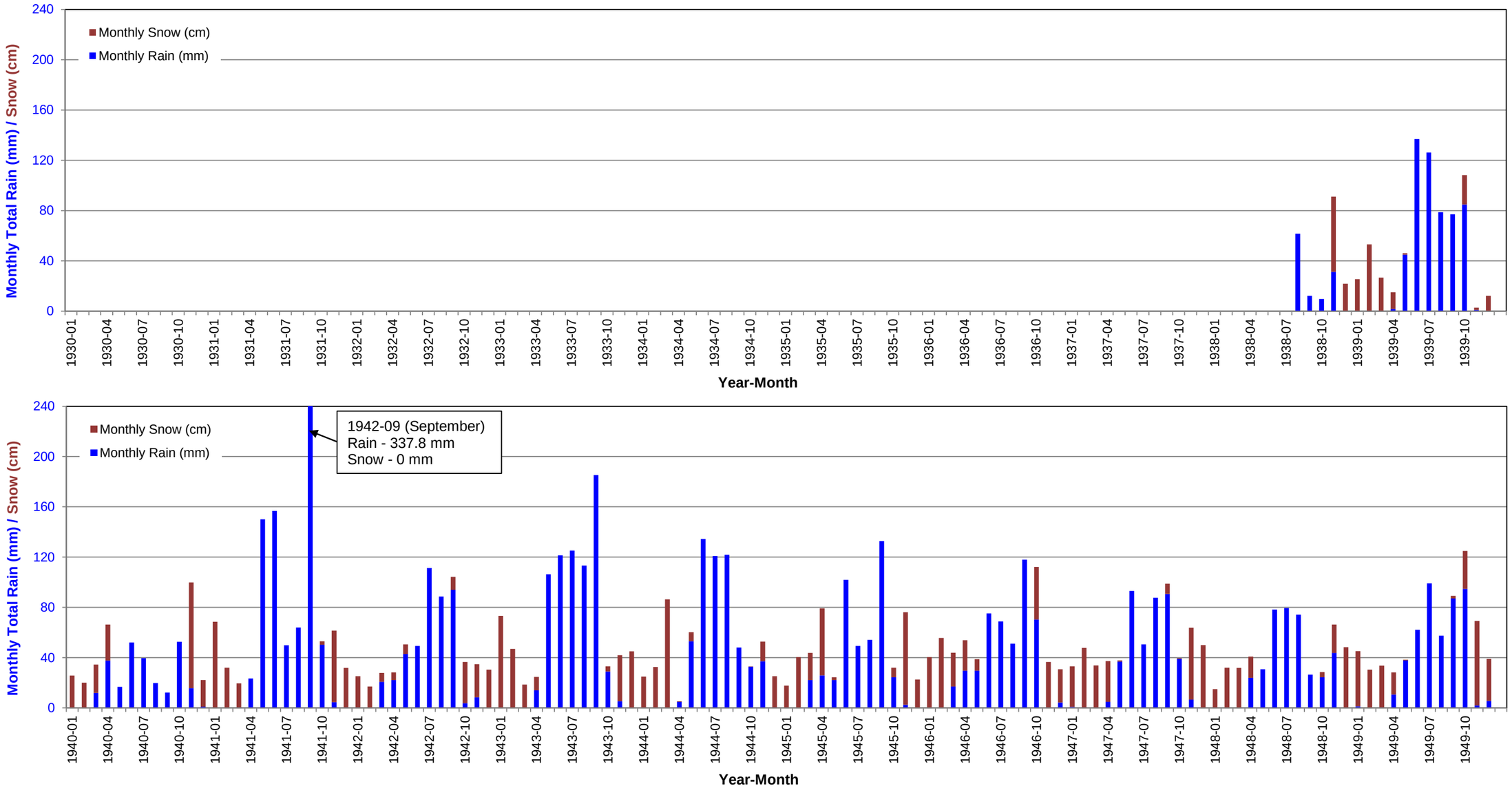


Figure C21 Monthly precipitation data from 1930 to 1949 from the Sioux Lookout weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

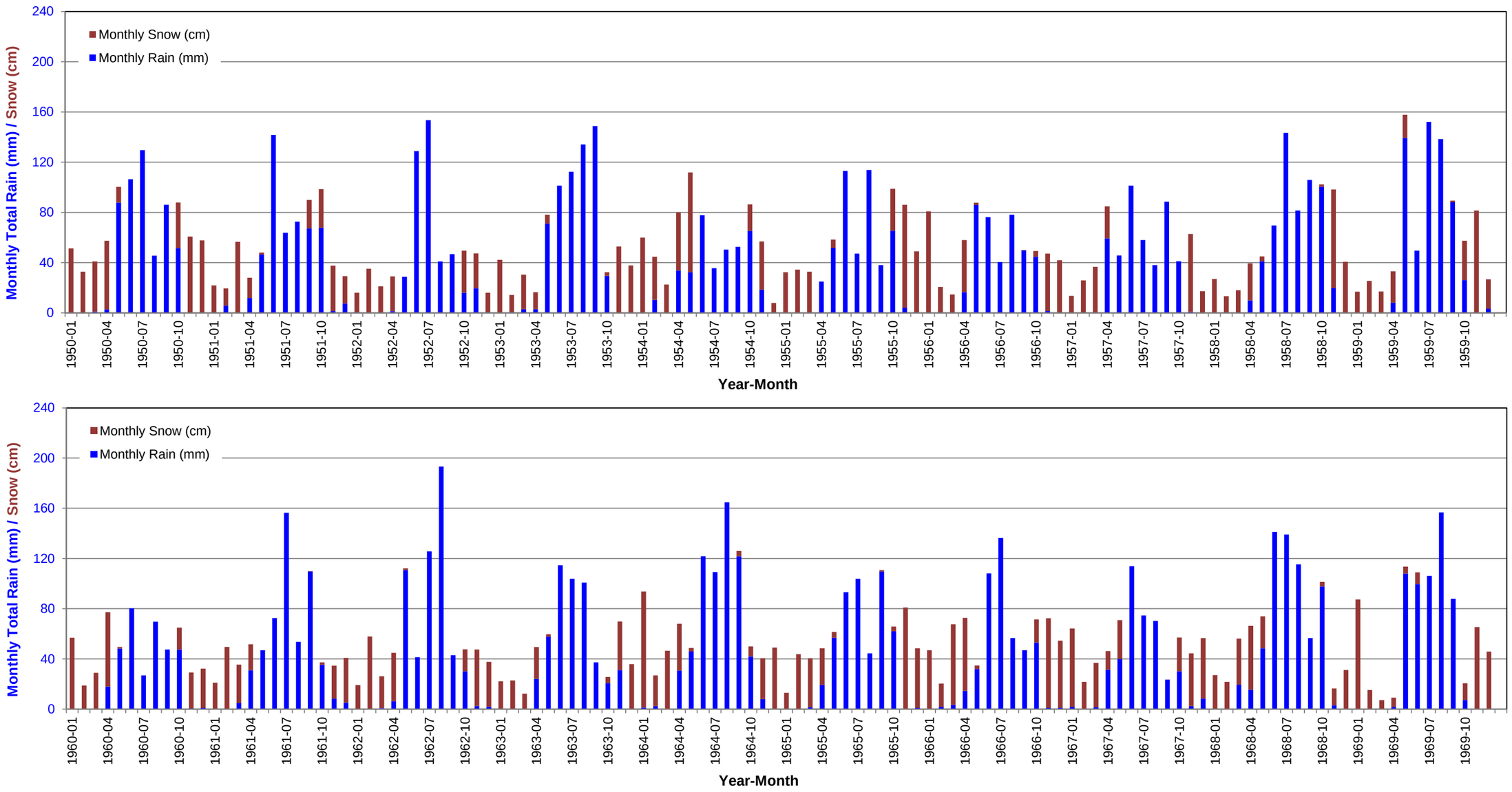


Figure C22 Monthly precipitation data from 1950 to 1969 from the Sioux Lookout weather station.

Project No. 3134	Document Reference FFC-NL-3134-007
Location Springpole, ON	Date December 2020

FFC

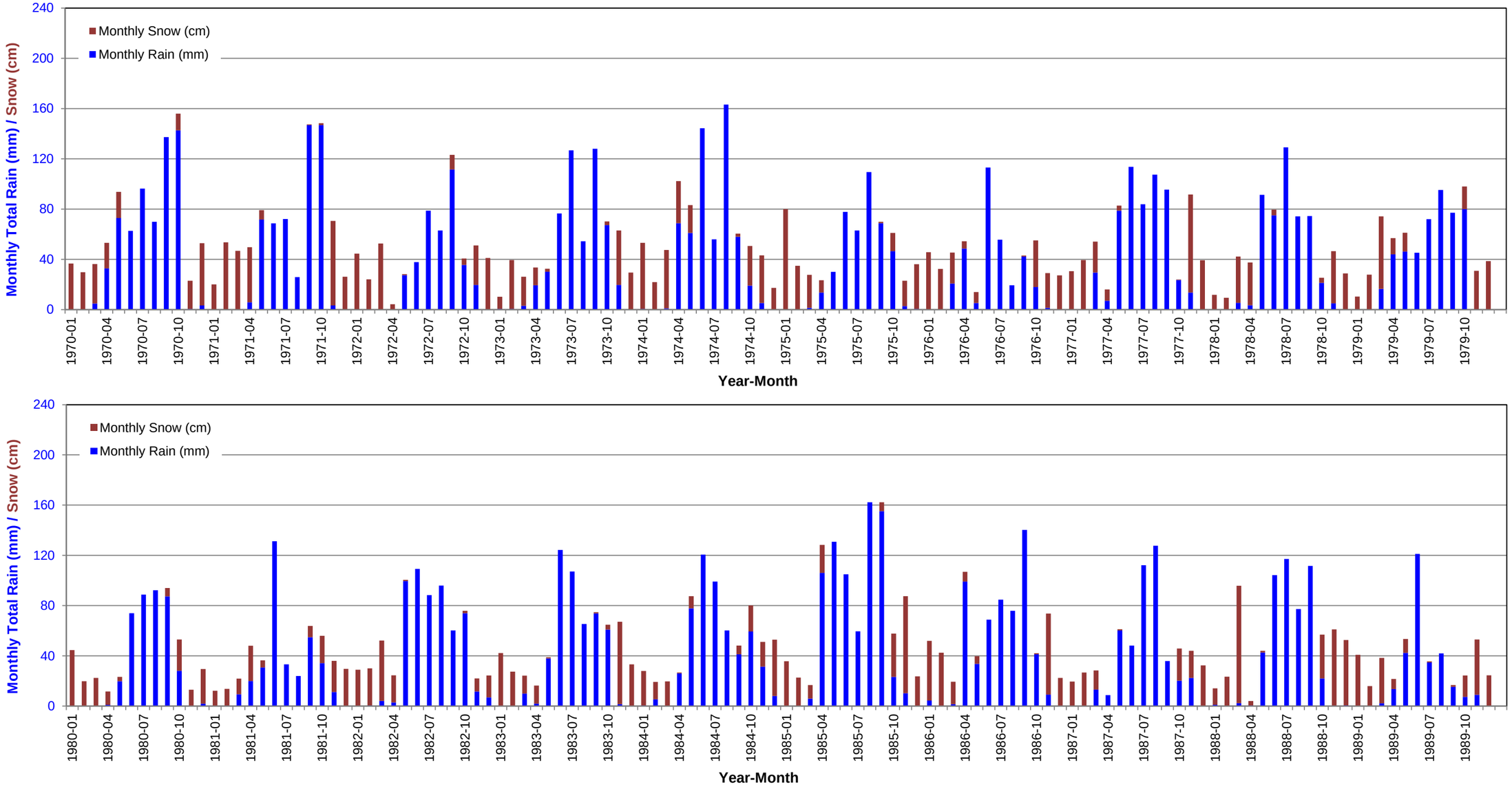


Figure C23 Monthly precipitation data from 1970 to 1989 from the Sioux Lookout weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

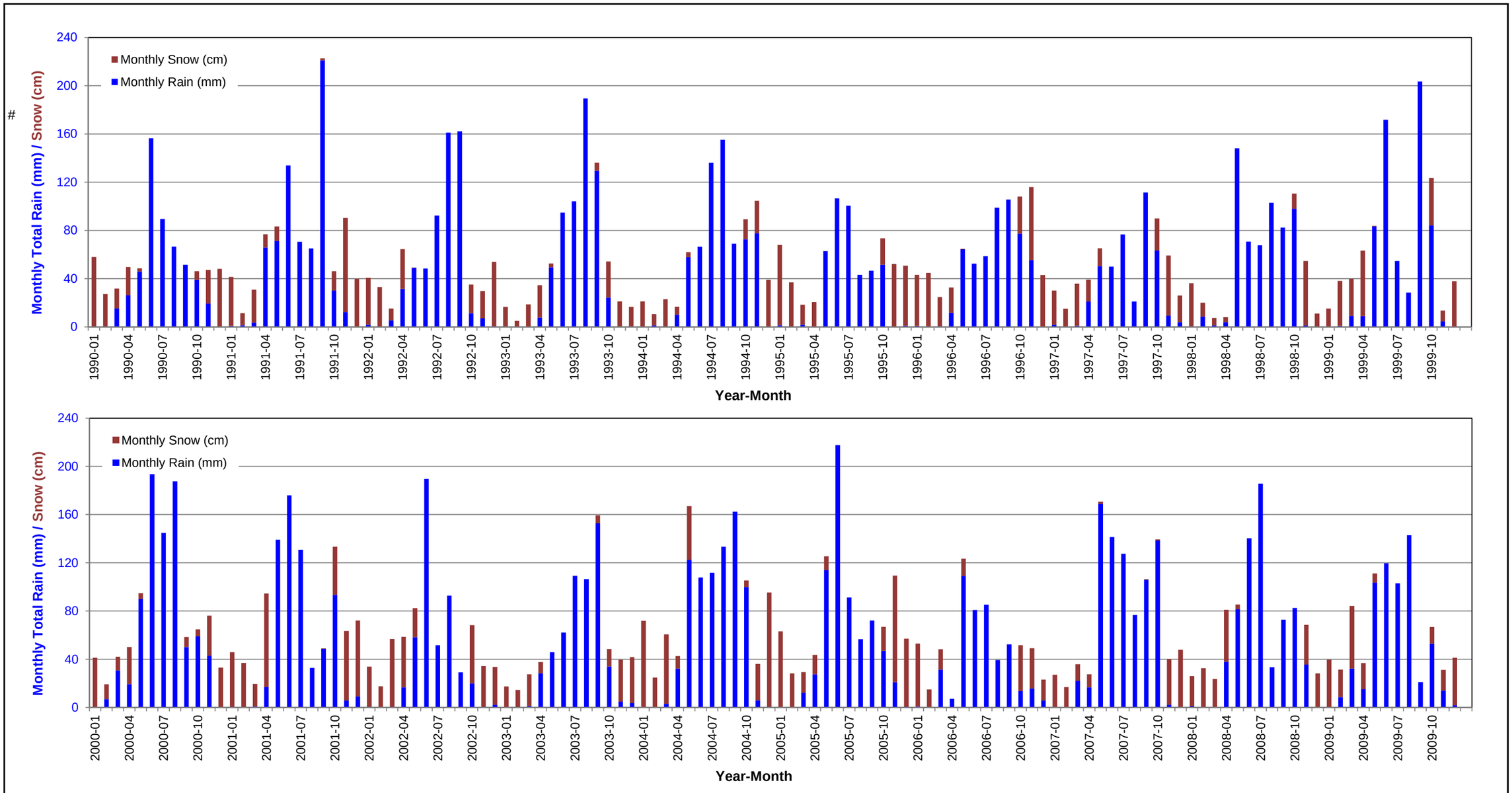


Figure C24 Monthly precipitation data from 1990 to 2009 from the Sioux Lookout weather station.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

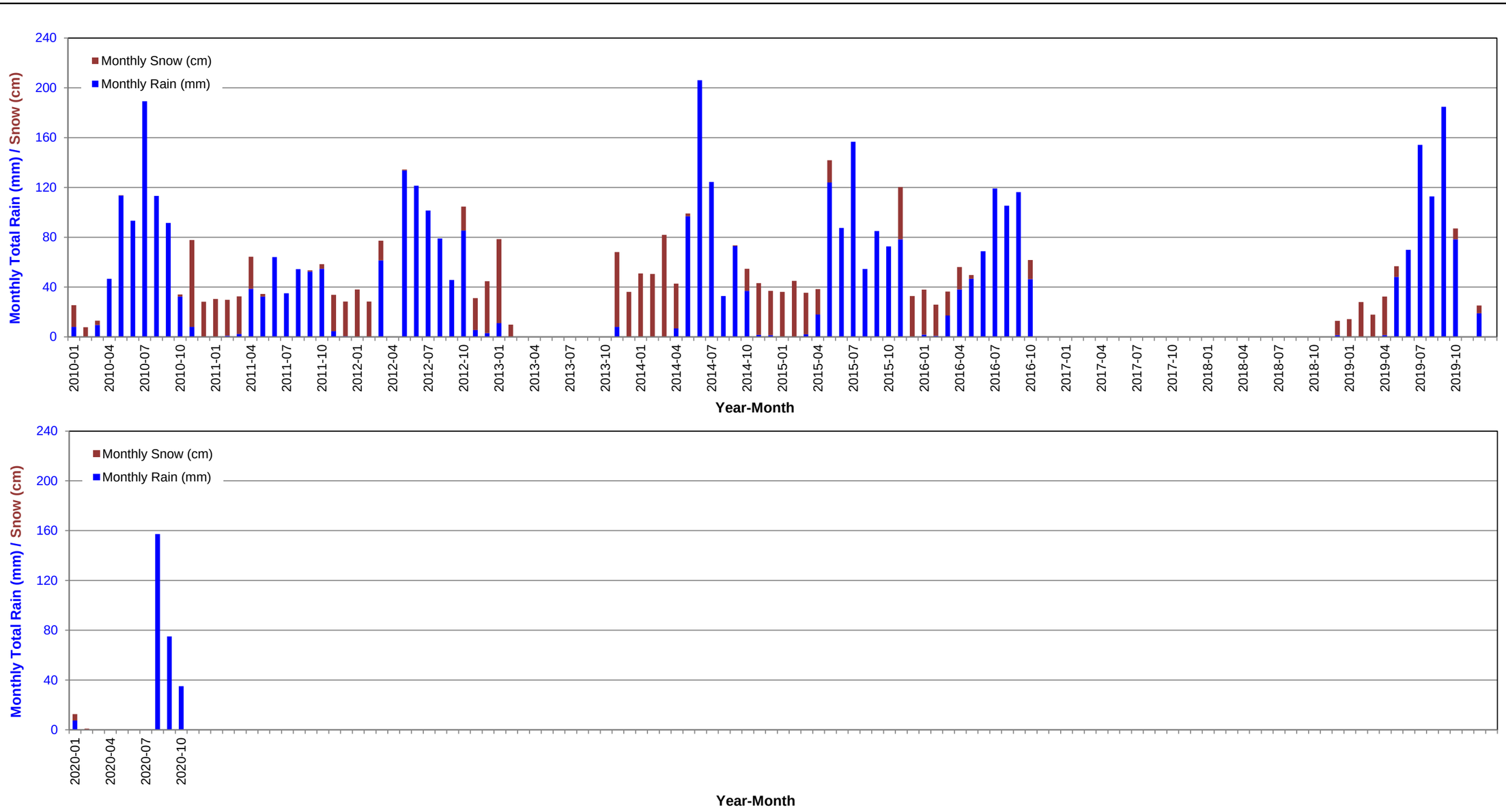


Figure C25 Monthly precipitation data from 2010 to 2020 from the Sioux Lookout weather station.

Project No. 3134	Document Reference FFC-NL-3134-007
Location Springpole, ON	Date December 2020

FFC

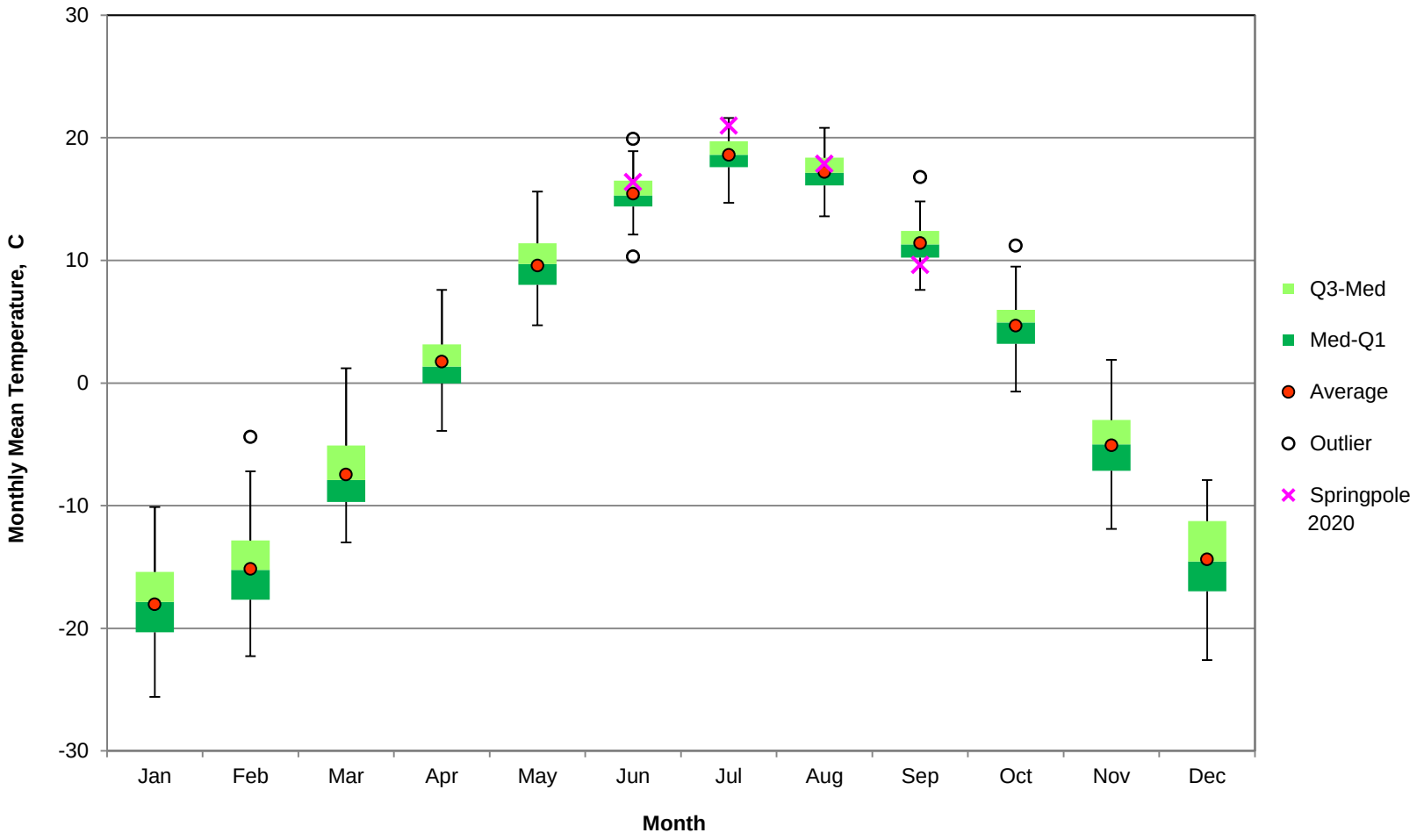


Figure C26 Monthly mean temperature from 1938 to 2020 at the Sioux Lookout climate station (EC, 2020) with the 2020 Springpole site data (June -

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

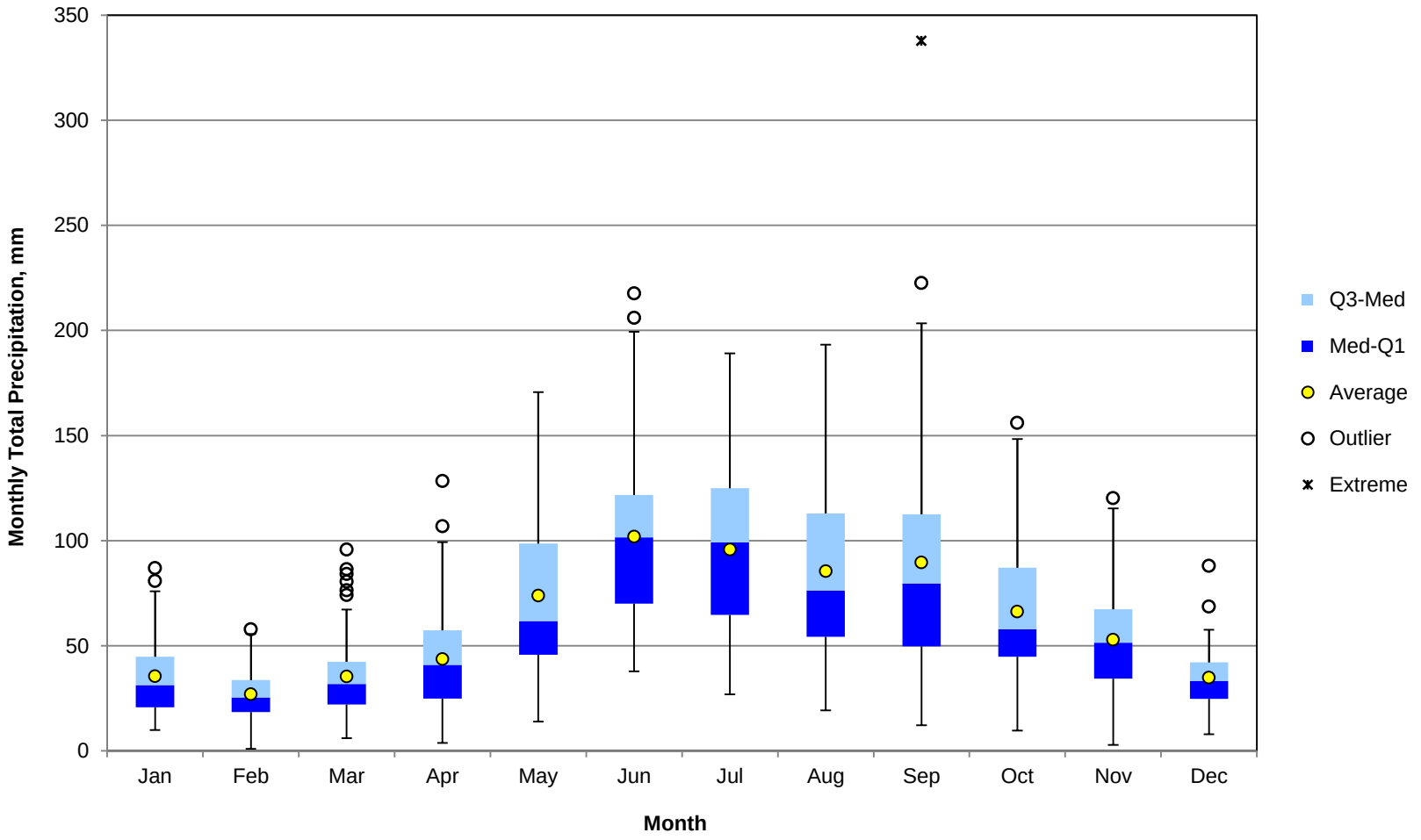


Figure C27 Monthly total precipitation from 1938 to 2020 at the Sioux Lookout climate station (EC, 2020).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

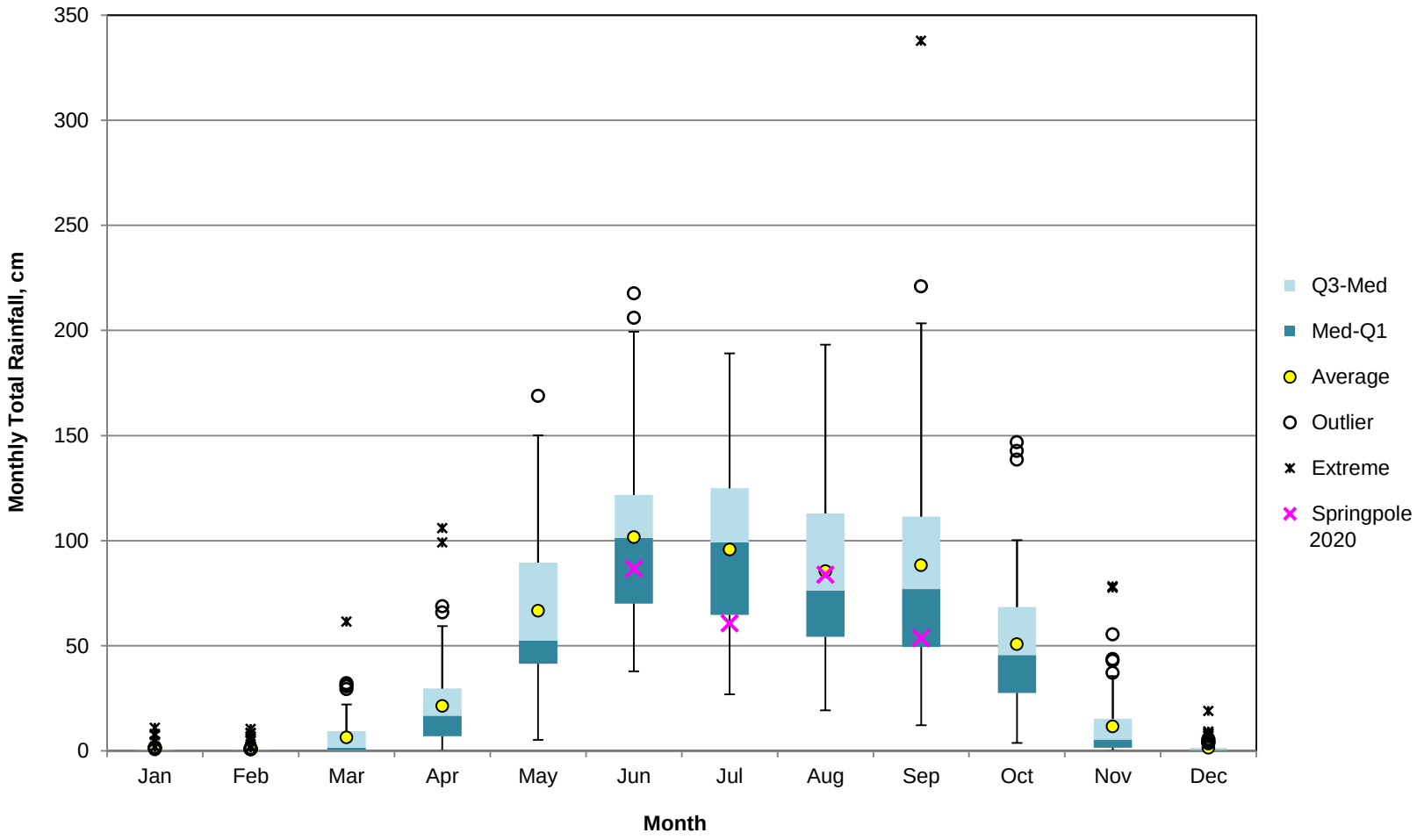


Figure C28 Monthly total rainfall from 1938 to 2020 at the Sioux Lookout climate station (EC, 2020) with the 2020 Springpole site data (June - Sept.).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

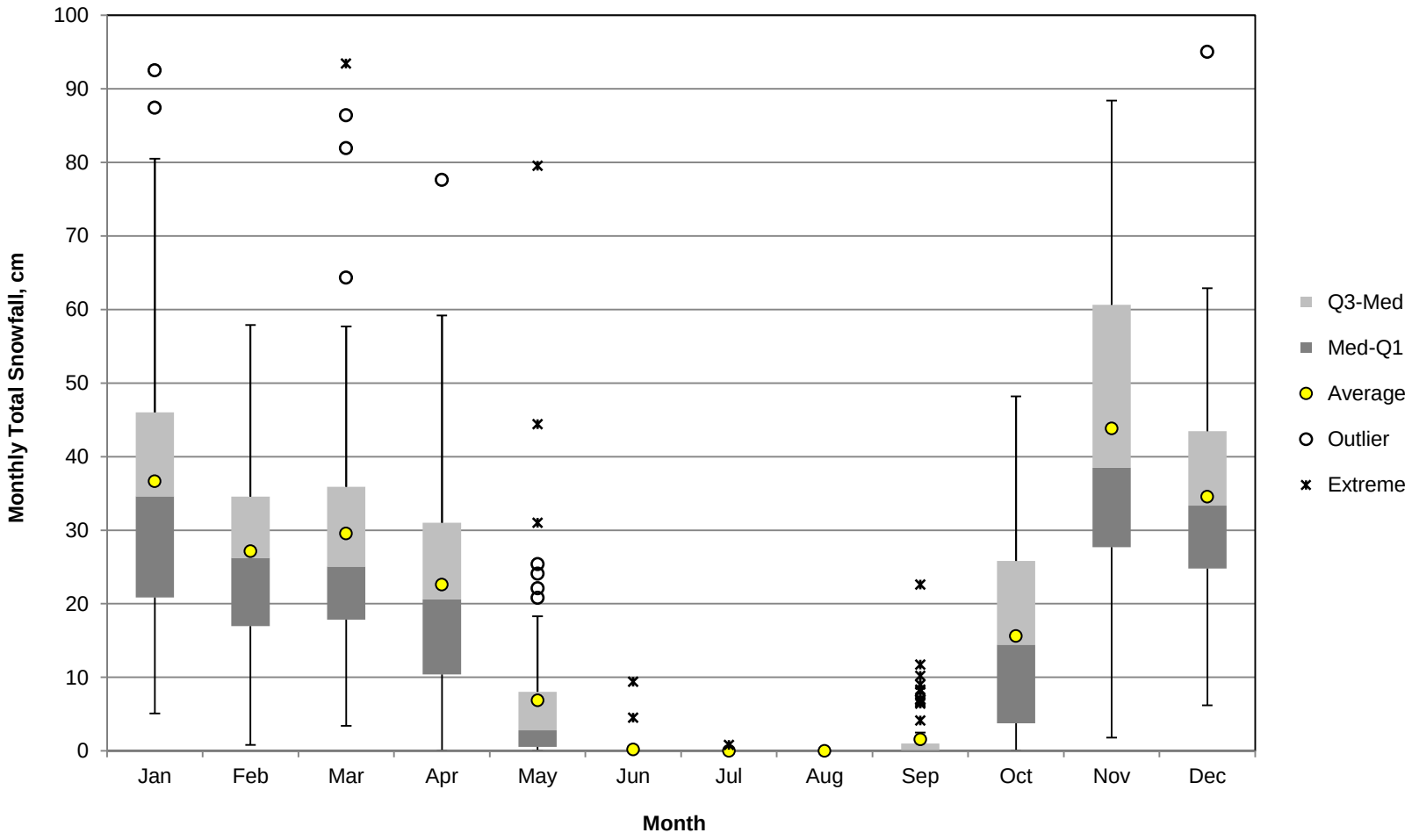


Figure C29 Monthly total snowfall from 1938 to 2020 at the Sioux Lookout climate station (EC, 2020).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

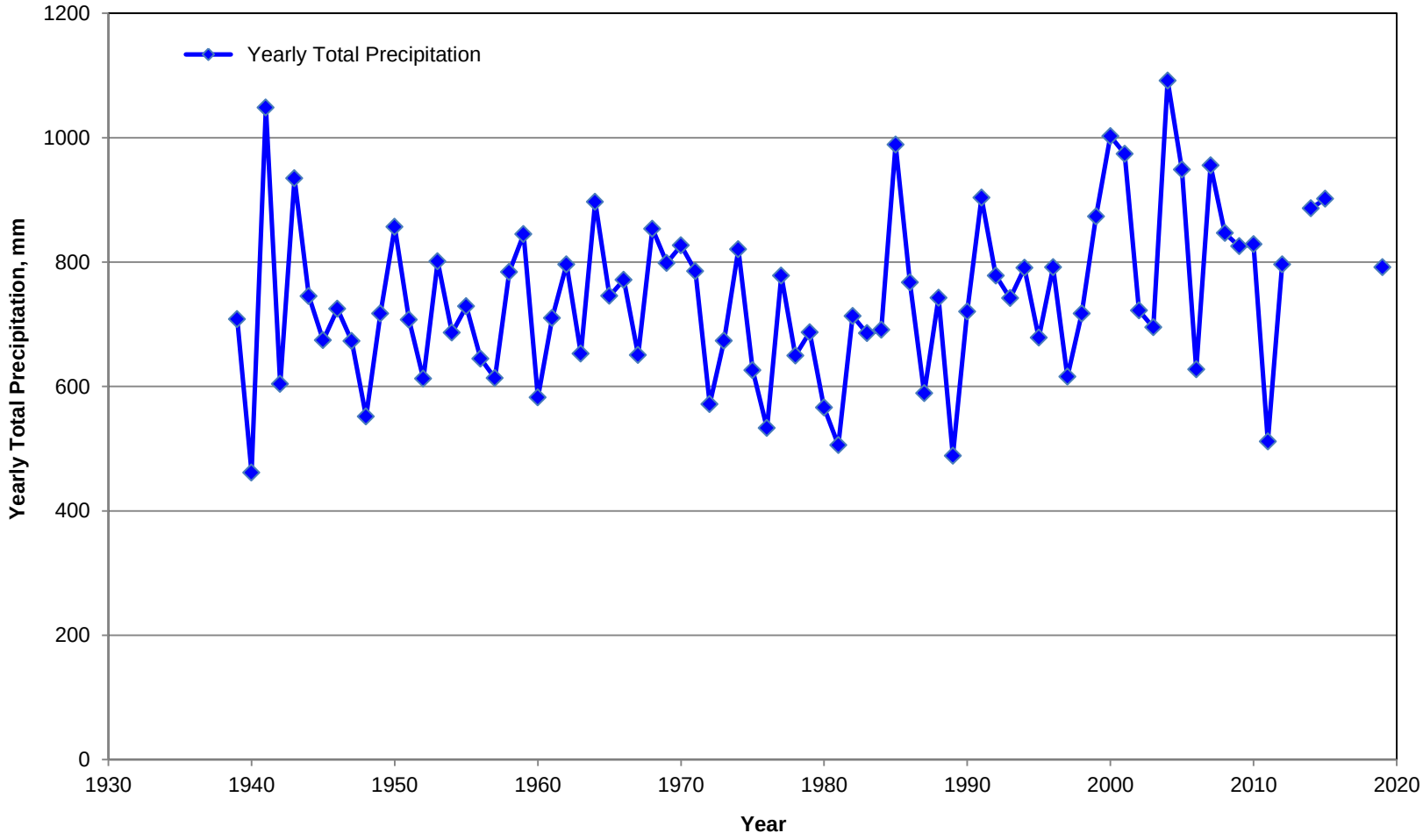


Figure C30 Yearly total precipitation from 1938 to 2020 at the Sioux Lookout climate station (EC, 2020).

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	December 2020

FFC

APPENDIX D

Laboratory Data

GOLD CANYON RESOURCES INC.
ATTN: David Mchaina
c/o Suite 1805 - 925 West Georgia Street
Vancouver BC V6C 3L2

Date Received: 29-AUG-19
Report Date: 12-SEP-19 12:13 (MT)
Version: FINAL

Client Phone: 705-929-5245

Certificate of Analysis

Lab Work Order #: L2338207
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

Amanda Loesch
Account Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-1 3134-BL0385-108M Sampled By: CLIENT on 24-AUG-19 @ 10:15 Matrix: Ground Water							
Physical Tests							
Conductivity	509		2.0	uS/cm		05-SEP-19	R4785228
Hardness (as CaCO3)	265		0.50	mg/L		04-SEP-19	
pH	7.55		0.10	pH		29-AUG-19	R4777648
Total Suspended Solids	3.9		2.0	mg/L		30-AUG-19	R4778887
Total Dissolved Solids	300		20	mg/L		30-AUG-19	R4778949
Anions and Nutrients							
Acidity (as CaCO3)	<1.0		1.0	mg/L		06-SEP-19	R4785330
Alkalinity, Total (as CaCO3)	281		1.0	mg/L		10-SEP-19	R4794232
Ammonia, Total (as N)	0.144		0.020	mg/L		30-AUG-19	R4778343
Bromide (Br)	<0.10		0.10	mg/L		30-AUG-19	R4779231
Chloride (Cl)	8.58		0.10	mg/L		30-AUG-19	R4779231
Fluoride (F)	0.059		0.020	mg/L		30-AUG-19	R4779231
Nitrate (as N)	<0.020		0.020	mg/L		30-AUG-19	R4779231
Nitrite (as N)	<0.010		0.010	mg/L		30-AUG-19	R4779231
Phosphorus (P)-Total	0.0069		0.0030	mg/L	31-AUG-19	03-SEP-19	R4781589
Silica, Reactive (as SiO2)	12.9		1.0	mg/L		04-SEP-19	R4783888
Sulfate (SO4)	25.1		0.30	mg/L		30-AUG-19	R4779231
Total Metals							
Aluminum (Al)-Total	0.0448		0.0030	mg/L	30-AUG-19	03-SEP-19	R4782648
Antimony (Sb)-Total	0.00120		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Arsenic (As)-Total	0.00379		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Barium (Ba)-Total	0.136		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Beryllium (Be)-Total	0.00019		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Boron (B)-Total	0.019		0.010	mg/L	30-AUG-19	03-SEP-19	R4782648
Cadmium (Cd)-Total	0.0000165		0.0000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Calcium (Ca)-Total	88.5		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Cesium (Cs)-Total	0.000331		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Chromium (Cr)-Total	0.00161		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Cobalt (Co)-Total	0.00121		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Copper (Cu)-Total	0.00154		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Iron (Fe)-Total	1.56		0.010	mg/L	30-AUG-19	03-SEP-19	R4782648
Lead (Pb)-Total	0.000227		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Lithium (Li)-Total	0.0014		0.0010	mg/L	30-AUG-19	03-SEP-19	R4782648
Magnesium (Mg)-Total	16.2		0.0050	mg/L	30-AUG-19	03-SEP-19	R4782648
Manganese (Mn)-Total	0.316		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Molybdenum (Mo)-Total	0.00448		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Nickel (Ni)-Total	0.00207		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Potassium (K)-Total	1.16		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Rubidium (Rb)-Total	0.00202		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-1 3134-BL0385-108M Sampled By: CLIENT on 24-AUG-19 @ 10:15 Matrix: Ground Water							
Total Metals							
Selenium (Se)-Total	0.000083		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Silicon (Si)-Total	5.71		0.10	mg/L	30-AUG-19	03-SEP-19	R4782648
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Sodium (Na)-Total	3.95		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Strontium (Sr)-Total	1.43		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Sulfur (S)-Total	9.18		0.50	mg/L	30-AUG-19	03-SEP-19	R4782648
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Titanium (Ti)-Total	<0.0015	DLM	0.0015	mg/L	30-AUG-19	03-SEP-19	R4782648
Tungsten (W)-Total	0.00106		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Uranium (U)-Total	0.000290		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Zinc (Zn)-Total	0.0527		0.0030	mg/L	30-AUG-19	03-SEP-19	R4782648
Zirconium (Zr)-Total	0.000840		0.000060	mg/L	30-AUG-19	03-SEP-19	R4782648
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					30-AUG-19	R4778353
Aluminum (Al)-Dissolved	0.0049		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Antimony (Sb)-Dissolved	0.00086		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Arsenic (As)-Dissolved	0.00223		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Barium (Ba)-Dissolved	0.132		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Beryllium (Be)-Dissolved	0.00016		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Boron (B)-Dissolved	0.016		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cadmium (Cd)-Dissolved	0.0000128		0.0000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Calcium (Ca)-Dissolved	82.2		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Cesium (Cs)-Dissolved	0.000316		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cobalt (Co)-Dissolved	0.00114		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Iron (Fe)-Dissolved	0.951		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Lithium (Li)-Dissolved	0.0019		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Magnesium (Mg)-Dissolved	14.6		0.0050	mg/L	30-AUG-19	30-AUG-19	R4782072
Manganese (Mn)-Dissolved	0.272		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Molybdenum (Mo)-Dissolved	0.00488		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Nickel (Ni)-Dissolved	0.00170		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Potassium (K)-Dissolved	1.14		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Rubidium (Rb)-Dissolved	0.00194		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-1 3134-BL0385-108M Sampled By: CLIENT on 24-AUG-19 @ 10:15 Matrix: Ground Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000105		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silicon (Si)-Dissolved	5.55		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Sodium (Na)-Dissolved	3.65		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Strontium (Sr)-Dissolved	1.29		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Sulfur (S)-Dissolved	9.56		0.50	mg/L	30-AUG-19	30-AUG-19	R4782072
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	30-AUG-19	30-AUG-19	R4782072
Tungsten (W)-Dissolved	0.00130		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Uranium (U)-Dissolved	0.000279		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Zinc (Zn)-Dissolved	0.0498		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Zirconium (Zr)-Dissolved	0.000652		0.000060	mg/L	30-AUG-19	30-AUG-19	R4782072
L2338207-2 3134-BLDUP-1 Sampled By: CLIENT on 24-AUG-19 @ 00:01 Matrix: Ground Water							
Physical Tests							
Conductivity	502		2.0	uS/cm		05-SEP-19	R4785228
Hardness (as CaCO3)	266		0.50	mg/L		04-SEP-19	
pH	7.49		0.10	pH		29-AUG-19	R4777648
Total Suspended Solids	5.9		2.0	mg/L		30-AUG-19	R4778887
Total Dissolved Solids	317		20	mg/L		30-AUG-19	R4778949
Anions and Nutrients							
Acidity (as CaCO3)	<1.0		1.0	mg/L		06-SEP-19	R4785330
Alkalinity, Total (as CaCO3)	258		1.0	mg/L		10-SEP-19	R4794232
Ammonia, Total (as N)	0.118		0.020	mg/L		30-AUG-19	R4778343
Bromide (Br)	<0.10		0.10	mg/L		30-AUG-19	R4779231
Chloride (Cl)	8.65		0.10	mg/L		30-AUG-19	R4779231
Fluoride (F)	0.059		0.020	mg/L		30-AUG-19	R4779231
Nitrate (as N)	<0.020		0.020	mg/L		30-AUG-19	R4779231
Nitrite (as N)	<0.010		0.010	mg/L		30-AUG-19	R4779231
Phosphorus (P)-Total	0.0079		0.0030	mg/L	31-AUG-19	03-SEP-19	R4781589
Silica, Reactive (as SiO2)	12.4		1.0	mg/L		04-SEP-19	R4783888
Sulfate (SO4)	25.5		0.30	mg/L		30-AUG-19	R4779231
Total Metals							
Aluminum (Al)-Total	0.0476		0.0030	mg/L	30-AUG-19	03-SEP-19	R4782648
Antimony (Sb)-Total	0.00127		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Arsenic (As)-Total	0.00399		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Barium (Ba)-Total	0.140		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-2 3134-BLDUP-1 Sampled By: CLIENT on 24-AUG-19 @ 00:01 Matrix: Ground Water							
Total Metals							
Beryllium (Be)-Total	0.00023		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Boron (B)-Total	0.020		0.010	mg/L	30-AUG-19	03-SEP-19	R4782648
Cadmium (Cd)-Total	0.0000175		0.0000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Calcium (Ca)-Total	91.0		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Cesium (Cs)-Total	0.000342		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Chromium (Cr)-Total	0.00159		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Cobalt (Co)-Total	0.00125		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Copper (Cu)-Total	0.00184		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Iron (Fe)-Total	1.58		0.010	mg/L	30-AUG-19	03-SEP-19	R4782648
Lead (Pb)-Total	0.000199		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Lithium (Li)-Total	0.0016		0.0010	mg/L	30-AUG-19	03-SEP-19	R4782648
Magnesium (Mg)-Total	16.3		0.0050	mg/L	30-AUG-19	03-SEP-19	R4782648
Manganese (Mn)-Total	0.312		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Molybdenum (Mo)-Total	0.00468		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Nickel (Ni)-Total	0.00210		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Potassium (K)-Total	1.18		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Rubidium (Rb)-Total	0.00203		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Selenium (Se)-Total	0.000054		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Silicon (Si)-Total	5.81		0.10	mg/L	30-AUG-19	03-SEP-19	R4782648
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Sodium (Na)-Total	4.13		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Strontium (Sr)-Total	1.51		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Sulfur (S)-Total	9.26		0.50	mg/L	30-AUG-19	03-SEP-19	R4782648
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Titanium (Ti)-Total	0.00110		0.00030	mg/L	30-AUG-19	03-SEP-19	R4782648
Tungsten (W)-Total	0.00108		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Uranium (U)-Total	0.000300		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Zinc (Zn)-Total	0.0545		0.0030	mg/L	30-AUG-19	03-SEP-19	R4782648
Zirconium (Zr)-Total	0.000905		0.000060	mg/L	30-AUG-19	03-SEP-19	R4782648
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					30-AUG-19	R4778353
Aluminum (Al)-Dissolved	0.0054		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Antimony (Sb)-Dissolved	0.00083		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Arsenic (As)-Dissolved	0.00223		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Barium (Ba)-Dissolved	0.133		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-2 3134-BLDUP-1 Sampled By: CLIENT on 24-AUG-19 @ 00:01 Matrix: Ground Water							
Dissolved Metals							
Beryllium (Be)-Dissolved	0.00014		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Boron (B)-Dissolved	0.015		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cadmium (Cd)-Dissolved	0.0000108		0.0000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Calcium (Ca)-Dissolved	81.9		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Cesium (Cs)-Dissolved	0.000317		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Chromium (Cr)-Dissolved	0.00014		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cobalt (Co)-Dissolved	0.00114		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Iron (Fe)-Dissolved	0.944		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Lithium (Li)-Dissolved	0.0019		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Magnesium (Mg)-Dissolved	14.9		0.0050	mg/L	30-AUG-19	30-AUG-19	R4782072
Manganese (Mn)-Dissolved	0.267		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Molybdenum (Mo)-Dissolved	0.00464		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Nickel (Ni)-Dissolved	0.00170		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Potassium (K)-Dissolved	1.15		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Rubidium (Rb)-Dissolved	0.00200		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Selenium (Se)-Dissolved	0.000091		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silicon (Si)-Dissolved	5.64		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Sodium (Na)-Dissolved	3.59		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Strontium (Sr)-Dissolved	1.27		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Sulfur (S)-Dissolved	9.46		0.50	mg/L	30-AUG-19	30-AUG-19	R4782072
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	30-AUG-19	30-AUG-19	R4782072
Tungsten (W)-Dissolved	0.00122		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Uranium (U)-Dissolved	0.000257		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Zinc (Zn)-Dissolved	0.0493		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Zirconium (Zr)-Dissolved	0.000665		0.000060	mg/L	30-AUG-19	30-AUG-19	R4782072
L2338207-3 3134-BL354-104M Sampled By: CLIENT on 24-AUG-19 @ 14:35 Matrix: Ground Water							
Physical Tests							
Conductivity	430		2.0	uS/cm		05-SEP-19	R4785228
Hardness (as CaCO3)	226		0.50	mg/L		04-SEP-19	
pH	7.02		0.10	pH		29-AUG-19	R4777648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-3 3134-BL354-104M Sampled By: CLIENT on 24-AUG-19 @ 14:35 Matrix: Ground Water							
Physical Tests							
Total Suspended Solids	115		2.0	mg/L		30-AUG-19	R4778887
Total Dissolved Solids	274		20	mg/L		30-AUG-19	R4778949
Anions and Nutrients							
Acidity (as CaCO3)	3.4		1.0	mg/L		06-SEP-19	R4785330
Alkalinity, Total (as CaCO3)	247		1.0	mg/L		10-SEP-19	R4794232
Ammonia, Total (as N)	<0.020		0.020	mg/L		30-AUG-19	R4778343
Bromide (Br)	<0.10		0.10	mg/L		30-AUG-19	R4779231
Chloride (Cl)	0.69		0.10	mg/L		30-AUG-19	R4779231
Fluoride (F)	0.038		0.020	mg/L		30-AUG-19	R4779231
Nitrate (as N)	0.373		0.020	mg/L		30-AUG-19	R4779231
Nitrite (as N)	<0.010		0.010	mg/L		30-AUG-19	R4779231
Phosphorus (P)-Total	0.091		0.030	mg/L	31-AUG-19	03-SEP-19	R4781589
Silica, Reactive (as SiO2)	12.0		1.0	mg/L		04-SEP-19	R4783888
Sulfate (SO4)	19.0		0.30	mg/L		30-AUG-19	R4779231
Total Metals							
Aluminum (Al)-Total	1.03		0.0030	mg/L	30-AUG-19	03-SEP-19	R4782648
Antimony (Sb)-Total	0.00099		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Arsenic (As)-Total	0.0536		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Barium (Ba)-Total	0.0193		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Beryllium (Be)-Total	0.00018		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Boron (B)-Total	<0.010		0.010	mg/L	30-AUG-19	03-SEP-19	R4782648
Cadmium (Cd)-Total	0.0000424		0.0000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Calcium (Ca)-Total	76.7		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Cesium (Cs)-Total	0.000578		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Chromium (Cr)-Total	0.00626		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Cobalt (Co)-Total	0.00392		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Copper (Cu)-Total	0.0190		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Iron (Fe)-Total	11.1		0.010	mg/L	30-AUG-19	03-SEP-19	R4782648
Lead (Pb)-Total	0.00268		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Lithium (Li)-Total	0.0025		0.0010	mg/L	30-AUG-19	03-SEP-19	R4782648
Magnesium (Mg)-Total	12.6		0.0050	mg/L	30-AUG-19	03-SEP-19	R4782648
Manganese (Mn)-Total	0.445		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Molybdenum (Mo)-Total	0.000302		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Nickel (Ni)-Total	0.00678		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Phosphorus (P)-Total	0.096		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Potassium (K)-Total	0.764		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Rubidium (Rb)-Total	0.00210		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Selenium (Se)-Total	0.000255		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Silicon (Si)-Total	6.67		0.10	mg/L	30-AUG-19	03-SEP-19	R4782648
Silver (Ag)-Total	0.000276		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-3 3134-BL354-104M Sampled By: CLIENT on 24-AUG-19 @ 14:35 Matrix: Ground Water							
Total Metals							
Sodium (Na)-Total	1.45		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Strontium (Sr)-Total	0.203		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Sulfur (S)-Total	6.86		0.50	mg/L	30-AUG-19	03-SEP-19	R4782648
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Thallium (Tl)-Total	0.000067		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Thorium (Th)-Total	0.00012		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Titanium (Ti)-Total	0.0275		0.00030	mg/L	30-AUG-19	03-SEP-19	R4782648
Tungsten (W)-Total	0.00275		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Uranium (U)-Total	0.000107		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Vanadium (V)-Total	0.00383		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Zinc (Zn)-Total	0.159		0.0030	mg/L	30-AUG-19	03-SEP-19	R4782648
Zirconium (Zr)-Total	0.000988		0.000060	mg/L	30-AUG-19	03-SEP-19	R4782648
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					30-AUG-19	R4778353
Aluminum (Al)-Dissolved	0.0112		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Antimony (Sb)-Dissolved	0.00022		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Arsenic (As)-Dissolved	0.00072		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Barium (Ba)-Dissolved	0.00957		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cadmium (Cd)-Dissolved	0.0000115		0.0000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Calcium (Ca)-Dissolved	70.8		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Cesium (Cs)-Dissolved	0.000116		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cobalt (Co)-Dissolved	0.00016		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Copper (Cu)-Dissolved	0.00502		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Iron (Fe)-Dissolved	0.070		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Lithium (Li)-Dissolved	0.0020		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Magnesium (Mg)-Dissolved	11.8		0.0050	mg/L	30-AUG-19	30-AUG-19	R4782072
Manganese (Mn)-Dissolved	0.0197		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Molybdenum (Mo)-Dissolved	0.000205		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Nickel (Ni)-Dissolved	0.00200		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Potassium (K)-Dissolved	0.609		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Rubidium (Rb)-Dissolved	0.00117		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Selenium (Se)-Dissolved	0.000180		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silicon (Si)-Dissolved	5.47		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-3 3134-BL354-104M Sampled By: CLIENT on 24-AUG-19 @ 14:35 Matrix: Ground Water							
Dissolved Metals							
Sodium (Na)-Dissolved	1.33		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Strontium (Sr)-Dissolved	0.170		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Sulfur (S)-Dissolved	7.16		0.50	mg/L	30-AUG-19	30-AUG-19	R4782072
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	30-AUG-19	30-AUG-19	R4782072
Tungsten (W)-Dissolved	0.00011		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Uranium (U)-Dissolved	0.000058		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Zinc (Zn)-Dissolved	0.136		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Zirconium (Zr)-Dissolved	0.000089		0.000060	mg/L	30-AUG-19	30-AUG-19	R4782072
L2338207-4 3134-BL52-60M Sampled By: CLIENT on 24-AUG-19 @ 18:20 Matrix: Ground Water							
Physical Tests							
Conductivity	551		2.0	uS/cm		05-SEP-19	R4785228
Hardness (as CaCO3)	279		0.50	mg/L		09-SEP-19	
pH	7.51		0.10	pH		29-AUG-19	R4777648
Total Suspended Solids	15.2		2.0	mg/L		30-AUG-19	R4778887
Total Dissolved Solids	336		20	mg/L		30-AUG-19	R4778949
Anions and Nutrients							
Acidity (as CaCO3)	1.6		1.0	mg/L		06-SEP-19	R4785330
Alkalinity, Total (as CaCO3)	289		1.0	mg/L		10-SEP-19	R4794232
Ammonia, Total (as N)	0.246		0.020	mg/L		30-AUG-19	R4778343
Bromide (Br)	<0.10		0.10	mg/L		30-AUG-19	R4779231
Chloride (Cl)	1.49		0.10	mg/L		30-AUG-19	R4779231
Fluoride (F)	0.100		0.020	mg/L		30-AUG-19	R4779231
Nitrate (as N)	0.107		0.020	mg/L		30-AUG-19	R4779231
Nitrite (as N)	<0.010		0.010	mg/L		30-AUG-19	R4779231
Phosphorus (P)-Total	0.0162		0.0030	mg/L	31-AUG-19	03-SEP-19	R4781589
Silica, Reactive (as SiO2)	13.1		1.0	mg/L		04-SEP-19	R4783888
Sulfate (SO4)	36.4		0.30	mg/L		30-AUG-19	R4779231
Total Metals							
Aluminum (Al)-Total	0.127		0.0030	mg/L	30-AUG-19	03-SEP-19	R4782648
Antimony (Sb)-Total	0.00045		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Arsenic (As)-Total	0.00471		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Barium (Ba)-Total	0.108		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Beryllium (Be)-Total	0.00055		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Boron (B)-Total	0.036		0.010	mg/L	30-AUG-19	03-SEP-19	R4782648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-4 3134-BL52-60M Sampled By: CLIENT on 24-AUG-19 @ 18:20 Matrix: Ground Water							
Total Metals							
Cadmium (Cd)-Total	0.0000350		0.0000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Calcium (Ca)-Total	90.6		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Cesium (Cs)-Total	0.00105		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Chromium (Cr)-Total	0.00162		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Cobalt (Co)-Total	0.00253		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Copper (Cu)-Total	0.0278		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Iron (Fe)-Total	2.32		0.010	mg/L	30-AUG-19	03-SEP-19	R4782648
Lead (Pb)-Total	0.00137		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Lithium (Li)-Total	0.0024		0.0010	mg/L	30-AUG-19	03-SEP-19	R4782648
Magnesium (Mg)-Total	20.6		0.0050	mg/L	30-AUG-19	03-SEP-19	R4782648
Manganese (Mn)-Total	0.467		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Molybdenum (Mo)-Total	0.000705		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Nickel (Ni)-Total	0.00343		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Potassium (K)-Total	1.63		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Rubidium (Rb)-Total	0.00240		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Selenium (Se)-Total	0.000100		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Silicon (Si)-Total	6.05		0.10	mg/L	30-AUG-19	03-SEP-19	R4782648
Silver (Ag)-Total	0.000014		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Sodium (Na)-Total	8.59		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Strontium (Sr)-Total	3.98		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Sulfur (S)-Total	13.2		0.50	mg/L	30-AUG-19	03-SEP-19	R4782648
Tellurium (Te)-Total	0.00034		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Thallium (Tl)-Total	0.000029		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Titanium (Ti)-Total	0.00634		0.00030	mg/L	30-AUG-19	03-SEP-19	R4782648
Tungsten (W)-Total	0.00232		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Uranium (U)-Total	0.000249		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Vanadium (V)-Total	0.00093		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Zinc (Zn)-Total	0.113		0.0030	mg/L	30-AUG-19	03-SEP-19	R4782648
Zirconium (Zr)-Total	0.00216		0.000060	mg/L	30-AUG-19	03-SEP-19	R4782648
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					30-AUG-19	R4778353
Aluminum (Al)-Dissolved	0.0032		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Antimony (Sb)-Dissolved	0.00022		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Arsenic (As)-Dissolved	0.00055		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Barium (Ba)-Dissolved	0.0930		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Beryllium (Be)-Dissolved	0.00019		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Boron (B)-Dissolved	0.030		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-4 3134-BL52-60M Sampled By: CLIENT on 24-AUG-19 @ 18:20 Matrix: Ground Water							
Dissolved Metals							
Cadmium (Cd)-Dissolved	0.0000124		0.0000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Calcium (Ca)-Dissolved	80.8		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Cesium (Cs)-Dissolved	0.000993		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Chromium (Cr)-Dissolved	0.00044		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cobalt (Co)-Dissolved	0.00040		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Copper (Cu)-Dissolved	0.00721		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Iron (Fe)-Dissolved	0.048		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Lithium (Li)-Dissolved	0.0022		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Magnesium (Mg)-Dissolved	18.7		0.0050	mg/L	30-AUG-19	30-AUG-19	R4782072
Manganese (Mn)-Dissolved	0.0844		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Molybdenum (Mo)-Dissolved	0.00111	DTC	0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Nickel (Ni)-Dissolved	0.00098		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Potassium (K)-Dissolved	1.56		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Rubidium (Rb)-Dissolved	0.00219		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Selenium (Se)-Dissolved	0.000082		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silicon (Si)-Dissolved	5.62		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Sodium (Na)-Dissolved	7.68		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Strontium (Sr)-Dissolved	3.50		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Sulfur (S)-Dissolved	13.3		0.50	mg/L	30-AUG-19	30-AUG-19	R4782072
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	30-AUG-19	30-AUG-19	R4782072
Tungsten (W)-Dissolved	0.00225		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Uranium (U)-Dissolved	0.000239		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Zinc (Zn)-Dissolved	0.0891		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Zirconium (Zr)-Dissolved	0.00117		0.000060	mg/L	30-AUG-19	30-AUG-19	R4782072
L2338207-5 3134-BL52-138M Sampled By: CLIENT on 25-AUG-19 @ 10:45 Matrix: Ground Water							
Physical Tests							
Conductivity	543		2.0	uS/cm		05-SEP-19	R4785228
Hardness (as CaCO3)	282		0.50	mg/L		09-SEP-19	
pH	7.55		0.10	pH		29-AUG-19	R4777648
Total Suspended Solids	14.1		2.0	mg/L		30-AUG-19	R4778887
Total Dissolved Solids	334		20	mg/L		30-AUG-19	R4778949
Anions and Nutrients							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-5 3134-BL52-138M Sampled By: CLIENT on 25-AUG-19 @ 10:45 Matrix: Ground Water							
Anions and Nutrients							
Acidity (as CaCO3)	<1.0		1.0	mg/L		06-SEP-19	R4785330
Alkalinity, Total (as CaCO3)	268		1.0	mg/L		10-SEP-19	R4794232
Ammonia, Total (as N)	0.247		0.020	mg/L		30-AUG-19	R4778343
Bromide (Br)	<0.10		0.10	mg/L		30-AUG-19	R4779231
Chloride (Cl)	1.33		0.10	mg/L		30-AUG-19	R4779231
Fluoride (F)	0.129		0.020	mg/L		30-AUG-19	R4779231
Nitrate (as N)	0.117		0.020	mg/L		30-AUG-19	R4779231
Nitrite (as N)	<0.010		0.010	mg/L		30-AUG-19	R4779231
Phosphorus (P)-Total	0.0193		0.0030	mg/L	31-AUG-19	03-SEP-19	R4781589
Silica, Reactive (as SiO2)	12.7		1.0	mg/L		04-SEP-19	R4783888
Sulfate (SO4)	35.8		0.30	mg/L		30-AUG-19	R4779231
Total Metals							
Aluminum (Al)-Total	0.0215		0.0030	mg/L	31-AUG-19	03-SEP-19	R4782648
Antimony (Sb)-Total	0.00024		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Arsenic (As)-Total	0.00098		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Barium (Ba)-Total	0.0793		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Beryllium (Be)-Total	0.00050		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Boron (B)-Total	0.039		0.010	mg/L	31-AUG-19	03-SEP-19	R4782648
Cadmium (Cd)-Total	0.0000220		0.0000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Calcium (Ca)-Total	72.0		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Cesium (Cs)-Total	0.000829		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Chromium (Cr)-Total	0.00011		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Cobalt (Co)-Total	0.00041		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Copper (Cu)-Total	0.0284		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Iron (Fe)-Total	0.236		0.010	mg/L	31-AUG-19	03-SEP-19	R4782648
Lead (Pb)-Total	0.000133		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Lithium (Li)-Total	<0.0010		0.0010	mg/L	31-AUG-19	03-SEP-19	R4782648
Magnesium (Mg)-Total	17.6		0.0050	mg/L	31-AUG-19	03-SEP-19	R4782648
Manganese (Mn)-Total	0.115		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Molybdenum (Mo)-Total	0.00119		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Nickel (Ni)-Total	0.00126		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Potassium (K)-Total	1.23		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Rubidium (Rb)-Total	0.00176		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Selenium (Se)-Total	0.000091		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Silicon (Si)-Total	5.48		0.10	mg/L	31-AUG-19	03-SEP-19	R4782648
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Sodium (Na)-Total	8.15		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Strontium (Sr)-Total	3.48		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Sulfur (S)-Total	14.8		0.50	mg/L	31-AUG-19	03-SEP-19	R4782648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-5 3134-BL52-138M Sampled By: CLIENT on 25-AUG-19 @ 10:45 Matrix: Ground Water							
Total Metals							
Tellurium (Te)-Total	0.00035		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Thallium (Tl)-Total	0.000014		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Titanium (Ti)-Total	0.00066		0.00030	mg/L	31-AUG-19	03-SEP-19	R4782648
Tungsten (W)-Total	0.00263		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Uranium (U)-Total	0.000220		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Vanadium (V)-Total	<0.00050		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Zinc (Zn)-Total	0.142		0.0030	mg/L	31-AUG-19	03-SEP-19	R4782648
Zirconium (Zr)-Total	0.00147		0.000060	mg/L	31-AUG-19	03-SEP-19	R4782648
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					30-AUG-19	R4778353
Aluminum (Al)-Dissolved	0.0039		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Antimony (Sb)-Dissolved	0.00026		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Arsenic (As)-Dissolved	0.00048		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Barium (Ba)-Dissolved	0.101		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Beryllium (Be)-Dissolved	0.00039		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Boron (B)-Dissolved	0.034		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cadmium (Cd)-Dissolved	0.0000175		0.0000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Calcium (Ca)-Dissolved	81.0		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Cesium (Cs)-Dissolved	0.00109		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Chromium (Cr)-Dissolved	0.00099	DTC	0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cobalt (Co)-Dissolved	0.00052		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Copper (Cu)-Dissolved	0.0189		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Iron (Fe)-Dissolved	0.035		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Lithium (Li)-Dissolved	0.0023		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Magnesium (Mg)-Dissolved	19.3		0.0050	mg/L	30-AUG-19	30-AUG-19	R4782072
Manganese (Mn)-Dissolved	0.104		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Molybdenum (Mo)-Dissolved	0.00115		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Nickel (Ni)-Dissolved	0.00124		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Potassium (K)-Dissolved	1.62		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Rubidium (Rb)-Dissolved	0.00235		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Selenium (Se)-Dissolved	0.000090		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silicon (Si)-Dissolved	5.75		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Sodium (Na)-Dissolved	8.63		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Strontium (Sr)-Dissolved	3.71		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Sulfur (S)-Dissolved	13.6		0.50	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-5 3134-BL52-138M Sampled By: CLIENT on 25-AUG-19 @ 10:45 Matrix: Ground Water							
Dissolved Metals							
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Thallium (Tl)-Dissolved	0.000012		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	30-AUG-19	30-AUG-19	R4782072
Tungsten (W)-Dissolved	0.00272		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Uranium (U)-Dissolved	0.000215		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Zinc (Zn)-Dissolved	0.179		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Zirconium (Zr)-Dissolved	0.00131		0.000060	mg/L	30-AUG-19	30-AUG-19	R4782072
L2338207-6 3134-BL52-238M Sampled By: CLIENT on 25-AUG-19 @ 14:15 Matrix: Ground Water							
Physical Tests							
Conductivity	575		2.0	uS/cm		05-SEP-19	R4785228
Hardness (as CaCO3)	296		0.50	mg/L		09-SEP-19	
pH	7.46		0.10	pH		29-AUG-19	R4777648
Total Suspended Solids	31.7		2.0	mg/L		30-AUG-19	R4778887
Total Dissolved Solids	355		20	mg/L		30-AUG-19	R4778949
Anions and Nutrients							
Acidity (as CaCO3)	<1.0		1.0	mg/L		06-SEP-19	R4785330
Alkalinity, Total (as CaCO3)	235		1.0	mg/L		10-SEP-19	R4794232
Ammonia, Total (as N)	<0.020		0.020	mg/L		30-AUG-19	R4778343
Bromide (Br)	<0.10		0.10	mg/L		30-AUG-19	R4779231
Chloride (Cl)	2.50		0.10	mg/L		30-AUG-19	R4779231
Fluoride (F)	0.068		0.020	mg/L		30-AUG-19	R4779231
Nitrate (as N)	0.262		0.020	mg/L		30-AUG-19	R4779231
Nitrite (as N)	<0.010		0.010	mg/L		30-AUG-19	R4779231
Phosphorus (P)-Total	0.0318		0.0030	mg/L	31-AUG-19	03-SEP-19	R4781589
Silica, Reactive (as SiO2)	12.9		1.0	mg/L		04-SEP-19	R4783888
Sulfate (SO4)	45.0		0.30	mg/L		30-AUG-19	R4779231
Total Metals							
Aluminum (Al)-Total	0.0409		0.0030	mg/L	31-AUG-19	03-SEP-19	R4782648
Antimony (Sb)-Total	0.00062		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Arsenic (As)-Total	0.00167		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Barium (Ba)-Total	0.0495		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Beryllium (Be)-Total	0.00181		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Boron (B)-Total	0.036		0.010	mg/L	31-AUG-19	03-SEP-19	R4782648
Cadmium (Cd)-Total	0.0000607		0.0000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Calcium (Ca)-Total	80.1		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Cesium (Cs)-Total	0.000535		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-6 3134-BL52-238M Sampled By: CLIENT on 25-AUG-19 @ 14:15 Matrix: Ground Water							
Total Metals							
Chromium (Cr)-Total	0.00017		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Cobalt (Co)-Total	0.00077		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Copper (Cu)-Total	0.0870		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Iron (Fe)-Total	0.454		0.010	mg/L	31-AUG-19	03-SEP-19	R4782648
Lead (Pb)-Total	0.000510		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Lithium (Li)-Total	0.0018		0.0010	mg/L	31-AUG-19	03-SEP-19	R4782648
Magnesium (Mg)-Total	17.5		0.0050	mg/L	31-AUG-19	03-SEP-19	R4782648
Manganese (Mn)-Total	0.221		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Molybdenum (Mo)-Total	0.00102		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Nickel (Ni)-Total	0.00295		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Potassium (K)-Total	0.868		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Rubidium (Rb)-Total	0.00146		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Selenium (Se)-Total	0.000155		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Silicon (Si)-Total	5.53		0.10	mg/L	31-AUG-19	03-SEP-19	R4782648
Silver (Ag)-Total	0.000011		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Sodium (Na)-Total	7.88		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Strontium (Sr)-Total	1.38		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Sulfur (S)-Total	16.6		0.50	mg/L	31-AUG-19	03-SEP-19	R4782648
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Thallium (Tl)-Total	0.000019		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Titanium (Ti)-Total	0.00149		0.00030	mg/L	31-AUG-19	03-SEP-19	R4782648
Tungsten (W)-Total	0.00113		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Uranium (U)-Total	0.000259		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Vanadium (V)-Total	<0.00050		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Zinc (Zn)-Total	0.551		0.0030	mg/L	31-AUG-19	03-SEP-19	R4782648
Zirconium (Zr)-Total	0.000654		0.000060	mg/L	31-AUG-19	03-SEP-19	R4782648
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					30-AUG-19	R4778353
Aluminum (Al)-Dissolved	0.0023		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Antimony (Sb)-Dissolved	0.00056		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Arsenic (As)-Dissolved	0.00077		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Barium (Ba)-Dissolved	0.0576		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Beryllium (Be)-Dissolved	0.00137		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Boron (B)-Dissolved	0.031		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cadmium (Cd)-Dissolved	0.0000575		0.0000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Calcium (Ca)-Dissolved	86.6		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Cesium (Cs)-Dissolved	0.000615		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-6 3134-BL52-238M Sampled By: CLIENT on 25-AUG-19 @ 14:15 Matrix: Ground Water							
Dissolved Metals							
Chromium (Cr)-Dissolved	0.00134	DTC	0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cobalt (Co)-Dissolved	0.00096		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Copper (Cu)-Dissolved	0.0700		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Iron (Fe)-Dissolved	0.012		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Lithium (Li)-Dissolved	0.0021		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Magnesium (Mg)-Dissolved	19.4		0.0050	mg/L	30-AUG-19	30-AUG-19	R4782072
Manganese (Mn)-Dissolved	0.204		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Molybdenum (Mo)-Dissolved	0.00108		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Nickel (Ni)-Dissolved	0.00294		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Potassium (K)-Dissolved	1.09		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Rubidium (Rb)-Dissolved	0.00188		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Selenium (Se)-Dissolved	0.000206		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silicon (Si)-Dissolved	5.78		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Sodium (Na)-Dissolved	8.44		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Strontium (Sr)-Dissolved	1.41		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Sulfur (S)-Dissolved	16.1		0.50	mg/L	30-AUG-19	30-AUG-19	R4782072
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Thallium (Tl)-Dissolved	0.000012		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	30-AUG-19	30-AUG-19	R4782072
Tungsten (W)-Dissolved	0.00094		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Uranium (U)-Dissolved	0.000284		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Zinc (Zn)-Dissolved	0.687		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Zirconium (Zr)-Dissolved	0.000324		0.000060	mg/L	30-AUG-19	30-AUG-19	R4782072
L2338207-7 3134-BL52-435M Sampled By: CLIENT on 25-AUG-19 @ 18:35 Matrix: Ground Water							
Physical Tests							
Conductivity	589		2.0	uS/cm		05-SEP-19	R4785228
Hardness (as CaCO3)	302		0.50	mg/L		09-SEP-19	
pH	7.52		0.10	pH		29-AUG-19	R4777648
Total Suspended Solids	27.1		2.0	mg/L		30-AUG-19	R4778887
Total Dissolved Solids	371		20	mg/L		30-AUG-19	R4778949
Anions and Nutrients							
Acidity (as CaCO3)	<1.0		1.0	mg/L		06-SEP-19	R4785330
Alkalinity, Total (as CaCO3)	143		1.0	mg/L		10-SEP-19	R4794232
Ammonia, Total (as N)	<0.020		0.020	mg/L		30-AUG-19	R4778343

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-7 3134-BL52-435M Sampled By: CLIENT on 25-AUG-19 @ 18:35 Matrix: Ground Water							
Anions and Nutrients							
Bromide (Br)	<0.10		0.10	mg/L		30-AUG-19	R4779231
Chloride (Cl)	4.02		0.10	mg/L		30-AUG-19	R4779231
Fluoride (F)	0.062		0.020	mg/L		30-AUG-19	R4779231
Nitrate (as N)	0.083		0.020	mg/L		30-AUG-19	R4779231
Nitrite (as N)	<0.010		0.010	mg/L		30-AUG-19	R4779231
Phosphorus (P)-Total	0.0270		0.0030	mg/L	31-AUG-19	03-SEP-19	R4781589
Silica, Reactive (as SiO2)	13.1		1.0	mg/L		04-SEP-19	R4783888
Sulfate (SO4)	41.0		0.30	mg/L		30-AUG-19	R4779231
Total Metals							
Aluminum (Al)-Total	0.0399		0.0030	mg/L	31-AUG-19	03-SEP-19	R4782648
Antimony (Sb)-Total	0.00093		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Arsenic (As)-Total	0.00145		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Barium (Ba)-Total	0.0535		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Beryllium (Be)-Total	0.00203		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Boron (B)-Total	0.045		0.010	mg/L	31-AUG-19	03-SEP-19	R4782648
Cadmium (Cd)-Total	0.0000601		0.0000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Calcium (Ca)-Total	75.3		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Cesium (Cs)-Total	0.000699		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Chromium (Cr)-Total	0.00017		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Cobalt (Co)-Total	0.00204		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Copper (Cu)-Total	0.106		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Iron (Fe)-Total	0.255		0.010	mg/L	31-AUG-19	03-SEP-19	R4782648
Lead (Pb)-Total	0.000888		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Lithium (Li)-Total	0.0016		0.0010	mg/L	31-AUG-19	03-SEP-19	R4782648
Magnesium (Mg)-Total	16.8		0.0050	mg/L	31-AUG-19	03-SEP-19	R4782648
Manganese (Mn)-Total	0.380		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Molybdenum (Mo)-Total	0.00125		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Nickel (Ni)-Total	0.00405		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Potassium (K)-Total	0.921		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Rubidium (Rb)-Total	0.00167		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Selenium (Se)-Total	0.000132		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Silicon (Si)-Total	5.51		0.10	mg/L	31-AUG-19	03-SEP-19	R4782648
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Sodium (Na)-Total	9.33		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Strontium (Sr)-Total	1.46		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Sulfur (S)-Total	19.4		0.50	mg/L	31-AUG-19	03-SEP-19	R4782648
Tellurium (Te)-Total	0.00021		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Thallium (Tl)-Total	0.000017		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-7 3134-BL52-435M Sampled By: CLIENT on 25-AUG-19 @ 18:35 Matrix: Ground Water							
Total Metals							
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Titanium (Ti)-Total	0.00136		0.00030	mg/L	31-AUG-19	03-SEP-19	R4782648
Tungsten (W)-Total	0.00126		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Uranium (U)-Total	0.000300		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Vanadium (V)-Total	<0.00050		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Zinc (Zn)-Total	0.338		0.0030	mg/L	31-AUG-19	03-SEP-19	R4782648
Zirconium (Zr)-Total	0.000663		0.000060	mg/L	31-AUG-19	03-SEP-19	R4782648
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					30-AUG-19	R4778353
Aluminum (Al)-Dissolved	0.0027		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Antimony (Sb)-Dissolved	0.00074		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Arsenic (As)-Dissolved	0.00077		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Barium (Ba)-Dissolved	0.0654		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Beryllium (Be)-Dissolved	0.00151		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Boron (B)-Dissolved	0.035		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cadmium (Cd)-Dissolved	0.0000637		0.0000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Calcium (Ca)-Dissolved	88.9		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Cesium (Cs)-Dissolved	0.000764		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Chromium (Cr)-Dissolved	0.00098	DTC	0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cobalt (Co)-Dissolved	0.00258		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Copper (Cu)-Dissolved	0.0637		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Iron (Fe)-Dissolved	0.012		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Lithium (Li)-Dissolved	0.0025		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Magnesium (Mg)-Dissolved	19.3		0.0050	mg/L	30-AUG-19	30-AUG-19	R4782072
Manganese (Mn)-Dissolved	0.423		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Molybdenum (Mo)-Dissolved	0.00127		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Nickel (Ni)-Dissolved	0.00371		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Potassium (K)-Dissolved	1.23		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Rubidium (Rb)-Dissolved	0.00222		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Selenium (Se)-Dissolved	0.000136		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silicon (Si)-Dissolved	5.86		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Sodium (Na)-Dissolved	10.3		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Strontium (Sr)-Dissolved	1.62		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Sulfur (S)-Dissolved	17.8		0.50	mg/L	30-AUG-19	30-AUG-19	R4782072
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Thallium (Tl)-Dissolved	0.000014		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-7 3134-BL52-435M Sampled By: CLIENT on 25-AUG-19 @ 18:35 Matrix: Ground Water							
Dissolved Metals							
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	30-AUG-19	30-AUG-19	R4782072
Tungsten (W)-Dissolved	0.00107		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Uranium (U)-Dissolved	0.000307		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Zinc (Zn)-Dissolved	0.438		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Zirconium (Zr)-Dissolved	0.000333		0.000060	mg/L	30-AUG-19	30-AUG-19	R4782072
L2338207-8 3134-BL-310-60M Sampled By: CLIENT on 25-AUG-19 @ 12:15 Matrix: Ground Water							
Physical Tests							
Conductivity	614		2.0	uS/cm		05-SEP-19	R4785228
Hardness (as CaCO3)	324		0.50	mg/L		09-SEP-19	
pH	7.28		0.10	pH		29-AUG-19	R4777648
Total Suspended Solids	9.1		2.0	mg/L		30-AUG-19	R4778887
Total Dissolved Solids	386		20	mg/L		30-AUG-19	R4778949
Anions and Nutrients							
Acidity (as CaCO3)	6.7		1.0	mg/L		06-SEP-19	R4785330
Alkalinity, Total (as CaCO3)	318		1.0	mg/L		10-SEP-19	R4794232
Ammonia, Total (as N)	0.154		0.020	mg/L		30-AUG-19	R4778343
Bromide (Br)	<0.10		0.10	mg/L		30-AUG-19	R4779231
Chloride (Cl)	9.54		0.10	mg/L		30-AUG-19	R4779231
Fluoride (F)	0.061		0.020	mg/L		30-AUG-19	R4779231
Nitrate (as N)	0.128		0.020	mg/L		30-AUG-19	R4779231
Nitrite (as N)	0.013		0.010	mg/L		30-AUG-19	R4779231
Phosphorus (P)-Total	0.0270		0.0030	mg/L	31-AUG-19	03-SEP-19	R4781589
Silica, Reactive (as SiO2)	13.0		1.0	mg/L		04-SEP-19	R4783888
Sulfate (SO4)	31.8		0.30	mg/L		30-AUG-19	R4779231
Total Metals							
Aluminum (Al)-Total	0.0334		0.0030	mg/L	31-AUG-19	03-SEP-19	R4782648
Antimony (Sb)-Total	0.00066		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Arsenic (As)-Total	0.00605		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Barium (Ba)-Total	0.153		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Beryllium (Be)-Total	0.00021		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Boron (B)-Total	0.027		0.010	mg/L	31-AUG-19	03-SEP-19	R4782648
Cadmium (Cd)-Total	0.0000177		0.0000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Calcium (Ca)-Total	81.6		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Cesium (Cs)-Total	0.000200		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Chromium (Cr)-Total	0.00055		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Cobalt (Co)-Total	0.00263		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Copper (Cu)-Total	0.00706		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-8 3134-BL-310-60M Sampled By: CLIENT on 25-AUG-19 @ 12:15 Matrix: Ground Water							
Total Metals							
Iron (Fe)-Total	0.898		0.010	mg/L	31-AUG-19	03-SEP-19	R4782648
Lead (Pb)-Total	0.000130		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Lithium (Li)-Total	0.0016		0.0010	mg/L	31-AUG-19	03-SEP-19	R4782648
Magnesium (Mg)-Total	16.9		0.0050	mg/L	31-AUG-19	03-SEP-19	R4782648
Manganese (Mn)-Total	0.782		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Molybdenum (Mo)-Total	0.00183		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Nickel (Ni)-Total	0.00313		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Potassium (K)-Total	1.35		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Rubidium (Rb)-Total	0.00198		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Selenium (Se)-Total	0.000094		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Silicon (Si)-Total	5.63		0.10	mg/L	31-AUG-19	03-SEP-19	R4782648
Silver (Ag)-Total	0.000017		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Sodium (Na)-Total	7.26		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Strontium (Sr)-Total	0.865		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Sulfur (S)-Total	13.8		0.50	mg/L	31-AUG-19	03-SEP-19	R4782648
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Thallium (Tl)-Total	0.000013		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Titanium (Ti)-Total	<0.0015		0.0015	mg/L	31-AUG-19	03-SEP-19	R4782648
Tungsten (W)-Total	0.00241		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Uranium (U)-Total	0.000483		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Vanadium (V)-Total	0.00102		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Zinc (Zn)-Total	0.0663		0.0030	mg/L	31-AUG-19	03-SEP-19	R4782648
Zirconium (Zr)-Total	0.00534		0.000060	mg/L	31-AUG-19	03-SEP-19	R4782648
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					30-AUG-19	R4778353
Aluminum (Al)-Dissolved	0.0140		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Antimony (Sb)-Dissolved	0.00069		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Arsenic (As)-Dissolved	0.00541		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Barium (Ba)-Dissolved	0.193		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Beryllium (Be)-Dissolved	0.00018		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Boron (B)-Dissolved	0.022		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cadmium (Cd)-Dissolved	0.0000156		0.0000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Calcium (Ca)-Dissolved	98.6		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Cesium (Cs)-Dissolved	0.000231		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Chromium (Cr)-Dissolved	0.00180	DTC	0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cobalt (Co)-Dissolved	0.00408	DTC	0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Copper (Cu)-Dissolved	0.00436		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-8 3134-BL-310-60M Sampled By: CLIENT on 25-AUG-19 @ 12:15 Matrix: Ground Water							
Dissolved Metals							
Iron (Fe)-Dissolved	0.773		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Lithium (Li)-Dissolved	0.0025		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Magnesium (Mg)-Dissolved	19.0		0.0050	mg/L	30-AUG-19	30-AUG-19	R4782072
Manganese (Mn)-Dissolved	0.904		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Molybdenum (Mo)-Dissolved	0.00161		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Nickel (Ni)-Dissolved	0.00381		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Potassium (K)-Dissolved	1.82		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Rubidium (Rb)-Dissolved	0.00267		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Selenium (Se)-Dissolved	0.000126		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silicon (Si)-Dissolved	5.83		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Sodium (Na)-Dissolved	8.52		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Strontium (Sr)-Dissolved	0.932		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Sulfur (S)-Dissolved	12.3		0.50	mg/L	30-AUG-19	30-AUG-19	R4782072
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Titanium (Ti)-Dissolved	<0.00066	DLM	0.00066	mg/L	30-AUG-19	30-AUG-19	R4782072
Tungsten (W)-Dissolved	0.00207		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Uranium (U)-Dissolved	0.000463		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Vanadium (V)-Dissolved	0.00088		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Zinc (Zn)-Dissolved	0.0950	DTC	0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Zirconium (Zr)-Dissolved	0.00467		0.000060	mg/L	30-AUG-19	30-AUG-19	R4782072
L2338207-9 3134-MW2 Sampled By: CLIENT on 26-AUG-19 @ 15:30 Matrix: Ground Water							
Physical Tests							
Conductivity	479		2.0	uS/cm		05-SEP-19	R4785228
Hardness (as CaCO3)	290		0.50	mg/L		09-SEP-19	
pH	7.68		0.10	pH		29-AUG-19	R4777648
Total Suspended Solids	2680		6.0	mg/L		30-AUG-19	R4778887
Total Dissolved Solids	442		40	mg/L		30-AUG-19	R4778949
Anions and Nutrients							
Acidity (as CaCO3)	<1.0	DLIS	1.0	mg/L		09-SEP-19	R4790730
Alkalinity, Total (as CaCO3)	277		1.0	mg/L		05-SEP-19	R4787430
Ammonia, Total (as N)	<0.020		0.020	mg/L		30-AUG-19	R4778343
Bromide (Br)	<0.20	DLDS	0.20	mg/L		01-SEP-19	R4780012
Chloride (Cl)	1.10		0.10	mg/L		30-AUG-19	R4779231
Fluoride (F)	0.057		0.040	mg/L		01-SEP-19	R4780012

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-9 3134-MW2 Sampled By: CLIENT on 26-AUG-19 @ 15:30 Matrix: Ground Water							
Anions and Nutrients							
Nitrate (as N)	0.034		0.020	mg/L		30-AUG-19	R4779231
Nitrite (as N)	<0.020	DLDS	0.020	mg/L		01-SEP-19	R4780012
Phosphorus (P)-Total	0.81		0.15	mg/L	31-AUG-19	03-SEP-19	R4781589
Silica, Reactive (as SiO2)	17.3		1.0	mg/L		04-SEP-19	R4783888
Sulfate (SO4)	5.36		0.30	mg/L		30-AUG-19	R4779231
Total Metals							
Aluminum (Al)-Total	4.69		0.0030	mg/L	31-AUG-19	03-SEP-19	R4782648
Antimony (Sb)-Total	0.0167		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Arsenic (As)-Total	0.00173		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Barium (Ba)-Total	0.109		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Beryllium (Be)-Total	0.00025		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Boron (B)-Total	0.017		0.010	mg/L	31-AUG-19	03-SEP-19	R4782648
Cadmium (Cd)-Total	0.000164		0.0000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Calcium (Ca)-Total	176		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Cesium (Cs)-Total	0.000388		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Chromium (Cr)-Total	0.0105		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Cobalt (Co)-Total	0.00333		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Copper (Cu)-Total	0.0167		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Iron (Fe)-Total	5.53		0.010	mg/L	31-AUG-19	03-SEP-19	R4782648
Lead (Pb)-Total	0.0193		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Lithium (Li)-Total	0.0114		0.0010	mg/L	31-AUG-19	03-SEP-19	R4782648
Magnesium (Mg)-Total	40.2		0.0050	mg/L	31-AUG-19	03-SEP-19	R4782648
Manganese (Mn)-Total	0.241		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Molybdenum (Mo)-Total	0.000476		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Nickel (Ni)-Total	0.00879		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Phosphorus (P)-Total	0.680		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Potassium (K)-Total	2.39		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Rubidium (Rb)-Total	0.00963		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Selenium (Se)-Total	<0.000050		0.000050	mg/L	31-AUG-19	03-SEP-19	R4782648
Silicon (Si)-Total	14.2		0.10	mg/L	31-AUG-19	03-SEP-19	R4782648
Silver (Ag)-Total	0.000023		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Sodium (Na)-Total	3.50		0.050	mg/L	31-AUG-19	03-SEP-19	R4782648
Strontium (Sr)-Total	0.172		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Sulfur (S)-Total	1.96		0.50	mg/L	31-AUG-19	03-SEP-19	R4782648
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-AUG-19	03-SEP-19	R4782648
Thallium (Tl)-Total	0.000062		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Thorium (Th)-Total	0.00204		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Tin (Sn)-Total	0.00066		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648
Titanium (Ti)-Total	0.220		0.00030	mg/L	31-AUG-19	03-SEP-19	R4782648
Tungsten (W)-Total	0.00028		0.00010	mg/L	31-AUG-19	03-SEP-19	R4782648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-9 3134-MW2 Sampled By: CLIENT on 26-AUG-19 @ 15:30 Matrix: Ground Water							
Total Metals							
Uranium (U)-Total	0.000760		0.000010	mg/L	31-AUG-19	03-SEP-19	R4782648
Vanadium (V)-Total	0.0152		0.00050	mg/L	31-AUG-19	03-SEP-19	R4782648
Zinc (Zn)-Total	0.101		0.0030	mg/L	31-AUG-19	03-SEP-19	R4782648
Zirconium (Zr)-Total	0.00328		0.000060	mg/L	31-AUG-19	03-SEP-19	R4782648
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					30-AUG-19	R4778353
Aluminum (Al)-Dissolved	0.0122		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Antimony (Sb)-Dissolved	0.00340		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Arsenic (As)-Dissolved	0.00024		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Barium (Ba)-Dissolved	0.0286		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cadmium (Cd)-Dissolved	0.0000127		0.0000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Calcium (Ca)-Dissolved	83.4		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Chromium (Cr)-Dissolved	0.00466		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cobalt (Co)-Dissolved	0.00019		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Copper (Cu)-Dissolved	0.00189		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Iron (Fe)-Dissolved	0.027		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Lithium (Li)-Dissolved	0.0047		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Magnesium (Mg)-Dissolved	19.7		0.0050	mg/L	30-AUG-19	30-AUG-19	R4782072
Manganese (Mn)-Dissolved	0.0317		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Molybdenum (Mo)-Dissolved	0.000692	DTC	0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Nickel (Ni)-Dissolved	0.00291		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Potassium (K)-Dissolved	1.26		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Rubidium (Rb)-Dissolved	0.00119		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silicon (Si)-Dissolved	7.73		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silver (Ag)-Dissolved	0.000015		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Sodium (Na)-Dissolved	5.23	DTC	0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Strontium (Sr)-Dissolved	0.0956		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Sulfur (S)-Dissolved	2.40		0.50	mg/L	30-AUG-19	30-AUG-19	R4782072
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Tin (Sn)-Dissolved	0.00022		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Titanium (Ti)-Dissolved	0.00059		0.00030	mg/L	30-AUG-19	30-AUG-19	R4782072
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-9 3134-MW2 Sampled By: CLIENT on 26-AUG-19 @ 15:30 Matrix: Ground Water							
Dissolved Metals							
Uranium (U)-Dissolved	0.000443		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Vanadium (V)-Dissolved	0.00176		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Zinc (Zn)-Dissolved	0.0214		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Zirconium (Zr)-Dissolved	0.000139		0.000060	mg/L	30-AUG-19	30-AUG-19	R4782072
L2338207-10 3134-BL341-60M Sampled By: CLIENT on 26-AUG-19 @ 00:01 Matrix: Ground Water							
Physical Tests							
Conductivity	440		2.0	uS/cm		05-SEP-19	R4785228
Hardness (as CaCO3)	228		0.50	mg/L		04-SEP-19	
pH	7.30		0.10	pH		29-AUG-19	R4777648
Total Suspended Solids	45.2		2.0	mg/L		30-AUG-19	R4778887
Total Dissolved Solids	277		20	mg/L		30-AUG-19	R4778949
Anions and Nutrients							
Acidity (as CaCO3)	1.8		1.0	mg/L		06-SEP-19	R4785330
Alkalinity, Total (as CaCO3)	294		2.0	mg/L		10-SEP-19	R4794232
Ammonia, Total (as N)	0.037		0.020	mg/L		30-AUG-19	R4778343
Bromide (Br)	<0.10		0.10	mg/L		30-AUG-19	R4779231
Chloride (Cl)	0.15		0.10	mg/L		30-AUG-19	R4779231
Fluoride (F)	0.047		0.020	mg/L		30-AUG-19	R4779231
Nitrate (as N)	<0.020		0.020	mg/L		30-AUG-19	R4779231
Nitrite (as N)	<0.010		0.010	mg/L		30-AUG-19	R4779231
Phosphorus (P)-Total	0.0633		0.0030	mg/L	31-AUG-19	03-SEP-19	R4781589
Silica, Reactive (as SiO2)	9.3		1.0	mg/L		04-SEP-19	R4783888
Sulfate (SO4)	28.5		0.30	mg/L		30-AUG-19	R4779231
Total Metals							
Aluminum (Al)-Total	0.628		0.0030	mg/L	30-AUG-19	03-SEP-19	R4782648
Antimony (Sb)-Total	0.00046		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Arsenic (As)-Total	0.00910		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Barium (Ba)-Total	0.0291		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Beryllium (Be)-Total	0.00021		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Boron (B)-Total	<0.010		0.010	mg/L	30-AUG-19	03-SEP-19	R4782648
Cadmium (Cd)-Total	0.000396		0.0000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Calcium (Ca)-Total	74.1		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Cesium (Cs)-Total	0.000452		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Chromium (Cr)-Total	0.00286		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Cobalt (Co)-Total	0.00254		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Copper (Cu)-Total	0.0129		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Iron (Fe)-Total	3.25		0.010	mg/L	30-AUG-19	03-SEP-19	R4782648
Lead (Pb)-Total	0.0131		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Lithium (Li)-Total	0.0013		0.0010	mg/L	30-AUG-19	03-SEP-19	R4782648

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-10 3134-BL341-60M Sampled By: CLIENT on 26-AUG-19 @ 00:01 Matrix: Ground Water							
Total Metals							
Magnesium (Mg)-Total	16.4		0.0050	mg/L	30-AUG-19	03-SEP-19	R4782648
Manganese (Mn)-Total	0.597		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Molybdenum (Mo)-Total	0.00169		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Nickel (Ni)-Total	0.00437		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Potassium (K)-Total	2.49		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Rubidium (Rb)-Total	0.00703		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Selenium (Se)-Total	0.000112		0.000050	mg/L	30-AUG-19	03-SEP-19	R4782648
Silicon (Si)-Total	4.64		0.10	mg/L	30-AUG-19	03-SEP-19	R4782648
Silver (Ag)-Total	0.000149		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Sodium (Na)-Total	1.29		0.050	mg/L	30-AUG-19	03-SEP-19	R4782648
Strontium (Sr)-Total	0.316		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Sulfur (S)-Total	12.1		0.50	mg/L	30-AUG-19	03-SEP-19	R4782648
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-AUG-19	03-SEP-19	R4782648
Thallium (Tl)-Total	0.000160		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Thorium (Th)-Total	0.00012		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Titanium (Ti)-Total	0.0309		0.00030	mg/L	30-AUG-19	03-SEP-19	R4782648
Tungsten (W)-Total	0.00358		0.00010	mg/L	30-AUG-19	03-SEP-19	R4782648
Uranium (U)-Total	0.000845		0.000010	mg/L	30-AUG-19	03-SEP-19	R4782648
Vanadium (V)-Total	0.00243		0.00050	mg/L	30-AUG-19	03-SEP-19	R4782648
Zinc (Zn)-Total	0.0967		0.0030	mg/L	30-AUG-19	03-SEP-19	R4782648
Zirconium (Zr)-Total	0.00278		0.000060	mg/L	30-AUG-19	03-SEP-19	R4782648
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					30-AUG-19	R4778353
Aluminum (Al)-Dissolved	0.0430		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Antimony (Sb)-Dissolved	0.00023		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Arsenic (As)-Dissolved	0.00086		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Barium (Ba)-Dissolved	0.0214		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cadmium (Cd)-Dissolved	0.000190		0.0000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Calcium (Ca)-Dissolved	66.4		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Cesium (Cs)-Dissolved	0.000072		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Chromium (Cr)-Dissolved	0.00021		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Cobalt (Co)-Dissolved	0.00135		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Copper (Cu)-Dissolved	0.00334		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Iron (Fe)-Dissolved	0.127		0.010	mg/L	30-AUG-19	30-AUG-19	R4782072
Lead (Pb)-Dissolved	0.000303		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Lithium (Li)-Dissolved	0.0012		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2338207-10 3134-BL341-60M Sampled By: CLIENT on 26-AUG-19 @ 00:01 Matrix: Ground Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	15.1		0.0050	mg/L	30-AUG-19	30-AUG-19	R4782072
Manganese (Mn)-Dissolved	0.402		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Molybdenum (Mo)-Dissolved	0.00209		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Nickel (Ni)-Dissolved	0.00244		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Potassium (K)-Dissolved	2.04		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Rubidium (Rb)-Dissolved	0.00380		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Selenium (Se)-Dissolved	0.000090		0.000050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silicon (Si)-Dissolved	4.05		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Silver (Ag)-Dissolved	0.000012		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Sodium (Na)-Dissolved	1.13		0.050	mg/L	30-AUG-19	30-AUG-19	R4782072
Strontium (Sr)-Dissolved	0.270		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Sulfur (S)-Dissolved	12.1		0.50	mg/L	30-AUG-19	30-AUG-19	R4782072
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-AUG-19	30-AUG-19	R4782072
Thallium (Tl)-Dissolved	0.000042		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Titanium (Ti)-Dissolved	0.00087		0.00030	mg/L	30-AUG-19	30-AUG-19	R4782072
Tungsten (W)-Dissolved	0.00094		0.00010	mg/L	30-AUG-19	30-AUG-19	R4782072
Uranium (U)-Dissolved	0.000738		0.000010	mg/L	30-AUG-19	30-AUG-19	R4782072
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-AUG-19	30-AUG-19	R4782072
Zinc (Zn)-Dissolved	0.0751		0.0010	mg/L	30-AUG-19	30-AUG-19	R4782072
Zirconium (Zr)-Dissolved	0.00186		0.000060	mg/L	30-AUG-19	30-AUG-19	R4782072

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Antimony (Sb)-Dissolved	MS-B	L2338207-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L2338207-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2338207-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2338207-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Molybdenum (Mo)-Dissolved	MS-B	L2338207-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Potassium (K)-Dissolved	MS-B	L2338207-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2338207-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L2338207-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Total	MS-B	L2338207-5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Total	MS-B	L2338207-1, -10, -2, -3, -4
Matrix Spike	Calcium (Ca)-Total	MS-B	L2338207-5, -6, -7, -8, -9
Matrix Spike	Copper (Cu)-Total	MS-B	L2338207-5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2338207-5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Total	MS-B	L2338207-5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Total	MS-B	L2338207-5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L2338207-5, -6, -7, -8, -9
Matrix Spike	Zinc (Zn)-Total	MS-B	L2338207-5, -6, -7, -8, -9
Matrix Spike	Silica, Reactive (as SiO2)	MS-B	L2338207-1, -10, -2, -3, -4, -5, -6, -7, -8, -9

Sample Parameter Qualifier key listed:

Qualifier	Description
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLIS	Detection Limit Adjusted: Insufficient Sample
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-PCT-VA	Water	Acidity by Automatic Titration	APHA 2310 Acidity

This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". Acidity is determined by potentiometric titration to a specified endpoint.

Samples of industrial wastes, acid mine drainage, or other solutions that contain appreciable amounts of hydrolyzable metal ions such as aluminum, iron, and manganese may require hot peroxide treatment to ensure oxidation and hydrolysis of reduced forms of polyvalent cations. Acidity results may be highly variable if this procedure is not followed. Results in this report for 'Acidity (as CaCO3)' have not been peroxide treated.

ALK-TITR-VA	Water	Alkalinity Species by Titration	APHA 2320 Alkalinity

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

BR-IC-N-TB	Water	Bromide in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

CL-L-IC-N-TB	Water	Chloride in Water by IC (Low Level)	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

EC-PCT-VA	Water	Conductivity (Automated)	APHA 2510 Auto. Conduc.

This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.

F-IC-N-TB	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

HARDNESS-CALC-TB	Water	Hardness (as CaCO3)	CALCULATION

MET-D-CCMS-TB	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020B (mod)

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

MET-T-CCMS-TB	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020B (mod)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Reference Information

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

NH3-COL-TB Water Ammonia by Discrete Analyzer APHA 4500-NH3 G. (modified)
Ammonia in aqueous matrices is analyzed using discrete analyzer with colourimetric detection.

NO2-IC-N-TB Water Nitrite in Water by IC EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-IC-N-TB Water Nitrate in Water by IC EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

P-T-COL-TB Water Total Phosphorus by Discrete Analyzer APHA 4500-P B, F, G (modified)
Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.

PH-METER-TB Water pH APHA 4500-H-ELECTRODE
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using pH electrode.

SIO2-COL-WP Water Reactive Silica by colour APHA 4500 SIO2
This analysis is carried out using procedures adapted from APHA Method 4500-SiO2 "Silica". Molybdate Reactive Silica is determined by analysis of the sample using the heteropoly blue colourimetric method.

SO4-IC-N-TB Water Sulfate in Water by IC EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

TDS-TB Water Total Dissolved Solids APHA 2540 C (modified)
Aqueous matrices are analyzed using gravimetry and evaporation

TSS-TB Water Total Suspended Solids APHA 2540 D (modified)
Aqueous matrices are analyzed using gravimetry

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA
WP	ALS ENVIRONMENTAL - WINNIPEG, MANITOBA, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L2338207 Report Date: 12-SEP-19

Client: GOLD CANYON RESOURCES INC.
c/o Suite 1805 - 925 West Georgia Street
Vancouver BC V6C 3L2
Contact: David Mchaina

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-PCT-VA	**Water**							
Batch R4790730								
WG3155369-3 LCS								
Acidity (as CaCO3)			105.0		%		85-115	09-SEP-19
WG3155369-1 MB								
Acidity (as CaCO3)			1.8		mg/L		2	09-SEP-19
ALK-TITR-VA	**Water**							
Batch R4787430								
WG3152944-3 LCS								
Alkalinity, Total (as CaCO3)			99.4		%		85-115	05-SEP-19
WG3152944-1 MB								
Alkalinity, Total (as CaCO3)			<1.0		mg/L		1	05-SEP-19
Batch R4794232								
WG3155474-3 LCS								
Alkalinity, Total (as CaCO3)			107.6		%		85-115	10-SEP-19
WG3155474-1 MB								
Alkalinity, Total (as CaCO3)			<1.0		mg/L		1	10-SEP-19
BR-IC-N-TB	**Water**							
Batch R4779231								
WG3148833-2 LCS								
Bromide (Br)			91.0		%		85-115	30-AUG-19
WG3148833-6 LCS								
Bromide (Br)			87.7		%		85-115	30-AUG-19
WG3148833-1 MB								
Bromide (Br)			<0.10		mg/L		0.1	30-AUG-19
WG3148833-5 MB								
Bromide (Br)			<0.10		mg/L		0.1	30-AUG-19
Batch R4780012								
WG3149847-2 LCS								
Bromide (Br)			100.2		%		85-115	01-SEP-19
WG3149847-1 MB								
Bromide (Br)			<0.10		mg/L		0.1	01-SEP-19
CL-L-IC-N-TB	**Water**							
Batch R4779231								
WG3148833-2 LCS								
Chloride (Cl)			100.3		%		90-110	30-AUG-19
WG3148833-6 LCS								
Chloride (Cl)			99.3		%		90-110	30-AUG-19
WG3148833-1 MB								
Chloride (Cl)			<0.10		mg/L		0.1	30-AUG-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-L-IC-N-TB	**Water**							
Batch R4779231								
WG3148833-5 MB								
Chloride (Cl)			<0.10		mg/L		0.1	30-AUG-19
WG3148833-8 MS		**L2338207-9**						
Chloride (Cl)			84.9		%		75-125	30-AUG-19
EC-PCT-VA	**Water**							
Batch R4787430								
WG3152944-3 LCS								
Conductivity			106.5		%		90-110	05-SEP-19
WG3152944-1 MB								
Conductivity			<2.0		uS/cm		2	05-SEP-19
F-IC-N-TB	**Water**							
Batch R4779231								
WG3148833-2 LCS								
Fluoride (F)			100.7		%		90-110	30-AUG-19
WG3148833-6 LCS								
Fluoride (F)			99.0		%		90-110	30-AUG-19
WG3148833-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	30-AUG-19
WG3148833-5 MB								
Fluoride (F)			<0.020		mg/L		0.02	30-AUG-19
Batch R4780012								
WG3149847-2 LCS								
Fluoride (F)			100.9		%		90-110	01-SEP-19
WG3149847-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	01-SEP-19
MET-D-CCMS-TB	**Water**							
Batch R4782072								
WG3148256-10 LCS								
Aluminum (Al)-Dissolved			101.8		%		80-120	30-AUG-19
Antimony (Sb)-Dissolved			99.2		%		80-120	30-AUG-19
Arsenic (As)-Dissolved			98.7		%		80-120	30-AUG-19
Barium (Ba)-Dissolved			104.5		%		80-120	30-AUG-19
Beryllium (Be)-Dissolved			96.5		%		80-120	30-AUG-19
Bismuth (Bi)-Dissolved			100.7		%		80-120	30-AUG-19
Boron (B)-Dissolved			86.1		%		80-120	30-AUG-19
Cadmium (Cd)-Dissolved			99.2		%		80-120	30-AUG-19
Calcium (Ca)-Dissolved			99.6		%		80-120	30-AUG-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R4782072								
WG3148256-10 LCS								
Cesium (Cs)-Dissolved			99.4		%		80-120	30-AUG-19
Chromium (Cr)-Dissolved			97.9		%		80-120	30-AUG-19
Cobalt (Co)-Dissolved			99.4		%		80-120	30-AUG-19
Copper (Cu)-Dissolved			99.8		%		80-120	30-AUG-19
Iron (Fe)-Dissolved			101.5		%		80-120	30-AUG-19
Lead (Pb)-Dissolved			102.6		%		80-120	30-AUG-19
Lithium (Li)-Dissolved			93.1		%		80-120	30-AUG-19
Magnesium (Mg)-Dissolved			102.2		%		80-120	30-AUG-19
Manganese (Mn)-Dissolved			99.0		%		80-120	30-AUG-19
Molybdenum (Mo)-Dissolved			101.6		%		80-120	30-AUG-19
Nickel (Ni)-Dissolved			97.6		%		80-120	30-AUG-19
Phosphorus (P)-Dissolved			108.8		%		80-120	30-AUG-19
Potassium (K)-Dissolved			102.5		%		80-120	30-AUG-19
Rubidium (Rb)-Dissolved			98.6		%		80-120	30-AUG-19
Selenium (Se)-Dissolved			103.5		%		80-120	30-AUG-19
Silicon (Si)-Dissolved			98.2		%		80-120	30-AUG-19
Silver (Ag)-Dissolved			99.2		%		80-120	30-AUG-19
Sodium (Na)-Dissolved			98.0		%		80-120	30-AUG-19
Strontium (Sr)-Dissolved			98.3		%		80-120	30-AUG-19
Sulfur (S)-Dissolved			93.6		%		80-120	30-AUG-19
Tellurium (Te)-Dissolved			100.5		%		80-120	30-AUG-19
Thallium (Tl)-Dissolved			102.6		%		80-120	30-AUG-19
Thorium (Th)-Dissolved			100.3		%		80-120	30-AUG-19
Tin (Sn)-Dissolved			101.8		%		80-120	30-AUG-19
Titanium (Ti)-Dissolved			97.6		%		80-120	30-AUG-19
Tungsten (W)-Dissolved			102.5		%		80-120	30-AUG-19
Uranium (U)-Dissolved			97.5		%		80-120	30-AUG-19
Vanadium (V)-Dissolved			99.4		%		80-120	30-AUG-19
Zinc (Zn)-Dissolved			101.5		%		80-120	30-AUG-19
Zirconium (Zr)-Dissolved			106.4		%		80-120	30-AUG-19
WG3148256-14 LCS								
Aluminum (Al)-Dissolved			103.7		%		80-120	30-AUG-19
Antimony (Sb)-Dissolved			104.6		%		80-120	30-AUG-19
Arsenic (As)-Dissolved			100.2		%		80-120	30-AUG-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R4782072								
WG3148256-14 LCS								
Barium (Ba)-Dissolved			102.8		%		80-120	30-AUG-19
Beryllium (Be)-Dissolved			98.0		%		80-120	30-AUG-19
Bismuth (Bi)-Dissolved			100.4		%		80-120	30-AUG-19
Boron (B)-Dissolved			91.6		%		80-120	30-AUG-19
Cadmium (Cd)-Dissolved			103.2		%		80-120	30-AUG-19
Calcium (Ca)-Dissolved			100.5		%		80-120	30-AUG-19
Cesium (Cs)-Dissolved			107.6		%		80-120	30-AUG-19
Chromium (Cr)-Dissolved			102.3		%		80-120	30-AUG-19
Cobalt (Co)-Dissolved			102.6		%		80-120	30-AUG-19
Copper (Cu)-Dissolved			99.5		%		80-120	30-AUG-19
Iron (Fe)-Dissolved			103.4		%		80-120	30-AUG-19
Lead (Pb)-Dissolved			100.6		%		80-120	30-AUG-19
Lithium (Li)-Dissolved			95.5		%		80-120	30-AUG-19
Magnesium (Mg)-Dissolved			105.0		%		80-120	30-AUG-19
Manganese (Mn)-Dissolved			99.4		%		80-120	30-AUG-19
Molybdenum (Mo)-Dissolved			104.2		%		80-120	30-AUG-19
Nickel (Ni)-Dissolved			101.2		%		80-120	30-AUG-19
Phosphorus (P)-Dissolved			109.1		%		80-120	30-AUG-19
Potassium (K)-Dissolved			104.3		%		80-120	30-AUG-19
Rubidium (Rb)-Dissolved			97.8		%		80-120	30-AUG-19
Selenium (Se)-Dissolved			101.3		%		80-120	30-AUG-19
Silicon (Si)-Dissolved			100.9		%		80-120	30-AUG-19
Silver (Ag)-Dissolved			105.4		%		80-120	30-AUG-19
Sodium (Na)-Dissolved			98.7		%		80-120	30-AUG-19
Strontium (Sr)-Dissolved			99.7		%		80-120	30-AUG-19
Sulfur (S)-Dissolved			94.1		%		80-120	30-AUG-19
Tellurium (Te)-Dissolved			109.8		%		80-120	30-AUG-19
Thallium (Tl)-Dissolved			101.3		%		80-120	30-AUG-19
Thorium (Th)-Dissolved			98.0		%		80-120	30-AUG-19
Tin (Sn)-Dissolved			103.4		%		80-120	30-AUG-19
Titanium (Ti)-Dissolved			100.2		%		80-120	30-AUG-19
Tungsten (W)-Dissolved			103.7		%		80-120	30-AUG-19
Uranium (U)-Dissolved			97.0		%		80-120	30-AUG-19
Vanadium (V)-Dissolved			101.5		%		80-120	30-AUG-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R4782072								
WG3148256-14 LCS								
Zinc (Zn)-Dissolved			98.0		%		80-120	30-AUG-19
Zirconium (Zr)-Dissolved			108.3		%		80-120	30-AUG-19
WG3148256-13 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	30-AUG-19
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-19
Boron (B)-Dissolved			<0.010		mg/L		0.01	30-AUG-19
Cadmium (Cd)-Dissolved			<0.000005C		mg/L		0.000005	30-AUG-19
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	30-AUG-19
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-19
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	30-AUG-19
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	30-AUG-19
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-19
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	30-AUG-19
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	30-AUG-19
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-19
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	30-AUG-19
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	30-AUG-19
Potassium (K)-Dissolved			<0.050		mg/L		0.05	30-AUG-19
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	30-AUG-19
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-19
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	30-AUG-19
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-19
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	30-AUG-19
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	30-AUG-19
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	30-AUG-19
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	30-AUG-19
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R4782072								
WG3148256-13 MB								
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	30-AUG-19
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-19
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	30-AUG-19
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	30-AUG-19
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	30-AUG-19
WG3148256-9 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	30-AUG-19
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-19
Boron (B)-Dissolved			<0.010		mg/L		0.01	30-AUG-19
Cadmium (Cd)-Dissolved			<0.000005C		mg/L		0.000005	30-AUG-19
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	30-AUG-19
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-19
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	30-AUG-19
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	30-AUG-19
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-19
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	30-AUG-19
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	30-AUG-19
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-19
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	30-AUG-19
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	30-AUG-19
Potassium (K)-Dissolved			<0.050		mg/L		0.05	30-AUG-19
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	30-AUG-19
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	30-AUG-19
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	30-AUG-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R4782072								
WG3148256-9 MB								
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-19
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	30-AUG-19
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	30-AUG-19
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	30-AUG-19
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	30-AUG-19
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-19
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	30-AUG-19
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	30-AUG-19
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	30-AUG-19
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	30-AUG-19
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	30-AUG-19
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	30-AUG-19
MET-T-CCMS-TB	**Water**							
Batch R4782648								
WG3148294-6 LCS								
Aluminum (Al)-Total			103.1		%		80-120	03-SEP-19
Antimony (Sb)-Total			108.9		%		80-120	03-SEP-19
Arsenic (As)-Total			103.3		%		80-120	03-SEP-19
Barium (Ba)-Total			102.5		%		80-120	03-SEP-19
Beryllium (Be)-Total			110.9		%		80-120	03-SEP-19
Bismuth (Bi)-Total			103.8		%		80-120	03-SEP-19
Boron (B)-Total			96.5		%		80-120	03-SEP-19
Cadmium (Cd)-Total			103.8		%		80-120	03-SEP-19
Calcium (Ca)-Total			103.2		%		80-120	03-SEP-19
Cesium (Cs)-Total			103.5		%		80-120	03-SEP-19
Chromium (Cr)-Total			103.2		%		80-120	03-SEP-19
Cobalt (Co)-Total			103.3		%		80-120	03-SEP-19
Copper (Cu)-Total			101.9		%		80-120	03-SEP-19
Iron (Fe)-Total			102.0		%		80-120	03-SEP-19
Lead (Pb)-Total			104.4		%		80-120	03-SEP-19
Lithium (Li)-Total			103.3		%		80-120	03-SEP-19
Magnesium (Mg)-Total			110.3		%		80-120	03-SEP-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R4782648								
WG3148294-6 LCS								
Manganese (Mn)-Total			102.2		%		80-120	03-SEP-19
Molybdenum (Mo)-Total			105.0		%		80-120	03-SEP-19
Nickel (Ni)-Total			101.4		%		80-120	03-SEP-19
Phosphorus (P)-Total			107.9		%		80-120	03-SEP-19
Potassium (K)-Total			109.4		%		80-120	03-SEP-19
Rubidium (Rb)-Total			103.0		%		80-120	03-SEP-19
Selenium (Se)-Total			104.0		%		80-120	03-SEP-19
Silicon (Si)-Total			102.9		%		80-120	03-SEP-19
Silver (Ag)-Total			105.1		%		80-120	03-SEP-19
Sodium (Na)-Total			109.4		%		80-120	03-SEP-19
Strontium (Sr)-Total			104.6		%		80-120	03-SEP-19
Sulfur (S)-Total			88.2		%		80-120	03-SEP-19
Tellurium (Te)-Total			101.4		%		80-120	03-SEP-19
Thallium (Tl)-Total			103.7		%		80-120	03-SEP-19
Thorium (Th)-Total			99.1		%		80-120	03-SEP-19
Tin (Sn)-Total			104.2		%		80-120	03-SEP-19
Titanium (Ti)-Total			102.9		%		80-120	03-SEP-19
Tungsten (W)-Total			103.0		%		80-120	03-SEP-19
Uranium (U)-Total			95.9		%		80-120	03-SEP-19
Vanadium (V)-Total			102.8		%		80-120	03-SEP-19
Zinc (Zn)-Total			106.2		%		80-120	03-SEP-19
Zirconium (Zr)-Total			110.6		%		80-120	03-SEP-19
WG3149368-2 LCS								
Aluminum (Al)-Total			109.3		%		80-120	03-SEP-19
Antimony (Sb)-Total			104.8		%		80-120	03-SEP-19
Arsenic (As)-Total			104.9		%		80-120	03-SEP-19
Barium (Ba)-Total			107.9		%		80-120	03-SEP-19
Beryllium (Be)-Total			103.7		%		80-120	03-SEP-19
Bismuth (Bi)-Total			109.3		%		80-120	03-SEP-19
Boron (B)-Total			94.3		%		80-120	03-SEP-19
Cadmium (Cd)-Total			106.4		%		80-120	03-SEP-19
Calcium (Ca)-Total			105.8		%		80-120	03-SEP-19
Cesium (Cs)-Total			101.2		%		80-120	03-SEP-19
Chromium (Cr)-Total			108.1		%		80-120	03-SEP-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R4782648								
WG3149368-2 LCS								
Cobalt (Co)-Total			103.4		%		80-120	03-SEP-19
Copper (Cu)-Total			105.0		%		80-120	03-SEP-19
Iron (Fe)-Total			105.1		%		80-120	03-SEP-19
Lead (Pb)-Total			106.6		%		80-120	03-SEP-19
Lithium (Li)-Total			94.2		%		80-120	03-SEP-19
Magnesium (Mg)-Total			115.2		%		80-120	03-SEP-19
Manganese (Mn)-Total			108.0		%		80-120	03-SEP-19
Molybdenum (Mo)-Total			105.2		%		80-120	03-SEP-19
Nickel (Ni)-Total			103.9		%		80-120	03-SEP-19
Phosphorus (P)-Total			115.0		%		80-120	03-SEP-19
Potassium (K)-Total			119.0		%		80-120	03-SEP-19
Rubidium (Rb)-Total			106.0		%		80-120	03-SEP-19
Selenium (Se)-Total			104.4		%		80-120	03-SEP-19
Silicon (Si)-Total			107.3		%		80-120	03-SEP-19
Silver (Ag)-Total			102.8		%		80-120	03-SEP-19
Sodium (Na)-Total			112.0		%		80-120	03-SEP-19
Strontium (Sr)-Total			106.1		%		80-120	03-SEP-19
Sulfur (S)-Total			89.0		%		80-120	03-SEP-19
Tellurium (Te)-Total			103.0		%		80-120	03-SEP-19
Thallium (Tl)-Total			104.7		%		80-120	03-SEP-19
Thorium (Th)-Total			100.5		%		80-120	03-SEP-19
Tin (Sn)-Total			102.8		%		80-120	03-SEP-19
Titanium (Ti)-Total			104.2		%		80-120	03-SEP-19
Tungsten (W)-Total			107.5		%		80-120	03-SEP-19
Uranium (U)-Total			96.4		%		80-120	03-SEP-19
Vanadium (V)-Total			107.1		%		80-120	03-SEP-19
Zinc (Zn)-Total			108.0		%		80-120	03-SEP-19
Zirconium (Zr)-Total			110.8		%		80-120	03-SEP-19
WG3148294-5 MB								
Aluminum (Al)-Total			<0.0030		mg/L		0.003	03-SEP-19
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Arsenic (As)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Barium (Ba)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	03-SEP-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R4782648								
WG3148294-5 MB								
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	03-SEP-19
Boron (B)-Total			<0.010		mg/L		0.01	03-SEP-19
Cadmium (Cd)-Total			<0.000005C		mg/L		0.000005	03-SEP-19
Calcium (Ca)-Total			<0.050		mg/L		0.05	03-SEP-19
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	03-SEP-19
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Copper (Cu)-Total			<0.00050		mg/L		0.0005	03-SEP-19
Iron (Fe)-Total			<0.010		mg/L		0.01	03-SEP-19
Lead (Pb)-Total			<0.000050		mg/L		0.00005	03-SEP-19
Lithium (Li)-Total			<0.0010		mg/L		0.001	03-SEP-19
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	03-SEP-19
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	03-SEP-19
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	03-SEP-19
Phosphorus (P)-Total			<0.050		mg/L		0.05	03-SEP-19
Potassium (K)-Total			<0.050		mg/L		0.05	03-SEP-19
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	03-SEP-19
Selenium (Se)-Total			<0.000050		mg/L		0.00005	03-SEP-19
Silicon (Si)-Total			<0.10		mg/L		0.1	03-SEP-19
Silver (Ag)-Total			<0.000010		mg/L		0.00001	03-SEP-19
Sodium (Na)-Total			<0.050		mg/L		0.05	03-SEP-19
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	03-SEP-19
Sulfur (S)-Total			<0.50		mg/L		0.5	03-SEP-19
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	03-SEP-19
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	03-SEP-19
Thorium (Th)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Tin (Sn)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	03-SEP-19
Tungsten (W)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Uranium (U)-Total			<0.000010		mg/L		0.00001	03-SEP-19
Vanadium (V)-Total			<0.00050		mg/L		0.0005	03-SEP-19
Zinc (Zn)-Total			<0.0030		mg/L		0.003	03-SEP-19
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	03-SEP-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R4782648								
WG3149368-1 MB								
Aluminum (Al)-Total			<0.0030		mg/L		0.003	03-SEP-19
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Arsenic (As)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Barium (Ba)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	03-SEP-19
Boron (B)-Total			<0.010		mg/L		0.01	03-SEP-19
Cadmium (Cd)-Total			<0.000005C		mg/L		0.000005	03-SEP-19
Calcium (Ca)-Total			<0.050		mg/L		0.05	03-SEP-19
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	03-SEP-19
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Copper (Cu)-Total			<0.00050		mg/L		0.0005	03-SEP-19
Iron (Fe)-Total			<0.010		mg/L		0.01	03-SEP-19
Lead (Pb)-Total			<0.000050		mg/L		0.00005	03-SEP-19
Lithium (Li)-Total			<0.0010		mg/L		0.001	03-SEP-19
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	03-SEP-19
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	03-SEP-19
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	03-SEP-19
Phosphorus (P)-Total			<0.050		mg/L		0.05	03-SEP-19
Potassium (K)-Total			<0.050		mg/L		0.05	03-SEP-19
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	03-SEP-19
Selenium (Se)-Total			<0.000050		mg/L		0.00005	03-SEP-19
Silicon (Si)-Total			<0.10		mg/L		0.1	03-SEP-19
Silver (Ag)-Total			<0.000010		mg/L		0.00001	03-SEP-19
Sodium (Na)-Total			<0.050		mg/L		0.05	03-SEP-19
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	03-SEP-19
Sulfur (S)-Total			<0.50		mg/L		0.5	03-SEP-19
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	03-SEP-19
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	03-SEP-19
Thorium (Th)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Tin (Sn)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	03-SEP-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R4782648								
WG3149368-1 MB								
Tungsten (W)-Total			<0.00010		mg/L		0.0001	03-SEP-19
Uranium (U)-Total			<0.000010		mg/L		0.00001	03-SEP-19
Vanadium (V)-Total			<0.00050		mg/L		0.0005	03-SEP-19
Zinc (Zn)-Total			<0.0030		mg/L		0.003	03-SEP-19
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	03-SEP-19
WG3149368-4 MS		**L2338207-6**						
Aluminum (Al)-Total			104.4		%		70-130	03-SEP-19
Antimony (Sb)-Total			100.3		%		70-130	03-SEP-19
Arsenic (As)-Total			100.8		%		70-130	03-SEP-19
Barium (Ba)-Total			N/A	MS-B	%		-	03-SEP-19
Beryllium (Be)-Total			97.4		%		70-130	03-SEP-19
Bismuth (Bi)-Total			95.3		%		70-130	03-SEP-19
Boron (B)-Total			93.5		%		70-130	03-SEP-19
Cadmium (Cd)-Total			102.4		%		70-120	03-SEP-19
Calcium (Ca)-Total			N/A	MS-B	%		-	03-SEP-19
Cesium (Cs)-Total			97.9		%		70-130	03-SEP-19
Chromium (Cr)-Total			102.5		%		70-130	03-SEP-19
Cobalt (Co)-Total			99.3		%		70-130	03-SEP-19
Copper (Cu)-Total			N/A	MS-B	%		-	03-SEP-19
Iron (Fe)-Total			105.3		%		70-130	03-SEP-19
Lead (Pb)-Total			97.8		%		70-130	03-SEP-19
Lithium (Li)-Total			100.0		%		70-130	03-SEP-19
Magnesium (Mg)-Total			N/A	MS-B	%		-	03-SEP-19
Manganese (Mn)-Total			N/A	MS-B	%		-	03-SEP-19
Molybdenum (Mo)-Total			100.2		%		70-130	03-SEP-19
Nickel (Ni)-Total			98.4		%		70-130	03-SEP-19
Phosphorus (P)-Total			104.7		%		70-130	03-SEP-19
Potassium (K)-Total			102.2		%		70-130	03-SEP-19
Rubidium (Rb)-Total			95.6		%		70-130	03-SEP-19
Selenium (Se)-Total			98.5		%		70-130	03-SEP-19
Silicon (Si)-Total			81.4		%		70-130	03-SEP-19
Silver (Ag)-Total			96.3		%		70-130	03-SEP-19
Sodium (Na)-Total			N/A	MS-B	%		-	03-SEP-19
Strontium (Sr)-Total			N/A	MS-B	%		-	03-SEP-19

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R4782648								
WG3149368-4 MS		**L2338207-6**						
Sulfur (S)-Total			89.3		%		70-130	03-SEP-19
Tellurium (Te)-Total			98.1		%		70-130	03-SEP-19
Thallium (Tl)-Total			93.8		%		70-130	03-SEP-19
Thorium (Th)-Total			97.7		%		70-130	03-SEP-19
Tin (Sn)-Total			97.6		%		70-130	03-SEP-19
Titanium (Ti)-Total			99.5		%		70-130	03-SEP-19
Tungsten (W)-Total			100.4		%		70-130	03-SEP-19
Uranium (U)-Total			94.5		%		70-130	03-SEP-19
Vanadium (V)-Total			101.5		%		70-130	03-SEP-19
Zinc (Zn)-Total			N/A	MS-B	%		-	03-SEP-19
Zirconium (Zr)-Total			106.2		%		70-130	03-SEP-19
NH3-COL-TB	**Water**							
Batch R4778343								
WG3148325-19 DUP		**L2338207-2**						
Ammonia, Total (as N)		0.118	0.121		mg/L	2.3	20	30-AUG-19
WG3148325-14 LCS								
Ammonia, Total (as N)			98.4		%		85-115	30-AUG-19
WG3148325-18 LCS								
Ammonia, Total (as N)			99.1		%		85-115	30-AUG-19
WG3148325-13 MB								
Ammonia, Total (as N)			<0.020		mg/L		0.02	30-AUG-19
WG3148325-17 MB								
Ammonia, Total (as N)			<0.020		mg/L		0.02	30-AUG-19
WG3148325-20 MS		**L2338207-3**						
Ammonia, Total (as N)			81.0		%		75-125	30-AUG-19
NO2-IC-N-TB	**Water**							
Batch R4779231								
WG3148833-2 LCS								
Nitrite (as N)			102.2		%		90-110	30-AUG-19
WG3148833-6 LCS								
Nitrite (as N)			102.8		%		90-110	30-AUG-19
WG3148833-1 MB								
Nitrite (as N)			<0.010		mg/L		0.01	30-AUG-19
WG3148833-5 MB								
Nitrite (as N)			<0.010		mg/L		0.01	30-AUG-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO2-IC-N-TB	**Water**							
Batch R4780012								
WG3149847-2 LCS								
Nitrite (as N)			101.2		%		90-110	01-SEP-19
WG3149847-1 MB								
Nitrite (as N)			<0.010		mg/L		0.01	01-SEP-19
NO3-IC-N-TB	**Water**							
Batch R4779231								
WG3148833-2 LCS								
Nitrate (as N)			97.0		%		90-110	30-AUG-19
WG3148833-6 LCS								
Nitrate (as N)			99.2		%		90-110	30-AUG-19
WG3148833-1 MB								
Nitrate (as N)			<0.020		mg/L		0.02	30-AUG-19
WG3148833-5 MB								
Nitrate (as N)			<0.020		mg/L		0.02	30-AUG-19
WG3148833-8 MS		**L2338207-9**						
Nitrate (as N)			79.8		%		75-125	30-AUG-19
P-T-COL-TB	**Water**							
Batch R4781589								
WG3148337-3 DUP		**L2338207-1**						
Phosphorus (P)-Total		0.0069	0.0059		mg/L	17	20	03-SEP-19
WG3148337-2 LCS								
Phosphorus (P)-Total			109.2		%		80-120	03-SEP-19
WG3148337-1 MB								
Phosphorus (P)-Total			<0.0030		mg/L		0.003	03-SEP-19
WG3148337-4 MS		**L2338207-2**						
Phosphorus (P)-Total			109.6		%		70-130	03-SEP-19
PH-METER-TB	**Water**							
Batch R4777648								
WG3147665-2 DUP		**L2338207-3**						
pH		7.02	7.03	J	pH	0.01	0.2	29-AUG-19
WG3147665-1 LCS		**METER**						
pH			6.93		pH		6.9-7.1	29-AUG-19
SIO2-COL-WP	**Water**							
Batch R4783888								
WG3153058-2 LCS								
Silica, Reactive (as SiO2)			102.1		%		85-115	04-SEP-19
WG3153058-1 MB								

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SIO2-COL-WP	**Water**							
Batch R4783888								
WG3153058-1 MB								
Silica, Reactive (as SiO2)			<1.0		mg/L		1	04-SEP-19
SO4-IC-N-TB	**Water**							
Batch R4779231								
WG3148833-2 LCS								
Sulfate (SO4)			101.4		%		90-110	30-AUG-19
WG3148833-6 LCS								
Sulfate (SO4)			99.2		%		90-110	30-AUG-19
WG3148833-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	30-AUG-19
WG3148833-5 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	30-AUG-19
WG3148833-8 MS		**L2338207-9**						
Sulfate (SO4)			83.9		%		75-125	30-AUG-19
TDS-TB	**Water**							
Batch R4778949								
WG3148399-3 DUP		**L2338207-6**						
Total Dissolved Solids		355	356		mg/L	0.4	20	30-AUG-19
WG3148399-2 LCS								
Total Dissolved Solids			95.3		%		85-115	30-AUG-19
WG3148399-1 MB								
Total Dissolved Solids			<10		mg/L		10	30-AUG-19
TSS-TB	**Water**							
Batch R4778887								
WG3147745-2 LCS								
Total Suspended Solids			95.6		%		85-115	30-AUG-19
WG3147745-1 MB								
Total Suspended Solids			<2.0		mg/L		2	30-AUG-19

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
pH							
	1	24-AUG-19 10:15	29-AUG-19 17:20	4	5	days	EHTR
	2	24-AUG-19 00:01	29-AUG-19 17:20	4	6	days	EHTR
	3	24-AUG-19 14:35	29-AUG-19 17:20	4	5	days	EHTR
	4	24-AUG-19 18:20	29-AUG-19 17:20	4	5	days	EHTR
Anions and Nutrients							
Alkalinity Species by Titration							
	1	24-AUG-19 10:15	10-SEP-19 12:58	14	17	days	EHT
	2	24-AUG-19 00:01	10-SEP-19 12:58	14	18	days	EHT
	3	24-AUG-19 14:35	10-SEP-19 12:58	14	17	days	EHT
	4	24-AUG-19 18:20	10-SEP-19 12:58	14	17	days	EHT
	5	25-AUG-19 10:45	10-SEP-19 12:58	14	16	days	EHT
	6	25-AUG-19 14:15	10-SEP-19 12:58	14	16	days	EHT
	7	25-AUG-19 18:35	10-SEP-19 12:58	14	16	days	EHT
	8	25-AUG-19 12:15	10-SEP-19 12:58	14	16	days	EHT
	10	26-AUG-19 00:01	10-SEP-19 12:58	14	16	days	EHT

Legend & Qualifier Definitions:

EHTR-FM:	Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR:	Exceeded ALS recommended hold time prior to sample receipt.
EHTL:	Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT:	Exceeded ALS recommended hold time prior to analysis.
Rec. HT:	ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2338207 were received on 29-AUG-19 09:40.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2338207-COFC

COC Number: 17 -

Page 1 of

Report To	Contact and company name below will appear on the final report
Company:	Gold Canyon Resources Inc.
Contact:	David Mchalna
Phone:	519-241-9655
	Company address below will appear on the final report
Street:	1800-925 West Georgia Street
City/Province:	Vancouver, BC
Postal Code:	V6C 3L2
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution	
Select Report Format:	☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	dmchalna@firstmininggold.com
Email 2	shila@firstmininggold.com
Email 3	glenn_ffc@ns.aliantzinc.ca

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☑ MAIL ☐ FAX
Email 1 or Fax	
Email 2	

Project Information	
ALS Account # / Quote #:	20884 / Q84154
Job #:	
PO / AFE:	
LSD:	
ALS Lab Work Order # (lab use only):	L2338207

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	
ALS Contact:	Sampler:

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

NUMBER OF CONTAINERS

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Acidity, Alkalinity, Ammonia, Br, Cl, Conductivity, F, P	Total Metals	Dissolved Metals	Reactive Silica	F, Hardness, NO2, NO3, pH, SO4	Total Phosphorous, TSS	TDS	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	Aug	23-Aug-19	15:30	Ground Water	R	R	R	R	R	R	R		
	3134-BL0385-108m	24-Aug-19	10:15	Ground Water	R	R	R	R	R	R	R		
	3134-BLDup-1	xxxx	xxxx	Ground Water	R	R	R	R	R	R	R		
	3134-BL364-104m	24-Aug-19	14:35	Ground Water	R	R	R	R	R	R	R		
	3134-BL52-60m	24-Aug-19	18:20	Ground Water	R	R	R	R	R	R	R		
	3134-BL52-138m	25-Aug-19	10:45	Ground Water	R	R	R	R	R	R	R		
	3134-BL52-238m	25-Aug-19	14:15	Ground Water	R	R	R	R	R	R	R		
	3134-BL52-435m	25-Aug-19	18:35	Ground Water	R	R	R	R	R	R	R		
	3134-BL-310-60m	26-Aug-19	12:15	Ground Water	R	R	R	R	R	R	R		
	3134-MW2	26-Aug-19	15:30	Ground Water	R	R	R	R	R	R	R		

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

Ice Packs ☑ Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐

Cooling Initiated ☑

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
12.3							

SHIPMENT RELEASE (client use)		
Released by:	08/27/19	Time:

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by: SD	Date: Aug 29/2019	Time: 9:40

FINAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

5

L2338207-COFC

Client: Gold Canyon

	Verified By	Date	Time	
Sample Layout Verification:	SD	Aug. 29/ 2019	9:48	Sample ... Enter information on back page
Labels Verification:	Sf			Do any samples require prep? NO (P) F/P Fraction 9.

		Sample #:																
1L	Plastic																	
500mL	Plastic																	
250mL	Plastic																	
145mL	Plastic																	
60mL	Plastic																	
Micro																		
Toxicity Pail																		
1L	Glass																	
500mL	Glass																	
250mL	Glass																	
120mL	Glass																	
60mL	Glass																	
40mL	Vial (Glass)																	
40mL	Methanol Vials																	
Soil Jar (120, 250 or 500mL)																		
Other:																		
Other:																		
Total Number of Bottles																		

Trip/Travel/Field Blank Information

Solids Batch#:	Metals Batch#:	T:	D:
Routine Batch#:	Mercury Batch#:	T:	D:
BOD Batch#:	Cyanide Batch#:	T:	D:
Nutrients Batch#:	OGG Batch#:		
DOC/Carbon Batch#:	Phenols Batch#:		
VOC Batch#:			
Other:			

COOLER TRACKING

EPP		Coleman	
Small		Micro (5QT)	
Med		Sm(9QT)	
Lrg		Med(16QT)	
Micro Box		Lrg(28QT)	
		Lrg(48QT)	

GOLD CANYON RESOURCES INC.
ATTN: David Mchaina
c/o Suite 1805 - 925 West Georgia Street
Vancouver BC V6C 3L2

Date Received: 03-OCT-19
Report Date: 16-OCT-19 12:05 (MT)
Version: FINAL

Client Phone: 705-929-5245

Certificate of Analysis

Lab Work Order #: L2358839

Project P.O. #: NOT SUBMITTED
Job Reference: SPRINGPOLE GW
C of C Numbers:
Legal Site Desc: First Mining Gold Project

Amanda Loesch
Account Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2358839-1 3134 - MW - B000 - WS1 Sampled By: CLIENT on 29-SEP-19 @ 14:45 Matrix: Ground Water							
Physical Tests							
Conductivity (EC)	484		1.0	uS/cm		03-OCT-19	R4858671
Hardness (as CaCO3)	317	HTC	0.63	mg/L		08-OCT-19	
pH	7.80		0.10	pH		03-OCT-19	R4858671
Total Suspended Solids	385		6.0	mg/L		06-OCT-19	R4860489
Total Dissolved Solids	320		20	mg/L		04-OCT-19	R4859725
Anions and Nutrients							
Acidity (as CaCO3)	13.4		2.0	mg/L		03-OCT-19	R4858671
Alkalinity, Total (as CaCO3)	298		2.0	mg/L		04-OCT-19	R4859702
Ammonia, Total (as N)	1.09		0.20	mg/L		07-OCT-19	R4861362
Bromide (Br)	<0.10		0.10	mg/L		03-OCT-19	R4858733
Chloride (Cl)	0.54		0.10	mg/L		03-OCT-19	R4858733
Fluoride (F)	0.029		0.020	mg/L		03-OCT-19	R4858733
Nitrate (as N)	0.132		0.020	mg/L		03-OCT-19	R4858733
Nitrite (as N)	<0.010		0.010	mg/L		03-OCT-19	R4858733
Phosphorus (P)-Total	0.221		0.030	mg/L	04-OCT-19	07-OCT-19	R4860687
Sulfate (SO4)	0.43		0.30	mg/L		03-OCT-19	R4858733
Cyanides							
Cyanide, Total	<0.0020		0.0020	mg/L		07-OCT-19	R4861496
Organic / Inorganic Carbon							
Dissolved Organic Carbon	23.1		0.50	mg/L		11-OCT-19	R4868492
Total Metals							
Aluminum (Al)-Total	1.76		0.015	mg/L	04-OCT-19	04-OCT-19	R4860458
Antimony (Sb)-Total	<0.00050	DLM	0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Arsenic (As)-Total	0.00066		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Barium (Ba)-Total	0.0888		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Beryllium (Be)-Total	<0.00050	DLM	0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Bismuth (Bi)-Total	<0.00025	DLM	0.00025	mg/L	04-OCT-19	04-OCT-19	R4860458
Boron (B)-Total	<0.050	DLM	0.050	mg/L	04-OCT-19	04-OCT-19	R4860458
Cadmium (Cd)-Total	0.000029		0.000025	mg/L	04-OCT-19	04-OCT-19	R4860458
Calcium (Ca)-Total	111		0.25	mg/L	04-OCT-19	04-OCT-19	R4860458
Cesium (Cs)-Total	0.000238		0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Chromium (Cr)-Total	0.00629		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Cobalt (Co)-Total	0.00152		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Copper (Cu)-Total	0.0048		0.0025	mg/L	04-OCT-19	04-OCT-19	R4860458
Iron (Fe)-Total	4.64		0.050	mg/L	04-OCT-19	04-OCT-19	R4860458
Lead (Pb)-Total	0.00100		0.00025	mg/L	04-OCT-19	04-OCT-19	R4860458
Lithium (Li)-Total	0.0060		0.0050	mg/L	04-OCT-19	04-OCT-19	R4860458
Magnesium (Mg)-Total	10.0		0.025	mg/L	04-OCT-19	04-OCT-19	R4860458
Manganese (Mn)-Total	0.569		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Molybdenum (Mo)-Total	0.00040		0.00025	mg/L	04-OCT-19	07-OCT-19	R4861385
Nickel (Ni)-Total	0.0044		0.0025	mg/L	04-OCT-19	04-OCT-19	R4860458
Phosphorus (P)-Total	<0.25	DLM	0.25	mg/L	04-OCT-19	04-OCT-19	R4860458

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2358839-1 3134 - MW - B000 - WS1 Sampled By: CLIENT on 29-SEP-19 @ 14:45 Matrix: Ground Water							
Total Metals							
Potassium (K)-Total	3.35		0.25	mg/L	04-OCT-19	04-OCT-19	R4860458
Rubidium (Rb)-Total	0.0062		0.0010	mg/L	04-OCT-19	04-OCT-19	R4860458
Selenium (Se)-Total	<0.00025	DLM	0.00025	mg/L	04-OCT-19	04-OCT-19	R4860458
Silicon (Si)-Total	11.6		0.50	mg/L	04-OCT-19	04-OCT-19	R4860458
Silver (Ag)-Total	<0.000050	DLM	0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Sodium (Na)-Total	3.74		0.25	mg/L	04-OCT-19	04-OCT-19	R4860458
Strontium (Sr)-Total	0.149		0.0010	mg/L	04-OCT-19	04-OCT-19	R4860458
Sulfur (S)-Total	<2.5	DLM	2.5	mg/L	04-OCT-19	04-OCT-19	R4860458
Tellurium (Te)-Total	<0.0010	DLM	0.0010	mg/L	04-OCT-19	04-OCT-19	R4860458
Thallium (Tl)-Total	<0.000050	DLM	0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Thorium (Th)-Total	<0.00050	DLM	0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Tin (Sn)-Total	0.00226		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Titanium (Ti)-Total	0.117		0.0015	mg/L	04-OCT-19	04-OCT-19	R4860458
Tungsten (W)-Total	<0.00050	DLM	0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Uranium (U)-Total	0.000246		0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Vanadium (V)-Total	0.0063		0.0025	mg/L	04-OCT-19	04-OCT-19	R4860458
Zinc (Zn)-Total	<0.015	DLM	0.015	mg/L	04-OCT-19	04-OCT-19	R4860458
Zirconium (Zr)-Total	<0.0010	DLM	0.0010	mg/L	04-OCT-19	04-OCT-19	R4860458
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-19	R4859825
Dissolved Metals Filtration Location	FIELD					03-OCT-19	R4858710
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-19	05-OCT-19	R4859686
L2358839-2 3134 - MW - E080 - WS1 Sampled By: CLIENT on 29-SEP-19 @ 13:50 Matrix: Ground Water							
Physical Tests							
Conductivity (EC)	177		1.0	uS/cm		03-OCT-19	R4858671
Hardness (as CaCO3)	272	HTC	0.63	mg/L		08-OCT-19	
pH	7.14		0.10	pH		03-OCT-19	R4858671
Total Suspended Solids	4850		15	mg/L		06-OCT-19	R4860489
Total Dissolved Solids	159		40	mg/L		04-OCT-19	R4859725
Anions and Nutrients							
Acidity (as CaCO3)	18.8		2.0	mg/L		03-OCT-19	R4858671
Alkalinity, Total (as CaCO3)	105		2.0	mg/L		04-OCT-19	R4859702
Ammonia, Total (as N)	0.846		0.020	mg/L		07-OCT-19	R4861362
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-19	R4860592
Chloride (Cl)	0.39		0.10	mg/L		04-OCT-19	R4860592
Fluoride (F)	0.024		0.020	mg/L		04-OCT-19	R4860592
Nitrate (as N)	<0.020		0.020	mg/L		04-OCT-19	R4860592
Nitrite (as N)	<0.010		0.010	mg/L		04-OCT-19	R4860592
Phosphorus (P)-Total	0.411		0.015	mg/L	04-OCT-19	07-OCT-19	R4860687
Sulfate (SO4)	0.37		0.30	mg/L		04-OCT-19	R4860592

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2358839-2 3134 - MW - E080 - WS1 Sampled By: CLIENT on 29-SEP-19 @ 13:50 Matrix: Ground Water							
Anions and Nutrients							
Cyanides							
Cyanide, Total	<0.020	DLM	0.020	mg/L		07-OCT-19	R4861496
Organic / Inorganic Carbon							
Dissolved Organic Carbon	19.5		0.50	mg/L		13-OCT-19	R4869827
Total Metals							
Aluminum (Al)-Total	2.18		0.015	mg/L	04-OCT-19	04-OCT-19	R4860458
Antimony (Sb)-Total	<0.00050	DLM	0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Arsenic (As)-Total	0.00076		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Barium (Ba)-Total	0.105		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Beryllium (Be)-Total	<0.00050	DLM	0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Bismuth (Bi)-Total	<0.00025	DLM	0.00025	mg/L	04-OCT-19	04-OCT-19	R4860458
Boron (B)-Total	<0.050	DLM	0.050	mg/L	04-OCT-19	04-OCT-19	R4860458
Cadmium (Cd)-Total	0.000028		0.000025	mg/L	04-OCT-19	04-OCT-19	R4860458
Calcium (Ca)-Total	98.9		0.25	mg/L	04-OCT-19	04-OCT-19	R4860458
Cesium (Cs)-Total	0.000269		0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Chromium (Cr)-Total	0.0148		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Cobalt (Co)-Total	0.00181		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Copper (Cu)-Total	0.0071		0.0025	mg/L	04-OCT-19	04-OCT-19	R4860458
Iron (Fe)-Total	20.4		0.050	mg/L	04-OCT-19	04-OCT-19	R4860458
Lead (Pb)-Total	0.00117		0.00025	mg/L	04-OCT-19	04-OCT-19	R4860458
Lithium (Li)-Total	0.0078		0.0050	mg/L	04-OCT-19	04-OCT-19	R4860458
Magnesium (Mg)-Total	6.01		0.025	mg/L	04-OCT-19	04-OCT-19	R4860458
Manganese (Mn)-Total	0.449		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Molybdenum (Mo)-Total	0.00072		0.00025	mg/L	04-OCT-19	07-OCT-19	R4861385
Nickel (Ni)-Total	0.0056		0.0025	mg/L	04-OCT-19	04-OCT-19	R4860458
Phosphorus (P)-Total	<0.25	DLM	0.25	mg/L	04-OCT-19	04-OCT-19	R4860458
Potassium (K)-Total	2.46		0.25	mg/L	04-OCT-19	04-OCT-19	R4860458
Rubidium (Rb)-Total	0.0050		0.0010	mg/L	04-OCT-19	04-OCT-19	R4860458
Selenium (Se)-Total	<0.00025	DLM	0.00025	mg/L	04-OCT-19	04-OCT-19	R4860458
Silicon (Si)-Total	13.6		0.50	mg/L	04-OCT-19	04-OCT-19	R4860458
Silver (Ag)-Total	<0.000050	DLM	0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Sodium (Na)-Total	2.76		0.25	mg/L	04-OCT-19	04-OCT-19	R4860458
Strontium (Sr)-Total	0.117		0.0010	mg/L	04-OCT-19	04-OCT-19	R4860458
Sulfur (S)-Total	<2.5	DLM	2.5	mg/L	04-OCT-19	04-OCT-19	R4860458
Tellurium (Te)-Total	<0.0010	DLM	0.0010	mg/L	04-OCT-19	04-OCT-19	R4860458
Thallium (Tl)-Total	<0.000050	DLM	0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Thorium (Th)-Total	0.00113		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Tin (Sn)-Total	0.00052		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Titanium (Ti)-Total	0.170		0.0015	mg/L	04-OCT-19	04-OCT-19	R4860458
Tungsten (W)-Total	0.00065		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Uranium (U)-Total	0.000278		0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Vanadium (V)-Total	0.0196		0.0025	mg/L	04-OCT-19	04-OCT-19	R4860458

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2358839-2 3134 - MW - E080 - WS1 Sampled By: CLIENT on 29-SEP-19 @ 13:50 Matrix: Ground Water							
Total Metals							
Zinc (Zn)-Total	<0.015	DLM	0.015	mg/L	04-OCT-19	04-OCT-19	R4860458
Zirconium (Zr)-Total	0.0039		0.0010	mg/L	04-OCT-19	04-OCT-19	R4860458
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-19	R4859825
Dissolved Metals Filtration Location	FIELD					03-OCT-19	R4858710
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-19	05-OCT-19	R4859686
L2358839-3 3134 - MW - K034 - WS1 Sampled By: CLIENT on 29-SEP-19 @ 16:20 Matrix: Ground Water							
Physical Tests							
Conductivity (EC)	431		1.0	uS/cm		03-OCT-19	R4858671
Hardness (as CaCO3)	249		0.50	mg/L		09-OCT-19	
pH	6.83		0.10	pH		03-OCT-19	R4858671
Total Suspended Solids	1760		15	mg/L		06-OCT-19	R4860489
Total Dissolved Solids	298		40	mg/L		04-OCT-19	R4859725
Anions and Nutrients							
Acidity (as CaCO3)	87.7		2.0	mg/L		03-OCT-19	R4858671
Alkalinity, Total (as CaCO3)	258		2.0	mg/L		04-OCT-19	R4859702
Ammonia, Total (as N)	2.48		0.20	mg/L		07-OCT-19	R4861362
Bromide (Br)	<0.10		0.10	mg/L		03-OCT-19	R4858733
Chloride (Cl)	0.14		0.10	mg/L		03-OCT-19	R4858733
Fluoride (F)	<0.020		0.020	mg/L		03-OCT-19	R4858733
Nitrate (as N)	<0.020		0.020	mg/L		03-OCT-19	R4858733
Nitrite (as N)	<0.010		0.010	mg/L		03-OCT-19	R4858733
Phosphorus (P)-Total	0.204		0.015	mg/L	04-OCT-19	07-OCT-19	R4860687
Sulfate (SO4)	<0.30		0.30	mg/L		03-OCT-19	R4858733
Cyanides							
Cyanide, Total	<0.0020		0.0020	mg/L		07-OCT-19	R4861496
Organic / Inorganic Carbon							
Dissolved Organic Carbon	29.8		0.50	mg/L		11-OCT-19	R4868492
Total Metals							
Aluminum (Al)-Total	2.23		0.015	mg/L	04-OCT-19	08-OCT-19	R4862314
Antimony (Sb)-Total	<0.00050		0.00050	mg/L	04-OCT-19	08-OCT-19	R4862314
Arsenic (As)-Total	0.00067		0.00050	mg/L	04-OCT-19	08-OCT-19	R4862314
Barium (Ba)-Total	0.103		0.00050	mg/L	04-OCT-19	08-OCT-19	R4862314
Beryllium (Be)-Total	<0.00050		0.00050	mg/L	04-OCT-19	08-OCT-19	R4862314
Bismuth (Bi)-Total	<0.00025		0.00025	mg/L	04-OCT-19	08-OCT-19	R4862314
Boron (B)-Total	<0.050		0.050	mg/L	04-OCT-19	08-OCT-19	R4862314
Cadmium (Cd)-Total	0.000029		0.000025	mg/L	04-OCT-19	08-OCT-19	R4862314
Calcium (Ca)-Total	96.1		0.25	mg/L	04-OCT-19	08-OCT-19	R4862314
Cesium (Cs)-Total	0.000250		0.000050	mg/L	04-OCT-19	08-OCT-19	R4862314
Chromium (Cr)-Total	0.0147		0.00050	mg/L	04-OCT-19	08-OCT-19	R4862314

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2358839-3 3134 - MW - K034 - WS1 Sampled By: CLIENT on 29-SEP-19 @ 16:20 Matrix: Ground Water							
Total Metals							
Cobalt (Co)-Total	0.00177		0.00050	mg/L	04-OCT-19	08-OCT-19	R4862314
Copper (Cu)-Total	0.0082		0.0025	mg/L	04-OCT-19	08-OCT-19	R4862314
Iron (Fe)-Total	19.9		0.050	mg/L	04-OCT-19	08-OCT-19	R4862314
Lead (Pb)-Total	0.00118		0.00025	mg/L	04-OCT-19	08-OCT-19	R4862314
Lithium (Li)-Total	<0.0050		0.0050	mg/L	04-OCT-19	08-OCT-19	R4862314
Magnesium (Mg)-Total	5.88		0.025	mg/L	04-OCT-19	08-OCT-19	R4862314
Manganese (Mn)-Total	0.431		0.00050	mg/L	04-OCT-19	08-OCT-19	R4862314
Molybdenum (Mo)-Total	0.00064		0.00025	mg/L	04-OCT-19	08-OCT-19	R4862314
Nickel (Ni)-Total	0.0056		0.0025	mg/L	04-OCT-19	08-OCT-19	R4862314
Phosphorus (P)-Total	<0.25		0.25	mg/L	04-OCT-19	08-OCT-19	R4862314
Potassium (K)-Total	2.37		0.25	mg/L	04-OCT-19	08-OCT-19	R4862314
Rubidium (Rb)-Total	0.0051		0.0010	mg/L	04-OCT-19	08-OCT-19	R4862314
Selenium (Se)-Total	<0.00025		0.00025	mg/L	04-OCT-19	08-OCT-19	R4862314
Silicon (Si)-Total	13.8		0.50	mg/L	04-OCT-19	08-OCT-19	R4862314
Silver (Ag)-Total	<0.000050		0.000050	mg/L	04-OCT-19	08-OCT-19	R4862314
Sodium (Na)-Total	2.79		0.25	mg/L	04-OCT-19	08-OCT-19	R4862314
Strontium (Sr)-Total	0.111		0.0010	mg/L	04-OCT-19	08-OCT-19	R4862314
Sulfur (S)-Total	<2.5		2.5	mg/L	04-OCT-19	08-OCT-19	R4862314
Tellurium (Te)-Total	<0.0010		0.0010	mg/L	04-OCT-19	08-OCT-19	R4862314
Thallium (Tl)-Total	<0.000050		0.000050	mg/L	04-OCT-19	08-OCT-19	R4862314
Thorium (Th)-Total	0.00102		0.00050	mg/L	04-OCT-19	08-OCT-19	R4862314
Tin (Sn)-Total	0.00050		0.00050	mg/L	04-OCT-19	08-OCT-19	R4862314
Titanium (Ti)-Total	0.165		0.0015	mg/L	04-OCT-19	08-OCT-19	R4862314
Tungsten (W)-Total	0.00060		0.00050	mg/L	04-OCT-19	08-OCT-19	R4862314
Uranium (U)-Total	0.000284		0.000050	mg/L	04-OCT-19	08-OCT-19	R4862314
Vanadium (V)-Total	0.0186		0.0025	mg/L	04-OCT-19	08-OCT-19	R4862314
Zinc (Zn)-Total	<0.015		0.015	mg/L	04-OCT-19	08-OCT-19	R4862314
Zirconium (Zr)-Total	0.0047		0.0010	mg/L	04-OCT-19	08-OCT-19	R4862314
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-19	R4859825
Dissolved Metals Filtration Location	FIELD					03-OCT-19	R4858710
Aluminum (Al)-Dissolved	0.0660		0.0010	mg/L	03-OCT-19	03-OCT-19	R4858800
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Arsenic (As)-Dissolved	0.00032		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Barium (Ba)-Dissolved	0.0945		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	03-OCT-19	03-OCT-19	R4858800
Boron (B)-Dissolved	<0.010		0.010	mg/L	03-OCT-19	03-OCT-19	R4858800
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	03-OCT-19	03-OCT-19	R4858800
Calcium (Ca)-Dissolved	93.0		0.050	mg/L	03-OCT-19	03-OCT-19	R4858800
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	03-OCT-19	03-OCT-19	R4858800

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2358839-3 3134 - MW - K034 - WS1 Sampled By: CLIENT on 29-SEP-19 @ 16:20 Matrix: Ground Water							
Dissolved Metals							
Chromium (Cr)-Dissolved	0.00651		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Cobalt (Co)-Dissolved	0.00042		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Copper (Cu)-Dissolved	0.00026		0.00020	mg/L	03-OCT-19	03-OCT-19	R4858800
Iron (Fe)-Dissolved	16.6		0.010	mg/L	03-OCT-19	03-OCT-19	R4858800
Lead (Pb)-Dissolved	0.000122		0.000050	mg/L	03-OCT-19	03-OCT-19	R4858800
Lithium (Li)-Dissolved	0.0036		0.0010	mg/L	03-OCT-19	03-OCT-19	R4858800
Magnesium (Mg)-Dissolved	3.99		0.0050	mg/L	03-OCT-19	03-OCT-19	R4858800
Manganese (Mn)-Dissolved	0.398		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-19	05-OCT-19	R4859686
Molybdenum (Mo)-Dissolved	0.000717		0.000050	mg/L	03-OCT-19	03-OCT-19	R4858800
Nickel (Ni)-Dissolved	0.00142		0.00050	mg/L	03-OCT-19	03-OCT-19	R4858800
Phosphorus (P)-Dissolved	0.113		0.050	mg/L	03-OCT-19	03-OCT-19	R4858800
Potassium (K)-Dissolved	2.06		0.050	mg/L	03-OCT-19	03-OCT-19	R4858800
Rubidium (Rb)-Dissolved	0.00106		0.00020	mg/L	03-OCT-19	03-OCT-19	R4858800
Selenium (Se)-Dissolved	0.000156		0.000050	mg/L	03-OCT-19	03-OCT-19	R4858800
Silicon (Si)-Dissolved	10.2		0.050	mg/L	03-OCT-19	03-OCT-19	R4858800
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	03-OCT-19	03-OCT-19	R4858800
Sodium (Na)-Dissolved	2.79		0.050	mg/L	03-OCT-19	03-OCT-19	R4858800
Strontium (Sr)-Dissolved	0.107		0.00020	mg/L	03-OCT-19	03-OCT-19	R4858800
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	03-OCT-19	03-OCT-19	R4858800
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	03-OCT-19	03-OCT-19	R4858800
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	03-OCT-19	03-OCT-19	R4858800
Thorium (Th)-Dissolved	0.00029		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Tin (Sn)-Dissolved	0.00021		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Titanium (Ti)-Dissolved	0.0177		0.00030	mg/L	03-OCT-19	03-OCT-19	R4858800
Tungsten (W)-Dissolved	0.00060		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Uranium (U)-Dissolved	0.000056		0.000010	mg/L	03-OCT-19	03-OCT-19	R4858800
Vanadium (V)-Dissolved	0.0120		0.00050	mg/L	03-OCT-19	03-OCT-19	R4858800
Zinc (Zn)-Dissolved	0.0014		0.0010	mg/L	03-OCT-19	03-OCT-19	R4858800
Zirconium (Zr)-Dissolved	0.00715	DTC	0.00020	mg/L	03-OCT-19	03-OCT-19	R4858800
L2358839-4 3134 - TMA - RS - WS1 Sampled By: CLIENT on 29-SEP-19 @ 16:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	63.0		1.0	uS/cm		03-OCT-19	R4858671
Hardness (as CaCO3)	38.1		0.50	mg/L		08-OCT-19	
pH	7.13		0.10	pH		03-OCT-19	R4858671
Total Suspended Solids	<2.0		2.0	mg/L		06-OCT-19	R4860489
Total Dissolved Solids	79		13	mg/L		04-OCT-19	R4859725
Anions and Nutrients							
Acidity (as CaCO3)	5.2		2.0	mg/L		06-OCT-19	R4860194
Alkalinity, Total (as CaCO3)	32.9		2.0	mg/L		04-OCT-19	R4859702

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2358839-4 3134 - TMA - RS - WS1 Sampled By: CLIENT on 29-SEP-19 @ 16:00 Matrix: Surface Water							
Anions and Nutrients							
Ammonia, Total (as N)	<0.020		0.020	mg/L		07-OCT-19	R4861362
Bromide (Br)	<0.10		0.10	mg/L		03-OCT-19	R4858733
Chloride (Cl)	0.17		0.10	mg/L		03-OCT-19	R4858733
Fluoride (F)	0.022		0.020	mg/L		03-OCT-19	R4858733
Nitrate (as N)	<0.020		0.020	mg/L		03-OCT-19	R4858733
Nitrite (as N)	<0.010		0.010	mg/L		03-OCT-19	R4858733
Phosphorus (P)-Total	0.0088		0.0030	mg/L	04-OCT-19	07-OCT-19	R4860687
Sulfate (SO4)	1.08		0.30	mg/L		03-OCT-19	R4858733
Cyanides							
Cyanide, Total	<0.0020		0.0020	mg/L		07-OCT-19	R4861496
Organic / Inorganic Carbon							
Dissolved Organic Carbon	21.7		0.50	mg/L		11-OCT-19	R4868492
Total Metals							
Aluminum (Al)-Total	0.0643		0.0030	mg/L	04-OCT-19	04-OCT-19	R4860458
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	04-OCT-19	04-OCT-19	R4860458
Arsenic (As)-Total	0.00054		0.00010	mg/L	04-OCT-19	04-OCT-19	R4860458
Barium (Ba)-Total	0.0141		0.00010	mg/L	04-OCT-19	04-OCT-19	R4860458
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	04-OCT-19	04-OCT-19	R4860458
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Boron (B)-Total	<0.010		0.010	mg/L	04-OCT-19	04-OCT-19	R4860458
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Calcium (Ca)-Total	13.2		0.050	mg/L	04-OCT-19	04-OCT-19	R4860458
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	04-OCT-19	04-OCT-19	R4860458
Chromium (Cr)-Total	0.00103		0.00010	mg/L	04-OCT-19	04-OCT-19	R4860458
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	04-OCT-19	04-OCT-19	R4860458
Copper (Cu)-Total	0.00066		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Iron (Fe)-Total	0.150		0.010	mg/L	04-OCT-19	04-OCT-19	R4860458
Lead (Pb)-Total	<0.000050		0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Lithium (Li)-Total	<0.0010		0.0010	mg/L	04-OCT-19	04-OCT-19	R4860458
Magnesium (Mg)-Total	1.02		0.0050	mg/L	04-OCT-19	04-OCT-19	R4860458
Manganese (Mn)-Total	0.00398		0.00010	mg/L	04-OCT-19	04-OCT-19	R4860458
Molybdenum (Mo)-Total	0.000095		0.000050	mg/L	04-OCT-19	07-OCT-19	R4861385
Nickel (Ni)-Total	0.00057		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Phosphorus (P)-Total	<0.050		0.050	mg/L	04-OCT-19	04-OCT-19	R4860458
Potassium (K)-Total	0.828		0.050	mg/L	04-OCT-19	04-OCT-19	R4860458
Rubidium (Rb)-Total	0.00176		0.00020	mg/L	04-OCT-19	04-OCT-19	R4860458
Selenium (Se)-Total	0.000079		0.000050	mg/L	04-OCT-19	04-OCT-19	R4860458
Silicon (Si)-Total	2.29		0.10	mg/L	04-OCT-19	04-OCT-19	R4860458
Silver (Ag)-Total	<0.000010		0.000010	mg/L	04-OCT-19	04-OCT-19	R4860458
Sodium (Na)-Total	0.674		0.050	mg/L	04-OCT-19	04-OCT-19	R4860458
Strontium (Sr)-Total	0.0187		0.00020	mg/L	04-OCT-19	04-OCT-19	R4860458
Sulfur (S)-Total	<0.50		0.50	mg/L	04-OCT-19	04-OCT-19	R4860458

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2358839-4 3134 - TMA - RS - WS1 Sampled By: CLIENT on 29-SEP-19 @ 16:00 Matrix: Surface Water							
Total Metals							
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	04-OCT-19	04-OCT-19	R4860458
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	04-OCT-19	04-OCT-19	R4860458
Thorium (Th)-Total	<0.00010		0.00010	mg/L	04-OCT-19	04-OCT-19	R4860458
Tin (Sn)-Total	<0.00010		0.00010	mg/L	04-OCT-19	04-OCT-19	R4860458
Titanium (Ti)-Total	0.00063		0.00030	mg/L	04-OCT-19	04-OCT-19	R4860458
Tungsten (W)-Total	<0.00010		0.00010	mg/L	04-OCT-19	04-OCT-19	R4860458
Uranium (U)-Total	<0.000010		0.000010	mg/L	04-OCT-19	04-OCT-19	R4860458
Vanadium (V)-Total	<0.00050		0.00050	mg/L	04-OCT-19	04-OCT-19	R4860458
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	04-OCT-19	04-OCT-19	R4860458
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	04-OCT-19	04-OCT-19	R4860458
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-19	R4859825
Dissolved Metals Filtration Location	FIELD					03-OCT-19	R4858710
Aluminum (Al)-Dissolved	0.0671		0.0010	mg/L	03-OCT-19	03-OCT-19	R4858800
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Arsenic (As)-Dissolved	0.00051		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Barium (Ba)-Dissolved	0.0145		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	03-OCT-19	03-OCT-19	R4858800
Boron (B)-Dissolved	<0.010		0.010	mg/L	03-OCT-19	03-OCT-19	R4858800
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	03-OCT-19	03-OCT-19	R4858800
Calcium (Ca)-Dissolved	13.6		0.050	mg/L	03-OCT-19	03-OCT-19	R4858800
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	03-OCT-19	03-OCT-19	R4858800
Chromium (Cr)-Dissolved	0.00076		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Copper (Cu)-Dissolved	0.00066		0.00020	mg/L	03-OCT-19	03-OCT-19	R4858800
Iron (Fe)-Dissolved	0.165		0.010	mg/L	03-OCT-19	03-OCT-19	R4858800
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	03-OCT-19	03-OCT-19	R4858800
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	03-OCT-19	03-OCT-19	R4858800
Magnesium (Mg)-Dissolved	1.02		0.0050	mg/L	03-OCT-19	03-OCT-19	R4858800
Manganese (Mn)-Dissolved	0.00505		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-19	05-OCT-19	R4859686
Molybdenum (Mo)-Dissolved	0.000089		0.000050	mg/L	03-OCT-19	03-OCT-19	R4858800
Nickel (Ni)-Dissolved	0.00058		0.00050	mg/L	03-OCT-19	03-OCT-19	R4858800
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	03-OCT-19	03-OCT-19	R4858800
Potassium (K)-Dissolved	0.861		0.050	mg/L	03-OCT-19	03-OCT-19	R4858800
Rubidium (Rb)-Dissolved	0.00196		0.00020	mg/L	03-OCT-19	03-OCT-19	R4858800
Selenium (Se)-Dissolved	0.000116		0.000050	mg/L	03-OCT-19	03-OCT-19	R4858800
Silicon (Si)-Dissolved	2.34		0.050	mg/L	03-OCT-19	03-OCT-19	R4858800
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	03-OCT-19	03-OCT-19	R4858800
Sodium (Na)-Dissolved	0.699		0.050	mg/L	03-OCT-19	03-OCT-19	R4858800

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2358839-4 3134 - TMA - RS - WS1 Sampled By: CLIENT on 29-SEP-19 @ 16:00 Matrix: Surface Water							
Dissolved Metals							
Strontium (Sr)-Dissolved	0.0184		0.00020	mg/L	03-OCT-19	03-OCT-19	R4858800
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	03-OCT-19	03-OCT-19	R4858800
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	03-OCT-19	03-OCT-19	R4858800
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	03-OCT-19	03-OCT-19	R4858800
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Titanium (Ti)-Dissolved	0.00059		0.00030	mg/L	03-OCT-19	03-OCT-19	R4858800
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	03-OCT-19	03-OCT-19	R4858800
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	03-OCT-19	03-OCT-19	R4858800
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	03-OCT-19	03-OCT-19	R4858800
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	03-OCT-19	03-OCT-19	R4858800
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	03-OCT-19	03-OCT-19	R4858800

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Method Blank	Acidity (as CaCO3)	B	L2358839-1, -2, -3
Matrix Spike	Dissolved Organic Carbon	MS-B	L2358839-2
Matrix Spike	Aluminum (Al)-Total	MS-B	L2358839-1, -2, -3, -4
Matrix Spike	Barium (Ba)-Total	MS-B	L2358839-1, -2, -3, -4
Matrix Spike	Calcium (Ca)-Total	MS-B	L2358839-1, -2, -3, -4
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2358839-1, -2, -3, -4
Matrix Spike	Manganese (Mn)-Total	MS-B	L2358839-1, -2, -3, -4
Matrix Spike	Potassium (K)-Total	MS-B	L2358839-1, -2, -3, -4
Matrix Spike	Sodium (Na)-Total	MS-B	L2358839-1, -2, -3, -4
Matrix Spike	Strontium (Sr)-Total	MS-B	L2358839-1, -2, -3, -4
Matrix Spike	Sulfur (S)-Total	MS-B	L2358839-1, -2, -3, -4
Matrix Spike	Tungsten (W)-Total	MS-B	L2358839-1, -2, -3, -4

Sample Parameter Qualifier key listed:

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
HTC	Hardness was calculated from Total Ca and/or Mg concentrations and may be biased high (dissolved Ca/Mg results unavailable).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-TITR-TB	Water	Acidity	APHA 2310 B modified

This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". Acidity is determined by potentiometric titration to a specified endpoint.

ALK-TITR-TB	Water	Alkalinity	APHA 2320B modified

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

BR-IC-N-TB	Water	Bromide in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

CARBONS-DOC-VA	Water	Dissolved organic carbon by combustion	APHA 5310B

This analysis is carried out using procedures adapted from APHA Method 5310 "Total Organic Carbon (TOC)". Dissolved carbon (DOC) fractions are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis.

CL-L-IC-N-TB	Water	Chloride in Water by IC (Low Level)	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

CN-TOT-WT	Water	Cyanide, Total	ISO 14403-2

Total cyanide is determined by the combination of UV digestion and distillation. Cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.

When using this method, high levels of thiocyanate in samples can cause false positives at ~1-2% of the thiocyanate concentration. For samples with detectable cyanide analyzed by this method, ALS recommends analysis for thiocyanate to check for this potential interference

EC-TITR-TB	Water	Conductivity	APHA 2510 B

This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.

F-IC-N-TB	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

HARDNESS-CALC-TB	Water	Hardness (as CaCO3)	CALCULATION

HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)

Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.

MET-D-CCMS-TB	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020B (mod)

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Reference Information

MET-T-CCMS-TB	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020B (mod)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

NH3-COL-TB	Water	Ammonia by Discrete Analyzer	APHA 4500-NH3 G. (modified)

Ammonia in aqueous matrices is analyzed using discrete analyzer with colourimetric detection.

NO2-IC-N-TB	Water	Nitrite in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

NO3-IC-N-TB	Water	Nitrate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

P-T-COL-TB	Water	Total Phosphorus by Discrete Analyzer	APHA 4500-P B, F, G (modified)

Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.

PH-TITR-TB	Water	pH	APHA 4500-H

This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode

SO4-IC-N-TB	Water	Sulfate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

TDS-TB	Water	Total Dissolved Solids	APHA 2540 C (modified)

Aqueous matrices are analyzed using gravimetry and evaporation

TSS-TB	Water	Total Suspended Solids	APHA 2540 D (modified)

Aqueous matrices are analyzed using gravimetry

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: GOLD CANYON RESOURCES INC.
c/o Suite 1805 - 925 West Georgia Street
Vancouver BC V6C 3L2
Contact: David Mchaina

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-TITR-TB	**Water**							
Batch R4858671								
WG3180643-11 LCS								
Acidity (as CaCO3)			93.4		%		85-115	03-OCT-19
WG3180643-10 MB								
Acidity (as CaCO3)			2.0	B	mg/L		2	03-OCT-19
Batch R4860194								
WG3183287-2 LCS								
Acidity (as CaCO3)			99.2		%		85-115	06-OCT-19
WG3183287-1 MB								
Acidity (as CaCO3)			<2.0		mg/L		2	06-OCT-19
ALK-TITR-TB	**Water**							
Batch R4859702								
WG3181960-5 LCS								
Alkalinity, Total (as CaCO3)			96.9		%		85-115	04-OCT-19
WG3181960-4 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	04-OCT-19
BR-IC-N-TB	**Water**							
Batch R4858733								
WG3180896-6 LCS								
Bromide (Br)			99.6		%		85-115	03-OCT-19
WG3180896-5 MB								
Bromide (Br)			<0.10		mg/L		0.1	03-OCT-19
Batch R4860592								
WG3181921-2 LCS								
Bromide (Br)			102.6		%		85-115	04-OCT-19
WG3181921-1 MB								
Bromide (Br)			<0.10		mg/L		0.1	04-OCT-19
CARBONS-DOC-VA	**Water**							
Batch R4868492								
WG3188480-2 LCS								
Dissolved Organic Carbon			95.1		%		80-120	11-OCT-19
WG3188480-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	11-OCT-19
Batch R4869827								
WG3190373-2 LCS								
Dissolved Organic Carbon			94.0		%		80-120	13-OCT-19
WG3190373-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	13-OCT-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-L-IC-N-TB	**Water**							
Batch R4858733								
WG3180896-6 LCS								
Chloride (Cl)			97.5		%		90-110	03-OCT-19
WG3180896-5 MB								
Chloride (Cl)			<0.10		mg/L		0.1	03-OCT-19
Batch R4860592								
WG3181921-2 LCS								
Chloride (Cl)			104.6		%		90-110	04-OCT-19
WG3181921-1 MB								
Chloride (Cl)			<0.10		mg/L		0.1	04-OCT-19
CN-TOT-WT	**Water**							
Batch R4861496								
WG3184207-2 LCS								
Cyanide, Total			98.7		%		80-120	07-OCT-19
WG3184207-1 MB								
Cyanide, Total			<0.0020		mg/L		0.002	07-OCT-19
EC-TITR-TB	**Water**							
Batch R4858671								
WG3180643-11 LCS								
Conductivity (EC)			94.4		%		90-110	03-OCT-19
WG3180643-10 MB								
Conductivity (EC)			<1.0		uS/cm		1	03-OCT-19
F-IC-N-TB	**Water**							
Batch R4858733								
WG3180896-6 LCS								
Fluoride (F)			101.4		%		90-110	03-OCT-19
WG3180896-5 MB								
Fluoride (F)			<0.020		mg/L		0.02	03-OCT-19
Batch R4860592								
WG3181921-2 LCS								
Fluoride (F)			105.1		%		90-110	04-OCT-19
WG3181921-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	04-OCT-19
HG-D-CVAA-VA	**Water**							
Batch R4859686								
WG3183076-6 LCS								
Mercury (Hg)-Dissolved			96.5		%		80-120	05-OCT-19
WG3183076-5 MB		**NP**						

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-CVAA-VA	**Water**							
Batch R4859686								
WG3183076-5 MB		**NP**						
Mercury (Hg)-Dissolved			<0.000005(		mg/L		0.000005	05-OCT-19
MET-D-CCMS-TB	**Water**							
Batch R4858800								
WG3180886-6 LCS								
Aluminum (Al)-Dissolved			107.4		%		80-120	03-OCT-19
Antimony (Sb)-Dissolved			103.8		%		80-120	03-OCT-19
Arsenic (As)-Dissolved			105.6		%		80-120	03-OCT-19
Barium (Ba)-Dissolved			106.8		%		80-120	03-OCT-19
Beryllium (Be)-Dissolved			105.8		%		80-120	03-OCT-19
Bismuth (Bi)-Dissolved			104.7		%		80-120	03-OCT-19
Boron (B)-Dissolved			96.2		%		80-120	03-OCT-19
Cadmium (Cd)-Dissolved			108.6		%		80-120	03-OCT-19
Calcium (Ca)-Dissolved			107.3		%		80-120	03-OCT-19
Cesium (Cs)-Dissolved			105.6		%		80-120	03-OCT-19
Chromium (Cr)-Dissolved			108.2		%		80-120	03-OCT-19
Cobalt (Co)-Dissolved			106.1		%		80-120	03-OCT-19
Copper (Cu)-Dissolved			104.1		%		80-120	03-OCT-19
Iron (Fe)-Dissolved			109.8		%		80-120	03-OCT-19
Lead (Pb)-Dissolved			104.8		%		80-120	03-OCT-19
Lithium (Li)-Dissolved			100.2		%		80-120	03-OCT-19
Magnesium (Mg)-Dissolved			111.4		%		80-120	03-OCT-19
Manganese (Mn)-Dissolved			108.1		%		80-120	03-OCT-19
Molybdenum (Mo)-Dissolved			106.6		%		80-120	03-OCT-19
Nickel (Ni)-Dissolved			104.4		%		80-120	03-OCT-19
Phosphorus (P)-Dissolved			117.5		%		80-120	03-OCT-19
Potassium (K)-Dissolved			112.8		%		80-120	03-OCT-19
Rubidium (Rb)-Dissolved			107.7		%		80-120	03-OCT-19
Selenium (Se)-Dissolved			102.3		%		80-120	03-OCT-19
Silicon (Si)-Dissolved			99.1		%		80-120	03-OCT-19
Silver (Ag)-Dissolved			104.2		%		80-120	03-OCT-19
Sodium (Na)-Dissolved			112.3		%		80-120	03-OCT-19
Strontium (Sr)-Dissolved			103.8		%		80-120	03-OCT-19
Sulfur (S)-Dissolved			90.9		%		80-120	03-OCT-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch	**R4858800**							
WG3180886-6	**LCS**							
Tellurium (Te)-Dissolved			103.1		%		80-120	03-OCT-19
Thallium (Tl)-Dissolved			105.0		%		80-120	03-OCT-19
Thorium (Th)-Dissolved			101.3		%		80-120	03-OCT-19
Tin (Sn)-Dissolved			105.2		%		80-120	03-OCT-19
Titanium (Ti)-Dissolved			104.6		%		80-120	03-OCT-19
Tungsten (W)-Dissolved			103.0		%		80-120	03-OCT-19
Uranium (U)-Dissolved			106.3		%		80-120	03-OCT-19
Vanadium (V)-Dissolved			106.4		%		80-120	03-OCT-19
Zinc (Zn)-Dissolved			106.1		%		80-120	03-OCT-19
Zirconium (Zr)-Dissolved			101.4		%		80-120	03-OCT-19
WG3180886-5	**MB**							
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	03-OCT-19
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	03-OCT-19
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	03-OCT-19
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	03-OCT-19
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	03-OCT-19
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	03-OCT-19
Boron (B)-Dissolved			<0.010		mg/L		0.01	03-OCT-19
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	03-OCT-19
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	03-OCT-19
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	03-OCT-19
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	03-OCT-19
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	03-OCT-19
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	03-OCT-19
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	03-OCT-19
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	03-OCT-19
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	03-OCT-19
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	03-OCT-19
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	03-OCT-19
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	03-OCT-19
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	03-OCT-19
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	03-OCT-19
Potassium (K)-Dissolved			<0.050		mg/L		0.05	03-OCT-19
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	03-OCT-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R4858800								
WG3180886-5 MB								
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	03-OCT-19
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	03-OCT-19
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	03-OCT-19
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	03-OCT-19
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	03-OCT-19
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	03-OCT-19
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	03-OCT-19
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	03-OCT-19
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	03-OCT-19
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	03-OCT-19
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	03-OCT-19
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	03-OCT-19
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	03-OCT-19
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	03-OCT-19
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	03-OCT-19
Zirconium (Zr)-Dissolved			<0.00020		mg/L		0.0002	03-OCT-19
MET-T-CCMS-TB	**Water**							
Batch R4860458								
WG3181827-2 LCS								
Aluminum (Al)-Total			104.9		%		80-120	04-OCT-19
Antimony (Sb)-Total			105.1		%		80-120	04-OCT-19
Arsenic (As)-Total			101.0		%		80-120	04-OCT-19
Barium (Ba)-Total			98.4		%		80-120	04-OCT-19
Beryllium (Be)-Total			104.8		%		80-120	04-OCT-19
Bismuth (Bi)-Total			105.4		%		80-120	04-OCT-19
Boron (B)-Total			96.3		%		80-120	04-OCT-19
Cadmium (Cd)-Total			105.9		%		80-120	04-OCT-19
Calcium (Ca)-Total			101.4		%		80-120	04-OCT-19
Cesium (Cs)-Total			104.5		%		80-120	04-OCT-19
Chromium (Cr)-Total			106.2		%		80-120	04-OCT-19
Cobalt (Co)-Total			105.3		%		80-120	04-OCT-19
Copper (Cu)-Total			106.0		%		80-120	04-OCT-19
Iron (Fe)-Total			105.7		%		80-120	04-OCT-19
Lead (Pb)-Total			102.5		%		80-120	04-OCT-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R4860458								
WG3181827-2 LCS								
Lithium (Li)-Total			104.6		%		80-120	04-OCT-19
Magnesium (Mg)-Total			108.0		%		80-120	04-OCT-19
Manganese (Mn)-Total			104.2		%		80-120	04-OCT-19
Molybdenum (Mo)-Total			105.0		%		80-120	04-OCT-19
Nickel (Ni)-Total			103.4		%		80-120	04-OCT-19
Phosphorus (P)-Total			108.8		%		80-120	04-OCT-19
Potassium (K)-Total			110.6		%		80-120	04-OCT-19
Rubidium (Rb)-Total			102.3		%		80-120	04-OCT-19
Selenium (Se)-Total			105.7		%		80-120	04-OCT-19
Silicon (Si)-Total			99.4		%		80-120	04-OCT-19
Silver (Ag)-Total			106.1		%		80-120	04-OCT-19
Sodium (Na)-Total			107.9		%		80-120	04-OCT-19
Strontium (Sr)-Total			102.3		%		80-120	04-OCT-19
Sulfur (S)-Total			103.9		%		80-120	04-OCT-19
Tellurium (Te)-Total			110.0		%		80-120	04-OCT-19
Thallium (Tl)-Total			103.1		%		80-120	04-OCT-19
Thorium (Th)-Total			95.2		%		80-120	04-OCT-19
Tin (Sn)-Total			103.3		%		80-120	04-OCT-19
Titanium (Ti)-Total			99.7		%		80-120	04-OCT-19
Tungsten (W)-Total			101.8		%		80-120	04-OCT-19
Uranium (U)-Total			99.3		%		80-120	04-OCT-19
Vanadium (V)-Total			105.8		%		80-120	04-OCT-19
Zinc (Zn)-Total			103.8		%		80-120	04-OCT-19
Zirconium (Zr)-Total			93.3		%		80-120	04-OCT-19
WG3181827-1 MB								
Aluminum (Al)-Total			<0.0030		mg/L		0.003	04-OCT-19
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	04-OCT-19
Arsenic (As)-Total			<0.00010		mg/L		0.0001	04-OCT-19
Barium (Ba)-Total			<0.00010		mg/L		0.0001	04-OCT-19
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	04-OCT-19
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	04-OCT-19
Boron (B)-Total			<0.010		mg/L		0.01	04-OCT-19
Cadmium (Cd)-Total			<0.000005C		mg/L		0.000005	04-OCT-19
Calcium (Ca)-Total			<0.050		mg/L		0.05	04-OCT-19

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R4860458								
WG3181827-1 MB								
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	04-OCT-19
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	04-OCT-19
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	04-OCT-19
Copper (Cu)-Total			<0.00050		mg/L		0.0005	04-OCT-19
Iron (Fe)-Total			<0.010		mg/L		0.01	04-OCT-19
Lead (Pb)-Total			<0.000050		mg/L		0.00005	04-OCT-19
Lithium (Li)-Total			<0.0010		mg/L		0.001	04-OCT-19
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	04-OCT-19
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	04-OCT-19
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	04-OCT-19
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	04-OCT-19
Phosphorus (P)-Total			<0.050		mg/L		0.05	04-OCT-19
Potassium (K)-Total			<0.050		mg/L		0.05	04-OCT-19
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	04-OCT-19
Selenium (Se)-Total			<0.000050		mg/L		0.00005	04-OCT-19
Silicon (Si)-Total			<0.10		mg/L		0.1	04-OCT-19
Silver (Ag)-Total			<0.000010		mg/L		0.00001	04-OCT-19
Sodium (Na)-Total			<0.050		mg/L		0.05	04-OCT-19
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	04-OCT-19
Sulfur (S)-Total			<0.50		mg/L		0.5	04-OCT-19
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	04-OCT-19
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	04-OCT-19
Thorium (Th)-Total			<0.00010		mg/L		0.0001	04-OCT-19
Tin (Sn)-Total			<0.00010		mg/L		0.0001	04-OCT-19
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	04-OCT-19
Tungsten (W)-Total			<0.00010		mg/L		0.0001	04-OCT-19
Uranium (U)-Total			<0.000010		mg/L		0.00001	04-OCT-19
Vanadium (V)-Total			<0.00050		mg/L		0.0005	04-OCT-19
Zinc (Zn)-Total			<0.0030		mg/L		0.003	04-OCT-19
Zirconium (Zr)-Total			<0.00020		mg/L		0.0002	04-OCT-19
NH3-COL-TB	**Water**							

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-COL-TB	**Water**							
Batch R4861362								
WG3183741-10 LCS								
Ammonia, Total (as N)			97.8		%		85-115	07-OCT-19
WG3183741-9 MB								
Ammonia, Total (as N)			<0.020		mg/L		0.02	07-OCT-19
NO2-IC-N-TB	**Water**							
Batch R4858733								
WG3180896-6 LCS								
Nitrite (as N)			93.1		%		90-110	03-OCT-19
WG3180896-5 MB								
Nitrite (as N)			<0.010		mg/L		0.01	03-OCT-19
Batch R4860592								
WG3181921-2 LCS								
Nitrite (as N)			99.98		%		90-110	04-OCT-19
WG3181921-1 MB								
Nitrite (as N)			<0.010		mg/L		0.01	04-OCT-19
NO3-IC-N-TB	**Water**							
Batch R4858733								
WG3180896-6 LCS								
Nitrate (as N)			93.1		%		90-110	03-OCT-19
WG3180896-5 MB								
Nitrate (as N)			<0.020		mg/L		0.02	03-OCT-19
Batch R4860592								
WG3181921-2 LCS								
Nitrate (as N)			104.6		%		90-110	04-OCT-19
WG3181921-1 MB								
Nitrate (as N)			<0.020		mg/L		0.02	04-OCT-19
P-T-COL-TB	**Water**							
Batch R4860687								
WG3181789-3 DUP		**L2358839-2**						
Phosphorus (P)-Total		0.411	0.391		mg/L	5.2	20	07-OCT-19
WG3181789-2 LCS								
Phosphorus (P)-Total			93.7		%		80-120	07-OCT-19
WG3181789-1 MB								
Phosphorus (P)-Total			<0.0030		mg/L		0.003	07-OCT-19
PH-TITR-TB	**Water**							

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PH-TITR-TB	**Water**							
Batch R4858671								
WG3180643-11 LCS								
pH			7.00		pH		6.9-7.1	03-OCT-19
SO4-IC-N-TB	**Water**							
Batch R4858733								
WG3180896-6 LCS								
Sulfate (SO4)			98.2		%		90-110	03-OCT-19
WG3180896-5 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	03-OCT-19
Batch R4860592								
WG3181921-2 LCS								
Sulfate (SO4)			101.5		%		90-110	04-OCT-19
WG3181921-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	04-OCT-19
TDS-TB	**Water**							
Batch R4859725								
WG3181903-3 DUP		**L2358839-1**						
Total Dissolved Solids		320	314		mg/L	1.7	20	04-OCT-19
WG3181903-2 LCS								
Total Dissolved Solids			94.8		%		85-115	04-OCT-19
WG3181903-1 MB								
Total Dissolved Solids			<10		mg/L		10	04-OCT-19
TSS-TB	**Water**							
Batch R4860489								
WG3183192-2 LCS								
Total Suspended Solids			100.7		%		85-115	06-OCT-19
WG3183192-1 MB								
Total Suspended Solids			<2.0		mg/L		2	06-OCT-19

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.

Quality Control Report

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Anions and Nutrients							
Filtr./Pres. for carbons and nutrients							
	2	29-SEP-19 13:50	08-OCT-19 13:00	3	9	days	EHTR

Legend & Qualifier Definitions:

EHTR-FM:	Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR:	Exceeded ALS recommended hold time prior to sample receipt.
EHTL:	Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT:	Exceeded ALS recommended hold time prior to analysis.
Rec. HT:	ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2358839 were received on 03-OCT-19 08:55.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2358839-COFC

COC Number: 17 - SF

Page of

Report To	Contact and company name below will appear on the final report
Company:	Gold Canyon Resources Inc.
Contact:	David Mchaina
Phone:	519-241-9655
	Company address below will appear on the final report
Street:	c/o Suite 1805 - 925 West Georgia
City/Province:	Vancouver, BC
Postal Code:	V6C 3L2
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution

Select Report Format: ☑ PDF ☐ EXCEL ☐ EDD (DIGITAL)

Quality Control (QC) Report with Report ☑ YES ☐ NO

☑ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ FAX

Email 1: dmchaina@firstmininggold.com

Email 2: shila@firstmininggold.com

Email 3: cungeong@[illegible]wntld.net

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accountspayable@firstmininggold.com

Email 2: dmchaina@firstmininggold.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	20864 / Q64154	AFE/Cost Center:	PO#:
Job #:	Springpole GW	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:	First Mining Gold Project	Location:	
ALS Lab Work Order # (lab use only):	L2358839	ALS Contact:	Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Acidity, Alkalinity, Ammonia, Br, Cl, Conductivity	Dissolved Metals	Dissolved Mercury	DOC, F, Hardness, NO2,NO3, pH, SO4	TDS	Total Cyanide	Total Phosphorus, TSS	Total metals							SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	3134 - MW - BG00 - WS1	29-Sept-19	14:45	Ground Water	7	x	x	x	x	x	x	x	x								
	3134 - MW - EG80 - WS1	29-Sept-19	13:50	Ground Water	7	x	x	x	x	x	x	x	x								
	3134 - MW - KG34 - WS1	29-Sept-19	16:20	Ground Water	7	x	x	x	x	x	x	x	x								
	3134 - TMA - RS - WS1	29-Sept-19	16:00	Ground Water	7	x	x	x	x	x	x	x	x								
	↳ surface water.			Ground Water		x	x	x	x	x	x	x									
				Ground Water		x	x	x	x	x	x	x									
				Ground Water		x	x	x	x	x	x	x									
				Ground Water		x	x	x	x	x	x	x									
				Ground Water		x	x	x	x	x	x	x									
				Ground Water		x	x	x	x	x	x	x									
				Ground Water		x	x	x	x	x	x	x									
				Ground Water		x	x	x	x	x	x	x									

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐

Cooling Initiated ☑

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
6.2							

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
	10/02/2019	1:09		Oct 3/19	8:55			

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Gold Canyon Resources Inc.
ATTN: David Mchaina
c/o Suite 1805 - 925 West Georgia Street
Vancouver BC V6C 3L2

Date Received: 09-JUL-20
Report Date: 10-AUG-20 10:13 (MT)
Version: FINAL

Client Phone: 519-241-9655

Certificate of Analysis

Lab Work Order #: L2471801

Project P.O. #: NOT SUBMITTED
Job Reference: SPRINGPOLE SURFACE WATER
C of C Numbers:
Legal Site Desc: First Mining Gold Project

Christine Paradis
Project Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-1 SP-SW-13 Sampled By: Client on 04-JUL-20 @ 10:28 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	48.6		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	21.7		0.50	mg/L		15-JUL-20	
pH	7.56		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	45		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	23.9		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.141		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.032		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	<0.0030		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	10-JUL-20	R5148047
Dissolved Organic Carbon	16.9	DLM	5.0	mg/L	04-JUL-20	15-JUL-20	R5154537
Total Organic Carbon	16.4	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0435		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00038		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00524		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	7.49		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00059		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.056		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.14		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00300		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000075		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.692		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00180		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000081		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	1.35		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-1 SP-SW-13 Sampled By: Client on 04-JUL-20 @ 10:28 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.703		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0145		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.63		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	0.00035		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000023		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149137
Aluminum (Al)-Dissolved	0.0375		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00036		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00516		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	14-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	6.87		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	0.000011		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00049		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.037		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.11		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00072		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.677		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00177		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-1 SP-SW-13 Sampled By: Client on 04-JUL-20 @ 10:28 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000088		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	1.30		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.682		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0141		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.53		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000020		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
L2471801-2 SP-SW-14 Sampled By: Client on 04-JUL-20 @ 11:22 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	52.1		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	23.1		0.50	mg/L		15-JUL-20	
pH	7.57		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	38		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	25.7		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.288		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.028		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	<0.0030		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	10-JUL-20	R5148047
Dissolved Organic Carbon	8.7	DLM	5.0	mg/L	04-JUL-20	15-JUL-20	R5154537
Total Organic Carbon	11.9	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0257		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00034		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00569		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-2 SP-SW-14 Sampled By: Client on 04-JUL-20 @ 11:22 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	8.13		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00063		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.041		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.05		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00408		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000060		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.715		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00168		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000080		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	1.20		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.675		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0150		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.71		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000014		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149137
Aluminum (Al)-Dissolved	0.0218		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-2 SP-SW-14 Sampled By: Client on 04-JUL-20 @ 11:22 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00031		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00563		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	14-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	7.59		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00047		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.025		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.00		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00109		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.686		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00158		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000090		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	1.17		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.641		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0142		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.60		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000012		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
L2471801-3 SP-SW-5							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-3 SP-SW-5 Sampled By: Client on 04-JUL-20 @ 11:52 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	52.3		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	23.0		0.50	mg/L		15-JUL-20	
pH	7.55		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	40		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	25.8		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.512	DLHC	0.020	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.027		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0031		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	10-JUL-20	R5148047
Dissolved Organic Carbon	8.5	DLM	5.0	mg/L	04-JUL-20	15-JUL-20	R5154537
Total Organic Carbon	11.5	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0222		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00030		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00554		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	8.06		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00065		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.027		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.06		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00167		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000055		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.718		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00161		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000074		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	1.19		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-3 SP-SW-5 Sampled By: Client on 04-JUL-20 @ 11:52 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.677		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0150		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.72		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000013		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149137
Aluminum (Al)-Dissolved	0.0184		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00031		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00527		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	14-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	7.55		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00048		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.015		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	0.999		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.690		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00155		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-3 SP-SW-5 Sampled By: Client on 04-JUL-20 @ 11:52 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000093		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	1.14		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.641		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0146		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.58		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000011		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
L2471801-4 SP-SW-11 Sampled By: Client on 04-JUL-20 @ 12:20 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	52.2		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	22.8		0.50	mg/L		15-JUL-20	
pH	7.55		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	42		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	25.6		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.187		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.028		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0031		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	10-JUL-20	R5148047
Dissolved Organic Carbon	15.4	DLM	5.0	mg/L	04-JUL-20	15-JUL-20	R5154537
Total Organic Carbon	13.1	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0245		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00028		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00550		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-4 SP-SW-11 Sampled By: Client on 04-JUL-20 @ 12:20 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	8.18		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00063		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.027		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.06		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00154		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000055		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.723		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00166		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000069		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	1.20		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.672		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0150		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.75		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000012		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149137
Aluminum (Al)-Dissolved	0.0188		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-4 SP-SW-11 Sampled By: Client on 04-JUL-20 @ 12:20 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00028		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00536		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	14-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	7.47		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00046		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.015		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	0.996		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.693		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00170		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000061		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	1.12		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.651		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0141		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.66		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000011		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
L2471801-5 SP-SW-12							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-5 SP-SW-12 Sampled By: Client on 04-JUL-20 @ 13:05 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	53.0		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	22.8		0.50	mg/L		15-JUL-20	
pH	7.55		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	40		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	25.4		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.419		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.029		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	<0.0030		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	9.2	DLM	5.0	mg/L	04-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	13.9	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0260		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00031		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00527		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	8.06		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00067		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.028		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.11		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00148		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000058		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.716		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00161		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000074		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	1.20		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-5 SP-SW-12 Sampled By: Client on 04-JUL-20 @ 13:05 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.693		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0149		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.73		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	0.00030		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000017		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0214		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00030		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00514		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	7.40		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00048		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.016		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.04		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.684		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00165		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-5 SP-SW-12 Sampled By: Client on 04-JUL-20 @ 13:05 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000090		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	1.11		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.664		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0143		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.65		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000014		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
Methylmercury (as MeHg)-Total	0.000034		0.000020	ug/L	21-JUL-20	21-JUL-20	R5160141
L2471801-6 SP-SW-10 Sampled By: Client on 04-JUL-20 @ 13:30 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	53.1		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	22.8		0.50	mg/L		15-JUL-20	
pH	7.55		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	39		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	25.6		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.207		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.029		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	<0.0030		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	10.1	DLM	5.0	mg/L	04-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	13.5	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0278		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00032		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-6 SP-SW-10 Sampled By: Client on 04-JUL-20 @ 13:30 Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.00528		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	7.94		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00066		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.029		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.12		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00171		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000063		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.723		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00169		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000087		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	1.20		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.697		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0148		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.71		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000017		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0220		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-6 SP-SW-10 Sampled By: Client on 04-JUL-20 @ 13:30 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00028		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00514		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	7.42		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00047		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.017		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.04		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.680		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00174		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000080		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	1.12		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.660		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0144		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.64		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000013		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-7 SP-SW-8 Sampled By: Client on 04-JUL-20 @ 15:20 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	54.7		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	25.2		0.50	mg/L		15-JUL-20	
pH	7.55		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	48		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	27.8		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.355		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.031		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0059		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	11.9	DLM	5.0	mg/L	04-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	17.1	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0315		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00076		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00623		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	8.77		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00078		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.060		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.36		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00559		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000100		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	0.00051		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.604		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00166		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000090		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	0.87		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-7 SP-SW-8 Sampled By: Client on 04-JUL-20 @ 15:20 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.674		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0201		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.52		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	0.00051		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000021		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0194		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00071		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00596		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	7.96		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	0.000011		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00059		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.034		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.29		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00128		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000067		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.577		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00158		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-7 SP-SW-8 Sampled By: Client on 04-JUL-20 @ 15:20 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000109		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.781		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.636		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0191		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000019		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
Methylmercury (as MeHg)-Total	0.000059		0.000020	ug/L	21-JUL-20	21-JUL-20	R5160141
L2471801-8 SP-SW-22 Sampled By: Client on 04-JUL-20 @ 17:06 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	54.9		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	25.1		0.50	mg/L		15-JUL-20	
pH	7.55		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	49		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	27.8		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.347		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.030		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0073		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	11.8	DLM	5.0	mg/L	04-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	20.9	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0290		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00064		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-8 SP-SW-22 Sampled By: Client on 04-JUL-20 @ 17:06 Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.00613		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	8.42		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00085		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.054		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.31		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00418		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000097		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	0.00056		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.585		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00159		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000079		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	0.87		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.685		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0193		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.51		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	0.00040		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000021		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0222		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-8 SP-SW-22 Sampled By: Client on 04-JUL-20 @ 17:06 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00061		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00574		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.01		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00065		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.032		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.24		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00126		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000072		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.569		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00154		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000095		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.824		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.680		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0182		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000017		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	0.0020		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-9 SP-SW-7 Sampled By: Client on 04-JUL-20 @ 17:49 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	54.7		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	25.4		0.50	mg/L		15-JUL-20	
pH	7.57		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	45		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	27.9		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.428		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.031		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0060		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	12.6	DLM	5.0	mg/L	04-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	17.3	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0275		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00064		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00613		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	8.73		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00080		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.052		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.32		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00319		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000099		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	0.00094		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.585		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00155		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000087		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	0.89		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-9 SP-SW-7 Sampled By: Client on 04-JUL-20 @ 17:49 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.656		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0197		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.52		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	0.00032		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000020		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0215		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00062		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00606		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	0.0000059		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.14		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00063		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.032		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.22		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00140		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000077		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.552		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00147		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-9 SP-SW-7 Sampled By: Client on 04-JUL-20 @ 17:49 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000112		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.820		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.647		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0186		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.51		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	0.00034	DTC	0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000017		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	0.0022		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
Methylmercury (as MeHg)-Total	0.000044		0.000020	ug/L	22-JUL-20	22-JUL-20	R5166097
L2471801-10 SP-SW-16 Sampled By: Client on 04-JUL-20 @ 18:15 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	55.3		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	25.5		0.50	mg/L		15-JUL-20	
pH	7.55		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	48		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	27.9		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.279		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.030		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0065		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	12.7	DLM	5.0	mg/L	04-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	18.9	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0268		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00063		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-10 SP-SW-16 Sampled By: Client on 04-JUL-20 @ 18:15 Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.00655		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	8.66		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00078		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.067		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.29		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00392		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000099		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	0.00066		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.582		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00153		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000072		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	0.95		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.654		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0196		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.54		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	0.00036		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000017		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0224		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-10 SP-SW-16 Sampled By: Client on 04-JUL-20 @ 18:15 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00066		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00648		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.23		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00061		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.041		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.22		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00186		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000064		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.547		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00151		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000086		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.906		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.617		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0190		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.57		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000017		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-11 SP-SW-15 Sampled By: Client on 05-JUL-20 @ 08:30 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	60.9		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	27.8		0.50	mg/L		15-JUL-20	
pH	7.63		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	49		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	31.1		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	1.05	DLHC	0.20	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.032		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0054		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	12.1	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	16.4	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0150		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00059		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00684		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	9.68		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00079		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.044		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.40		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00462		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000110		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.604		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00158		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000085		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	0.89		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-11 SP-SW-15 Sampled By: Client on 05-JUL-20 @ 08:30 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.665		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0217		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.60		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	0.00031		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000015		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0098		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00053		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00651		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.93		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00062		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.025		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.34		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00139		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000083		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.576		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00160		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-11 SP-SW-15 Sampled By: Client on 05-JUL-20 @ 08:30 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000093		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.830		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.639		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0206		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.61		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000014		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
L2471801-12 SP-SW-2 Sampled By: Client on 05-JUL-20 @ 08:49 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	61.2		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	27.9		0.50	mg/L		15-JUL-20	
pH	7.65		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	48		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	31.1		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.410		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.032		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0050		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	10.8	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	18.8	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0121		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00055		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00646		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-12 SP-SW-2 Sampled By: Client on 05-JUL-20 @ 08:49 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	9.68		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00079		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.028		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.41		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00189		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000103		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.596		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00161		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000088		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	0.86		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.667		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0225		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.62		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000015		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0081		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-12 SP-SW-2 Sampled By: Client on 05-JUL-20 @ 08:49 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00050		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00625		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.95		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00060		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.015		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.34		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000084		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.571		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00155		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000095		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.781		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.642		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0204		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.56		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000013		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	0.0018		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
L2471801-13 SP-SW-25							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-13 SP-SW-25 Sampled By: Client on 05-JUL-20 @ 09:23 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	62.2		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	28.0		0.50	mg/L		15-JUL-20	
pH	7.67		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	45		13	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	31.3		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.79	DLHC	0.20	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.032		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0038		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	10.5	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	17.8	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0124		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00050		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00647		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	9.73		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00082		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.030		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.43		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00184		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000115		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.607		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00159		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000086		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	0.86		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-13 SP-SW-25 Sampled By: Client on 05-JUL-20 @ 09:23 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.673		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0225		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.61		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	0.00040		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000015		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0051		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00051		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00620		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	9.02		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00058		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.011		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.33		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000086		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.570		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00153		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-13 SP-SW-25 Sampled By: Client on 05-JUL-20 @ 09:23 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000081		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.793		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.632		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0204		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000012		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
L2471801-14 SP-SW-6 Sampled By: Client on 05-JUL-20 @ 09:55 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	66.2		1.0	uS/cm		09-JUL-20	R5147398
Hardness (as CaCO3)	28.5		0.50	mg/L		15-JUL-20	
pH	7.55		0.10	pH		09-JUL-20	R5147398
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	52		13	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	31.5		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.192		0.010	mg/L		13-JUL-20	R5152437
Fluoride (F)	0.032		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0048		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	9.5	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	17.1	DLM	5.0	mg/L		15-JUL-20	R5154539
Total Metals							
Aluminum (Al)-Total	0.0098		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00051		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00644		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-14 SP-SW-6 Sampled By: Client on 05-JUL-20 @ 09:55 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	9.74		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00080		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.026		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.41		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00179		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000108		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.598		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00165		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000085		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	0.86		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.668		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0221		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.62		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000015		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0054		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-14 SP-SW-6 Sampled By: Client on 05-JUL-20 @ 09:55 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00051		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00623		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	9.24		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00061		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.011		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.33		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000096		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.574		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00155		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000080		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.797		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.627		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0206		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.53		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000013		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
Methylmercury (as MeHg)-Total	0.000028		0.000020	ug/L	22-JUL-20	22-JUL-20	R5166097

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-15 SP-SW-1 Sampled By: Client on 05-JUL-20 @ 10:23 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	62.5		1.0	uS/cm		09-JUL-20	R5147398
Hardness (as CaCO3)	28.4		0.50	mg/L		15-JUL-20	
pH	7.71		0.10	pH		09-JUL-20	R5147398
Total Suspended Solids	<3.0		3.0	mg/L		09-JUL-20	R5147506
Total Dissolved Solids	54		13	mg/L		09-JUL-20	R5147582
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	31.6		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.383		0.010	mg/L		14-JUL-20	R5153957
Fluoride (F)	0.032		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	0.0062		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	11.6	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	16.4	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0103		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00054		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00693		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	9.89		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00089		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.026		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.43		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00195		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000112		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.611		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00157		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000084		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	0.86		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-15 SP-SW-1 Sampled By: Client on 05-JUL-20 @ 10:23 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.681		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0216		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.67		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000014		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00051		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00623		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	9.15		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00062		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.011		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.36		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000074		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.566		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00162		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-15 SP-SW-1 Sampled By: Client on 05-JUL-20 @ 10:23 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000077		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.796		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.634		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0213		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	0.57		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000013		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
L2471801-16 SP-SW-4 Sampled By: Client on 05-JUL-20 @ 11:50 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	61.5		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	26.5		0.50	mg/L		15-JUL-20	
pH	7.60		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		09-JUL-20	R5147506
Total Dissolved Solids	45		10	mg/L		09-JUL-20	R5147582
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	29.5		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.77	DLM	0.10	mg/L		15-JUL-20	R5153957
Fluoride (F)	0.031		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0042		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	12.7	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	16.5	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0106		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00086		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00502		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-16 SP-SW-4 Sampled By: Client on 05-JUL-20 @ 11:50 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	8.92		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00069		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.025		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.40		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00152		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000098		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.506		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00150		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000079		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	1.04		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.640		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0196		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	<0.50		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000019		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0055		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-16 SP-SW-4 Sampled By: Client on 05-JUL-20 @ 11:50 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00085		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00490		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	0.0000113		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.42		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00053		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.014		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	0.000084		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.34		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00052		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000073		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.494		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00146		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000092		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.934		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.607		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0186		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	0.0013		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-JUL-20	R5151460
L2471801-17 SP-SW-18							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-17 SP-SW-18 Sampled By: Client on 05-JUL-20 @ 12:40 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	58.2		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	26.1		0.50	mg/L		15-JUL-20	
pH	7.60		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		09-JUL-20	R5147506
Total Dissolved Solids	40		10	mg/L		09-JUL-20	R5147582
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	29.8		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	1.24	DLHC	0.10	mg/L		15-JUL-20	R5153957
Fluoride (F)	0.031		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0037		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	10.4	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	18.2	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0093		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00087		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00527		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	9.01		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00072		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.025		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.43		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00196		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000094		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.519		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00149		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000088		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	1.03		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-17 SP-SW-18 Sampled By: Client on 05-JUL-20 @ 12:40 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.645		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0202		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	<0.50		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000019		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00090		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00490		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.28		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00055		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.012		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.32		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00087		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000080		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.487		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00145		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-17 SP-SW-18 Sampled By: Client on 05-JUL-20 @ 12:40 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000111		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.988		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.604		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0191		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562
L2471801-18 SP-SW-24 Sampled By: Client on 05-JUL-20 @ 13:19 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	57.7		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	25.9		0.50	mg/L		15-JUL-20	
pH	7.61		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		09-JUL-20	R5147506
Total Dissolved Solids	40		10	mg/L		09-JUL-20	R5147582
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	29.7		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.652	DLHC	0.020	mg/L		15-JUL-20	R5153957
Fluoride (F)	0.031		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0033		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	10.4	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	16.6	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0122		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00092		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00512		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-18 SP-SW-24 Sampled By: Client on 05-JUL-20 @ 13:19 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	8.87		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00072		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.025		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.41		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00184		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000101		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.512		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00146		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000076		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	1.03		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.646		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0197		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	<0.50		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	0.00031		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000018		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-18 SP-SW-24 Sampled By: Client on 05-JUL-20 @ 13:19 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00089		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00498		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.17		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00052		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.013		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.34		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00076		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000074		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.500		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00153		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000064		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.966		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.607		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0188		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562
Methylmercury (as MeHg)-Total	0.000028		0.000020	ug/L	22-JUL-20	22-JUL-20	R5166097

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-19 SP-SW-20 Sampled By: Client on 05-JUL-20 @ 14:23 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	57.9		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	26.9		0.50	mg/L		15-JUL-20	
pH	7.62		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		09-JUL-20	R5147506
Total Dissolved Solids	51		10	mg/L		09-JUL-20	R5147582
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	29.7		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.495		0.010	mg/L		14-JUL-20	R5153957
Fluoride (F)	0.030		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0073		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	11.7	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	18.3	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0141		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00095		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00534		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	9.70		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00080		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.031		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	0.000279		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.40		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00250		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000106		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.534		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00144		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000078		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	0.97		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-19 SP-SW-20 Sampled By: Client on 05-JUL-20 @ 14:23 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.681		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0207		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	0.51		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000019		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	0.0047		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0075		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00096		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00510		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.65		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00052		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.014		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.30		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00058		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000064		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.510		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00144		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-19 SP-SW-20 Sampled By: Client on 05-JUL-20 @ 14:23 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000072		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.907		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.636		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0184		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000014		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	0.0026		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562
L2471801-20 SP-SW-19 Sampled By: Client on 05-JUL-20 @ 15:11 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.8		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	27.1		0.50	mg/L		15-JUL-20	
pH	7.63		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		09-JUL-20	R5147506
Total Dissolved Solids	46		10	mg/L		09-JUL-20	R5147582
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	30.7		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.407		0.010	mg/L		14-JUL-20	R5153957
Fluoride (F)	0.031		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0043		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	10.7	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	17.5	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0094		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Arsenic (As)-Total	0.00091		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Barium (Ba)-Total	0.00519		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-20 SP-SW-19 Sampled By: Client on 05-JUL-20 @ 15:11 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Boron (B)-Total	<0.010		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Calcium (Ca)-Total	9.34		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	10-JUL-20	14-JUL-20	R5150821
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Copper (Cu)-Total	0.00070		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Iron (Fe)-Total	0.025		0.010	mg/L	10-JUL-20	10-JUL-20	R5150821
Lead (Pb)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Lithium (Li)-Total	<0.0010		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Magnesium (Mg)-Total	1.49		0.0050	mg/L	10-JUL-20	10-JUL-20	R5150821
Manganese (Mn)-Total	0.00249		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000093		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Phosphorus (P)-Total	<0.050		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Potassium (K)-Total	0.503		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Rubidium (Rb)-Total	0.00156		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Selenium (Se)-Total	0.000071		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Silicon (Si)-Total	1.00		0.10	mg/L	10-JUL-20	10-JUL-20	R5150821
Silver (Ag)-Total	<0.000050		0.000050	mg/L	10-JUL-20	10-JUL-20	R5150821
Sodium (Na)-Total	0.644		0.050	mg/L	10-JUL-20	10-JUL-20	R5150821
Strontium (Sr)-Total	0.0205		0.0010	mg/L	10-JUL-20	10-JUL-20	R5150821
Sulfur (S)-Total	<0.50		0.50	mg/L	10-JUL-20	10-JUL-20	R5150821
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Thorium (Th)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Tin (Sn)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	10-JUL-20	10-JUL-20	R5150821
Tungsten (W)-Total	<0.00010		0.00010	mg/L	10-JUL-20	10-JUL-20	R5150821
Uranium (U)-Total	0.000019		0.000010	mg/L	10-JUL-20	10-JUL-20	R5150821
Vanadium (V)-Total	<0.00050		0.00050	mg/L	10-JUL-20	10-JUL-20	R5150821
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5150821
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	10-JUL-20	10-JUL-20	R5150821
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-20 SP-SW-19 Sampled By: Client on 05-JUL-20 @ 15:11 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00095		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00491		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.57		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00050		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.012		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.39		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00059		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000071		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.479		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00139		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000087		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.935		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.610		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0191		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000015		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562
Methylmercury (as MeHg)-Total	0.000027		0.000020	ug/L	22-JUL-20	22-JUL-20	R5166097

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-21 SP-SW-21 Sampled By: Client on 05-JUL-20 @ 15:51 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	104		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	51.0		0.50	mg/L		14-JUL-20	
pH	7.97		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		09-JUL-20	R5147506
Total Dissolved Solids	74		13	mg/L		09-JUL-20	R5147582
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	56.3		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.281		0.010	mg/L		14-JUL-20	R5153957
Fluoride (F)	0.031		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0064		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	13.5	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	18.1	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0059		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Arsenic (As)-Total	0.00042		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Barium (Ba)-Total	0.00657		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Boron (B)-Total	<0.010		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Calcium (Ca)-Total	17.5		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Copper (Cu)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Iron (Fe)-Total	0.022		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Magnesium (Mg)-Total	2.89		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Manganese (Mn)-Total	0.00973		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000064		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Potassium (K)-Total	0.350		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Rubidium (Rb)-Total	0.00105		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Selenium (Se)-Total	0.000059		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Silicon (Si)-Total	1.55		0.10	mg/L	13-JUL-20	14-JUL-20	R5153435

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-21 SP-SW-21 Sampled By: Client on 05-JUL-20 @ 15:51 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Sodium (Na)-Total	0.765		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Strontium (Sr)-Total	0.0282		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Sulfur (S)-Total	<0.50		0.50	mg/L	13-JUL-20	14-JUL-20	R5153435
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Tin (Sn)-Total	0.00017		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-JUL-20	14-JUL-20	R5153435
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Uranium (U)-Total	0.000013		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-JUL-20	14-JUL-20	R5153435
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00044		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00645		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	15.5		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00026		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	2.98		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00112		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000059		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.362		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00102		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-21 SP-SW-21 Sampled By: Client on 05-JUL-20 @ 15:51 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000065		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	1.57		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.759		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0271		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000012		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	0.0032		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562
Methylmercury (as MeHg)-Total	0.000025		0.000020	ug/L	22-JUL-20	22-JUL-20	R5166097
L2471801-22 SP-SW-23 Sampled By: Client on 05-JUL-20 @ 16:27 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	58.0		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	26.4		0.50	mg/L		14-JUL-20	
pH	7.64		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		09-JUL-20	R5147506
Total Dissolved Solids	42		10	mg/L		09-JUL-20	R5147582
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	29.3		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.083		0.010	mg/L		14-JUL-20	R5153957
Fluoride (F)	0.032		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0041		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	10.4	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	17.4	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0098		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Arsenic (As)-Total	0.00089		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-22 SP-SW-23 Sampled By: Client on 05-JUL-20 @ 16:27 Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.00489		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Boron (B)-Total	<0.010		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Calcium (Ca)-Total	9.03		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Copper (Cu)-Total	0.00060		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Iron (Fe)-Total	0.020		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Lead (Pb)-Total	<0.000050	DTC	0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Magnesium (Mg)-Total	1.33		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Manganese (Mn)-Total	0.00190		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000082		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Potassium (K)-Total	0.489		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Rubidium (Rb)-Total	0.00140		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Selenium (Se)-Total	0.000080		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Silicon (Si)-Total	0.94		0.10	mg/L	13-JUL-20	14-JUL-20	R5153435
Silver (Ag)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Sodium (Na)-Total	0.637		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Strontium (Sr)-Total	0.0189		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Sulfur (S)-Total	<0.50		0.50	mg/L	13-JUL-20	14-JUL-20	R5153435
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-JUL-20	14-JUL-20	R5153435
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Uranium (U)-Total	0.000020		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-JUL-20	14-JUL-20	R5153435
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0058		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-22 SP-SW-23 Sampled By: Client on 05-JUL-20 @ 16:27 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00093		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00500		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.40		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00054		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.020		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	0.000237		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.33		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00052		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000070		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.482		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00145		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000092		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.927		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.605		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0191		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000017		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-23 SP-SW-3 Sampled By: Client on 05-JUL-20 @ 16:58 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	58.6		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	26.5		0.50	mg/L		14-JUL-20	
pH	7.62		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		09-JUL-20	R5147506
Total Dissolved Solids	37		10	mg/L		09-JUL-20	R5147582
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	29.2		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.332		0.010	mg/L		14-JUL-20	R5153957
Fluoride (F)	0.030		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0065		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	10.7	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	17.9	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0110		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Arsenic (As)-Total	0.00088		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Barium (Ba)-Total	0.00503		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Boron (B)-Total	<0.010		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Calcium (Ca)-Total	9.12		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Copper (Cu)-Total	0.00060		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Iron (Fe)-Total	0.020		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Lead (Pb)-Total	0.000056		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Magnesium (Mg)-Total	1.31		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Manganese (Mn)-Total	0.00169		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000077		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Potassium (K)-Total	0.481		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Rubidium (Rb)-Total	0.00138		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Selenium (Se)-Total	0.000080		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Silicon (Si)-Total	0.96		0.10	mg/L	13-JUL-20	14-JUL-20	R5153435

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-23 SP-SW-3 Sampled By: Client on 05-JUL-20 @ 16:58 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Sodium (Na)-Total	0.609		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Strontium (Sr)-Total	0.0199		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Sulfur (S)-Total	<0.50		0.50	mg/L	13-JUL-20	14-JUL-20	R5153435
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-JUL-20	14-JUL-20	R5153435
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Uranium (U)-Total	0.000019		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-JUL-20	14-JUL-20	R5153435
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0069		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Arsenic (As)-Dissolved	0.00090		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00492		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	8.41		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00053		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.014		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	1.34		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00059		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000074		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.490		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00156		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-23 SP-SW-3 Sampled By: Client on 05-JUL-20 @ 16:58 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000078		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.920		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.611		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0192		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	0.0018		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562
L2471801-24 SP-SW-9 Sampled By: Client on 06-JUL-20 @ 09:07 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	73.0		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	35.2		0.50	mg/L		14-JUL-20	
pH	7.74		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	4.2		3.0	mg/L		10-JUL-20	R5148273
Total Dissolved Solids	66		13	mg/L		10-JUL-20	R5148278
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	38.6		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.80	DLHC	0.10	mg/L		15-JUL-20	R5153957
Fluoride (F)	0.023		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0143		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				06-JUL-20	10-JUL-20	R5148049
Dissolved Organic Carbon	16.4	DLM	5.0	mg/L	06-JUL-20	16-JUL-20	R5157078
Total Organic Carbon	32.6	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0269		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Arsenic (As)-Total	0.00050		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Barium (Ba)-Total	0.00163		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-24 SP-SW-9 Sampled By: Client on 06-JUL-20 @ 09:07 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Boron (B)-Total	<0.010		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Calcium (Ca)-Total	14.2		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Copper (Cu)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Iron (Fe)-Total	0.052		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Magnesium (Mg)-Total	0.697		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Manganese (Mn)-Total	0.0590		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Potassium (K)-Total	0.337		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Rubidium (Rb)-Total	0.00093		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Selenium (Se)-Total	0.000064		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Silicon (Si)-Total	0.29		0.10	mg/L	13-JUL-20	14-JUL-20	R5153435
Silver (Ag)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Sodium (Na)-Total	0.408		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Strontium (Sr)-Total	0.0140		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Sulfur (S)-Total	<0.50		0.50	mg/L	13-JUL-20	14-JUL-20	R5153435
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-JUL-20	14-JUL-20	R5153435
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Uranium (U)-Total	0.000013		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-JUL-20	14-JUL-20	R5153435
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149138
Aluminum (Al)-Dissolved	0.0232		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-24 SP-SW-9 Sampled By: Client on 06-JUL-20 @ 09:07 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00056		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Barium (Ba)-Dissolved	0.00138		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Calcium (Ca)-Dissolved	12.9		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Copper (Cu)-Dissolved	0.00026		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Iron (Fe)-Dissolved	0.011		0.010	mg/L	12-JUL-20	13-JUL-20	R5151383
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Magnesium (Mg)-Dissolved	0.697		0.0050	mg/L	12-JUL-20	13-JUL-20	R5151383
Manganese (Mn)-Dissolved	0.00215		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Potassium (K)-Dissolved	0.331		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Rubidium (Rb)-Dissolved	0.00093		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Selenium (Se)-Dissolved	0.000086		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silicon (Si)-Dissolved	0.259		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5151383
Sodium (Na)-Dissolved	0.419		0.050	mg/L	12-JUL-20	13-JUL-20	R5151383
Strontium (Sr)-Dissolved	0.0137		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5151383
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5151383
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5151383
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5151383
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5151383
Zinc (Zn)-Dissolved	0.0024		0.0010	mg/L	12-JUL-20	13-JUL-20	R5151383
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5151383
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562
L2471801-25 SP-SW-26							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-25 SP-SW-26 Sampled By: Client on 06-JUL-20 @ 11:30 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	110		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	57.0		0.50	mg/L		14-JUL-20	
pH	7.83		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148273
Total Dissolved Solids	93		13	mg/L		10-JUL-20	R5148278
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	57.7		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.405		0.010	mg/L		14-JUL-20	R5153957
Fluoride (F)	0.027		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0058		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				06-JUL-20	11-JUL-20	R5148243
Dissolved Organic Carbon	22.4	DLM	5.0	mg/L	06-JUL-20	16-JUL-20	R5157086
Total Organic Carbon	29.0	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0131		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Arsenic (As)-Total	0.00036		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Barium (Ba)-Total	0.00656		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Boron (B)-Total	<0.010		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Calcium (Ca)-Total	22.0		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cesium (Cs)-Total	0.000011		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Copper (Cu)-Total	0.00063		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Iron (Fe)-Total	0.052		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Magnesium (Mg)-Total	1.09		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Manganese (Mn)-Total	0.0147		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000061		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Potassium (K)-Total	0.243		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Rubidium (Rb)-Total	0.00056		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Selenium (Se)-Total	0.000086		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Silicon (Si)-Total	1.22		0.10	mg/L	13-JUL-20	14-JUL-20	R5153435

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-25 SP-SW-26 Sampled By: Client on 06-JUL-20 @ 11:30 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Sodium (Na)-Total	0.565		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Strontium (Sr)-Total	0.0241		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Sulfur (S)-Total	0.78		0.50	mg/L	13-JUL-20	14-JUL-20	R5153435
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-JUL-20	14-JUL-20	R5153435
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Uranium (U)-Total	0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-JUL-20	14-JUL-20	R5153435
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149140
Aluminum (Al)-Dissolved	0.0103		0.0050	mg/L	12-JUL-20	13-JUL-20	R5149929
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Arsenic (As)-Dissolved	0.00042		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Barium (Ba)-Dissolved	0.00652		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5149929
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Calcium (Ca)-Dissolved	21.0		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Cesium (Cs)-Dissolved	0.000011		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Copper (Cu)-Dissolved	0.00062		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Iron (Fe)-Dissolved	0.029		0.010	mg/L	12-JUL-20	13-JUL-20	R5149929
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Magnesium (Mg)-Dissolved	1.09		0.0050	mg/L	12-JUL-20	13-JUL-20	R5149929
Manganese (Mn)-Dissolved	0.00294		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000056		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Potassium (K)-Dissolved	0.237		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Rubidium (Rb)-Dissolved	0.00065		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-25 SP-SW-26 Sampled By: Client on 06-JUL-20 @ 11:30 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000096		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Silicon (Si)-Dissolved	1.18		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Sodium (Na)-Dissolved	0.551		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Strontium (Sr)-Dissolved	0.0229		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Sulfur (S)-Dissolved	0.72		0.50	mg/L	12-JUL-20	13-JUL-20	R5149929
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5149929
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Zinc (Zn)-Dissolved	0.0013		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562
L2471801-26 SP-SW-DUP-1 Sampled By: Client on 04-JUL-20 @ 00:01 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	55.3		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	23.7		0.50	mg/L		14-JUL-20	
pH	7.59		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	50		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	28.0		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.513	DLHC	0.020	mg/L		15-JUL-20	R5153957
Fluoride (F)	0.030		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0063		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	11-JUL-20	R5148243
Dissolved Organic Carbon	17.7	DLM	5.0	mg/L	04-JUL-20	16-JUL-20	R5157086
Total Organic Carbon	20.1	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0250		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Arsenic (As)-Total	0.00060		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Barium (Ba)-Total	0.00596		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-26 SP-SW-DUP-1 Sampled By: Client on 04-JUL-20 @ 00:01 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Boron (B)-Total	<0.010		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Calcium (Ca)-Total	8.76		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Copper (Cu)-Total	0.00065		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Iron (Fe)-Total	0.043		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Magnesium (Mg)-Total	1.22		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Manganese (Mn)-Total	0.00303		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000086		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Potassium (K)-Total	0.541		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Rubidium (Rb)-Total	0.00147		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Selenium (Se)-Total	0.000076		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Silicon (Si)-Total	0.84		0.10	mg/L	13-JUL-20	14-JUL-20	R5153435
Silver (Ag)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Sodium (Na)-Total	0.621		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Strontium (Sr)-Total	0.0191		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Sulfur (S)-Total	<0.50		0.50	mg/L	13-JUL-20	14-JUL-20	R5153435
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Titanium (Ti)-Total	0.00035		0.00030	mg/L	13-JUL-20	14-JUL-20	R5153435
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Uranium (U)-Total	0.000020		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-JUL-20	14-JUL-20	R5153435
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149140
Aluminum (Al)-Dissolved	0.0213		0.0050	mg/L	12-JUL-20	13-JUL-20	R5149929
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-26 SP-SW-DUP-1 Sampled By: Client on 04-JUL-20 @ 00:01 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00062		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Barium (Ba)-Dissolved	0.00613		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5149929
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Calcium (Ca)-Dissolved	7.51		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Copper (Cu)-Dissolved	0.00065		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Iron (Fe)-Dissolved	0.034		0.010	mg/L	12-JUL-20	13-JUL-20	R5149929
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Magnesium (Mg)-Dissolved	1.20		0.0050	mg/L	12-JUL-20	13-JUL-20	R5149929
Manganese (Mn)-Dissolved	0.00140		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000067		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Potassium (K)-Dissolved	0.548		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Rubidium (Rb)-Dissolved	0.00160		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Selenium (Se)-Dissolved	0.000110		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Silicon (Si)-Dissolved	0.786		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Sodium (Na)-Dissolved	0.618		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Strontium (Sr)-Dissolved	0.0168		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5149929
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Tin (Sn)-Dissolved	0.00023		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5149929
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Uranium (U)-Dissolved	0.000015		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Zinc (Zn)-Dissolved	0.0015		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562
L2471801-27 SP-SW-DUP-2							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-27 SP-SW-DUP-2 Sampled By: Client on 05-JUL-20 @ 00:01 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.9		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	27.8		0.50	mg/L		14-JUL-20	
pH	7.67		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148160
Total Dissolved Solids	44		10	mg/L		10-JUL-20	R5148165
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	30.9		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.514	DLHC	0.020	mg/L		15-JUL-20	R5153957
Fluoride (F)	0.031		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0050		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				05-JUL-20	11-JUL-20	R5148243
Dissolved Organic Carbon	15.3	DLM	5.0	mg/L	05-JUL-20	16-JUL-20	R5157086
Total Organic Carbon	18.0	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0088		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Arsenic (As)-Total	0.00087		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Barium (Ba)-Total	0.00497		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Boron (B)-Total	<0.010		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Calcium (Ca)-Total	9.45		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Copper (Cu)-Total	0.00057		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Iron (Fe)-Total	0.019		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Magnesium (Mg)-Total	1.45		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Manganese (Mn)-Total	0.00232		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000080		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Potassium (K)-Total	0.475		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Rubidium (Rb)-Total	0.00144		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Selenium (Se)-Total	0.000078		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Silicon (Si)-Total	0.95		0.10	mg/L	13-JUL-20	14-JUL-20	R5153435

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-27 SP-SW-DUP-2 Sampled By: Client on 05-JUL-20 @ 00:01 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Sodium (Na)-Total	0.609		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Strontium (Sr)-Total	0.0198		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Sulfur (S)-Total	<0.50		0.50	mg/L	13-JUL-20	14-JUL-20	R5153435
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-JUL-20	14-JUL-20	R5153435
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Uranium (U)-Total	0.000018		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-JUL-20	14-JUL-20	R5153435
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149140
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	12-JUL-20	13-JUL-20	R5149929
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Arsenic (As)-Dissolved	0.00093		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Barium (Ba)-Dissolved	0.00510		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5149929
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Calcium (Ca)-Dissolved	8.88		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Copper (Cu)-Dissolved	0.00053		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Iron (Fe)-Dissolved	0.013		0.010	mg/L	12-JUL-20	13-JUL-20	R5149929
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Magnesium (Mg)-Dissolved	1.36		0.0050	mg/L	12-JUL-20	13-JUL-20	R5149929
Manganese (Mn)-Dissolved	0.00068		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000072		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Potassium (K)-Dissolved	0.478		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Rubidium (Rb)-Dissolved	0.00139		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-27 SP-SW-DUP-2 Sampled By: Client on 05-JUL-20 @ 00:01 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000091		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Silicon (Si)-Dissolved	0.889		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Sodium (Na)-Dissolved	0.597		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Strontium (Sr)-Dissolved	0.0189		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5149929
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5149929
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Uranium (U)-Dissolved	0.000017		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Zinc (Zn)-Dissolved	0.0011		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562
Methylmercury (as MeHg)-Total	0.000024		0.000020	ug/L	22-JUL-20	22-JUL-20	R5166097
L2471801-28 SP-SW-DUP-3 Sampled By: Client on 06-JUL-20 @ 00:01 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	109		1.0	uS/cm		10-JUL-20	R5148162
Hardness (as CaCO3)	55.7		0.50	mg/L		14-JUL-20	
pH	7.86		0.10	pH		10-JUL-20	R5148162
Total Suspended Solids	<3.0		3.0	mg/L		10-JUL-20	R5148273
Total Dissolved Solids	92		13	mg/L		10-JUL-20	R5148278
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	57.9		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	0.433		0.010	mg/L		14-JUL-20	R5153957
Fluoride (F)	0.025		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	10-JUL-20	10-JUL-20	R5148676
Phosphorus, Total	0.0073		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				06-JUL-20	11-JUL-20	R5148243
Dissolved Organic Carbon	23.7	DLM	5.0	mg/L	06-JUL-20	16-JUL-20	R5157086
Total Organic Carbon	28.5	DLM	5.0	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	0.0128		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Arsenic (As)-Total	0.00038		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-28 SP-SW-DUP-3 Sampled By: Client on 06-JUL-20 @ 00:01 Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.00666		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Boron (B)-Total	<0.010		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Calcium (Ca)-Total	21.9		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cesium (Cs)-Total	0.000011		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Copper (Cu)-Total	0.00064		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Iron (Fe)-Total	0.047		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Magnesium (Mg)-Total	1.12		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Manganese (Mn)-Total	0.0146		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	0.000064		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Potassium (K)-Total	0.244		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Rubidium (Rb)-Total	0.00061		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Selenium (Se)-Total	0.000082		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Silicon (Si)-Total	1.23		0.10	mg/L	13-JUL-20	14-JUL-20	R5153435
Silver (Ag)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Sodium (Na)-Total	0.565		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Strontium (Sr)-Total	0.0239		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Sulfur (S)-Total	0.85		0.50	mg/L	13-JUL-20	14-JUL-20	R5153435
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-JUL-20	14-JUL-20	R5153435
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Uranium (U)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-JUL-20	14-JUL-20	R5153435
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149140
Aluminum (Al)-Dissolved	0.0100		0.0050	mg/L	12-JUL-20	13-JUL-20	R5149929

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-28 SP-SW-DUP-3 Sampled By: Client on 06-JUL-20 @ 00:01 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Arsenic (As)-Dissolved	0.00040		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Barium (Ba)-Dissolved	0.00657		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5149929
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Calcium (Ca)-Dissolved	20.5		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Cesium (Cs)-Dissolved	0.000012		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Copper (Cu)-Dissolved	0.00062		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Iron (Fe)-Dissolved	0.029		0.010	mg/L	12-JUL-20	13-JUL-20	R5149929
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Magnesium (Mg)-Dissolved	1.08		0.0050	mg/L	12-JUL-20	13-JUL-20	R5149929
Manganese (Mn)-Dissolved	0.00308		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	0.000060		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Potassium (K)-Dissolved	0.233		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Rubidium (Rb)-Dissolved	0.00062		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Selenium (Se)-Dissolved	0.000087		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Silicon (Si)-Dissolved	1.17		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Sodium (Na)-Dissolved	0.541		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Strontium (Sr)-Dissolved	0.0232		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Sulfur (S)-Dissolved	0.77		0.50	mg/L	12-JUL-20	13-JUL-20	R5149929
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5149929
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-29 SW TRIP BLANK Sampled By: Client on 04-JUL-20 @ 00:01 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	1.3		1.0	uS/cm		09-JUL-20	R5147398
Hardness (as CaCO3)	<0.50		0.50	mg/L		14-JUL-20	
pH	6.77		0.10	pH		09-JUL-20	R5147398
Total Suspended Solids	<3.0		3.0	mg/L		09-JUL-20	R5147506
Total Dissolved Solids	<10		10	mg/L		09-JUL-20	R5147582
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	<2.0		2.0	mg/L		10-JUL-20	R5148162
Ammonia, Total (as N)	<0.010		0.010	mg/L		14-JUL-20	R5153957
Fluoride (F)	<0.020		0.020	mg/L		14-JUL-20	R5153790
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-JUL-20	09-JUL-20	R5147436
Phosphorus, Total	<0.0030		0.0030	mg/L	13-JUL-20	15-JUL-20	R5153706
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				04-JUL-20	11-JUL-20	R5148243
Dissolved Organic Carbon	<0.50		0.50	mg/L	04-JUL-20	16-JUL-20	R5157086
Total Organic Carbon	<0.50		0.50	mg/L		16-JUL-20	R5157084
Total Metals							
Aluminum (Al)-Total	<0.0050		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Arsenic (As)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Barium (Ba)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Boron (B)-Total	<0.010		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Calcium (Ca)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Copper (Cu)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Iron (Fe)-Total	<0.010		0.010	mg/L	13-JUL-20	14-JUL-20	R5153435
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Magnesium (Mg)-Total	<0.0050		0.0050	mg/L	13-JUL-20	14-JUL-20	R5153435
Manganese (Mn)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-JUL-20	R5149601
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Potassium (K)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Rubidium (Rb)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Selenium (Se)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Silicon (Si)-Total	<0.10		0.10	mg/L	13-JUL-20	14-JUL-20	R5153435

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-29 SW TRIP BLANK Sampled By: Client on 04-JUL-20 @ 00:01 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000050		0.000050	mg/L	13-JUL-20	14-JUL-20	R5153435
Sodium (Na)-Total	<0.050		0.050	mg/L	13-JUL-20	14-JUL-20	R5153435
Strontium (Sr)-Total	<0.0010		0.0010	mg/L	13-JUL-20	14-JUL-20	R5153435
Sulfur (S)-Total	<0.50		0.50	mg/L	13-JUL-20	14-JUL-20	R5153435
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-JUL-20	14-JUL-20	R5153435
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-JUL-20	14-JUL-20	R5153435
Uranium (U)-Total	<0.000010		0.000010	mg/L	13-JUL-20	14-JUL-20	R5153435
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-JUL-20	14-JUL-20	R5153435
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-JUL-20	14-JUL-20	R5153435
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-JUL-20	14-JUL-20	R5153435
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					12-JUL-20	R5148923
Dissolved Metals Filtration Location	FIELD					12-JUL-20	R5149140
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	12-JUL-20	13-JUL-20	R5149929
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Barium (Ba)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Boron (B)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5149929
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	12-JUL-20	13-JUL-20	R5149929
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Magnesium (Mg)-Dissolved	<0.0050		0.0050	mg/L	12-JUL-20	13-JUL-20	R5149929
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	12-JUL-20	13-JUL-20	R5150292
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Potassium (K)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Rubidium (Rb)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2471801-29 SW TRIP BLANK Sampled By: Client on 04-JUL-20 @ 00:01 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	12-JUL-20	13-JUL-20	R5149929
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	12-JUL-20	13-JUL-20	R5149929
Strontium (Sr)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	12-JUL-20	13-JUL-20	R5149929
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	12-JUL-20	13-JUL-20	R5149929
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	12-JUL-20	13-JUL-20	R5149929
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	12-JUL-20	13-JUL-20	R5149929
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	12-JUL-20	13-JUL-20	R5149929
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	12-JUL-20	13-JUL-20	R5149929
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	12-JUL-20	13-JUL-20	R5149929
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		14-JUL-20	R5153562

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Dissolved Organic Carbon	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L2471801-25, -26, -27, -28, -29
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2471801-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2471801-25, -26, -27, -28, -29
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2471801-25, -26, -27, -28, -29
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Potassium (K)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Rubidium (Rb)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L2471801-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -5, -6, -7, -8, -9
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L2471801-25, -26, -27, -28, -29
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L2471801-25, -26, -27, -28, -29
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2471801-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2471801-25, -26, -27, -28, -29
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L2471801-25, -26, -27, -28, -29
Matrix Spike	Uranium (U)-Dissolved	MS-B	L2471801-1, -2, -3, -4
Matrix Spike	Calcium (Ca)-Total	MS-B	L2471801-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Total	MS-B	L2471801-21, -22, -23, -24, -25, -26, -27, -28, -29
Matrix Spike	Iron (Fe)-Total	MS-B	L2471801-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2471801-21, -22, -23, -24, -25, -26, -27, -28, -29
Matrix Spike	Silicon (Si)-Total	MS-B	L2471801-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Silicon (Si)-Total	MS-B	L2471801-21, -22, -23, -24, -25, -26, -27, -28, -29
Matrix Spike	Strontium (Sr)-Total	MS-B	L2471801-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L2471801-21, -22, -23, -24, -25, -26, -27, -28, -29
Matrix Spike	Ammonia, Total (as N)	MS-B	L2471801-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Ammonia, Total (as N)	MS-B	L2471801-15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29
Matrix Spike	Total Organic Carbon	MS-B	L2471801-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Total Organic Carbon	MS-B	L2471801-15, -16, -17, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29

Sample Parameter Qualifier key listed:

Qualifier	Description
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-TITR-TB	Water	Alkalinity	APHA 2320B modified

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

Reference Information

CR-CR6-PWQO-IC-WT	Water	Chromium +6	EPA 7199

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution. Chromium (III) is calculated as the difference between the total chromium and the chromium (VI) results.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

DOC-WT	Water	Dissolved Organic Carbon	APHA 5310B

Sample is filtered through a 0.45um filter, then injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic carbon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

EC-TITR-TB	Water	Conductivity	APHA 2510 B

This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.

F-IC-N-WT	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

HARDNESS-CALC-WT	Water	Hardness	APHA 2340 B

Hardness (also known as Total Hardness) is calculated from the sum of Calcium and Magnesium concentrations, expressed in CaCO3 equivalents. Dissolved Calcium and Magnesium concentrations are preferentially used for the hardness calculation.

HG-D-CVAA-VA	Water	Diss. Mercury in Water by CVAAS or CVAFS	APHA 3030B/EPA 1631E (mod)

Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.

HG-T-CVAA-VA	Water	Total Mercury in Water by CVAAS or CVAFS	EPA 1631E (mod)

Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS or CVAFS.

MEHG-T-GCAF-VA	Water	Total Methylmercury in Water by GCAFS	EPA 1630

This method follows Method 1630 of the US EPA. Samples are distilled under an inert gas flow to isolate methylmercury and minimize matrix interferences. The distillate is analyzed by aqueous phase ethylation, purge and trap, desorption and GC separation. The separated species are then pyrolized to elemental Hg and quantified by cold vapour atomic flourescence spectroscopy. Results are reported "as MeHg".

MET-D-CCMS-WT	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

MET-T-CCMS-WT	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020A (mod)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

NH3-F-WT	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

P-T-COL-WT	Water	Total P in Water by Colour	APHA 4500-P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is deteremined colourimetrically after persulphate digestion of the sample.

PH-TITR-TB	Water	pH	APHA 4500-H

Reference Information

This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode

PO4-DO-COL-TB	Water	Dissolved Orthophosphate	APHA 4500-P B, F, G (modified)

Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.

TDS-TB	Water	Total Dissolved Solids	APHA 2540 C (modified)

Aqueous matrices are analyzed using gravimetry and evaporation

TOC-WT	Water	Total Organic Carbon	APHA 5310B

Sample is injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic cabon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

TSS-TB	Water	Total Suspended Solids	APHA 2540 D (modified)

Aqueous matrices are analyzed using gravimetry

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: Gold Canyon Resources Inc.
c/o Suite 1805 - 925 West Georgia Street
Vancouver BC V6C 3L2
Contact: David Mchaina

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALK-TITR-TB	**Water**							
Batch R5148162								
WG3359152-3 DUP		**L2471801-15**						
Alkalinity, Total (as CaCO3)		31.6	31.6		mg/L	0.0	20	10-JUL-20
WG3359826-3 DUP		**L2471801-16**						
Alkalinity, Total (as CaCO3)		29.5	29.7		mg/L	0.7	20	10-JUL-20
WG3359152-2 LCS								
Alkalinity, Total (as CaCO3)			106.6		%		85-115	10-JUL-20
WG3359222-2 LCS								
Alkalinity, Total (as CaCO3)			104.7		%		85-115	10-JUL-20
WG3359826-2 LCS								
Alkalinity, Total (as CaCO3)			107.1		%		85-115	10-JUL-20
WG3359833-2 LCS								
Alkalinity, Total (as CaCO3)			105.4		%		85-115	10-JUL-20
WG3359152-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	10-JUL-20
WG3359222-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	10-JUL-20
WG3359826-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	10-JUL-20
WG3359833-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	10-JUL-20
CR-CR6-PWQO-IC-WT	**Water**							
Batch R5151460								
WG3361023-2 LCS								
Chromium, Hexavalent			103.2		%		80-120	13-JUL-20
WG3361023-1 MB								
Chromium, Hexavalent			<0.50		ug/L		0.5	13-JUL-20
Batch R5153562								
WG3361024-2 LCS								
Chromium, Hexavalent			102.4		%		80-120	14-JUL-20
WG3361024-1 MB								
Chromium, Hexavalent			<0.50		ug/L		0.5	14-JUL-20
DOC-WT	**Water**							
Batch R5154537								
WG3360337-2 LCS								
Dissolved Organic Carbon			106.0		%		80-120	15-JUL-20
WG3360337-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	15-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DOC-WT	**Water**							
Batch R5157078								
WG3360338-3 DUP		**L2471801-5**						
Dissolved Organic Carbon		9.2	10.0		mg/L	7.9	20	16-JUL-20
WG3360338-2 LCS								
Dissolved Organic Carbon			107.1		%		80-120	16-JUL-20
WG3360338-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	16-JUL-20
WG3360338-4 MS		**L2471801-5**						
Dissolved Organic Carbon			110		%		70-130	16-JUL-20
Batch R5157086								
WG3360480-2 LCS								
Dissolved Organic Carbon			100.5		%		80-120	16-JUL-20
WG3360480-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	16-JUL-20
EC-TITR-TB	**Water**							
Batch R5147398								
WG3359143-3 DUP		**L2471801-14**						
Conductivity (EC)		66.2	62.3		uS/cm	6.1	10	09-JUL-20
WG3359143-2 LCS								
Conductivity (EC)			100.4		%		90-110	09-JUL-20
WG3359143-1 MB								
Conductivity (EC)			1.1		uS/cm		2	09-JUL-20
Batch R5148162								
WG3359826-3 DUP		**L2471801-16**						
Conductivity (EC)		61.5	57.9		uS/cm	6.0	10	10-JUL-20
WG3359222-2 LCS								
Conductivity (EC)			99.6		%		90-110	10-JUL-20
WG3359826-2 LCS								
Conductivity (EC)			101.3		%		90-110	10-JUL-20
WG3359833-2 LCS								
Conductivity (EC)			100.7		%		90-110	10-JUL-20
WG3359222-1 MB								
Conductivity (EC)			1.1		uS/cm		2	10-JUL-20
WG3359826-1 MB								
Conductivity (EC)			1.5		uS/cm		2	10-JUL-20
WG3359833-1 MB								
Conductivity (EC)			1.1		uS/cm		2	10-JUL-20
F-IC-N-WT	**Water**							

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-WT	**Water**							
Batch R5153790								
WG3362257-2 LCS								
Fluoride (F)			100.7		%		90-110	14-JUL-20
WG3362257-7 LCS								
Fluoride (F)			100.3		%		90-110	14-JUL-20
WG3362257-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	14-JUL-20
WG3362257-6 MB								
Fluoride (F)			<0.020		mg/L		0.02	14-JUL-20
HG-D-CVAA-VA	**Water**							
Batch R5150292								
WG3360695-11 DUP		**L2471801-15**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	13-JUL-20
WG3360695-10 LCS								
Mercury (Hg)-Dissolved			104.1		%		80-120	13-JUL-20
WG3360695-14 LCS								
Mercury (Hg)-Dissolved			103.8		%		80-120	13-JUL-20
WG3360695-6 LCS								
Mercury (Hg)-Dissolved			104.0		%		80-120	13-JUL-20
WG3360695-13 MB		**NP**						
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	13-JUL-20
WG3360695-5 MB		**NP**						
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	13-JUL-20
WG3360695-9 MB		**NP**						
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	13-JUL-20
WG3360695-12 MS		**L2471801-20**						
Mercury (Hg)-Dissolved			95.5		%		70-130	13-JUL-20
HG-T-CVAA-VA	**Water**							
Batch R5149601								
WG3360738-13 DUP		**L2471801-16**						
Mercury (Hg)-Total		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	13-JUL-20
WG3360738-6 LCS								
Mercury (Hg)-Total			104.1		%		80-120	13-JUL-20
WG3360738-5 MB								
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	13-JUL-20
WG3360738-14 MS		**L2471801-25**						
Mercury (Hg)-Total			107.1		%		70-130	13-JUL-20
MEHG-T-GCAF-VA	**Water**							

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MEHG-T-GCAF-VA	**Water**							
Batch	**R5160141**							
WG3367486-3	**LCS**							
Methylmercury (as MeHg)-Total			87.2		%		70-130	21-JUL-20
WG3367486-1	**MB**							
Methylmercury (as MeHg)-Total			<0.000020		ug/L		0.00002	21-JUL-20
WG3367486-4	**MS**	**L2471801-5**						
Methylmercury (as MeHg)-Total			87.9		%		70-130	21-JUL-20
Batch	**R5166097**							
WG3369309-3	**LCS**							
Methylmercury (as MeHg)-Total			92.6		%		70-130	22-JUL-20
WG3369309-1	**MB**							
Methylmercury (as MeHg)-Total			<0.000020		ug/L		0.00002	22-JUL-20
WG3369309-4	**MS**	**L2471801-14**						
Methylmercury (as MeHg)-Total			90.8		%		70-130	22-JUL-20
MET-D-CCMS-WT	**Water**							
Batch	**R5149929**							
WG3360766-2	**LCS**							
Aluminum (Al)-Dissolved			96.1		%		80-120	13-JUL-20
Antimony (Sb)-Dissolved			96.5		%		80-120	13-JUL-20
Arsenic (As)-Dissolved			97.3		%		80-120	13-JUL-20
Barium (Ba)-Dissolved			94.4		%		80-120	13-JUL-20
Beryllium (Be)-Dissolved			91.9		%		80-120	13-JUL-20
Bismuth (Bi)-Dissolved			93.4		%		80-120	13-JUL-20
Boron (B)-Dissolved			92.2		%		80-120	13-JUL-20
Cadmium (Cd)-Dissolved			98.8		%		80-120	13-JUL-20
Calcium (Ca)-Dissolved			94.5		%		80-120	13-JUL-20
Cesium (Cs)-Dissolved			103.7		%		80-120	13-JUL-20
Chromium (Cr)-Dissolved			94.0		%		80-120	13-JUL-20
Cobalt (Co)-Dissolved			93.8		%		80-120	13-JUL-20
Copper (Cu)-Dissolved			95.3		%		80-120	13-JUL-20
Iron (Fe)-Dissolved			93.4		%		80-120	13-JUL-20
Lead (Pb)-Dissolved			96.0		%		80-120	13-JUL-20
Lithium (Li)-Dissolved			91.0		%		80-120	13-JUL-20
Magnesium (Mg)-Dissolved			95.7		%		80-120	13-JUL-20
Manganese (Mn)-Dissolved			97.5		%		80-120	13-JUL-20
Molybdenum (Mo)-Dissolved			91.1		%		80-120	13-JUL-20
Nickel (Ni)-Dissolved			94.4		%		80-120	13-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5149929								
WG3360766-2 LCS								
Phosphorus (P)-Dissolved			95.7		%		80-120	13-JUL-20
Potassium (K)-Dissolved			90.1		%		80-120	13-JUL-20
Rubidium (Rb)-Dissolved			100.7		%		80-120	13-JUL-20
Selenium (Se)-Dissolved			99.8		%		80-120	13-JUL-20
Silicon (Si)-Dissolved			90.2		%		60-140	13-JUL-20
Silver (Ag)-Dissolved			92.1		%		80-120	13-JUL-20
Sodium (Na)-Dissolved			96.6		%		80-120	13-JUL-20
Strontium (Sr)-Dissolved			97.1		%		80-120	13-JUL-20
Sulfur (S)-Dissolved			90.7		%		80-120	13-JUL-20
Tellurium (Te)-Dissolved			95.5		%		80-120	13-JUL-20
Thallium (Tl)-Dissolved			99.0		%		80-120	13-JUL-20
Thorium (Th)-Dissolved			91.1		%		80-120	13-JUL-20
Tin (Sn)-Dissolved			96.7		%		80-120	13-JUL-20
Titanium (Ti)-Dissolved			88.5		%		80-120	13-JUL-20
Tungsten (W)-Dissolved			95.2		%		80-120	13-JUL-20
Uranium (U)-Dissolved			103.0		%		80-120	13-JUL-20
Vanadium (V)-Dissolved			95.5		%		80-120	13-JUL-20
Zinc (Zn)-Dissolved			94.9		%		80-120	13-JUL-20
Zirconium (Zr)-Dissolved			85.2		%		80-120	13-JUL-20
WG3360766-1 MB								
Aluminum (Al)-Dissolved			<0.0050		mg/L		0.005	13-JUL-20
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Boron (B)-Dissolved			<0.010		mg/L		0.01	13-JUL-20
Cadmium (Cd)-Dissolved			<0.000005C		mg/L		0.000005	13-JUL-20
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	13-JUL-20
Chromium (Cr)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	13-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5149929								
WG3360766-1 MB								
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	13-JUL-20
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	13-JUL-20
Manganese (Mn)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Potassium (K)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Silver (Ag)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Strontium (Sr)-Dissolved			<0.0010		mg/L		0.001	13-JUL-20
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	13-JUL-20
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	13-JUL-20
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	13-JUL-20
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	13-JUL-20
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	13-JUL-20
Zirconium (Zr)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
Batch R5151383								
WG3360763-2 LCS								
Aluminum (Al)-Dissolved			96.4		%		80-120	13-JUL-20
Antimony (Sb)-Dissolved			93.2		%		80-120	13-JUL-20
Arsenic (As)-Dissolved			95.3		%		80-120	13-JUL-20
Barium (Ba)-Dissolved			93.1		%		80-120	13-JUL-20
Beryllium (Be)-Dissolved			92.0		%		80-120	13-JUL-20
Bismuth (Bi)-Dissolved			97.0		%		80-120	13-JUL-20
Boron (B)-Dissolved			88.7		%		80-120	13-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5151383								
WG3360763-2 LCS								
Cadmium (Cd)-Dissolved			94.1		%		80-120	13-JUL-20
Calcium (Ca)-Dissolved			91.5		%		80-120	13-JUL-20
Cesium (Cs)-Dissolved			96.3		%		80-120	13-JUL-20
Chromium (Cr)-Dissolved			94.1		%		80-120	13-JUL-20
Cobalt (Co)-Dissolved			90.9		%		80-120	13-JUL-20
Copper (Cu)-Dissolved			91.7		%		80-120	13-JUL-20
Iron (Fe)-Dissolved			92.8		%		80-120	13-JUL-20
Lead (Pb)-Dissolved			99.9		%		80-120	13-JUL-20
Lithium (Li)-Dissolved			88.8		%		80-120	13-JUL-20
Magnesium (Mg)-Dissolved			100.7		%		80-120	13-JUL-20
Manganese (Mn)-Dissolved			95.3		%		80-120	13-JUL-20
Molybdenum (Mo)-Dissolved			93.1		%		80-120	13-JUL-20
Nickel (Ni)-Dissolved			91.5		%		80-120	13-JUL-20
Phosphorus (P)-Dissolved			102.6		%		80-120	13-JUL-20
Potassium (K)-Dissolved			91.2		%		80-120	13-JUL-20
Rubidium (Rb)-Dissolved			99.0		%		80-120	13-JUL-20
Selenium (Se)-Dissolved			95.4		%		80-120	13-JUL-20
Silicon (Si)-Dissolved			96.8		%		60-140	13-JUL-20
Silver (Ag)-Dissolved			94.9		%		80-120	13-JUL-20
Sodium (Na)-Dissolved			95.2		%		80-120	13-JUL-20
Strontium (Sr)-Dissolved			96.5		%		80-120	13-JUL-20
Sulfur (S)-Dissolved			96.3		%		80-120	13-JUL-20
Tellurium (Te)-Dissolved			91.9		%		80-120	13-JUL-20
Thallium (Tl)-Dissolved			96.1		%		80-120	13-JUL-20
Thorium (Th)-Dissolved			89.0		%		80-120	13-JUL-20
Tin (Sn)-Dissolved			91.0		%		80-120	13-JUL-20
Titanium (Ti)-Dissolved			91.4		%		80-120	13-JUL-20
Tungsten (W)-Dissolved			95.6		%		80-120	13-JUL-20
Uranium (U)-Dissolved			104.6		%		80-120	13-JUL-20
Vanadium (V)-Dissolved			94.7		%		80-120	13-JUL-20
Zinc (Zn)-Dissolved			93.8		%		80-120	13-JUL-20
Zirconium (Zr)-Dissolved			87.9		%		80-120	13-JUL-20
WG3360765-2 LCS								
Aluminum (Al)-Dissolved			94.5		%		80-120	13-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5151383								
WG3360765-2 LCS								
Antimony (Sb)-Dissolved			92.8		%		80-120	13-JUL-20
Arsenic (As)-Dissolved			95.5		%		80-120	13-JUL-20
Barium (Ba)-Dissolved			94.3		%		80-120	13-JUL-20
Beryllium (Be)-Dissolved			91.5		%		80-120	13-JUL-20
Bismuth (Bi)-Dissolved			95.7		%		80-120	13-JUL-20
Boron (B)-Dissolved			90.6		%		80-120	13-JUL-20
Cadmium (Cd)-Dissolved			95.5		%		80-120	13-JUL-20
Calcium (Ca)-Dissolved			92.0		%		80-120	13-JUL-20
Cesium (Cs)-Dissolved			96.4		%		80-120	13-JUL-20
Chromium (Cr)-Dissolved			92.5		%		80-120	13-JUL-20
Cobalt (Co)-Dissolved			90.6		%		80-120	13-JUL-20
Copper (Cu)-Dissolved			90.7		%		80-120	13-JUL-20
Iron (Fe)-Dissolved			91.2		%		80-120	13-JUL-20
Lead (Pb)-Dissolved			99.1		%		80-120	13-JUL-20
Lithium (Li)-Dissolved			88.5		%		80-120	13-JUL-20
Magnesium (Mg)-Dissolved			96.4		%		80-120	13-JUL-20
Manganese (Mn)-Dissolved			95.0		%		80-120	13-JUL-20
Molybdenum (Mo)-Dissolved			93.0		%		80-120	13-JUL-20
Nickel (Ni)-Dissolved			91.4		%		80-120	13-JUL-20
Phosphorus (P)-Dissolved			94.4		%		80-120	13-JUL-20
Potassium (K)-Dissolved			89.7		%		80-120	13-JUL-20
Rubidium (Rb)-Dissolved			99.1		%		80-120	13-JUL-20
Selenium (Se)-Dissolved			93.2		%		80-120	13-JUL-20
Silicon (Si)-Dissolved			93.9		%		60-140	13-JUL-20
Silver (Ag)-Dissolved			95.4		%		80-120	13-JUL-20
Sodium (Na)-Dissolved			92.5		%		80-120	13-JUL-20
Strontium (Sr)-Dissolved			95.5		%		80-120	13-JUL-20
Sulfur (S)-Dissolved			97.6		%		80-120	13-JUL-20
Tellurium (Te)-Dissolved			89.6		%		80-120	13-JUL-20
Thallium (Tl)-Dissolved			96.6		%		80-120	13-JUL-20
Thorium (Th)-Dissolved			87.1		%		80-120	13-JUL-20
Tin (Sn)-Dissolved			89.8		%		80-120	13-JUL-20
Titanium (Ti)-Dissolved			92.8		%		80-120	13-JUL-20
Tungsten (W)-Dissolved			95.1		%		80-120	13-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5151383								
WG3360765-2 LCS								
Uranium (U)-Dissolved			101.5		%		80-120	13-JUL-20
Vanadium (V)-Dissolved			93.7		%		80-120	13-JUL-20
Zinc (Zn)-Dissolved			91.6		%		80-120	13-JUL-20
Zirconium (Zr)-Dissolved			86.5		%		80-120	13-JUL-20
WG3360763-1 MB								
Aluminum (Al)-Dissolved			<0.0050		mg/L		0.005	13-JUL-20
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Boron (B)-Dissolved			<0.010		mg/L		0.01	13-JUL-20
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	13-JUL-20
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	13-JUL-20
Chromium (Cr)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	13-JUL-20
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	13-JUL-20
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	13-JUL-20
Manganese (Mn)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Potassium (K)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Silver (Ag)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Strontium (Sr)-Dissolved			<0.0010		mg/L		0.001	13-JUL-20
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	13-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5151383								
WG3360763-1 MB								
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	13-JUL-20
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	13-JUL-20
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	13-JUL-20
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	13-JUL-20
Zirconium (Zr)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
WG3360765-1 MB								
Aluminum (Al)-Dissolved			<0.0050		mg/L		0.005	13-JUL-20
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Boron (B)-Dissolved			<0.010		mg/L		0.01	13-JUL-20
Cadmium (Cd)-Dissolved			<0.000005C		mg/L		0.000005	13-JUL-20
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	13-JUL-20
Chromium (Cr)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	13-JUL-20
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	13-JUL-20
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	13-JUL-20
Manganese (Mn)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Potassium (K)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5151383								
WG3360765-1 MB								
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Silver (Ag)-Dissolved			<0.000050		mg/L		0.00005	13-JUL-20
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	13-JUL-20
Strontium (Sr)-Dissolved			<0.0010		mg/L		0.001	13-JUL-20
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	13-JUL-20
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	13-JUL-20
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	13-JUL-20
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	13-JUL-20
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	13-JUL-20
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	13-JUL-20
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	13-JUL-20
Zirconium (Zr)-Dissolved			<0.00020		mg/L		0.0002	13-JUL-20
MET-T-CCMS-WT	**Water**							
Batch R5150821								
WG3360210-2 LCS								
Aluminum (Al)-Total			108.5		%		80-120	10-JUL-20
Antimony (Sb)-Total			107.9		%		80-120	10-JUL-20
Arsenic (As)-Total			104.8		%		80-120	10-JUL-20
Barium (Ba)-Total			103.8		%		80-120	10-JUL-20
Beryllium (Be)-Total			104.8		%		80-120	10-JUL-20
Bismuth (Bi)-Total			100.3		%		80-120	10-JUL-20
Boron (B)-Total			101.9		%		80-120	10-JUL-20
Cadmium (Cd)-Total			103.0		%		80-120	10-JUL-20
Calcium (Ca)-Total			103.2		%		80-120	10-JUL-20
Chromium (Cr)-Total			106.0		%		80-120	10-JUL-20
Cesium (Cs)-Total			107.6		%		80-120	10-JUL-20
Cobalt (Co)-Total			105.4		%		80-120	10-JUL-20
Copper (Cu)-Total			104.7		%		80-120	10-JUL-20
Iron (Fe)-Total			108.3		%		80-120	10-JUL-20
Lead (Pb)-Total			103.8		%		80-120	10-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5150821								
WG3360210-2 LCS								
Lithium (Li)-Total			102.2		%		80-120	10-JUL-20
Magnesium (Mg)-Total			111.2		%		80-120	10-JUL-20
Manganese (Mn)-Total			106.8		%		80-120	10-JUL-20
Molybdenum (Mo)-Total			106.5		%		80-120	10-JUL-20
Nickel (Ni)-Total			106.0		%		80-120	10-JUL-20
Phosphorus (P)-Total			107.6		%		70-130	10-JUL-20
Potassium (K)-Total			104.4		%		80-120	10-JUL-20
Rubidium (Rb)-Total			105.1		%		80-120	10-JUL-20
Selenium (Se)-Total			102.9		%		80-120	10-JUL-20
Silicon (Si)-Total			105.1		%		60-140	10-JUL-20
Silver (Ag)-Total			104.5		%		80-120	10-JUL-20
Sodium (Na)-Total			109.2		%		80-120	10-JUL-20
Strontium (Sr)-Total			111.1		%		80-120	10-JUL-20
Sulfur (S)-Total			107.9		%		80-120	10-JUL-20
Thallium (Tl)-Total			102.3		%		80-120	10-JUL-20
Tellurium (Te)-Total			103.2		%		80-120	10-JUL-20
Thorium (Th)-Total			104.0		%		70-130	10-JUL-20
Tin (Sn)-Total			102.0		%		80-120	10-JUL-20
Titanium (Ti)-Total			104.4		%		80-120	10-JUL-20
Tungsten (W)-Total			101.3		%		80-120	10-JUL-20
Uranium (U)-Total			111.0		%		80-120	10-JUL-20
Vanadium (V)-Total			106.9		%		80-120	10-JUL-20
Zinc (Zn)-Total			106.0		%		80-120	10-JUL-20
Zirconium (Zr)-Total			103.6		%		80-120	10-JUL-20
WG3360210-1 MB								
Aluminum (Al)-Total			<0.0050		mg/L		0.005	10-JUL-20
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	10-JUL-20
Arsenic (As)-Total			<0.00010		mg/L		0.0001	10-JUL-20
Barium (Ba)-Total			<0.00010		mg/L		0.0001	10-JUL-20
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	10-JUL-20
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	10-JUL-20
Boron (B)-Total			<0.010		mg/L		0.01	10-JUL-20
Cadmium (Cd)-Total			<0.000005(		mg/L		0.000005	10-JUL-20
Calcium (Ca)-Total			<0.050		mg/L		0.05	10-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5150821								
WG3360210-1 MB								
Chromium (Cr)-Total			<0.00050		mg/L		0.0005	14-JUL-20
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	10-JUL-20
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	10-JUL-20
Copper (Cu)-Total			<0.00050		mg/L		0.0005	10-JUL-20
Iron (Fe)-Total			<0.010		mg/L		0.01	10-JUL-20
Lead (Pb)-Total			<0.000050		mg/L		0.00005	10-JUL-20
Lithium (Li)-Total			<0.0010		mg/L		0.001	10-JUL-20
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	10-JUL-20
Manganese (Mn)-Total			<0.00050		mg/L		0.0005	10-JUL-20
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	10-JUL-20
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	10-JUL-20
Phosphorus (P)-Total			<0.050		mg/L		0.05	10-JUL-20
Potassium (K)-Total			<0.050		mg/L		0.05	10-JUL-20
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	10-JUL-20
Selenium (Se)-Total			<0.000050		mg/L		0.00005	10-JUL-20
Silicon (Si)-Total			<0.10		mg/L		0.1	10-JUL-20
Silver (Ag)-Total			<0.000050		mg/L		0.00005	10-JUL-20
Sodium (Na)-Total			<0.050		mg/L		0.05	10-JUL-20
Strontium (Sr)-Total			<0.0010		mg/L		0.001	10-JUL-20
Sulfur (S)-Total			<0.50		mg/L		0.5	10-JUL-20
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	10-JUL-20
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	10-JUL-20
Thorium (Th)-Total			<0.00010		mg/L		0.0001	10-JUL-20
Tin (Sn)-Total			<0.00010		mg/L		0.0001	10-JUL-20
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	10-JUL-20
Tungsten (W)-Total			<0.00010		mg/L		0.0001	10-JUL-20
Uranium (U)-Total			<0.000010		mg/L		0.00001	10-JUL-20
Vanadium (V)-Total			<0.00050		mg/L		0.0005	10-JUL-20
Zinc (Zn)-Total			<0.0030		mg/L		0.003	10-JUL-20
Zirconium (Zr)-Total			<0.00020		mg/L		0.0002	10-JUL-20
Batch R5153435								
WG3360798-2 LCS								
Aluminum (Al)-Total			99.6		%		80-120	14-JUL-20
Antimony (Sb)-Total			99.9		%		80-120	14-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5153435								
WG3360798-2 LCS								
Arsenic (As)-Total			92.9		%		80-120	14-JUL-20
Barium (Ba)-Total			97.6		%		80-120	14-JUL-20
Beryllium (Be)-Total			99.1		%		80-120	14-JUL-20
Bismuth (Bi)-Total			96.9		%		80-120	14-JUL-20
Boron (B)-Total			98.8		%		80-120	14-JUL-20
Cadmium (Cd)-Total			93.3		%		80-120	14-JUL-20
Calcium (Ca)-Total			101.1		%		80-120	14-JUL-20
Chromium (Cr)-Total			94.2		%		80-120	14-JUL-20
Cesium (Cs)-Total			101.9		%		80-120	14-JUL-20
Cobalt (Co)-Total			93.9		%		80-120	14-JUL-20
Copper (Cu)-Total			92.9		%		80-120	14-JUL-20
Iron (Fe)-Total			95.0		%		80-120	14-JUL-20
Lead (Pb)-Total			98.6		%		80-120	14-JUL-20
Lithium (Li)-Total			100.5		%		80-120	14-JUL-20
Magnesium (Mg)-Total			100.1		%		80-120	14-JUL-20
Manganese (Mn)-Total			94.9		%		80-120	14-JUL-20
Molybdenum (Mo)-Total			99.7		%		80-120	14-JUL-20
Nickel (Ni)-Total			93.1		%		80-120	14-JUL-20
Phosphorus (P)-Total			99.5		%		70-130	14-JUL-20
Potassium (K)-Total			98.3		%		80-120	14-JUL-20
Rubidium (Rb)-Total			93.4		%		80-120	14-JUL-20
Selenium (Se)-Total			92.2		%		80-120	14-JUL-20
Silicon (Si)-Total			96.9		%		60-140	14-JUL-20
Silver (Ag)-Total			97.1		%		80-120	14-JUL-20
Sodium (Na)-Total			97.6		%		80-120	14-JUL-20
Strontium (Sr)-Total			104.2		%		80-120	14-JUL-20
Sulfur (S)-Total			97.0		%		80-120	14-JUL-20
Thallium (Tl)-Total			96.9		%		80-120	14-JUL-20
Tellurium (Te)-Total			92.6		%		80-120	14-JUL-20
Thorium (Th)-Total			87.5		%		70-130	14-JUL-20
Tin (Sn)-Total			95.2		%		80-120	14-JUL-20
Titanium (Ti)-Total			94.0		%		80-120	14-JUL-20
Tungsten (W)-Total			101.9		%		80-120	14-JUL-20
Uranium (U)-Total			100.2		%		80-120	14-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5153435								
WG3360798-2 LCS								
Vanadium (V)-Total			96.0		%		80-120	14-JUL-20
Zinc (Zn)-Total			90.6		%		80-120	14-JUL-20
Zirconium (Zr)-Total			96.2		%		80-120	14-JUL-20
WG3360798-1 MB								
Aluminum (Al)-Total			<0.0050		mg/L		0.005	14-JUL-20
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	14-JUL-20
Arsenic (As)-Total			<0.00010		mg/L		0.0001	14-JUL-20
Barium (Ba)-Total			<0.00010		mg/L		0.0001	14-JUL-20
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	14-JUL-20
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	14-JUL-20
Boron (B)-Total			<0.010		mg/L		0.01	14-JUL-20
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	14-JUL-20
Calcium (Ca)-Total			<0.050		mg/L		0.05	14-JUL-20
Chromium (Cr)-Total			<0.00050		mg/L		0.0005	14-JUL-20
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	14-JUL-20
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	14-JUL-20
Copper (Cu)-Total			<0.00050		mg/L		0.0005	14-JUL-20
Iron (Fe)-Total			<0.010		mg/L		0.01	14-JUL-20
Lead (Pb)-Total			<0.000050		mg/L		0.00005	14-JUL-20
Lithium (Li)-Total			<0.0010		mg/L		0.001	14-JUL-20
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	14-JUL-20
Manganese (Mn)-Total			<0.00050		mg/L		0.0005	14-JUL-20
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	14-JUL-20
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	14-JUL-20
Phosphorus (P)-Total			<0.050		mg/L		0.05	14-JUL-20
Potassium (K)-Total			<0.050		mg/L		0.05	14-JUL-20
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	14-JUL-20
Selenium (Se)-Total			<0.000050		mg/L		0.00005	14-JUL-20
Silicon (Si)-Total			<0.10		mg/L		0.1	14-JUL-20
Silver (Ag)-Total			<0.000050		mg/L		0.00005	14-JUL-20
Sodium (Na)-Total			<0.050		mg/L		0.05	14-JUL-20
Strontium (Sr)-Total			<0.0010		mg/L		0.001	14-JUL-20
Sulfur (S)-Total			<0.50		mg/L		0.5	14-JUL-20
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	14-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5153435								
WG3360798-1 MB								
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	14-JUL-20
Thorium (Th)-Total			<0.00010		mg/L		0.0001	14-JUL-20
Tin (Sn)-Total			<0.00010		mg/L		0.0001	14-JUL-20
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	14-JUL-20
Tungsten (W)-Total			<0.00010		mg/L		0.0001	14-JUL-20
Uranium (U)-Total			<0.000010		mg/L		0.00001	14-JUL-20
Vanadium (V)-Total			<0.00050		mg/L		0.0005	14-JUL-20
Zinc (Zn)-Total			<0.0030		mg/L		0.003	14-JUL-20
Zirconium (Zr)-Total			<0.00020		mg/L		0.0002	14-JUL-20
NH3-F-WT	**Water**							
Batch R5152437								
WG3360237-3 DUP		**L2471801-3**						
Ammonia, Total (as N)		0.512	0.491		mg/L	4.2	20	13-JUL-20
WG3360237-2 LCS								
Ammonia, Total (as N)			101.2		%		85-115	13-JUL-20
WG3360237-1 MB								
Ammonia, Total (as N)			<0.010		mg/L		0.01	13-JUL-20
WG3360237-4 MS		**L2471801-3**						
Ammonia, Total (as N)			N/A	MS-B	%		-	13-JUL-20
Batch R5153957								
WG3360474-3 DUP		**L2471801-16**						
Ammonia, Total (as N)		0.77	0.76		mg/L	1.5	20	15-JUL-20
WG3360474-2 LCS								
Ammonia, Total (as N)			106.0		%		85-115	14-JUL-20
WG3360474-1 MB								
Ammonia, Total (as N)			<0.010		mg/L		0.01	14-JUL-20
WG3360474-4 MS		**L2471801-16**						
Ammonia, Total (as N)			N/A	MS-B	%		-	15-JUL-20
P-T-COL-WT	**Water**							
Batch R5153706								
WG3360242-3 DUP		**L2471801-14**						
Phosphorus, Total		0.0048	0.0047		mg/L	3.0	20	15-JUL-20
WG3360453-3 DUP		**L2471801-19**						
Phosphorus, Total		0.0073	0.0066		mg/L	9.8	20	15-JUL-20
WG3360242-2 LCS								
Phosphorus, Total			94.5		%		80-120	15-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
P-T-COL-WT	**Water**							
Batch R5153706								
WG3360453-2 LCS								
Phosphorus, Total			93.6		%		80-120	15-JUL-20
WG3360242-1 MB								
Phosphorus, Total			<0.0030		mg/L		0.003	15-JUL-20
WG3360453-1 MB								
Phosphorus, Total			<0.0030		mg/L		0.003	15-JUL-20
WG3360242-4 MS		**L2471801-14**						
Phosphorus, Total			93.7		%		70-130	15-JUL-20
WG3360453-4 MS		**L2471801-19**						
Phosphorus, Total			96.2		%		70-130	15-JUL-20
PH-TITR-TB	**Water**							
Batch R5147398								
WG3359143-3 DUP		**L2471801-14**						
pH		7.55	7.64	J	pH	0.09	0.2	09-JUL-20
WG3359143-2 LCS								
pH			6.96		pH		6.9-7.1	09-JUL-20
Batch R5148162								
WG3359826-3 DUP		**L2471801-16**						
pH		7.60	7.61	J	pH	0.01	0.2	10-JUL-20
WG3359222-2 LCS								
pH			7.01		pH		6.9-7.1	10-JUL-20
WG3359826-2 LCS								
pH			6.99		pH		6.9-7.1	10-JUL-20
WG3359833-2 LCS								
pH			6.98		pH		6.9-7.1	10-JUL-20
PO4-DO-COL-TB	**Water**							
Batch R5147436								
WG3359155-3 DUP		**L2471801-15**						
Orthophosphate-Dissolved (as P)		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	09-JUL-20
WG3359155-2 LCS								
Orthophosphate-Dissolved (as P)			100.2		%		80-120	09-JUL-20
WG3359155-1 MB								
Orthophosphate-Dissolved (as P)			<0.0030		mg/L		0.003	09-JUL-20
Batch R5148676								
WG3359814-3 DUP		**L2471801-16**						
Orthophosphate-Dissolved (as P)		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	10-JUL-20
WG3359814-2 LCS								
Orthophosphate-Dissolved (as P)			100.7		%		80-120	10-JUL-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PO4-DO-COL-TB	**Water**							
Batch R5148676								
WG3359814-1 MB								
Orthophosphate-Dissolved (as P)			<0.0030		mg/L		0.003	10-JUL-20
WG3359814-4 MS		**L2471801-17**						
Orthophosphate-Dissolved (as P)			100.1		%		70-130	10-JUL-20
TDS-TB	**Water**							
Batch R5147582								
WG3359091-2 LCS								
Total Dissolved Solids			99.4		%		85-115	09-JUL-20
WG3359091-1 MB								
Total Dissolved Solids			<10		mg/L		10	09-JUL-20
Batch R5148165								
WG3358989-2 LCS								
Total Dissolved Solids			99.4		%		85-115	10-JUL-20
WG3358989-1 MB								
Total Dissolved Solids			<10		mg/L		10	10-JUL-20
Batch R5148278								
WG3360136-2 LCS								
Total Dissolved Solids			99.4		%		85-115	10-JUL-20
WG3360136-1 MB								
Total Dissolved Solids			<10		mg/L		10	10-JUL-20
TOC-WT	**Water**							
Batch R5154539								
WG3360203-2 LCS								
Total Organic Carbon			103.0		%		80-120	15-JUL-20
WG3360203-1 MB								
Total Organic Carbon			<0.50		mg/L		0.5	15-JUL-20
Batch R5157084								
WG3360512-3 DUP		**L2471801-21**						
Total Organic Carbon		18.1	15.4		mg/L	16	20	16-JUL-20
WG3360512-2 LCS								
Total Organic Carbon			102.1		%		80-120	16-JUL-20
WG3360512-1 MB								
Total Organic Carbon			<0.50		mg/L		0.5	16-JUL-20
WG3360512-4 MS		**L2471801-21**						
Total Organic Carbon			N/A	MS-B	%		-	16-JUL-20
TSS-TB	**Water**							

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TSS-TB	**Water**							
Batch R5147506								
WG3359089-2 LCS								
Total Suspended Solids			87.8		%		85-115	09-JUL-20
WG3359089-1 MB								
Total Suspended Solids			<3.0		mg/L		3	09-JUL-20
Batch R5148160								
WG3358992-5 LCS								
Total Suspended Solids			88.5		%		85-115	10-JUL-20
WG3358992-4 MB								
Total Suspended Solids			<3.0		mg/L		3	10-JUL-20
Batch R5148273								
WG3360128-2 LCS								
Total Suspended Solids			89.7		%		85-115	10-JUL-20
WG3360128-1 MB								
Total Suspended Solids			<3.0		mg/L		3	10-JUL-20

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
pH							
	1	04-JUL-20 10:28	10-JUL-20 09:59	4	6	days	EHTR
	2	04-JUL-20 11:22	09-JUL-20 15:00	4	5	days	EHTR
	3	04-JUL-20 11:52	09-JUL-20 15:00	4	5	days	EHTR
	4	04-JUL-20 12:20	09-JUL-20 15:00	4	5	days	EHTR
	5	04-JUL-20 13:05	09-JUL-20 15:00	4	5	days	EHTR
	6	04-JUL-20 13:30	09-JUL-20 15:00	4	5	days	EHTR
	7	04-JUL-20 15:20	09-JUL-20 15:00	4	5	days	EHTR
	8	04-JUL-20 17:06	09-JUL-20 15:00	4	5	days	EHTR
	9	04-JUL-20 17:49	09-JUL-20 15:00	4	5	days	EHTR
	10	04-JUL-20 18:15	09-JUL-20 15:00	4	5	days	EHTR
	16	05-JUL-20 11:50	10-JUL-20 09:59	4	5	days	EHTL
	17	05-JUL-20 12:40	10-JUL-20 09:59	4	5	days	EHTL
	18	05-JUL-20 13:19	10-JUL-20 09:59	4	5	days	EHTL
	19	05-JUL-20 14:23	10-JUL-20 09:59	4	5	days	EHTL
	20	05-JUL-20 15:11	10-JUL-20 09:59	4	5	days	EHTL
	21	05-JUL-20 15:51	10-JUL-20 09:59	4	5	days	EHTL
	22	05-JUL-20 16:27	10-JUL-20 09:59	4	5	days	EHTL
	23	05-JUL-20 16:58	10-JUL-20 09:59	4	5	days	EHTL
	26	04-JUL-20 00:01	10-JUL-20 09:59	4	6	days	EHTR
	27	05-JUL-20 00:01	10-JUL-20 09:59	4	5	days	EHTR
	29	04-JUL-20 00:01	09-JUL-20 12:45	4	6	days	EHTR

Legend & Qualifier Definitions:

EHTR-FM:	Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR:	Exceeded ALS recommended hold time prior to sample receipt.
EHTL:	Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT:	Exceeded ALS recommended hold time prior to analysis.
Rec. HT:	ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2471801 were received on 09-JUL-20 09:42.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2471801-COFC

COC Number: 17 - JD Page 1 of 3

Report To	Contact and company name below will appear on the final report
Company:	Gold Canyon Resources Inc.
Contact:	David Mchaina
Phone:	519-241-9655
	Company address below will appear on the final report
Street:	c/o Suite 1805 - 925 West Georgia
City/Province:	Vancouver, BC
Postal Code:	V6C 3L2
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution

Select Report Format: ☒ PDF ☒ EXCEL ☒ EDD (DIGITAL)
Quality Control (QC) Report with Report ☒ YES ☐ NO
☒ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX

Email 1	dmchaina@firstmininggold.com
Email 2	shaun@firstmininggold.com
Email 3	shila@firstmininggold.com

Invoice Distribution

Select Invoice Distribution: ☒ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	accountspayable@firstmininggold.com
Email 2	dmchaina@firstmininggold.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	20864 / Q64140
Job #:	Springpole Surface Water
PO / AFE:	
LSD:	First Mining Gold Project

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only): L2471801

ALS Contact: | Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

NUMBER OF CONTAINERS

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Alkalinity, Ammonia, Conductivity, CR6	Dissolved Metals, Dissolved Mercury	DOC, Fluoride, Hardness, pH, PO4	TDS, TOC, Total Metals, Total Mercury	Total Phosphorus, TSS	Methyl Mercury	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	SP-SW-13	04 Jul 20	10:28	Surface Water	x	x	x	x	x			
	SP-SW-14	04 Jul 20	11:22	Surface Water	x	x	x	x	x			
	SP-SW-5	04 Jul 20	11:52	Surface Water	x	x	x	x	x			
	SP-SW-11	4 Jul 20	12:20	Surface Water	x	x	x	x	x			
	SP-SW-12	04 Jul 20	13:05	Surface Water	x	x	x	x	x	X		
	SP-SW-10	04 Jul 20	13:30	Surface Water	x	x	x	x	x			
	SP-SW-8	04 Jul 20	15:00	Surface Water	x	x	x	x	x	X		
	SP-SW-02	04 Jul 20	17:06	Surface Water	x	x	x	x	x			
	SP-SW-7	04 Jul 20	17:49	Surface Water	x	x	x	x	x	X		
	SP-SW-16	04 Jul 20	18:15	Surface Water	x	x	x	x	x			
	SP-SW-15	05 Jul 20	8:30	Surface Water	x	x	x	x	x			
	SP-SW-2	05 Jul 20	8:49	Surface Water	x	x	x	x	x			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

Ice Packs ☐ | Ice Cubes ☒ | Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
7.5							

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
AL	July 9 20	9:42

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2471801-COFC

COC Number: 17 - JD

Report To	Contact and company name below will appear on the final report
Company:	Gold Canyon Resources Inc.
Contact:	David Mchaina
Phone:	519-241-9655
	Company address below will appear on the final report
Street:	c/o Suite 1805 - 925 West Georgia
City/Province:	Vancouver, BC
Postal Code:	V6C 3L2
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution

Select Report Format: ☒ PDF ☒ EXCEL ☒ EDD (DIGITAL)

Quality Control (QC) Report with Report ☒ YES ☐ NO

☒ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX

Email 1: dmchaina@firstmininggold.com

Email 2: shaun@firstmininggold.com

Email 3: shila@firstmininggold.com

Invoice Distribution

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accountspayable@firstmininggold.com

Email 2: dmchaina@firstmininggold.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	20864 / Q64140	AFE/Cost Center:	PO#:
Job #:	Springpole Surface Water	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:	First Mining Gold Project	Location:	
ALS Lab Work Order # (lab use only):	L2471801	ALS Contact:	Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

NUMBER OF CONTAINERS: Alkalinity, Ammonia, Conductivity, CR6; Dissolved Metals, Dissolved Mercury; DOC, Fluoride, Hardness, pH, PO4; TDS, TOC, Total Metals, Total Mercury; Total Phosphorus, TSS; Methyl Mercury

SAMPLES ON HOLD

SUSPECTED HAZARD (see Special Instructions)

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Alkalinity, Ammonia, Conductivity, CR6	Dissolved Metals, Dissolved Mercury	DOC, Fluoride, Hardness, pH, PO4	TDS, TOC, Total Metals, Total Mercury	Total Phosphorus, TSS	Methyl Mercury
	SP-SW-25	05 Jul 20	9:23	Surface Water	x	x	x	x	x	
	SP-SW-6	05 Jul 20	9:55	Surface Water	x	x	x	x	x	X
	SP-SW-1	05 Jul 20	10:23	Surface Water	x	x	x	x	x	
	SP-SW-4	05 Jul 20	11:50	Surface Water	x	x	x	x	x	
	SP-SW-18	05 Jul 20	12:40	Surface Water	x	x	x	x	x	
	SP-SW-21	05 Jul 20	13:19	Surface Water	x	x	x	x	x	X
	SP-SW-20	05 Jul 20	14:23	Surface Water	x	x	x	x	x	
	SP-SW-19	05 Jul 20	15:11	Surface Water	x	x	x	x	x	X
	SP-SW-8	05 Jul 20	15:51	Surface Water	x	x	x	x	x	X
	SP-SW-23	05 Jul 20	16:27	Surface Water	x	x	x	x	x	
	SP-SW-3	05 Jul 20	16:58	Surface Water	x	x	x	x	x	
	SP-SW-9	06 Jul 20	09:07	Surface Water	x	x	x	x	x	

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

Ice Packs ☐ | Ice Cubes ☒ | Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
7.5							

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by: AL	Date: July 9/20	Time: 9:42	Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2471801-COFC

COC Number: 17 - JD

Report To	Contact and company name below will appear on the final report
Company:	Gold Canyon Resources Inc.
Contact:	David Mchaina
Phone:	519-241-9655
	Company address below will appear on the final report
Street:	c/o Suite 1805 - 925 West Georgia
City/Province:	Vancouver, BC
Postal Code:	V6C 3L2
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution	
Select Report Format:	☒ PDF ☒ EXCEL ☒ EDD (DIGITAL)
Quality Control (QC) Report with Report	☒ YES ☐ NO
☒ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☒ EMAIL ☐ MAIL ☐ FAX
Email 1	dmchaina@firstmininggold.com
Email 2	shaun@firstmininggold.com
Email 3	shila@firstmininggold.com
Invoice Distribution	
Select Invoice Distribution:	☒ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accountspayable@firstmininggold.com
Email 2	dmchaina@firstmininggold.com

Project Information	
ALS Account # / Quote #:	20864 / Q64140
Job #:	Springpole Surface Water
PO / AFE:	
LSD:	First Mining Gold Project

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only): L2471801

ALS Contact: **Sampler:**

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

NUMBER OF CONTAINERS

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	Alkalinity, Ammonia, Conductivity, CR6,	Dissolved Metals, Dissolved Mercury	DOC, Fluoride, Hardness, pH, PO4	TDS, TOC, Total Metals, Total Mercury	Total Phosphorus, TSS	Methyl Mercury	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	SP-SW-26	06 Jul 20	11:30	Surface Water	x	x	x	x	x			
	SP-SW-Dup-1	04 Jul 20		Surface Water	x	x	x	x	x			
	SP-SW-Dup-2	05 Jul 20		Surface Water	x	x	x	x	x	x		
	SP-SW-Dup-3	06 Jul 20		Surface Water	x	x	x	x	x			
				Surface Water	x	x	x	x	x			
				Surface Water	x	x	x	x	x			
				Surface Water	x	x	x	x	x			
				Surface Water	x	x	x	x	x			
				Surface Water	x	x	x	x	x			
				Surface Water	x	x	x	x	x			
				Surface Water	x	x	x	x	x			
				Surface Water	x	x	x	x	x			

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐

Ice Packs ☐ Ice Cubes ☑ | Custody seal intact Yes ☐ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
7.5							

SHIPMENT RELEASE (client use)		
Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by: AL	Date: July 9 20	Time: 9:42

FINAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Gold Canyon Resources Inc.
ATTN: David Mchaina
c/o Suite 1805 - 925 West Georgia Street
Vancouver BC V6C 3L2

Date Received: 16-SEP-20
Report Date: 09-OCT-20 15:22 (MT)
Version: FINAL

Client Phone: 519-241-9655

Certificate of Analysis

Lab Work Order #: L2503878

Project P.O. #: NOT SUBMITTED
Job Reference: SPRINGPOLE SURFACE WATER
C of C Numbers:
Legal Site Desc: First Mining Gold Project

Comments:

Christine Paradis
Project Manager

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-1 SP-SW-18 Sampled By: Client on 13-SEP-20 @ 10:22 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.1		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	30.1		0.50	mg/L		18-SEP-20	
pH	7.58		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228927
Total Dissolved Solids	40		10	mg/L		17-SEP-20	R5229321
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	32.4		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0147		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	<0.020		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0082		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	7.0	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	10.7		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0124		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00111		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00640		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.57		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00016		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00068		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.036		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.46		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00439		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	0.000058		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.548		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00165		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000072		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.13		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-1 SP-SW-18 Sampled By: Client on 13-SEP-20 @ 10:22 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.681		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0210		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00060		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000017		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0019		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00101		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00562		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.64		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00051		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.012		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.47		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00037		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	0.000066		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.535		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00155		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-1 SP-SW-18 Sampled By: Client on 13-SEP-20 @ 10:22 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000092		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.07		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.661		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0206		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000019		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-2 SP-SW-24 Sampled By: Client on 13-SEP-20 @ 10:43 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.2		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	29.6		0.50	mg/L		18-SEP-20	
pH	7.57		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228927
Total Dissolved Solids	36		10	mg/L		17-SEP-20	R5229321
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	33.6		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0258		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.023		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0097		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	6.7	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	12.4		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0113		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00106		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00640		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-2 SP-SW-24 Sampled By: Client on 13-SEP-20 @ 10:43 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.46		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00017		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00062		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.032		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.41		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00399		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	0.000063		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.546		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00164		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000096		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.08		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.660		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0202		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00068		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000017		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0018		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-2 SP-SW-24 Sampled By: Client on 13-SEP-20 @ 10:43 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00098		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00557		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.44		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00053		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.011		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.45		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00049		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	0.000061		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.548		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00167		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000087		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.09		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.664		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0204		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000019		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
Methylmercury (as MeHg)-Total	<0.000020		0.000020	ug/L	06-OCT-20	07-OCT-20	R5251852

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-2 SP-SW-24 Sampled By: Client on 13-SEP-20 @ 10:43 Matrix: Surface Water							
Radiological Parameters							
Ra-226	<0.010		0.010	Bq/L		26-SEP-20	R5245177
L2503878-3 SP-SW-20 Sampled By: Client on 13-SEP-20 @ 11:52 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.2		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	29.3		0.50	mg/L		18-SEP-20	
pH	7.56		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228927
Total Dissolved Solids	42		10	mg/L		17-SEP-20	R5229321
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	32.2		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.168		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0083		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	5.1	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	12.8		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0083		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00102		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00587		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.59		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00024		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00068		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.024		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.42		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00373		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	0.000071		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-3 SP-SW-20 Sampled By: Client on 13-SEP-20 @ 11:52 Matrix: Surface Water							
Total Metals							
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.538		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00158		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000091		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	0.97		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.633		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0202		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000017		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0023		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00094		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00572		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.34		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00049		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.46		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00044		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-3 SP-SW-20 Sampled By: Client on 13-SEP-20 @ 11:52 Matrix: Surface Water							
Dissolved Metals							
Molybdenum (Mo)-Dissolved	0.000052		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.541		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00160		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000099		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.964		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.662		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0195		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000014		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-4 SP-SW-27 Sampled By: Client on 13-SEP-20 @ 12:23 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.4		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	29.6		0.50	mg/L		21-SEP-20	
pH	7.60		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228927
Total Dissolved Solids	41		10	mg/L		17-SEP-20	R5229321
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	33.6		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0729		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	<0.020		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0089		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	5.6	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	10.8		0.50	mg/L		24-SEP-20	R5237119

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-4 SP-SW-27 Sampled By: Client on 13-SEP-20 @ 12:23 Matrix: Surface Water							
Organic / Inorganic Carbon							
Total Metals							
Aluminum (Al)-Total	0.0083		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00115		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00572		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.44		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00022		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00058		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.026		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.49		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00387		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.541		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00162		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000073		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	0.99		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.644		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0202		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000015		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-4 SP-SW-27 Sampled By: Client on 13-SEP-20 @ 12:23 Matrix: Surface Water							
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0021		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00102		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00557		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.41		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00088	DTC	0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00049		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.014		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.48		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00052		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	0.000051		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.538		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00153		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000067		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.960		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.666		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0196		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000013		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-4 SP-SW-27 Sampled By: Client on 13-SEP-20 @ 12:23 Matrix: Surface Water							
Dissolved Metals							
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-5 SP-SW-21 Sampled By: Client on 13-SEP-20 @ 13:24 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	109		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	54.9		0.50	mg/L		18-SEP-20	
pH	7.82		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228927
Total Dissolved Solids	80		13	mg/L		17-SEP-20	R5229321
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	60.9		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0141		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0150		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	5.9	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	13.0		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0057		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00057		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00765		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	17.2		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00012		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.199		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	3.19		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.0547		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-5 SP-SW-21 Sampled By: Client on 13-SEP-20 @ 13:24 Matrix: Surface Water							
Total Metals							
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.402		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00119		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000056		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	2.07		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.816		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0317		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00048		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00678		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	16.8		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.079		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	3.17		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-5 SP-SW-21 Sampled By: Client on 13-SEP-20 @ 13:24 Matrix: Surface Water							
Dissolved Metals							
Manganese (Mn)-Dissolved	0.00070		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.387		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00121		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000053		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	2.04		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.831		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0300		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000011		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
Methylmercury (as MeHg)-Total	0.000022		0.000020	ug/L	06-OCT-20	07-OCT-20	R5251852
Radiological Parameters							
Ra-226	<0.010		0.010	Bq/L		26-SEP-20	R5245177
L2503878-6 SP-SW-19 Sampled By: Client on 13-SEP-20 @ 13:37 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.2		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	29.2		0.50	mg/L		18-SEP-20	
pH	7.58		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228927
Total Dissolved Solids	41		10	mg/L		17-SEP-20	R5229321
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	33.7		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0174		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-6 SP-SW-19 Sampled By: Client on 13-SEP-20 @ 13:37 Matrix: Surface Water							
Anions and Nutrients							
Phosphorus (P)-Total	0.0074		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	5.2	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	10.9		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0072		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00110		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00582		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.41		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00024		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00059		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.024		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.46		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00373		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	0.000057		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.544		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00154		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000074		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.04		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.633		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0198		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00042		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-6 SP-SW-19 Sampled By: Client on 13-SEP-20 @ 13:37 Matrix: Surface Water							
Total Metals							
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000016		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0016		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00101		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00558		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.30		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00048		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.44		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00041		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	0.000053		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.532		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00160		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000084		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.996		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.660		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0196		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-6 SP-SW-19 Sampled By: Client on 13-SEP-20 @ 13:37 Matrix: Surface Water							
Dissolved Metals							
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
Methylmercury (as MeHg)-Total	<0.000020		0.000020	ug/L	06-OCT-20	07-OCT-20	R5251852
Radiological Parameters							
Ra-226	<0.010		0.010	Bq/L		26-SEP-20	R5245177
L2503878-7 SP-SW-23 Sampled By: Client on 13-SEP-20 @ 14:06 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.3		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	29.1		0.50	mg/L		18-SEP-20	
pH	7.57		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228927
Total Dissolved Solids	41		10	mg/L		17-SEP-20	R5229321
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	31.5		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0074		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.023		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0083		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	8.4	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	10.8		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0090		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00108		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00568		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.61		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-7 SP-SW-23 Sampled By: Client on 13-SEP-20 @ 14:06 Matrix: Surface Water							
Total Metals							
Chromium (Cr)-Total	0.00037		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00063		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.026		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.47		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00411		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	0.000067		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.544		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00166		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000096		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.06		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.642		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0201		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000014		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0021		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00100		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00555		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-7 SP-SW-23 Sampled By: Client on 13-SEP-20 @ 14:06 Matrix: Surface Water							
Dissolved Metals							
Calcium (Ca)-Dissolved	9.24		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00012		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00049		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.015		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.46		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00040		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.542		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00155		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000101		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.16		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.658		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0195		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000015		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-8 SP-SW-3 Sampled By: Client on 13-SEP-20 @ 14:53 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.3		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	29.4		0.50	mg/L		18-SEP-20	
pH	7.59		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		18-SEP-20	R5230807

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-8 SP-SW-3 Sampled By: Client on 13-SEP-20 @ 14:53 Matrix: Surface Water							
Physical Tests							
Total Dissolved Solids	50		13	mg/L		18-SEP-20	R5230845
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	32.5		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0141		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0143		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	6.9	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	11.0		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0093		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00109		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00547		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.39		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00014		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00060		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.035		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.42		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00439		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	0.000060		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.532		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00160		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000093		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.06		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.634		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0199		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-8 SP-SW-3 Sampled By: Client on 13-SEP-20 @ 14:53 Matrix: Surface Water							
Total Metals							
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00031		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000015		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0019		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00098		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00563		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.36		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00047		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.013		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.47		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00043		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	0.000057		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.536		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00159		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000071		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.03		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.659		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-8 SP-SW-3 Sampled By: Client on 13-SEP-20 @ 14:53 Matrix: Surface Water							
Dissolved Metals							
Strontium (Sr)-Dissolved	0.0201		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-9 SP-SW-19 Sampled By: Client on 13-SEP-20 @ 16:27 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	76.2		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	39.8		0.50	mg/L		18-SEP-20	
pH	7.71		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	3.4		3.0	mg/L		18-SEP-20	R5230807
Total Dissolved Solids	66		13	mg/L		18-SEP-20	R5230845
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	42.6		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0207		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	<0.020		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0143		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	14.3	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	20.3		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0175		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00057		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00259		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-9 SP-SW-19 Sampled By: Client on 13-SEP-20 @ 16:27 Matrix: Surface Water							
Total Metals							
Calcium (Ca)-Total	14.1		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.104		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	0.751		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.0487		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.275		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00074		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000072		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	0.26		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.448		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0142		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0177		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00057		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00230		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-9 SP-SW-19 Sampled By: Client on 13-SEP-20 @ 16:27 Matrix: Surface Water							
Dissolved Metals							
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	14.7		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.026		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	0.760		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00232		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.270		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00072		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.248		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.468		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0146		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-10 FILED BLANK Sampled By: Client on 13-SEP-20 @ 16:27 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	1.1		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	<0.50		0.50	mg/L		18-SEP-20	

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-10 FILED BLANK Sampled By: Client on 13-SEP-20 @ 16:27 Matrix: Surface Water							
Physical Tests							
pH	5.40		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		18-SEP-20	R5230807
Total Dissolved Solids	<10		10	mg/L		18-SEP-20	R5230845
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	<2.0		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0913		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	<0.020		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	<0.0030		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	0.82		0.50	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	1.88		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	<0.0050		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	<0.10		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-10 FILED BLANK Sampled By: Client on 13-SEP-20 @ 16:27 Matrix: Surface Water							
Total Metals							
Strontium (Sr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	0.00012	RRV	0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	<0.0050		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-10 FILED BLANK Sampled By: Client on 13-SEP-20 @ 16:27 Matrix: Surface Water							
Dissolved Metals							
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	0.00011	RRV	0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-11 SP-SW-26 Sampled By: Client on 13-SEP-20 @ 17:43 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	102		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	53.1		0.50	mg/L		21-SEP-20	
pH	7.59		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	8.0		3.0	mg/L		18-SEP-20	R5230807
Total Dissolved Solids	88		13	mg/L		18-SEP-20	R5230845
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	59.5		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.119		0.0050	mg/L	24-SEP-20	24-SEP-20	R5236079
Fluoride (F)	<0.020		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0164		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	<5.0	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	22.9		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0178		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00045		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00715		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-11 SP-SW-26 Sampled By: Client on 13-SEP-20 @ 17:43 Matrix: Surface Water							
Total Metals							
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	20.1		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00017		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00830		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.075		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.21		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.0177		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.166		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00037		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000092		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.80		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.573		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0253		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00035		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000014		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0110		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00037		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00678		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-11 SP-SW-26 Sampled By: Client on 13-SEP-20 @ 17:43 Matrix: Surface Water							
Dissolved Metals							
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	19.2		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00038		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.043		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.25		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00733		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.422	DTC	0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00080	DTC	0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000090		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.83		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.570		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0237		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	0.00022		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-12 SP-SW-13 Sampled By: Client on 11-SEP-20 @ 11:56 Matrix: Surface Water							
Physical Tests							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-12 SP-SW-13 Sampled By: Client on 11-SEP-20 @ 11:56 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	51.3		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	25.3		0.50	mg/L		18-SEP-20	
pH	7.47		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	47		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	27.5		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	<0.0050		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	18-SEP-20	R5230812
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	<0.0030		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				11-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	9.4	DLM	5.0	mg/L	11-SEP-20	25-SEP-20	R5235093
Total Organic Carbon	13.0		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0282		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00040		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00551		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	7.89		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00015		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00051		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.036		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.18		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00241		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.744		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00181		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000078		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.26		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-12 SP-SW-13 Sampled By: Client on 11-SEP-20 @ 11:56 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.721		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0142		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000019		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0225		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00033		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00548		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	8.13		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00015		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00042		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.022		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.21		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00037		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.748		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00175		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-12 SP-SW-13 Sampled By: Client on 11-SEP-20 @ 11:56 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000077		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.22		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.737		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0146		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000017		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-13 SP-SW-14 Sampled By: Client on 11-SEP-20 @ 12:29 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	52.9		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	25.2		0.50	mg/L		18-SEP-20	
pH	7.49		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	40		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	27.2		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.159		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.021		0.020	mg/L	17-SEP-20	18-SEP-20	R5230812
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0048		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				11-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	11.0	DLM	5.0	mg/L	11-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	11.4		0.50	mg/L		24-SEP-20	R5237119
Total Metals							
Aluminum (Al)-Total	0.0275		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00035		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00592		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-13 SP-SW-14 Sampled By: Client on 11-SEP-20 @ 12:29 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	8.46		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00017		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00058		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.043		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.03		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00306		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.752		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00159		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000058		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.22		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.706		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0148		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00035		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000015		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0201		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-13 SP-SW-14 Sampled By: Client on 11-SEP-20 @ 12:29 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00030		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00597		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	8.34		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00042		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.026		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.07		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00107		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.760		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00164		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000065		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.20		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.694		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0149		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000013		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-14 SP-SW-11							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-14 SP-SW-11 Sampled By: Client on 11-SEP-20 @ 13:11 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	53.3		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	25.1		0.50	mg/L		18-SEP-20	
pH	7.50		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	46		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	27.3		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	<0.0050		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	18-SEP-20	R5230812
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	<0.0030		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				11-SEP-20	18-SEP-20	R5230740
Dissolved Organic Carbon	6.0	DLM	5.0	mg/L	11-SEP-20	23-SEP-20	R5235093
Total Organic Carbon	8.2	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0177		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00031		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00588		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	8.29		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00015		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00057		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.018		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.04		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00169		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.773		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00168		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000095		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.12		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-14 SP-SW-11 Sampled By: Client on 11-SEP-20 @ 13:11 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.678		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0144		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000013		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0129		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00029		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00573		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	8.32		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00042		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.06		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00026		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.768		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00168		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-14 SP-SW-11 Sampled By: Client on 11-SEP-20 @ 13:11 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000053		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.16		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.686		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0148		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000011		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-15 SP-SW-5 Sampled By: Client on 11-SEP-20 @ 13:23 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	53.2		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	24.9		0.50	mg/L		18-SEP-20	
pH	7.50		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	45		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	26.9		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0129		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	18-SEP-20	R5230812
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0038		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				11-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	11.3	DLM	5.0	mg/L	11-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	10.0	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0181		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00033		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00608		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-15 SP-SW-5 Sampled By: Client on 11-SEP-20 @ 13:23 Matrix: Surface Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	8.44		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00014		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00053		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.018		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.03		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00171		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.762		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00174		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000062		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.14		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.689		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0147		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000012		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0129		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-15 SP-SW-5 Sampled By: Client on 11-SEP-20 @ 13:23 Matrix: Surface Water							
Dissolved Metals							
Arsenic (As)-Dissolved	0.00028		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00563		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	8.26		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00012		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00044		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.05		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00025		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.776		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00167		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000074		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.12		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.670		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0146		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-16 SP-SW-12							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-16 SP-SW-12 Sampled By: Client on 11-SEP-20 @ 14:09 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	52.2		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	25.2		0.50	mg/L		18-SEP-20	
pH	7.50		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	49		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	27.9		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.352		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	18-SEP-20	R5230812
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0049		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				11-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	9.1	DLM	5.0	mg/L	11-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	14.7	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0206		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00034		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00559		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	0.000068		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	8.08		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00015		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00051		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.029		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.09		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00162		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.747		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00175		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000075		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.13		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-16 SP-SW-12 Sampled By: Client on 11-SEP-20 @ 14:09 Matrix: Surface Water							
Total Metals							
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.696		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0143		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00035		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000013		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0157		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00030		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00553		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	8.24		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00012		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00041		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.013		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.13		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00026		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.778		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00171		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-16 SP-SW-12 Sampled By: Client on 11-SEP-20 @ 14:09 Matrix: Surface Water							
Dissolved Metals							
Selenium (Se)-Dissolved	0.000067		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.10		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.710		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0146		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000014		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
Methylmercury (as MeHg)-Total	0.000028		0.000020	ug/L	06-OCT-20	07-OCT-20	R5251852
Radiological Parameters							
Ra-226	<0.010		0.010	Bq/L		26-SEP-20	R5245177
L2503878-17 SP-SW-DUP-01 Sampled By: Client on 11-SEP-20 @ 12:01 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	52.6		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	25.1		0.50	mg/L		18-SEP-20	
pH	7.50		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	44		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	28.9		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0195		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.021		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0045		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				11-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	9.1	DLM	5.0	mg/L	11-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	15.4	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0198		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-17 SP-SW-DUP-01 Sampled By: Client on 11-SEP-20 @ 12:01 Matrix: Surface Water							
Total Metals							
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00033		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00558		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	8.14		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00026		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.021		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.09		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00157		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		23-SEP-20	R5232903
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.757		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00171		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000084		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.10		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.693		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0145		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000015		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-17 SP-SW-DUP-01 Sampled By: Client on 11-SEP-20 @ 12:01 Matrix: Surface Water							
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0162		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00030		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00527		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	8.22		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00042		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.013		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.11		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00026		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.764		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00172		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000067		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.10		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.703		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0146		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000015		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-17 SP-SW-DUP-01 Sampled By: Client on 11-SEP-20 @ 12:01 Matrix: Surface Water							
Dissolved Metals							
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-18 SP-SW-10 Sampled By: Client on 11-SEP-20 @ 14:20 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	52.9		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	25.1		0.50	mg/L		18-SEP-20	
pH	7.49		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	45		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	26.8		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	<0.0050		0.0050	mg/L	17-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.023		0.020	mg/L	17-SEP-20	18-SEP-20	R5230812
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0049		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				11-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	9.4	DLM	5.0	mg/L	11-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	10.4	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0208		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00035		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00553		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	8.32		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00022		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00061		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.023		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.09		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00180		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231526
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-18 SP-SW-10 Sampled By: Client on 11-SEP-20 @ 14:20 Matrix: Surface Water							
Total Metals							
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.759		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00175		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000071		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.08		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.694		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0148		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000015		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0161		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00032		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00552		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	8.17		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00043		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.014		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.14		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00030		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-18 SP-SW-10 Sampled By: Client on 11-SEP-20 @ 14:20 Matrix: Surface Water							
Dissolved Metals							
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.785		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00173		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000076		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.06		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.687		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0145		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-19 SP-SW-8 Sampled By: Client on 11-SEP-20 @ 15:57 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	57.8		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	28.9		0.50	mg/L		18-SEP-20	
pH	7.55		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	50		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	32.0		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0442		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	18-SEP-20	R5230812
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0120		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				11-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	9.6	DLM	5.0	mg/L	11-SEP-20	23-SEP-20	R5235406

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-19 SP-SW-8 Sampled By: Client on 11-SEP-20 @ 15:57 Matrix: Surface Water							
Organic / Inorganic Carbon							
Total Organic Carbon	12.6	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0274		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00085		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00635		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.10		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00017		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00065		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.074		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.39		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00729		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000054		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.584		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00173		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000104		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.05		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.671		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0210		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00082		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000020		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-19 SP-SW-8 Sampled By: Client on 11-SEP-20 @ 15:57 Matrix: Surface Water							
Total Metals							
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0091		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00077		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00594		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.20		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00051		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.031		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.45		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00073		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	0.000055		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.571		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00157		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000059		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.983		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.686		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0206		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-19 SP-SW-8 Sampled By: Client on 11-SEP-20 @ 15:57 Matrix: Surface Water							
Dissolved Metals							
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
Methylmercury (as MeHg)-Total	0.000028		0.000020	ug/L	06-OCT-20	07-OCT-20	R5251852
L2503878-20 SP-SW-15 Sampled By: Client on 11-SEP-20 @ 16:47 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	63.7		1.0	uS/cm		20-SEP-20	R5231283
Hardness (as CaCO3)	31.9		0.50	mg/L		18-SEP-20	
pH	6.77		0.10	pH		20-SEP-20	R5231283
Total Suspended Solids	13.8		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	54		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	35.6		2.0	mg/L		20-SEP-20	R5231283
Ammonia, Total (as N)	0.0485		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.026		0.020	mg/L	19-SEP-20	20-SEP-20	R5231270
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0113		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				11-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	9.2	DLM	5.0	mg/L	11-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	10.4	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.118		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00061		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00904		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	0.0000070		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	10.1		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	0.000025		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00035		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	0.00014		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00086		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.205		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	0.000079		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-20 SP-SW-15 Sampled By: Client on 11-SEP-20 @ 16:47 Matrix: Surface Water							
Total Metals							
Magnesium (Mg)-Total	1.44		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.0213		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000076		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.629		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00188		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000115		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	1.09		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.674		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0229		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00610		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000022		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	0.00051		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231271
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0062		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00053		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00672		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	10.4		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00012		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00058		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.013		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-20 SP-SW-15 Sampled By: Client on 11-SEP-20 @ 16:47 Matrix: Surface Water							
Dissolved Metals							
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.47		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00183		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231423
Molybdenum (Mo)-Dissolved	0.000068		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.638		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00164		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000099		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.919		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.687		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0236		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000011		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231954
L2503878-21 SP-SW-2 Sampled By: Client on 11-SEP-20 @ 17:19 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	63.6		1.0	uS/cm		20-SEP-20	R5231283
Hardness (as CaCO3)	31.9		0.50	mg/L		18-SEP-20	
pH	6.74		0.10	pH		20-SEP-20	R5231283
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	51		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	35.7		2.0	mg/L		20-SEP-20	R5231283
Ammonia, Total (as N)	0.0958		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.025		0.020	mg/L	19-SEP-20	20-SEP-20	R5231270
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-21 SP-SW-2 Sampled By: Client on 11-SEP-20 @ 17:19 Matrix: Surface Water							
Anions and Nutrients							
Phosphorus (P)-Total	0.0093		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				11-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	10.7	DLM	5.0	mg/L	11-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	10.9	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0078		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00057		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00707		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	10.1		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00011		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00065		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.034		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.42		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.0114		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000066		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.641		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00169		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000076		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	0.92		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.681		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0227		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-21 SP-SW-2 Sampled By: Client on 11-SEP-20 @ 17:19 Matrix: Surface Water							
Total Metals							
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000012		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0027		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00050		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00670		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	10.4		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00056		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.47		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00096		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424
Molybdenum (Mo)-Dissolved	0.000067		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.644		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00173		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000082		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.892		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.677		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0237		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-21 SP-SW-2 Sampled By: Client on 11-SEP-20 @ 17:19 Matrix: Surface Water							
Dissolved Metals							
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000013		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953
L2503878-22 SP-SW-22 Sampled By: Client on 12-SEP-20 @ 11:21 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	57.4		1.0	uS/cm		20-SEP-20	R5231283
Hardness (as CaCO3)	28.8		0.50	mg/L		18-SEP-20	
pH	6.73		0.10	pH		20-SEP-20	R5231283
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	40		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	32.9		2.0	mg/L		20-SEP-20	R5231283
Ammonia, Total (as N)	0.0305		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.024		0.020	mg/L	18-SEP-20	18-SEP-20	R5230812
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	18-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0107		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				12-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	11.1	DLM	5.0	mg/L	12-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	12.8	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0185		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00081		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00633		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.35		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00016		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00065		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-22 SP-SW-22 Sampled By: Client on 12-SEP-20 @ 11:21 Matrix: Surface Water							
Total Metals							
Iron (Fe)-Total	0.074		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.38		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00976		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000070		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.597		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00171		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000072		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	0.91		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.659		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0205		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00036		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000018		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0105		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00071		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00618		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.19		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00016		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-22 SP-SW-22 Sampled By: Client on 12-SEP-20 @ 11:21 Matrix: Surface Water							
Dissolved Metals							
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00051		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.040		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.41		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00127		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424
Molybdenum (Mo)-Dissolved	0.000061		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.599		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00165		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000093		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.842		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.670		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0199		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000019		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953
L2503878-23 SP-SW-28 Sampled By: Client on 12-SEP-20 @ 12:26 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	60.9		1.0	uS/cm		20-SEP-20	R5231283
Hardness (as CaCO3)	29.7		0.50	mg/L		18-SEP-20	
pH	6.91		0.10	pH		20-SEP-20	R5231283
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	53		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	31.2		2.0	mg/L		20-SEP-20	R5231283

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-23 SP-SW-28 Sampled By: Client on 12-SEP-20 @ 12:26 Matrix: Surface Water							
Anions and Nutrients							
Ammonia, Total (as N)	0.0216		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.024		0.020	mg/L	18-SEP-20	18-SEP-20	R5230812
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	18-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0092		0.0030	mg/L	22-SEP-20	23-SEP-20	R5233180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				12-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	11.3	DLM	5.0	mg/L	12-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	12.2	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0206		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00079		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00659		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.24		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Chromium (Cr)-Total	0.00019		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00066		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.077		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.38		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.00980		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000064		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.616		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00170		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000087		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	0.91		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.670		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0206		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-23 SP-SW-28 Sampled By: Client on 12-SEP-20 @ 12:26 Matrix: Surface Water							
Total Metals							
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	0.00046		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000019		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0112		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00069		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00608		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.53		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00058		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.038		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.44		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00132		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424
Molybdenum (Mo)-Dissolved	0.000067		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.609		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00158		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000067		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.830		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.695		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0206		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-23 SP-SW-28 Sampled By: Client on 12-SEP-20 @ 12:26 Matrix: Surface Water							
Dissolved Metals							
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000018		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953
L2503878-24 SP-SW-7 Sampled By: Client on 12-SEP-20 @ 13:08 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	58.0		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	28.9		0.50	mg/L		21-SEP-20	
pH	7.52		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	55		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	32.2		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.102		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.023		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0086		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				12-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	14.3	DLM	5.0	mg/L	12-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	12.3	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0152		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Arsenic (As)-Total	0.00075		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Barium (Ba)-Total	0.00624		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Boron (B)-Total	<0.010		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Calcium (Ca)-Total	9.05		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-24 SP-SW-7 Sampled By: Client on 12-SEP-20 @ 13:08 Matrix: Surface Water							
Total Metals							
Chromium (Cr)-Total	0.00014		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Copper (Cu)-Total	0.00060		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Iron (Fe)-Total	0.051		0.010	mg/L	17-SEP-20	17-SEP-20	R5228643
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-SEP-20	17-SEP-20	R5228643
Magnesium (Mg)-Total	1.37		0.0050	mg/L	17-SEP-20	17-SEP-20	R5228643
Manganese (Mn)-Total	0.0106		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000064		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Potassium (K)-Total	0.591		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Rubidium (Rb)-Total	0.00181		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Selenium (Se)-Total	0.000092		0.000050	mg/L	17-SEP-20	17-SEP-20	R5228643
Silicon (Si)-Total	0.97		0.10	mg/L	17-SEP-20	17-SEP-20	R5228643
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Sodium (Na)-Total	0.652		0.050	mg/L	17-SEP-20	17-SEP-20	R5228643
Strontium (Sr)-Total	0.0199		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Sulfur (S)-Total	<0.50		0.50	mg/L	17-SEP-20	17-SEP-20	R5228643
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-SEP-20	17-SEP-20	R5228643
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-SEP-20	17-SEP-20	R5228643
Uranium (U)-Total	0.000017		0.000010	mg/L	17-SEP-20	17-SEP-20	R5228643
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-SEP-20	17-SEP-20	R5228643
Zinc (Zn)-Total	0.0056		0.0030	mg/L	17-SEP-20	17-SEP-20	R5228643
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	17-SEP-20	17-SEP-20	R5228643
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0082		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00068		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00904	DTC	0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-24 SP-SW-7 Sampled By: Client on 12-SEP-20 @ 13:08 Matrix: Surface Water							
Dissolved Metals							
Calcium (Ca)-Dissolved	9.29		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00053		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.022		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.39		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00066		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424
Molybdenum (Mo)-Dissolved	0.000060		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.602		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00164		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000082		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.922		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.673		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0203		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	0.00155	DTC	0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000015		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	0.0011		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953
Methylmercury (as MeHg)-Total	0.000036		0.000020	ug/L	06-OCT-20	07-OCT-20	R5251852
L2503878-25 SP-SW-16 Sampled By: Client on 12-SEP-20 @ 13:38 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	58.0		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	30.1		0.50	mg/L		21-SEP-20	
pH	7.56		0.10	pH		17-SEP-20	R5228421

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-25 SP-SW-16 Sampled By: Client on 12-SEP-20 @ 13:38 Matrix: Surface Water							
Physical Tests							
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	48		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	32.7		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.124		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0116		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				12-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	10.0	DLM	5.0	mg/L	12-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	16.2	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0177		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Arsenic (As)-Total	0.00090		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Barium (Ba)-Total	0.00651		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Boron (B)-Total	<0.010		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Calcium (Ca)-Total	9.37		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Chromium (Cr)-Total	0.00019		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Copper (Cu)-Total	0.00067		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Iron (Fe)-Total	0.097		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Lead (Pb)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Lithium (Li)-Total	<0.0010		0.0010	mg/L	18-SEP-20	18-SEP-20	R5231596
Magnesium (Mg)-Total	1.43		0.0050	mg/L	18-SEP-20	18-SEP-20	R5231596
Manganese (Mn)-Total	0.0112		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000055		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Phosphorus (P)-Total	<0.050		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Potassium (K)-Total	0.629		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Rubidium (Rb)-Total	0.00163		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Selenium (Se)-Total	0.000081		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Silicon (Si)-Total	1.09		0.10	mg/L	18-SEP-20	18-SEP-20	R5231596
Silver (Ag)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Sodium (Na)-Total	0.703		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Strontium (Sr)-Total	0.0209		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-25 SP-SW-16 Sampled By: Client on 12-SEP-20 @ 13:38 Matrix: Surface Water							
Total Metals							
Sulfur (S)-Total	<0.50		0.50	mg/L	18-SEP-20	18-SEP-20	R5231596
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Thorium (Th)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Tin (Sn)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	18-SEP-20	18-SEP-20	R5231596
Tungsten (W)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Uranium (U)-Total	0.000018		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Vanadium (V)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0110		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00077		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00624		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.72		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00017		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00052		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.050		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.41		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00106		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424
Molybdenum (Mo)-Dissolved	0.000061		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.587		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00158		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000076		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.06		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-25 SP-SW-16 Sampled By: Client on 12-SEP-20 @ 13:38 Matrix: Surface Water							
Dissolved Metals							
Sodium (Na)-Dissolved	0.674		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0204		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000014		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953
L2503878-26 SP-SW-25 Sampled By: Client on 12-SEP-20 @ 14:45 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	63.4		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	32.1		0.50	mg/L		21-SEP-20	
pH	7.61		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	41		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	34.7		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0059		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.025		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0068		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				12-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	8.0	DLM	5.0	mg/L	12-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	13.3	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0068		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Arsenic (As)-Total	0.00061		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Barium (Ba)-Total	0.00720		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Boron (B)-Total	<0.010		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-26 SP-SW-25 Sampled By: Client on 12-SEP-20 @ 14:45 Matrix: Surface Water							
Total Metals							
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Calcium (Ca)-Total	9.96		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Chromium (Cr)-Total	0.00013		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Copper (Cu)-Total	0.00072		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Iron (Fe)-Total	0.022		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Lead (Pb)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Lithium (Li)-Total	<0.0010		0.0010	mg/L	18-SEP-20	18-SEP-20	R5231596
Magnesium (Mg)-Total	1.52		0.0050	mg/L	18-SEP-20	18-SEP-20	R5231596
Manganese (Mn)-Total	0.00514		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000075		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Phosphorus (P)-Total	<0.050		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Potassium (K)-Total	0.676		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Rubidium (Rb)-Total	0.00169		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Selenium (Se)-Total	0.000111		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Silicon (Si)-Total	1.19		0.10	mg/L	18-SEP-20	18-SEP-20	R5231596
Silver (Ag)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Sodium (Na)-Total	0.717		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Strontium (Sr)-Total	0.0227		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Sulfur (S)-Total	0.94		0.50	mg/L	18-SEP-20	18-SEP-20	R5231596
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Thorium (Th)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Tin (Sn)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	18-SEP-20	18-SEP-20	R5231596
Tungsten (W)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Uranium (U)-Total	0.000012		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Vanadium (V)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0023		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00049		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00689		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-26 SP-SW-25 Sampled By: Client on 12-SEP-20 @ 14:45 Matrix: Surface Water							
Dissolved Metals							
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	10.3		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00059		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.52		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00056		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424
Molybdenum (Mo)-Dissolved	0.000076		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.637		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00161		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000075		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.865		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.683		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0235		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000011		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953
L2503878-27 SP-SW-6 Sampled By: Client on 12-SEP-20 @ 15:05 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	63.8		1.0	uS/cm		17-SEP-20	R5228421

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-27 SP-SW-6 Sampled By: Client on 12-SEP-20 @ 15:05 Matrix: Surface Water							
Physical Tests							
Hardness (as CaCO3)	32.3		0.50	mg/L		21-SEP-20	
pH	7.59		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	51		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	35.5		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	<0.0050		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.023		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0086		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				12-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	8.9	DLM	5.0	mg/L	12-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	13.1	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0076		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Arsenic (As)-Total	0.00062		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Barium (Ba)-Total	0.00700		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Boron (B)-Total	<0.010		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Calcium (Ca)-Total	10.1		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Chromium (Cr)-Total	0.00027		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Copper (Cu)-Total	0.00073		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Iron (Fe)-Total	0.026		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Lead (Pb)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Lithium (Li)-Total	<0.0010		0.0010	mg/L	18-SEP-20	18-SEP-20	R5231596
Magnesium (Mg)-Total	1.52		0.0050	mg/L	18-SEP-20	18-SEP-20	R5231596
Manganese (Mn)-Total	0.00562		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000083		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Phosphorus (P)-Total	<0.050		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Potassium (K)-Total	0.673		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Rubidium (Rb)-Total	0.00171		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Selenium (Se)-Total	0.000085		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Silicon (Si)-Total	0.91		0.10	mg/L	18-SEP-20	18-SEP-20	R5231596
Silver (Ag)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-27 SP-SW-6 Sampled By: Client on 12-SEP-20 @ 15:05 Matrix: Surface Water							
Total Metals							
Sodium (Na)-Total	0.715		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Strontium (Sr)-Total	0.0230		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Sulfur (S)-Total	<0.50		0.50	mg/L	18-SEP-20	18-SEP-20	R5231596
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Thorium (Th)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Tin (Sn)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	18-SEP-20	18-SEP-20	R5231596
Tungsten (W)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Uranium (U)-Total	0.000015		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Vanadium (V)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0027		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00048		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00679		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	10.5		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00058		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.49		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00055		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424
Molybdenum (Mo)-Dissolved	0.000075		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.650		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00171		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000060		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-27 SP-SW-6 Sampled By: Client on 12-SEP-20 @ 15:05 Matrix: Surface Water							
Dissolved Metals							
Silicon (Si)-Dissolved	0.851		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.679		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0234		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953
Methylmercury (as MeHg)-Total	<0.000020		0.000020	ug/L	06-OCT-20	07-OCT-20	R5251852
Radiological Parameters							
Ra-226	<0.010		0.010	Bq/L		26-SEP-20	R5245177
L2503878-28 SP-SW-1 Sampled By: Client on 12-SEP-20 @ 15:30 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	63.7		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	32.3		0.50	mg/L		21-SEP-20	
pH	7.60		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228825
Total Dissolved Solids	49		10	mg/L		17-SEP-20	R5229099
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	37.2		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0298		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.021		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0084		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				12-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	9.4	DLM	5.0	mg/L	12-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	19.3	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0069		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-28 SP-SW-1 Sampled By: Client on 12-SEP-20 @ 15:30 Matrix: Surface Water							
Total Metals							
Arsenic (As)-Total	0.00062		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Barium (Ba)-Total	0.00696		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Boron (B)-Total	<0.010		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Calcium (Ca)-Total	10.0		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Chromium (Cr)-Total	0.00018		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Copper (Cu)-Total	0.00076		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Iron (Fe)-Total	0.020		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Lead (Pb)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Lithium (Li)-Total	<0.0010		0.0010	mg/L	18-SEP-20	18-SEP-20	R5231596
Magnesium (Mg)-Total	1.51		0.0050	mg/L	18-SEP-20	18-SEP-20	R5231596
Manganese (Mn)-Total	0.00360		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000059		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Phosphorus (P)-Total	<0.050		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Potassium (K)-Total	0.666		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Rubidium (Rb)-Total	0.00176		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Selenium (Se)-Total	0.000074		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Silicon (Si)-Total	0.84		0.10	mg/L	18-SEP-20	18-SEP-20	R5231596
Silver (Ag)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Sodium (Na)-Total	0.703		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Strontium (Sr)-Total	0.0234		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Sulfur (S)-Total	<0.50		0.50	mg/L	18-SEP-20	18-SEP-20	R5231596
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Thorium (Th)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Tin (Sn)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	18-SEP-20	18-SEP-20	R5231596
Tungsten (W)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Uranium (U)-Total	0.000014		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Vanadium (V)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-28 SP-SW-1 Sampled By: Client on 12-SEP-20 @ 15:30 Matrix: Surface Water							
Dissolved Metals							
Aluminum (Al)-Dissolved	0.0023		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00048		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00710		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	10.5		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00012		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00055		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.51		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00049		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424
Molybdenum (Mo)-Dissolved	0.000066		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.649		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00163		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000092		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.828		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.680		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0235		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000011		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-28 SP-SW-1 Sampled By: Client on 12-SEP-20 @ 15:30 Matrix: Surface Water							
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953
L2503878-29 SP-SW-4 Sampled By: Client on 13-SEP-20 @ 09:46 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.1		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	29.8		0.50	mg/L		21-SEP-20	
pH	7.56		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228927
Total Dissolved Solids	36		10	mg/L		17-SEP-20	R5229321
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	33.3		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.263		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.023		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0094		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	8.8	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	15.4	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0113		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Arsenic (As)-Total	0.00115		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Barium (Ba)-Total	0.00557		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Boron (B)-Total	<0.010		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Calcium (Ca)-Total	9.21		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Chromium (Cr)-Total	0.00015		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Copper (Cu)-Total	0.00065		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Iron (Fe)-Total	0.040		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Lead (Pb)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Lithium (Li)-Total	<0.0010		0.0010	mg/L	18-SEP-20	18-SEP-20	R5231596
Magnesium (Mg)-Total	1.53		0.0050	mg/L	18-SEP-20	18-SEP-20	R5231596
Manganese (Mn)-Total	0.00596		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	0.000068		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-29 SP-SW-4 Sampled By: Client on 13-SEP-20 @ 09:46 Matrix: Surface Water							
Total Metals							
Phosphorus (P)-Total	<0.050		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Potassium (K)-Total	0.570		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Rubidium (Rb)-Total	0.00160		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Selenium (Se)-Total	0.000090		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Silicon (Si)-Total	1.11		0.10	mg/L	18-SEP-20	18-SEP-20	R5231596
Silver (Ag)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Sodium (Na)-Total	0.673		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Strontium (Sr)-Total	0.0206		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Sulfur (S)-Total	<0.50		0.50	mg/L	18-SEP-20	18-SEP-20	R5231596
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Thorium (Th)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Tin (Sn)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Titanium (Ti)-Total	0.00031		0.00030	mg/L	18-SEP-20	18-SEP-20	R5231596
Tungsten (W)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Uranium (U)-Total	0.000021		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Vanadium (V)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0019		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00103		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00547		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.50		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00046		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	0.012		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.48		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	0.00040		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-29 SP-SW-4 Sampled By: Client on 13-SEP-20 @ 09:46 Matrix: Surface Water							
Dissolved Metals							
Molybdenum (Mo)-Dissolved	0.000051		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.542		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00164		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000077		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	1.06		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.645		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0200		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000014		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953
L2503878-30 TRIP BLANK Sampled By: Client on 13-SEP-20 @ 00:01 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	1.0		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	<0.50		0.50	mg/L		21-SEP-20	
pH	5.35		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228927
Total Dissolved Solids	<10		10	mg/L		17-SEP-20	R5229321
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	<2.0		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	<0.0050		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	<0.020		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	<0.0030		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	<0.50		0.50	mg/L	13-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	0.83		0.50	mg/L		23-SEP-20	R5235131

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-30 TRIP BLANK Sampled By: Client on 13-SEP-20 @ 00:01 Matrix: Surface Water							
Organic / Inorganic Carbon							
Total Metals							
Aluminum (Al)-Total	<0.0030		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Arsenic (As)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Barium (Ba)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Boron (B)-Total	<0.010		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Calcium (Ca)-Total	<0.050		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Chromium (Cr)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Copper (Cu)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Iron (Fe)-Total	<0.010		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Lead (Pb)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Lithium (Li)-Total	<0.0010		0.0010	mg/L	18-SEP-20	18-SEP-20	R5231596
Magnesium (Mg)-Total	<0.0050		0.0050	mg/L	18-SEP-20	18-SEP-20	R5231596
Manganese (Mn)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Phosphorus (P)-Total	<0.050		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Potassium (K)-Total	<0.050		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Rubidium (Rb)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Selenium (Se)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Silicon (Si)-Total	<0.10		0.10	mg/L	18-SEP-20	18-SEP-20	R5231596
Silver (Ag)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Sodium (Na)-Total	<0.050		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Strontium (Sr)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Sulfur (S)-Total	<0.50		0.50	mg/L	18-SEP-20	18-SEP-20	R5231596
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Thorium (Th)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Tin (Sn)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	18-SEP-20	18-SEP-20	R5231596
Tungsten (W)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Uranium (U)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Vanadium (V)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-30 TRIP BLANK Sampled By: Client on 13-SEP-20 @ 00:01 Matrix: Surface Water							
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	<0.0050		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716
Manganese (Mn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5231679
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-30 TRIP BLANK Sampled By: Client on 13-SEP-20 @ 00:01 Matrix: Surface Water							
Dissolved Metals							
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953
L2503878-32 SP-SW-DUP-02 Sampled By: Client on 13-SEP-20 @ 00:01 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	59.4		1.0	uS/cm		17-SEP-20	R5228421
Hardness (as CaCO3)	30.4		0.50	mg/L		21-SEP-20	
pH	7.59		0.10	pH		17-SEP-20	R5228421
Total Suspended Solids	<3.0		3.0	mg/L		17-SEP-20	R5228927
Total Dissolved Solids	44		10	mg/L		17-SEP-20	R5229321
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	33.6		2.0	mg/L		17-SEP-20	R5228421
Ammonia, Total (as N)	0.0258		0.0050	mg/L	18-SEP-20	24-SEP-20	R5233130
Fluoride (F)	0.022		0.020	mg/L	17-SEP-20	17-SEP-20	R5228722
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	17-SEP-20	18-SEP-20	R5230997
Phosphorus (P)-Total	0.0076		0.0030	mg/L	19-SEP-20	21-SEP-20	R5231462
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				13-SEP-20	18-SEP-20	R5230742
Dissolved Organic Carbon	9.1	DLM	5.0	mg/L	13-SEP-20	23-SEP-20	R5235406
Total Organic Carbon	15.6	DLM	5.0	mg/L		23-SEP-20	R5235131
Total Metals							
Aluminum (Al)-Total	0.0075		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Arsenic (As)-Total	0.00115		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Barium (Ba)-Total	0.00564		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Boron (B)-Total	<0.010		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Calcium (Ca)-Total	9.47		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Chromium (Cr)-Total	0.00017		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Copper (Cu)-Total	0.00058		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Iron (Fe)-Total	0.024		0.010	mg/L	18-SEP-20	18-SEP-20	R5231596
Lead (Pb)-Total	<0.000050		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Lithium (Li)-Total	<0.0010		0.0010	mg/L	18-SEP-20	18-SEP-20	R5231596
Magnesium (Mg)-Total	1.51		0.0050	mg/L	18-SEP-20	18-SEP-20	R5231596
Manganese (Mn)-Total	0.00375		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		21-SEP-20	R5231528

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-32 SP-SW-DUP-02 Sampled By: Client on 13-SEP-20 @ 00:01 Matrix: Surface Water							
Total Metals							
Molybdenum (Mo)-Total	0.000064		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Phosphorus (P)-Total	<0.050		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Potassium (K)-Total	0.568		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Rubidium (Rb)-Total	0.00156		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Selenium (Se)-Total	0.000084		0.000050	mg/L	18-SEP-20	18-SEP-20	R5231596
Silicon (Si)-Total	1.12		0.10	mg/L	18-SEP-20	18-SEP-20	R5231596
Silver (Ag)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Sodium (Na)-Total	0.666		0.050	mg/L	18-SEP-20	18-SEP-20	R5231596
Strontium (Sr)-Total	0.0208		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Sulfur (S)-Total	<0.50		0.50	mg/L	18-SEP-20	18-SEP-20	R5231596
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Thorium (Th)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Tin (Sn)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	18-SEP-20	18-SEP-20	R5231596
Tungsten (W)-Total	<0.00010		0.00010	mg/L	18-SEP-20	18-SEP-20	R5231596
Uranium (U)-Total	0.000018		0.000010	mg/L	18-SEP-20	18-SEP-20	R5231596
Vanadium (V)-Total	<0.00050		0.00050	mg/L	18-SEP-20	18-SEP-20	R5231596
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	18-SEP-20	18-SEP-20	R5231596
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	18-SEP-20	18-SEP-20	R5231596
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					21-SEP-20	R5231272
Dissolved Metals Filtration Location	FIELD					17-SEP-20	R5228502
Aluminum (Al)-Dissolved	0.0022		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Arsenic (As)-Dissolved	0.00102		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Barium (Ba)-Dissolved	0.00549		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Boron (B)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Calcium (Ca)-Dissolved	9.74		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Chromium (Cr)-Dissolved	0.00015		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Copper (Cu)-Dissolved	0.00050		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	17-SEP-20	18-SEP-20	R5228716
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Magnesium (Mg)-Dissolved	1.47		0.0050	mg/L	17-SEP-20	18-SEP-20	R5228716

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2503878-32 SP-SW-DUP-02 Sampled By: Client on 13-SEP-20 @ 00:01 Matrix: Surface Water							
Dissolved Metals							
Manganese (Mn)-Dissolved	0.00041		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	21-SEP-20	21-SEP-20	R5231424
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Potassium (K)-Dissolved	0.538		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Rubidium (Rb)-Dissolved	0.00165		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Selenium (Se)-Dissolved	0.000094		0.000050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silicon (Si)-Dissolved	0.960		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Sodium (Na)-Dissolved	0.620		0.050	mg/L	17-SEP-20	18-SEP-20	R5228716
Strontium (Sr)-Dissolved	0.0202		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	17-SEP-20	18-SEP-20	R5228716
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	17-SEP-20	18-SEP-20	R5228716
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	17-SEP-20	18-SEP-20	R5228716
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	17-SEP-20	18-SEP-20	R5228716
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	17-SEP-20	18-SEP-20	R5228716
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	17-SEP-20	18-SEP-20	R5228716
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	17-SEP-20	18-SEP-20	R5228716
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		21-SEP-20	R5231953

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Laboratory Control Sample	Sulfur (S)-Dissolved	MES	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -3, -30, -32, -4, -5, -6, -7, -8, -9
Laboratory Control Sample	Sulfur (S)-Dissolved	MES	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -3, -30, -32, -4, -5, -6, -7, -8, -9
Laboratory Control Sample	Sulfur (S)-Total	MES	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Laboratory Control Sample	Sulfur (S)-Total	MES	L2503878-25, -26, -27, -28, -29, -30, -32
Matrix Spike	Dissolved Organic Carbon	MS-B	L2503878-1, -10, -11, -12, -13, -14, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -3, -30, -32, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -3, -30, -32, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -3, -30, -32, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -29, -3, -30, -32, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Total	MS-B	L2503878-25, -26, -27, -28, -29, -30, -32
Matrix Spike	Calcium (Ca)-Total	MS-B	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Total	MS-B	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Total	MS-B	L2503878-25, -26, -27, -28, -29, -30, -32
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2503878-25, -26, -27, -28, -29, -30, -32
Matrix Spike	Sodium (Na)-Total	MS-B	L2503878-25, -26, -27, -28, -29, -30, -32
Matrix Spike	Strontium (Sr)-Total	MS-B	L2503878-1, -10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L2503878-25, -26, -27, -28, -29, -30, -32
Matrix Spike	Sulfur (S)-Total	MS-B	L2503878-25, -26, -27, -28, -29, -30, -32
Matrix Spike	Ammonia, Total (as N)	MS-B	L2503878-11
Matrix Spike	Phosphorus (P)-Total	MS-B	L2503878-1, -2, -3

Sample Parameter Qualifier key listed:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-TITR-TB	Water	Alkalinity	APHA 2320B modified

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

CR-CR6-PWQO-IC-WT	Water	Chromium +6	EPA 7199

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution. Chromium (III) is calculated as the difference between the total chromium and the chromium (VI) results.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental

Reference Information

Protection Act (July 1, 2011).

DOC-WT	Water	Dissolved Organic Carbon	APHA 5310B

Sample is filtered through a 0.45um filter, then injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic carbon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

EC-TITR-TB	Water	Conductivity	APHA 2510 B

This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.

F-IC-N-TB	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

HARDNESS-CALC-TB	Water	Hardness (as CaCO3)	CALCULATION
HG-D-CVAA-WT	Water	Dissolved Mercury in Water by CVAAS	EPA 1631E (mod)

Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

HG-T-CVAA-WT	Water	Total Mercury in Water by CVAAS	EPA 1631E (mod)

Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.

MEHG-T-GCAF-VA	Water	Total Methylmercury in Water by GCAFS	EPA 1630

This method follows Method 1630 of the US EPA. Samples are distilled under an inert gas flow to isolate methylmercury and minimize matrix interferences. The distillate is analyzed by aqueous phase ethylation, purge and trap, desorption and GC separation. The separated species are then pyrolized to elemental Hg and quantified by cold vapour atomic flourescence spectroscopy. Results are reported "as MeHg".

MET-D-CCMS-TB	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020B (mod)

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

MET-T-CCMS-TB	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020B (mod)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

NH3-F-TB	Water	Ammonia, Total (as N)	catnr 157/158 062217/99321057 (modified)

Ammonia is determined by Flow-injection analysis with fluorescence detection

P-T-COL-TB	Water	Total Phosphorus by Discrete Analyzer	APHA 4500-P B, F, G (modified)

Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.

PH-TITR-TB	Water	pH	APHA 4500-H

This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode

PO4-DO-COL-TB	Water	Dissolved Orthophosphate	APHA 4500-P B, F, G (modified)

Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.

RA226-MMER-BE	Water	Radium 226	Radium Isotopes by Alpha Spectrometry

Determination of Gamma Emitting Radionuclides In Water and Solids by Gamma Spectrometry.

Reference Information

TDS-TB	Water	Total Dissolved Solids	APHA 2540 C (modified)

Aqueous matrices are analyzed using gravimetry and evaporation

TOC-WT	Water	Total Organic Carbon	APHA 5310B

Sample is injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic cabon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

TSS-TB	Water	Total Suspended Solids	APHA 2540 D (modified)

Aqueous matrices are analyzed using gravimetry

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA
BE	BECQUEREL LABORATORIES INC. - MISSISSAUGA, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Client: Gold Canyon Resources Inc.
c/o Suite 1805 - 925 West Georgia Street
Vancouver BC V6C 3L2
Contact: David Mchaina

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALK-TITR-TB	**Water**							
Batch R5228421								
WG3406546-3 DUP		**L2503878-24**						
Alkalinity, Total (as CaCO3)		32.2	32.4		mg/L	0.6	20	17-SEP-20
WG3406556-7 DUP		**L2503878-19**						
Alkalinity, Total (as CaCO3)		32.0	32.9		mg/L	2.8	20	17-SEP-20
WG3406546-2 LCS								
Alkalinity, Total (as CaCO3)			113.7		%		85-115	17-SEP-20
WG3406556-9 LCS								
Alkalinity, Total (as CaCO3)			107.9		%		85-115	17-SEP-20
WG3406546-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	17-SEP-20
WG3406556-8 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	17-SEP-20
Batch R5231283								
WG3408107-2 LCS								
Alkalinity, Total (as CaCO3)			105.4		%		85-115	20-SEP-20
WG3408172-2 LCS								
Alkalinity, Total (as CaCO3)			107.6		%		85-115	20-SEP-20
WG3408107-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	20-SEP-20
WG3408172-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	20-SEP-20
CR-CR6-PWQO-IC-WT	**Water**							
Batch R5231953								
WG3408975-2 LCS								
Chromium, Hexavalent			101.8		%		80-120	21-SEP-20
WG3408975-1 MB								
Chromium, Hexavalent			<0.50		ug/L		0.5	21-SEP-20
Batch R5231954								
WG3408974-3 DUP		**L2503878-1**						
Chromium, Hexavalent		<0.50	<0.50	RPD-NA	ug/L	N/A	20	21-SEP-20
WG3408974-2 LCS								
Chromium, Hexavalent			102.7		%		80-120	21-SEP-20
WG3408974-1 MB								
Chromium, Hexavalent			<0.50		ug/L		0.5	21-SEP-20
WG3408974-4 MS		**L2503878-1**						
Chromium, Hexavalent			99.1		%		70-130	21-SEP-20
DOC-WT	**Water**							

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
DOC-WT	**Water**							
Batch R5235093								
WG3407958-2 LCS								
Dissolved Organic Carbon			96.2		%		80-120	23-SEP-20
WG3407958-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	23-SEP-20
Batch R5235406								
WG3407960-2 LCS								
Dissolved Organic Carbon			98.4		%		80-120	23-SEP-20
WG3407960-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	23-SEP-20
EC-TITR-TB	**Water**							
Batch R5228421								
WG3406546-3 DUP		**L2503878-24**						
Conductivity (EC)		58.0	57.6		uS/cm	0.7	10	17-SEP-20
WG3406556-7 DUP		**L2503878-19**						
Conductivity (EC)		57.8	57.5		uS/cm	0.5	10	17-SEP-20
WG3406546-2 LCS								
Conductivity (EC)			98.9		%		90-110	17-SEP-20
WG3406556-9 LCS								
Conductivity (EC)			99.1		%		90-110	17-SEP-20
WG3406546-1 MB								
Conductivity (EC)			<1.0		uS/cm		2	17-SEP-20
WG3406556-8 MB								
Conductivity (EC)			<1.0		uS/cm		2	17-SEP-20
Batch R5231283								
WG3408107-2 LCS								
Conductivity (EC)			98.7		%		90-110	20-SEP-20
WG3408172-2 LCS								
Conductivity (EC)			99.1		%		90-110	20-SEP-20
WG3408107-1 MB								
Conductivity (EC)			1.1		uS/cm		2	20-SEP-20
WG3408172-1 MB								
Conductivity (EC)			1.6		uS/cm		2	20-SEP-20
F-IC-N-TB	**Water**							
Batch R5228722								
WG3406581-3 DUP		**L2503878-11**						
Fluoride (F)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	17-SEP-20
WG3406581-2 LCS								
Fluoride (F)			100.8		%		90-110	17-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-TB	**Water**							
Batch R5228722								
WG3406581-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	17-SEP-20
WG3406581-4 MS		**L2503878-10**						
Fluoride (F)			105.7		%		75-125	17-SEP-20
Batch R5230812								
WG3406589-3 DUP		**L2503878-18**						
Fluoride (F)		0.023	0.023		mg/L	0.3	20	18-SEP-20
WG3406589-2 LCS								
Fluoride (F)			106.2		%		90-110	18-SEP-20
WG3407465-2 LCS								
Fluoride (F)			109.9		%		90-110	18-SEP-20
WG3406589-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	18-SEP-20
WG3407465-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	18-SEP-20
WG3406589-4 MS		**L2503878-19**						
Fluoride (F)			112.4		%		75-125	18-SEP-20
Batch R5231270								
WG3408176-3 DUP		**L2503878-21**						
Fluoride (F)		0.025	0.026		mg/L	4.3	20	20-SEP-20
WG3408111-2 LCS								
Fluoride (F)			105.8		%		90-110	20-SEP-20
WG3408176-2 LCS								
Fluoride (F)			100.4		%		90-110	20-SEP-20
WG3408111-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	20-SEP-20
WG3408176-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	20-SEP-20
HG-D-CVAA-WT	**Water**							
Batch R5231423								
WG3408663-3 DUP		**L2503878-1**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	21-SEP-20
WG3408663-2 LCS								
Mercury (Hg)-Dissolved			100.0		%		80-120	21-SEP-20
WG3408663-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	21-SEP-20
WG3408663-4 MS		**L2503878-2**						
Mercury (Hg)-Dissolved			97.6		%		70-130	21-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-CVAA-WT	**Water**							
Batch R5231424								
WG3408665-2 LCS								
Mercury (Hg)-Dissolved			93.5		%		80-120	21-SEP-20
WG3408665-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	21-SEP-20
HG-T-CVAA-WT	**Water**							
Batch R5231526								
WG3408755-2 LCS								
Mercury (Hg)-Total			93.6		%		80-120	21-SEP-20
WG3408755-1 MB								
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	21-SEP-20
Batch R5231528								
WG3408759-3 DUP		**L2503878-19**						
Mercury (Hg)-Total		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	21-SEP-20
WG3408759-2 LCS								
Mercury (Hg)-Total			88.5		%		80-120	21-SEP-20
WG3408759-1 MB								
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	21-SEP-20
WG3408759-4 MS		**L2503878-20**						
Mercury (Hg)-Total			88.6		%		70-130	21-SEP-20
Batch R5232903								
WG3410474-2 LCS								
Mercury (Hg)-Total			108.0		%		80-120	23-SEP-20
WG3410474-1 MB								
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	23-SEP-20
MEHG-T-GCAF-VA	**Water**							
Batch R5251852								
WG3421391-3 LCS								
Methylmercury (as MeHg)-Total			83.3		%		70-130	07-OCT-20
WG3421391-1 MB								
Methylmercury (as MeHg)-Total			<0.000020		ug/L		0.00002	07-OCT-20
WG3421391-4 MS		**L2503878-19**						
Methylmercury (as MeHg)-Total			81.6		%		70-130	07-OCT-20
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-3 DUP		**L2503878-13**						
Aluminum (Al)-Dissolved		0.0201	0.0200		mg/L	0.5	20	18-SEP-20
Antimony (Sb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-3 DUP		**L2503878-13**						
Arsenic (As)-Dissolved		0.00030	0.00032		mg/L	9.3	20	18-SEP-20
Barium (Ba)-Dissolved		0.00597	0.00580		mg/L	2.9	20	18-SEP-20
Beryllium (Be)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	18-SEP-20
Boron (B)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	18-SEP-20
Cadmium (Cd)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	18-SEP-20
Calcium (Ca)-Dissolved		8.34	8.32		mg/L	0.2	20	18-SEP-20
Cesium (Cs)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	18-SEP-20
Chromium (Cr)-Dissolved		0.00013	0.00011		mg/L	12	20	18-SEP-20
Cobalt (Co)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Copper (Cu)-Dissolved		0.00042	0.00043		mg/L	3.2	20	18-SEP-20
Iron (Fe)-Dissolved		0.026	0.026		mg/L	0.3	20	18-SEP-20
Lead (Pb)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	18-SEP-20
Lithium (Li)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	18-SEP-20
Magnesium (Mg)-Dissolved		1.07	1.06		mg/L	0.4	20	18-SEP-20
Manganese (Mn)-Dissolved		0.00107	0.00102		mg/L	4.5	20	18-SEP-20
Molybdenum (Mo)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	18-SEP-20
Nickel (Ni)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	18-SEP-20
Phosphorus (P)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	18-SEP-20
Potassium (K)-Dissolved		0.760	0.752		mg/L	1.0	20	18-SEP-20
Rubidium (Rb)-Dissolved		0.00164	0.00164		mg/L	0.4	20	18-SEP-20
Selenium (Se)-Dissolved		0.000065	0.000057		mg/L	12	20	18-SEP-20
Silicon (Si)-Dissolved		1.20	1.21		mg/L	0.3	20	18-SEP-20
Silver (Ag)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	18-SEP-20
Sodium (Na)-Dissolved		0.694	0.691		mg/L	0.4	20	18-SEP-20
Strontium (Sr)-Dissolved		0.0149	0.0149		mg/L	0.2	20	18-SEP-20
Sulfur (S)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	18-SEP-20
Tellurium (Te)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	18-SEP-20
Thallium (Tl)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	18-SEP-20
Thorium (Th)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Tin (Sn)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Titanium (Ti)-Dissolved		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	18-SEP-20
Tungsten (W)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Uranium (U)-Dissolved		0.000013	0.000012		mg/L	8.1	20	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-3 DUP		**L2503878-13**						
Vanadium (V)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	18-SEP-20
Zinc (Zn)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	18-SEP-20
Zirconium (Zr)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	18-SEP-20
WG3406793-7 DUP		**L2503878-28**						
Aluminum (Al)-Dissolved		0.0023	0.0020		mg/L	12	20	18-SEP-20
Antimony (Sb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Arsenic (As)-Dissolved		0.00048	0.00047		mg/L	1.2	20	18-SEP-20
Barium (Ba)-Dissolved		0.00710	0.00706		mg/L	0.6	20	18-SEP-20
Beryllium (Be)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	18-SEP-20
Boron (B)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	18-SEP-20
Cadmium (Cd)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	18-SEP-20
Calcium (Ca)-Dissolved		10.5	10.5		mg/L	0.6	20	18-SEP-20
Cesium (Cs)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	18-SEP-20
Chromium (Cr)-Dissolved		0.00012	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Cobalt (Co)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Copper (Cu)-Dissolved		0.00055	0.00054		mg/L	1.0	20	18-SEP-20
Iron (Fe)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	18-SEP-20
Lead (Pb)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	18-SEP-20
Lithium (Li)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	18-SEP-20
Magnesium (Mg)-Dissolved		1.51	1.49		mg/L	1.6	20	18-SEP-20
Manganese (Mn)-Dissolved		0.00049	0.00049		mg/L	0.5	20	18-SEP-20
Molybdenum (Mo)-Dissolved		0.000066	0.000062		mg/L	6.3	20	18-SEP-20
Nickel (Ni)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	18-SEP-20
Phosphorus (P)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	18-SEP-20
Potassium (K)-Dissolved		0.649	0.652		mg/L	0.5	20	18-SEP-20
Rubidium (Rb)-Dissolved		0.00163	0.00176		mg/L	7.6	20	18-SEP-20
Selenium (Se)-Dissolved		0.000092	0.000086		mg/L	7.0	20	18-SEP-20
Silicon (Si)-Dissolved		0.828	0.844		mg/L	2.0	20	18-SEP-20
Silver (Ag)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	18-SEP-20
Sodium (Na)-Dissolved		0.680	0.695		mg/L	2.3	20	18-SEP-20
Strontium (Sr)-Dissolved		0.0235	0.0235		mg/L	0.2	20	18-SEP-20
Sulfur (S)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	18-SEP-20
Tellurium (Te)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-7 DUP		**L2503878-28**						
Thallium (Tl)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	18-SEP-20
Thorium (Th)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Tin (Sn)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Titanium (Ti)-Dissolved		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	18-SEP-20
Tungsten (W)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	18-SEP-20
Uranium (U)-Dissolved		0.000011	0.000012		mg/L	8.8	20	18-SEP-20
Vanadium (V)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	18-SEP-20
Zinc (Zn)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	18-SEP-20
Zirconium (Zr)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	18-SEP-20
WG3406793-2 LCS								
Aluminum (Al)-Dissolved			97.1		%		80-120	18-SEP-20
Antimony (Sb)-Dissolved			98.7		%		80-120	18-SEP-20
Arsenic (As)-Dissolved			98.3		%		80-120	18-SEP-20
Barium (Ba)-Dissolved			99.9		%		80-120	18-SEP-20
Beryllium (Be)-Dissolved			99.3		%		80-120	18-SEP-20
Bismuth (Bi)-Dissolved			100.2		%		80-120	18-SEP-20
Boron (B)-Dissolved			98.6		%		80-120	18-SEP-20
Cadmium (Cd)-Dissolved			94.3		%		80-120	18-SEP-20
Calcium (Ca)-Dissolved			102.2		%		80-120	18-SEP-20
Cesium (Cs)-Dissolved			99.96		%		80-120	18-SEP-20
Chromium (Cr)-Dissolved			93.4		%		80-120	18-SEP-20
Cobalt (Co)-Dissolved			94.6		%		80-120	18-SEP-20
Copper (Cu)-Dissolved			93.4		%		80-120	18-SEP-20
Iron (Fe)-Dissolved			108.9		%		80-120	18-SEP-20
Lead (Pb)-Dissolved			95.9		%		80-120	18-SEP-20
Lithium (Li)-Dissolved			103.9		%		80-120	18-SEP-20
Magnesium (Mg)-Dissolved			99.7		%		80-120	18-SEP-20
Manganese (Mn)-Dissolved			95.5		%		80-120	18-SEP-20
Molybdenum (Mo)-Dissolved			104.7		%		80-120	18-SEP-20
Nickel (Ni)-Dissolved			92.6		%		80-120	18-SEP-20
Phosphorus (P)-Dissolved			93.0		%		80-120	18-SEP-20
Potassium (K)-Dissolved			100.2		%		80-120	18-SEP-20
Rubidium (Rb)-Dissolved			97.2		%		80-120	18-SEP-20
Selenium (Se)-Dissolved			98.9		%		80-120	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-2 LCS								
Silicon (Si)-Dissolved			98.8		%		80-120	18-SEP-20
Silver (Ag)-Dissolved			98.6		%		80-120	18-SEP-20
Sodium (Na)-Dissolved			96.4		%		80-120	18-SEP-20
Strontium (Sr)-Dissolved			101.8		%		80-120	18-SEP-20
Sulfur (S)-Dissolved			73.4	MES	%		80-120	18-SEP-20
Tellurium (Te)-Dissolved			91.6		%		80-120	18-SEP-20
Thallium (Tl)-Dissolved			96.2		%		80-120	18-SEP-20
Thorium (Th)-Dissolved			97.1		%		80-120	18-SEP-20
Tin (Sn)-Dissolved			97.7		%		80-120	18-SEP-20
Titanium (Ti)-Dissolved			92.6		%		80-120	18-SEP-20
Tungsten (W)-Dissolved			99.1		%		80-120	18-SEP-20
Uranium (U)-Dissolved			98.9		%		80-120	18-SEP-20
Vanadium (V)-Dissolved			95.5		%		80-120	18-SEP-20
Zinc (Zn)-Dissolved			89.7		%		80-120	18-SEP-20
Zirconium (Zr)-Dissolved			104.9		%		80-120	18-SEP-20
WG3406793-6 LCS								
Aluminum (Al)-Dissolved			97.2		%		80-120	18-SEP-20
Antimony (Sb)-Dissolved			96.6		%		80-120	18-SEP-20
Arsenic (As)-Dissolved			100.2		%		80-120	18-SEP-20
Barium (Ba)-Dissolved			97.9		%		80-120	18-SEP-20
Beryllium (Be)-Dissolved			97.9		%		80-120	18-SEP-20
Bismuth (Bi)-Dissolved			99.1		%		80-120	18-SEP-20
Boron (B)-Dissolved			94.0		%		80-120	18-SEP-20
Cadmium (Cd)-Dissolved			95.4		%		80-120	18-SEP-20
Calcium (Ca)-Dissolved			101.3		%		80-120	18-SEP-20
Cesium (Cs)-Dissolved			97.1		%		80-120	18-SEP-20
Chromium (Cr)-Dissolved			94.4		%		80-120	18-SEP-20
Cobalt (Co)-Dissolved			95.3		%		80-120	18-SEP-20
Copper (Cu)-Dissolved			95.2		%		80-120	18-SEP-20
Iron (Fe)-Dissolved			107.5		%		80-120	18-SEP-20
Lead (Pb)-Dissolved			97.1		%		80-120	18-SEP-20
Lithium (Li)-Dissolved			101.8		%		80-120	18-SEP-20
Magnesium (Mg)-Dissolved			99.7		%		80-120	18-SEP-20
Manganese (Mn)-Dissolved			96.2		%		80-120	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-6 LCS								
Molybdenum (Mo)-Dissolved			101.9		%		80-120	18-SEP-20
Nickel (Ni)-Dissolved			93.8		%		80-120	18-SEP-20
Phosphorus (P)-Dissolved			95.4		%		80-120	18-SEP-20
Potassium (K)-Dissolved			102.0		%		80-120	18-SEP-20
Rubidium (Rb)-Dissolved			97.2		%		80-120	18-SEP-20
Selenium (Se)-Dissolved			96.5		%		80-120	18-SEP-20
Silicon (Si)-Dissolved			97.5		%		80-120	18-SEP-20
Silver (Ag)-Dissolved			96.8		%		80-120	18-SEP-20
Sodium (Na)-Dissolved			95.7		%		80-120	18-SEP-20
Strontium (Sr)-Dissolved			101.3		%		80-120	18-SEP-20
Sulfur (S)-Dissolved			76.0	MES	%		80-120	18-SEP-20
Tellurium (Te)-Dissolved			94.7		%		80-120	18-SEP-20
Thallium (Tl)-Dissolved			96.6		%		80-120	18-SEP-20
Thorium (Th)-Dissolved			97.6		%		80-120	18-SEP-20
Tin (Sn)-Dissolved			97.5		%		80-120	18-SEP-20
Titanium (Ti)-Dissolved			94.5		%		80-120	18-SEP-20
Tungsten (W)-Dissolved			97.6		%		80-120	18-SEP-20
Uranium (U)-Dissolved			93.0		%		80-120	18-SEP-20
Vanadium (V)-Dissolved			96.6		%		80-120	18-SEP-20
Zinc (Zn)-Dissolved			94.9		%		80-120	18-SEP-20
Zirconium (Zr)-Dissolved			105.2		%		80-120	18-SEP-20
WG3406793-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	18-SEP-20
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	18-SEP-20
Boron (B)-Dissolved			<0.010		mg/L		0.01	18-SEP-20
Cadmium (Cd)-Dissolved			<0.000005C		mg/L		0.000005	18-SEP-20
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	18-SEP-20
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	18-SEP-20
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-1 MB								
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	18-SEP-20
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	18-SEP-20
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	18-SEP-20
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	18-SEP-20
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	18-SEP-20
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	18-SEP-20
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	18-SEP-20
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	18-SEP-20
Potassium (K)-Dissolved			<0.050		mg/L		0.05	18-SEP-20
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	18-SEP-20
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	18-SEP-20
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	18-SEP-20
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	18-SEP-20
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	18-SEP-20
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	18-SEP-20
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	18-SEP-20
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	18-SEP-20
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	18-SEP-20
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	18-SEP-20
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	18-SEP-20
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	18-SEP-20
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	18-SEP-20
Zirconium (Zr)-Dissolved			<0.00020		mg/L		0.0002	18-SEP-20
WG3406793-5 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	18-SEP-20
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-5 MB								
Boron (B)-Dissolved			<0.010		mg/L		0.01	18-SEP-20
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	18-SEP-20
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	18-SEP-20
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	18-SEP-20
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	18-SEP-20
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	18-SEP-20
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	18-SEP-20
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	18-SEP-20
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	18-SEP-20
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	18-SEP-20
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	18-SEP-20
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	18-SEP-20
Potassium (K)-Dissolved			<0.050		mg/L		0.05	18-SEP-20
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	18-SEP-20
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	18-SEP-20
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	18-SEP-20
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	18-SEP-20
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	18-SEP-20
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	18-SEP-20
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	18-SEP-20
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	18-SEP-20
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	18-SEP-20
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	18-SEP-20
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	18-SEP-20
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	18-SEP-20
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	18-SEP-20
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	18-SEP-20
Zirconium (Zr)-Dissolved			<0.00020		mg/L		0.0002	18-SEP-20
WG3406793-4 MS		**L2503878-14**						

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-4 MS		**L2503878-14**						
Aluminum (Al)-Dissolved			100.9		%		70-130	18-SEP-20
Antimony (Sb)-Dissolved			97.4		%		70-130	18-SEP-20
Arsenic (As)-Dissolved			101.9		%		70-130	18-SEP-20
Barium (Ba)-Dissolved			104.5		%		70-130	18-SEP-20
Beryllium (Be)-Dissolved			102.7		%		70-130	18-SEP-20
Bismuth (Bi)-Dissolved			94.6		%		70-130	18-SEP-20
Boron (B)-Dissolved			102.4		%		70-130	18-SEP-20
Cadmium (Cd)-Dissolved			99.3		%		70-130	18-SEP-20
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	18-SEP-20
Cesium (Cs)-Dissolved			102.7		%		70-130	18-SEP-20
Chromium (Cr)-Dissolved			97.0		%		70-130	18-SEP-20
Cobalt (Co)-Dissolved			98.6		%		70-130	18-SEP-20
Copper (Cu)-Dissolved			96.1		%		70-130	18-SEP-20
Iron (Fe)-Dissolved			99.7		%		70-130	18-SEP-20
Lead (Pb)-Dissolved			101.1		%		70-130	18-SEP-20
Lithium (Li)-Dissolved			101.5		%		70-130	18-SEP-20
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	18-SEP-20
Manganese (Mn)-Dissolved			99.4		%		70-130	18-SEP-20
Molybdenum (Mo)-Dissolved			101.8		%		70-130	18-SEP-20
Nickel (Ni)-Dissolved			97.5		%		70-130	18-SEP-20
Phosphorus (P)-Dissolved			99.3		%		70-130	18-SEP-20
Potassium (K)-Dissolved			103.7		%		70-130	18-SEP-20
Rubidium (Rb)-Dissolved			102.9		%		70-130	18-SEP-20
Selenium (Se)-Dissolved			102.4		%		70-130	18-SEP-20
Silicon (Si)-Dissolved			89.1		%		70-130	18-SEP-20
Silver (Ag)-Dissolved			99.97		%		70-130	18-SEP-20
Sodium (Na)-Dissolved			98.2		%		70-130	18-SEP-20
Strontium (Sr)-Dissolved			112.1		%		70-130	18-SEP-20
Sulfur (S)-Dissolved			103.7		%		70-130	18-SEP-20
Tellurium (Te)-Dissolved			95.2		%		70-130	18-SEP-20
Thallium (Tl)-Dissolved			101.0		%		70-130	18-SEP-20
Thorium (Th)-Dissolved			102.2		%		70-130	18-SEP-20
Tin (Sn)-Dissolved			97.3		%		70-130	18-SEP-20
Titanium (Ti)-Dissolved			98.7		%		70-130	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-4 MS		**L2503878-14**						
Tungsten (W)-Dissolved			101.8		%		70-130	18-SEP-20
Uranium (U)-Dissolved			101.2		%		70-130	18-SEP-20
Vanadium (V)-Dissolved			98.6		%		70-130	18-SEP-20
Zinc (Zn)-Dissolved			99.4		%		70-130	18-SEP-20
Zirconium (Zr)-Dissolved			105.0		%		70-130	18-SEP-20
WG3406793-8 MS		**L2503878-29**						
Aluminum (Al)-Dissolved			98.4		%		70-130	18-SEP-20
Antimony (Sb)-Dissolved			96.8		%		70-130	18-SEP-20
Arsenic (As)-Dissolved			101.4		%		70-130	18-SEP-20
Barium (Ba)-Dissolved			102.5		%		70-130	18-SEP-20
Beryllium (Be)-Dissolved			95.7		%		70-130	18-SEP-20
Bismuth (Bi)-Dissolved			93.9		%		70-130	18-SEP-20
Boron (B)-Dissolved			93.5		%		70-130	18-SEP-20
Cadmium (Cd)-Dissolved			100.5		%		70-130	18-SEP-20
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	18-SEP-20
Cesium (Cs)-Dissolved			101.5		%		70-130	18-SEP-20
Chromium (Cr)-Dissolved			98.5		%		70-130	18-SEP-20
Cobalt (Co)-Dissolved			99.0		%		70-130	18-SEP-20
Copper (Cu)-Dissolved			97.9		%		70-130	18-SEP-20
Iron (Fe)-Dissolved			98.2		%		70-130	18-SEP-20
Lead (Pb)-Dissolved			100.6		%		70-130	18-SEP-20
Lithium (Li)-Dissolved			94.0		%		70-130	18-SEP-20
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	18-SEP-20
Manganese (Mn)-Dissolved			100.0		%		70-130	18-SEP-20
Molybdenum (Mo)-Dissolved			97.1		%		70-130	18-SEP-20
Nickel (Ni)-Dissolved			98.6		%		70-130	18-SEP-20
Phosphorus (P)-Dissolved			98.6		%		70-130	18-SEP-20
Potassium (K)-Dissolved			102.9		%		70-130	18-SEP-20
Rubidium (Rb)-Dissolved			101.3		%		70-130	18-SEP-20
Selenium (Se)-Dissolved			99.9		%		70-130	18-SEP-20
Silicon (Si)-Dissolved			84.8		%		70-130	18-SEP-20
Silver (Ag)-Dissolved			99.9		%		70-130	18-SEP-20
Sodium (Na)-Dissolved			96.0		%		70-130	18-SEP-20
Strontium (Sr)-Dissolved			108.3		%		70-130	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5228716								
WG3406793-8 MS		**L2503878-29**						
Sulfur (S)-Dissolved			95.4		%		70-130	18-SEP-20
Tellurium (Te)-Dissolved			90.8		%		70-130	18-SEP-20
Thallium (Tl)-Dissolved			101.5		%		70-130	18-SEP-20
Thorium (Th)-Dissolved			102.5		%		70-130	18-SEP-20
Tin (Sn)-Dissolved			96.8		%		70-130	18-SEP-20
Titanium (Ti)-Dissolved			95.7		%		70-130	18-SEP-20
Tungsten (W)-Dissolved			100.2		%		70-130	18-SEP-20
Uranium (U)-Dissolved			98.2		%		70-130	18-SEP-20
Vanadium (V)-Dissolved			100.1		%		70-130	18-SEP-20
Zinc (Zn)-Dissolved			102.2		%		70-130	18-SEP-20
Zirconium (Zr)-Dissolved			105.2		%		70-130	18-SEP-20
MET-T-CCMS-TB	**Water**							
Batch R5228643								
WG3406430-11 DUP		**L2503878-23**						
Aluminum (Al)-Total		0.0206	0.0202		mg/L	1.9	20	17-SEP-20
Antimony (Sb)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Arsenic (As)-Total		0.00079	0.00082		mg/L	3.6	20	17-SEP-20
Barium (Ba)-Total		0.00659	0.00661		mg/L	0.3	20	17-SEP-20
Beryllium (Be)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Bismuth (Bi)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	17-SEP-20
Boron (B)-Total		<0.010	<0.010	RPD-NA	mg/L	N/A	20	17-SEP-20
Cadmium (Cd)-Total		<0.0000050	<0.000005(	RPD-NA	mg/L	N/A	20	17-SEP-20
Calcium (Ca)-Total		9.24	9.60		mg/L	3.8	20	17-SEP-20
Cesium (Cs)-Total		<0.000010	0.000010	RPD-NA	mg/L	N/A	20	17-SEP-20
Chromium (Cr)-Total		0.00019	0.00015	J	mg/L	0.00003	0.0002	17-SEP-20
Cobalt (Co)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Copper (Cu)-Total		0.00066	0.00066		mg/L	0.4	20	17-SEP-20
Iron (Fe)-Total		0.077	0.077		mg/L	0.1	20	17-SEP-20
Lead (Pb)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	17-SEP-20
Lithium (Li)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	17-SEP-20
Magnesium (Mg)-Total		1.38	1.43		mg/L	3.2	20	17-SEP-20
Manganese (Mn)-Total		0.00980	0.00956		mg/L	2.5	20	17-SEP-20
Molybdenum (Mo)-Total		0.000064	0.000064		mg/L	0.0	20	17-SEP-20
Nickel (Ni)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	17-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5228643								
WG3406430-11 DUP		**L2503878-23**						
Phosphorus (P)-Total		<0.050	<0.050	RPD-NA	mg/L	N/A	20	17-SEP-20
Potassium (K)-Total		0.616	0.613		mg/L	0.4	20	17-SEP-20
Rubidium (Rb)-Total		0.00170	0.00169		mg/L	1.0	20	17-SEP-20
Selenium (Se)-Total		0.000087	0.000103		mg/L	18	20	17-SEP-20
Silicon (Si)-Total		0.91	0.89		mg/L	1.7	20	17-SEP-20
Silver (Ag)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	17-SEP-20
Sodium (Na)-Total		0.670	0.686		mg/L	2.4	20	17-SEP-20
Strontium (Sr)-Total		0.0206	0.0213		mg/L	3.0	20	17-SEP-20
Sulfur (S)-Total		<0.50	<0.50	RPD-NA	mg/L	N/A	20	17-SEP-20
Tellurium (Te)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	17-SEP-20
Thallium (Tl)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	17-SEP-20
Thorium (Th)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Tin (Sn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Titanium (Ti)-Total		0.00046	0.00038		mg/L	18	20	17-SEP-20
Tungsten (W)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Uranium (U)-Total		0.000019	0.000021		mg/L	11	20	17-SEP-20
Vanadium (V)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	17-SEP-20
Zinc (Zn)-Total		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	17-SEP-20
Zirconium (Zr)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	17-SEP-20
WG3406430-7 DUP		**L2503878-3**						
Aluminum (Al)-Total		0.0083	0.0088		mg/L	5.4	20	17-SEP-20
Antimony (Sb)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Arsenic (As)-Total		0.00102	0.00103		mg/L	0.8	20	17-SEP-20
Barium (Ba)-Total		0.00587	0.00590		mg/L	0.5	20	17-SEP-20
Beryllium (Be)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Bismuth (Bi)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	17-SEP-20
Boron (B)-Total		<0.010	<0.010	RPD-NA	mg/L	N/A	20	17-SEP-20
Cadmium (Cd)-Total		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	17-SEP-20
Calcium (Ca)-Total		9.59	9.83		mg/L	2.5	20	17-SEP-20
Cesium (Cs)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	17-SEP-20
Chromium (Cr)-Total		0.00024	0.00028		mg/L	16	20	17-SEP-20
Cobalt (Co)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Copper (Cu)-Total		0.00068	0.00067		mg/L	1.6	20	17-SEP-20
Iron (Fe)-Total		0.024	0.027		mg/L	9.7	20	17-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5228643								
WG3406430-7 DUP		**L2503878-3**						
Lead (Pb)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	17-SEP-20
Lithium (Li)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	17-SEP-20
Magnesium (Mg)-Total		1.42	1.44		mg/L	1.3	20	17-SEP-20
Manganese (Mn)-Total		0.00373	0.00382		mg/L	2.5	20	17-SEP-20
Molybdenum (Mo)-Total		0.000071	0.000068		mg/L	4.4	20	17-SEP-20
Nickel (Ni)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	17-SEP-20
Phosphorus (P)-Total		<0.050	<0.050	RPD-NA	mg/L	N/A	20	17-SEP-20
Potassium (K)-Total		0.538	0.544		mg/L	1.0	20	17-SEP-20
Rubidium (Rb)-Total		0.00158	0.00162		mg/L	2.4	20	17-SEP-20
Selenium (Se)-Total		0.000091	0.000078		mg/L	16	20	17-SEP-20
Silicon (Si)-Total		0.97	0.95		mg/L	1.8	20	17-SEP-20
Silver (Ag)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	17-SEP-20
Sodium (Na)-Total		0.633	0.663		mg/L	4.7	20	17-SEP-20
Strontium (Sr)-Total		0.0202	0.0208		mg/L	3.0	20	17-SEP-20
Sulfur (S)-Total		<0.50	<0.50	RPD-NA	mg/L	N/A	20	17-SEP-20
Tellurium (Te)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	17-SEP-20
Thallium (Tl)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	17-SEP-20
Thorium (Th)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Tin (Sn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Titanium (Ti)-Total		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	17-SEP-20
Tungsten (W)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	17-SEP-20
Uranium (U)-Total		0.000017	0.000016		mg/L	6.0	20	17-SEP-20
Vanadium (V)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	17-SEP-20
Zinc (Zn)-Total		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	17-SEP-20
Zirconium (Zr)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	17-SEP-20
WG3406430-10 LCS								
Aluminum (Al)-Total			100.9		%		80-120	17-SEP-20
Antimony (Sb)-Total			101.2		%		80-120	17-SEP-20
Arsenic (As)-Total			102.1		%		80-120	17-SEP-20
Barium (Ba)-Total			101.0		%		80-120	17-SEP-20
Beryllium (Be)-Total			97.1		%		80-120	17-SEP-20
Bismuth (Bi)-Total			99.9		%		80-120	17-SEP-20
Boron (B)-Total			92.5		%		80-120	17-SEP-20
Cadmium (Cd)-Total			96.4		%		80-120	17-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5228643								
WG3406430-10 LCS								
Calcium (Ca)-Total			103.3		%		80-120	17-SEP-20
Cesium (Cs)-Total			99.6		%		80-120	17-SEP-20
Chromium (Cr)-Total			97.8		%		80-120	17-SEP-20
Cobalt (Co)-Total			98.2		%		80-120	17-SEP-20
Copper (Cu)-Total			97.4		%		80-120	17-SEP-20
Iron (Fe)-Total			111.4		%		80-120	17-SEP-20
Lead (Pb)-Total			97.3		%		80-120	17-SEP-20
Lithium (Li)-Total			98.7		%		80-120	17-SEP-20
Magnesium (Mg)-Total			98.5		%		80-120	17-SEP-20
Manganese (Mn)-Total			97.6		%		80-120	17-SEP-20
Molybdenum (Mo)-Total			101.1		%		80-120	17-SEP-20
Nickel (Ni)-Total			97.1		%		80-120	17-SEP-20
Phosphorus (P)-Total			102.3		%		80-120	17-SEP-20
Potassium (K)-Total			104.5		%		80-120	17-SEP-20
Rubidium (Rb)-Total			101.6		%		80-120	17-SEP-20
Selenium (Se)-Total			100.9		%		80-120	17-SEP-20
Silicon (Si)-Total			102.9		%		80-120	17-SEP-20
Silver (Ag)-Total			99.3		%		80-120	17-SEP-20
Sodium (Na)-Total			99.8		%		80-120	17-SEP-20
Strontium (Sr)-Total			101.0		%		80-120	17-SEP-20
Sulfur (S)-Total			74.1	MES	%		80-120	17-SEP-20
Tellurium (Te)-Total			101.6		%		80-120	17-SEP-20
Thallium (Tl)-Total			98.6		%		80-120	17-SEP-20
Thorium (Th)-Total			98.2		%		80-120	17-SEP-20
Tin (Sn)-Total			101.5		%		80-120	17-SEP-20
Titanium (Ti)-Total			100.6		%		80-120	17-SEP-20
Tungsten (W)-Total			100.7		%		80-120	17-SEP-20
Uranium (U)-Total			96.5		%		80-120	17-SEP-20
Vanadium (V)-Total			98.1		%		80-120	17-SEP-20
Zinc (Zn)-Total			97.0		%		80-120	17-SEP-20
Zirconium (Zr)-Total			104.0		%		80-120	17-SEP-20
WG3406430-6 LCS								
Aluminum (Al)-Total			102.1		%		80-120	17-SEP-20
Antimony (Sb)-Total			101.2		%		80-120	17-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5228643								
WG3406430-6 LCS								
Arsenic (As)-Total			102.8		%		80-120	17-SEP-20
Barium (Ba)-Total			107.7		%		80-120	17-SEP-20
Beryllium (Be)-Total			99.3		%		80-120	17-SEP-20
Bismuth (Bi)-Total			100.9		%		80-120	17-SEP-20
Boron (B)-Total			91.0		%		80-120	17-SEP-20
Cadmium (Cd)-Total			97.4		%		80-120	17-SEP-20
Calcium (Ca)-Total			102.9		%		80-120	17-SEP-20
Cesium (Cs)-Total			100.4		%		80-120	17-SEP-20
Chromium (Cr)-Total			99.2		%		80-120	17-SEP-20
Cobalt (Co)-Total			97.5		%		80-120	17-SEP-20
Copper (Cu)-Total			96.3		%		80-120	17-SEP-20
Iron (Fe)-Total			115.3		%		80-120	17-SEP-20
Lead (Pb)-Total			98.5		%		80-120	17-SEP-20
Lithium (Li)-Total			102.2		%		80-120	17-SEP-20
Magnesium (Mg)-Total			101.4		%		80-120	17-SEP-20
Manganese (Mn)-Total			99.8		%		80-120	17-SEP-20
Molybdenum (Mo)-Total			103.8		%		80-120	17-SEP-20
Nickel (Ni)-Total			98.1		%		80-120	17-SEP-20
Phosphorus (P)-Total			101.5		%		80-120	17-SEP-20
Potassium (K)-Total			101.9		%		80-120	17-SEP-20
Rubidium (Rb)-Total			104.7		%		80-120	17-SEP-20
Selenium (Se)-Total			102.3		%		80-120	17-SEP-20
Silicon (Si)-Total			99.6		%		80-120	17-SEP-20
Silver (Ag)-Total			99.0		%		80-120	17-SEP-20
Sodium (Na)-Total			99.6		%		80-120	17-SEP-20
Strontium (Sr)-Total			104.1		%		80-120	17-SEP-20
Sulfur (S)-Total			86.6		%		80-120	17-SEP-20
Tellurium (Te)-Total			95.1		%		80-120	17-SEP-20
Thallium (Tl)-Total			98.1		%		80-120	17-SEP-20
Thorium (Th)-Total			98.5		%		80-120	17-SEP-20
Tin (Sn)-Total			101.5		%		80-120	17-SEP-20
Titanium (Ti)-Total			98.9		%		80-120	17-SEP-20
Tungsten (W)-Total			101.3		%		80-120	17-SEP-20
Uranium (U)-Total			99.96		%		80-120	17-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5228643								
WG3406430-6 LCS								
Vanadium (V)-Total			99.7		%		80-120	17-SEP-20
Zinc (Zn)-Total			98.1		%		80-120	17-SEP-20
Zirconium (Zr)-Total			107.4		%		80-120	17-SEP-20
WG3406430-5 MB								
Aluminum (Al)-Total			<0.0030		mg/L		0.003	17-SEP-20
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Arsenic (As)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Barium (Ba)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	17-SEP-20
Boron (B)-Total			<0.010		mg/L		0.01	17-SEP-20
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	17-SEP-20
Calcium (Ca)-Total			<0.050		mg/L		0.05	17-SEP-20
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	17-SEP-20
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Copper (Cu)-Total			<0.00050		mg/L		0.0005	17-SEP-20
Iron (Fe)-Total			<0.010		mg/L		0.01	17-SEP-20
Lead (Pb)-Total			<0.000050		mg/L		0.00005	17-SEP-20
Lithium (Li)-Total			<0.0010		mg/L		0.001	17-SEP-20
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	17-SEP-20
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	17-SEP-20
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	17-SEP-20
Phosphorus (P)-Total			<0.050		mg/L		0.05	17-SEP-20
Potassium (K)-Total			<0.050		mg/L		0.05	17-SEP-20
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	17-SEP-20
Selenium (Se)-Total			<0.000050		mg/L		0.00005	17-SEP-20
Silicon (Si)-Total			<0.10		mg/L		0.1	17-SEP-20
Silver (Ag)-Total			<0.000010		mg/L		0.00001	17-SEP-20
Sodium (Na)-Total			<0.050		mg/L		0.05	17-SEP-20
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	17-SEP-20
Sulfur (S)-Total			<0.50		mg/L		0.5	17-SEP-20
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	17-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5228643								
WG3406430-5 MB								
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	17-SEP-20
Thorium (Th)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Tin (Sn)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	17-SEP-20
Tungsten (W)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Uranium (U)-Total			<0.000010		mg/L		0.00001	17-SEP-20
Vanadium (V)-Total			<0.00050		mg/L		0.0005	17-SEP-20
Zinc (Zn)-Total			<0.0030		mg/L		0.003	17-SEP-20
Zirconium (Zr)-Total			<0.00020		mg/L		0.0002	17-SEP-20
WG3406430-9 MB								
Aluminum (Al)-Total			<0.0030		mg/L		0.003	17-SEP-20
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Arsenic (As)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Barium (Ba)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	17-SEP-20
Boron (B)-Total			<0.010		mg/L		0.01	17-SEP-20
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	17-SEP-20
Calcium (Ca)-Total			<0.050		mg/L		0.05	17-SEP-20
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	17-SEP-20
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Copper (Cu)-Total			<0.00050		mg/L		0.0005	17-SEP-20
Iron (Fe)-Total			<0.010		mg/L		0.01	17-SEP-20
Lead (Pb)-Total			<0.000050		mg/L		0.00005	17-SEP-20
Lithium (Li)-Total			<0.0010		mg/L		0.001	17-SEP-20
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	17-SEP-20
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	17-SEP-20
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	17-SEP-20
Phosphorus (P)-Total			<0.050		mg/L		0.05	17-SEP-20
Potassium (K)-Total			<0.050		mg/L		0.05	17-SEP-20
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	17-SEP-20
Selenium (Se)-Total			<0.000050		mg/L		0.00005	17-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5228643								
WG3406430-9 MB								
Silicon (Si)-Total			<0.10		mg/L		0.1	17-SEP-20
Silver (Ag)-Total			<0.000010		mg/L		0.00001	17-SEP-20
Sodium (Na)-Total			<0.050		mg/L		0.05	17-SEP-20
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	17-SEP-20
Sulfur (S)-Total			<0.50		mg/L		0.5	17-SEP-20
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	17-SEP-20
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	17-SEP-20
Thorium (Th)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Tin (Sn)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	17-SEP-20
Tungsten (W)-Total			<0.00010		mg/L		0.0001	17-SEP-20
Uranium (U)-Total			<0.000010		mg/L		0.00001	17-SEP-20
Vanadium (V)-Total			<0.00050		mg/L		0.0005	17-SEP-20
Zinc (Zn)-Total			<0.0030		mg/L		0.003	17-SEP-20
Zirconium (Zr)-Total			<0.00020		mg/L		0.0002	17-SEP-20
WG3406430-12 MS		**L2503878-24**						
Aluminum (Al)-Total			99.8		%		70-130	17-SEP-20
Antimony (Sb)-Total			100.9		%		70-130	17-SEP-20
Arsenic (As)-Total			101.2		%		70-130	17-SEP-20
Barium (Ba)-Total			101.2		%		70-130	17-SEP-20
Beryllium (Be)-Total			97.9		%		70-130	17-SEP-20
Bismuth (Bi)-Total			103.6		%		70-130	17-SEP-20
Boron (B)-Total			96.5		%		70-130	17-SEP-20
Cadmium (Cd)-Total			101.1		%		70-120	17-SEP-20
Calcium (Ca)-Total			N/A	MS-B	%		-	17-SEP-20
Cesium (Cs)-Total			104.2		%		70-130	17-SEP-20
Chromium (Cr)-Total			99.6		%		70-130	17-SEP-20
Cobalt (Co)-Total			102.9		%		70-130	17-SEP-20
Copper (Cu)-Total			100.8		%		70-130	17-SEP-20
Iron (Fe)-Total			98.2		%		70-130	17-SEP-20
Lead (Pb)-Total			101.2		%		70-130	17-SEP-20
Lithium (Li)-Total			100.0		%		70-130	17-SEP-20
Magnesium (Mg)-Total			N/A	MS-B	%		-	17-SEP-20
Manganese (Mn)-Total			98.8		%		70-130	17-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5228643								
WG3406430-12 MS		**L2503878-24**						
Molybdenum (Mo)-Total			102.1		%		70-130	17-SEP-20
Nickel (Ni)-Total			100.8		%		70-130	17-SEP-20
Phosphorus (P)-Total			97.9		%		70-130	17-SEP-20
Potassium (K)-Total			102.9		%		70-130	17-SEP-20
Rubidium (Rb)-Total			101.1		%		70-130	17-SEP-20
Selenium (Se)-Total			101.3		%		70-130	17-SEP-20
Silicon (Si)-Total			93.5		%		70-130	17-SEP-20
Silver (Ag)-Total			101.4		%		70-130	17-SEP-20
Sodium (Na)-Total			97.4		%		70-130	17-SEP-20
Strontium (Sr)-Total			108.0		%		70-130	17-SEP-20
Sulfur (S)-Total			98.0		%		70-130	17-SEP-20
Tellurium (Te)-Total			92.4		%		70-130	17-SEP-20
Thallium (Tl)-Total			102.8		%		70-130	17-SEP-20
Thorium (Th)-Total			104.1		%		70-130	17-SEP-20
Tin (Sn)-Total			99.9		%		70-130	17-SEP-20
Titanium (Ti)-Total			101.2		%		70-130	17-SEP-20
Tungsten (W)-Total			102.3		%		70-130	17-SEP-20
Uranium (U)-Total			100.1		%		70-130	17-SEP-20
Vanadium (V)-Total			100.3		%		70-130	17-SEP-20
Zinc (Zn)-Total			95.3		%		70-130	17-SEP-20
Zirconium (Zr)-Total			102.4		%		70-130	17-SEP-20
WG3406430-8 MS		**L2503878-4**						
Aluminum (Al)-Total			104.8		%		70-130	17-SEP-20
Antimony (Sb)-Total			102.2		%		70-130	17-SEP-20
Arsenic (As)-Total			104.9		%		70-130	17-SEP-20
Barium (Ba)-Total			105.6		%		70-130	17-SEP-20
Beryllium (Be)-Total			98.9		%		70-130	17-SEP-20
Bismuth (Bi)-Total			102.6		%		70-130	17-SEP-20
Boron (B)-Total			93.3		%		70-130	17-SEP-20
Cadmium (Cd)-Total			103.5		%		70-120	17-SEP-20
Calcium (Ca)-Total			N/A	MS-B	%		-	17-SEP-20
Cesium (Cs)-Total			105.5		%		70-130	17-SEP-20
Chromium (Cr)-Total			104.4		%		70-130	17-SEP-20
Cobalt (Co)-Total			104.6		%		70-130	17-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5228643								
WG3406430-8 MS		**L2503878-4**						
Copper (Cu)-Total			102.6		%		70-130	17-SEP-20
Iron (Fe)-Total			104.4		%		70-130	17-SEP-20
Lead (Pb)-Total			101.6		%		70-130	17-SEP-20
Lithium (Li)-Total			96.4		%		70-130	17-SEP-20
Magnesium (Mg)-Total			N/A	MS-B	%		-	17-SEP-20
Manganese (Mn)-Total			103.1		%		70-130	17-SEP-20
Molybdenum (Mo)-Total			103.8		%		70-130	17-SEP-20
Nickel (Ni)-Total			103.3		%		70-130	17-SEP-20
Phosphorus (P)-Total			102.2		%		70-130	17-SEP-20
Potassium (K)-Total			105.3		%		70-130	17-SEP-20
Rubidium (Rb)-Total			105.9		%		70-130	17-SEP-20
Selenium (Se)-Total			104.9		%		70-130	17-SEP-20
Silicon (Si)-Total			93.4		%		70-130	17-SEP-20
Silver (Ag)-Total			103.8		%		70-130	17-SEP-20
Sodium (Na)-Total			98.8		%		70-130	17-SEP-20
Strontium (Sr)-Total			N/A	MS-B	%		-	17-SEP-20
Sulfur (S)-Total			102.8		%		70-130	17-SEP-20
Tellurium (Te)-Total			100.7		%		70-130	17-SEP-20
Thallium (Tl)-Total			102.0		%		70-130	17-SEP-20
Thorium (Th)-Total			104.8		%		70-130	17-SEP-20
Tin (Sn)-Total			101.5		%		70-130	17-SEP-20
Titanium (Ti)-Total			102.1		%		70-130	17-SEP-20
Tungsten (W)-Total			101.2		%		70-130	17-SEP-20
Uranium (U)-Total			100.0		%		70-130	17-SEP-20
Vanadium (V)-Total			102.9		%		70-130	17-SEP-20
Zinc (Zn)-Total			104.0		%		70-130	17-SEP-20
Zirconium (Zr)-Total			105.5		%		70-130	17-SEP-20
Batch R5231596								
WG3407352-2 LCS								
Aluminum (Al)-Total			103.2		%		80-120	18-SEP-20
Antimony (Sb)-Total			108.5		%		80-120	18-SEP-20
Arsenic (As)-Total			105.5		%		80-120	18-SEP-20
Barium (Ba)-Total			105.0		%		80-120	18-SEP-20
Beryllium (Be)-Total			107.2		%		80-120	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5231596								
WG3407352-2 LCS								
Bismuth (Bi)-Total			107.8		%		80-120	18-SEP-20
Boron (B)-Total			95.5		%		80-120	18-SEP-20
Cadmium (Cd)-Total			100.1		%		80-120	18-SEP-20
Calcium (Ca)-Total			107.1		%		80-120	18-SEP-20
Cesium (Cs)-Total			109.5		%		80-120	18-SEP-20
Chromium (Cr)-Total			102.5		%		80-120	18-SEP-20
Cobalt (Co)-Total			101.5		%		80-120	18-SEP-20
Copper (Cu)-Total			99.8		%		80-120	18-SEP-20
Iron (Fe)-Total			116.8		%		80-120	18-SEP-20
Lead (Pb)-Total			110.6		%		80-120	18-SEP-20
Lithium (Li)-Total			112.8		%		80-120	18-SEP-20
Magnesium (Mg)-Total			109.2		%		80-120	18-SEP-20
Manganese (Mn)-Total			103.6		%		80-120	18-SEP-20
Molybdenum (Mo)-Total			108.9		%		80-120	18-SEP-20
Nickel (Ni)-Total			101.4		%		80-120	18-SEP-20
Phosphorus (P)-Total			107.6		%		80-120	18-SEP-20
Potassium (K)-Total			107.6		%		80-120	18-SEP-20
Rubidium (Rb)-Total			105.6		%		80-120	18-SEP-20
Selenium (Se)-Total			104.9		%		80-120	18-SEP-20
Silicon (Si)-Total			107.8		%		80-120	18-SEP-20
Silver (Ag)-Total			109.0		%		80-120	18-SEP-20
Sodium (Na)-Total			107.3		%		80-120	18-SEP-20
Strontium (Sr)-Total			110.8		%		80-120	18-SEP-20
Sulfur (S)-Total			75.1	MES	%		80-120	18-SEP-20
Tellurium (Te)-Total			99.9		%		80-120	18-SEP-20
Thallium (Tl)-Total			111.6		%		80-120	18-SEP-20
Thorium (Th)-Total			112.0		%		80-120	18-SEP-20
Tin (Sn)-Total			103.0		%		80-120	18-SEP-20
Titanium (Ti)-Total			101.0		%		80-120	18-SEP-20
Tungsten (W)-Total			112.5		%		80-120	18-SEP-20
Uranium (U)-Total			104.9		%		80-120	18-SEP-20
Vanadium (V)-Total			102.0		%		80-120	18-SEP-20
Zinc (Zn)-Total			102.6		%		80-120	18-SEP-20
Zirconium (Zr)-Total			111.9		%		80-120	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5231596								
WG3407352-1 MB								
Aluminum (Al)-Total			<0.0030		mg/L		0.003	18-SEP-20
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	18-SEP-20
Arsenic (As)-Total			<0.00010		mg/L		0.0001	18-SEP-20
Barium (Ba)-Total			<0.00010		mg/L		0.0001	18-SEP-20
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	18-SEP-20
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	18-SEP-20
Boron (B)-Total			<0.010		mg/L		0.01	18-SEP-20
Cadmium (Cd)-Total			<0.000005C		mg/L		0.000005	18-SEP-20
Calcium (Ca)-Total			<0.050		mg/L		0.05	18-SEP-20
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	18-SEP-20
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	18-SEP-20
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	18-SEP-20
Copper (Cu)-Total			<0.00050		mg/L		0.0005	18-SEP-20
Iron (Fe)-Total			<0.010		mg/L		0.01	18-SEP-20
Lead (Pb)-Total			<0.000050		mg/L		0.00005	18-SEP-20
Lithium (Li)-Total			<0.0010		mg/L		0.001	18-SEP-20
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	18-SEP-20
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	18-SEP-20
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	18-SEP-20
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	18-SEP-20
Phosphorus (P)-Total			<0.050		mg/L		0.05	18-SEP-20
Potassium (K)-Total			<0.050		mg/L		0.05	18-SEP-20
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	18-SEP-20
Selenium (Se)-Total			<0.000050		mg/L		0.00005	18-SEP-20
Silicon (Si)-Total			<0.10		mg/L		0.1	18-SEP-20
Silver (Ag)-Total			<0.000010		mg/L		0.00001	18-SEP-20
Sodium (Na)-Total			<0.050		mg/L		0.05	18-SEP-20
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	18-SEP-20
Sulfur (S)-Total			<0.50		mg/L		0.5	18-SEP-20
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	18-SEP-20
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	18-SEP-20
Thorium (Th)-Total			<0.00010		mg/L		0.0001	18-SEP-20
Tin (Sn)-Total			<0.00010		mg/L		0.0001	18-SEP-20
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5231596								
WG3407352-1 MB								
Tungsten (W)-Total			<0.00010		mg/L		0.0001	18-SEP-20
Uranium (U)-Total			<0.000010		mg/L		0.00001	18-SEP-20
Vanadium (V)-Total			<0.00050		mg/L		0.0005	18-SEP-20
Zinc (Zn)-Total			<0.0030		mg/L		0.003	18-SEP-20
Zirconium (Zr)-Total			<0.00020		mg/L		0.0002	18-SEP-20
NH3-F-TB	**Water**							
Batch R5233130								
WG3407528-3 DUP		**L2503878-19**						
Ammonia, Total (as N)		0.0442	0.0445		mg/L	0.7	20	24-SEP-20
WG3406744-2 LCS								
Ammonia, Total (as N)			99.8		%		85-115	24-SEP-20
WG3407528-2 LCS								
Ammonia, Total (as N)			99.9		%		85-115	24-SEP-20
WG3406744-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	24-SEP-20
WG3407528-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	24-SEP-20
WG3407528-4 MS		**L2503878-20**						
Ammonia, Total (as N)			117.3		%		75-125	24-SEP-20
Batch R5236079								
WG3411672-3 DUP		**L2503878-11**						
Ammonia, Total (as N)		0.119	0.121		mg/L	1.0	20	24-SEP-20
WG3411672-2 LCS								
Ammonia, Total (as N)			97.6		%		85-115	24-SEP-20
WG3411672-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	24-SEP-20
P-T-COL-TB	**Water**							
Batch R5231462								
WG3407540-3 DUP		**L2503878-24**						
Phosphorus (P)-Total		0.0086	0.0094		mg/L	9.0	20	21-SEP-20
WG3406535-2 LCS								
Phosphorus (P)-Total			102.9		%		80-120	21-SEP-20
WG3407540-2 LCS								
Phosphorus (P)-Total			102.0		%		80-120	21-SEP-20
WG3406535-1 MB								
Phosphorus (P)-Total			<0.0030		mg/L		0.003	21-SEP-20
WG3407540-1 MB								

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
P-T-COL-TB	**Water**							
Batch R5231462								
WG3407540-1 MB								
Phosphorus (P)-Total			<0.0030		mg/L		0.003	21-SEP-20
WG3407540-4 MS		**L2503878-25**						
Phosphorus (P)-Total			114.8		%		70-130	21-SEP-20
Batch R5233180								
WG3406748-3 DUP		**L2503878-4**						
Phosphorus (P)-Total		0.0089	0.0106		mg/L	17	20	23-SEP-20
WG3406748-2 LCS								
Phosphorus (P)-Total			102.9		%		80-120	23-SEP-20
WG3406748-1 MB								
Phosphorus (P)-Total			<0.0030		mg/L		0.003	23-SEP-20
WG3406748-4 MS		**L2503878-5**						
Phosphorus (P)-Total			111.5		%		70-130	23-SEP-20
PH-TITR-TB	**Water**							
Batch R5228421								
WG3406546-3 DUP		**L2503878-24**						
pH		7.52	7.54	J	pH	0.02	0.2	17-SEP-20
WG3406556-7 DUP		**L2503878-19**						
pH		7.55	7.53	J	pH	0.02	0.2	17-SEP-20
WG3406546-2 LCS								
pH			6.97		pH		6.9-7.1	17-SEP-20
WG3406556-9 LCS								
pH			6.96		pH		6.9-7.1	17-SEP-20
Batch R5231283								
WG3408107-2 LCS								
pH			7.00		pH		6.9-7.1	20-SEP-20
WG3408172-2 LCS								
pH			7.00		pH		6.9-7.1	20-SEP-20
PO4-DO-COL-TB	**Water**							
Batch R5230997								
WG3406562-3 DUP		**L2503878-25**						
Orthophosphate-Dissolved (as P)		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	18-SEP-20
WG3406572-3 DUP		**L2503878-12**						
Orthophosphate-Dissolved (as P)		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	18-SEP-20
WG3407455-3 DUP		**L2503878-22**						
Orthophosphate-Dissolved (as P)		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	18-SEP-20
WG3406562-2 LCS								
Orthophosphate-Dissolved (as P)			102.5		%		80-120	18-SEP-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PO4-DO-COL-TB	**Water**							
Batch R5230997								
WG3406562-2 LCS								
Orthophosphate-Dissolved (as P)			98.8		%		80-120	18-SEP-20
WG3406572-2 LCS								
Orthophosphate-Dissolved (as P)			96.4		%		80-120	18-SEP-20
WG3407455-2 LCS								
Orthophosphate-Dissolved (as P)			96.6		%		80-120	18-SEP-20
WG3406562-1 MB								
Orthophosphate-Dissolved (as P)			<0.0030		mg/L		0.003	18-SEP-20
WG3406572-1 MB								
Orthophosphate-Dissolved (as P)			<0.0030		mg/L		0.003	18-SEP-20
WG3407455-1 MB								
Orthophosphate-Dissolved (as P)			<0.0030		mg/L		0.003	18-SEP-20
WG3406562-4 MS		**L2503878-26**						
Orthophosphate-Dissolved (as P)			98.8		%		70-130	18-SEP-20
WG3406572-4 MS		**L2503878-13**						
Orthophosphate-Dissolved (as P)			94.2		%		70-130	18-SEP-20
WG3407455-4 MS		**L2503878-23**						
Orthophosphate-Dissolved (as P)			98.7		%		70-130	19-SEP-20
TDS-TB	**Water**							
Batch R5229099								
WG3406342-2 LCS								
Total Dissolved Solids			98.2		%		85-115	17-SEP-20
WG3406342-1 MB								
Total Dissolved Solids			<10		mg/L		10	17-SEP-20
Batch R5229321								
WG3406669-2 LCS								
Total Dissolved Solids			98.1		%		85-115	17-SEP-20
WG3406669-1 MB								
Total Dissolved Solids			<10		mg/L		10	17-SEP-20
Batch R5230845								
WG3407279-2 LCS								
Total Dissolved Solids			98.8		%		85-115	18-SEP-20
WG3407279-1 MB								
Total Dissolved Solids			<10		mg/L		10	18-SEP-20
TOC-WT	**Water**							

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TOC-WT	**Water**							
Batch R5235131								
WG3408495-3 DUP		**L2503878-30**						
Total Organic Carbon		0.83	0.74		mg/L	11	20	23-SEP-20
WG3408495-2 LCS								
Total Organic Carbon			98.3		%		80-120	23-SEP-20
WG3408495-1 MB								
Total Organic Carbon			<0.50		mg/L		0.5	23-SEP-20
WG3408495-4 MS		**L2503878-30**						
Total Organic Carbon			98.5		%		70-130	23-SEP-20
Batch R5237119								
WG3407908-2 LCS								
Total Organic Carbon			112.3		%		80-120	24-SEP-20
WG3407908-1 MB								
Total Organic Carbon			<0.50		mg/L		0.5	24-SEP-20
TSS-TB	**Water**							
Batch R5228825								
WG3406350-2 LCS								
Total Suspended Solids			93.0		%		85-115	17-SEP-20
WG3406350-1 MB								
Total Suspended Solids			<3.0		mg/L		3	17-SEP-20
Batch R5228927								
WG3406674-2 LCS								
Total Suspended Solids			92.8		%		85-115	17-SEP-20
WG3406674-1 MB								
Total Suspended Solids			<3.0		mg/L		3	17-SEP-20
Batch R5230807								
WG3407281-5 LCS								
Total Suspended Solids			89.7		%		85-115	18-SEP-20
WG3407281-4 MB								
Total Suspended Solids			<3.0		mg/L		3	18-SEP-20

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
pH							
	12	11-SEP-20 11:56	17-SEP-20 11:17	4	6	days	EHTR
	13	11-SEP-20 12:29	17-SEP-20 11:17	4	6	days	EHTR
	14	11-SEP-20 13:11	17-SEP-20 11:17	4	6	days	EHTR
	15	11-SEP-20 13:23	17-SEP-20 11:17	4	6	days	EHTR
	16	11-SEP-20 14:09	17-SEP-20 11:17	4	6	days	EHTR
	17	11-SEP-20 12:01	17-SEP-20 11:17	4	6	days	EHTR
	18	11-SEP-20 14:20	17-SEP-20 11:17	4	6	days	EHTR
	19	11-SEP-20 15:57	17-SEP-20 11:17	4	6	days	EHTR
	20	11-SEP-20 16:47	19-SEP-20 13:00	4	8	days	EHTR
	21	11-SEP-20 17:19	19-SEP-20 13:00	4	8	days	EHTR
	22	12-SEP-20 11:21	19-SEP-20 13:00	4	7	days	EHTR
	23	12-SEP-20 12:26	19-SEP-20 15:00	4	7	days	EHTR
	24	12-SEP-20 13:08	17-SEP-20 11:17	4	5	days	EHTL
	25	12-SEP-20 13:38	17-SEP-20 11:17	4	5	days	EHTL
	26	12-SEP-20 14:45	17-SEP-20 11:17	4	5	days	EHTL
	27	12-SEP-20 15:05	17-SEP-20 11:17	4	5	days	EHTL
	28	12-SEP-20 15:30	17-SEP-20 11:17	4	5	days	EHTL

Legend & Qualifier Definitions:

EHTR-FM:	Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR:	Exceeded ALS recommended hold time prior to sample receipt.
EHTL:	Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT:	Exceeded ALS recommended hold time prior to analysis.
Rec. HT:	ALS recommended hold time (see units).

Notes*:
Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2503878 were received on 16-SEP-20 12:30.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Your P.O. #: L2503878
Your C.O.C. #: N/A

Attention: Christine Paradis

ALS Laboratory Group
Environmental Div.
1081 Barton St.
Thunder Bay, ON
Canada P7B 5N3

Report Date: 2020/10/05
Report #: R6358113
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0O4309
Received: 2020/09/21, 06:00

Sample Matrix: Water
Samples Received: 5

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Radium Isotopes by Alpha Spectrometry (1)	3	N/A	2020/09/25	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry
Radium Isotopes by Alpha Spectrometry (1)	2	N/A	2020/09/30	BQL SOP-00006 BQL SOP-00017 BQL SOP-00032	Alpha Spectrometry

Remarks:

Bureau Veritas Laboratories are accredited to ISO/IEC 17025 for specific parameters on scopes of accreditation. Unless otherwise noted, procedures used by BV Labs are based upon recognized Provincial, Federal or US method compendia such as CCME, MELCC, EPA, APHA.

All work recorded herein has been done in accordance with procedures and practices ordinarily exercised by professionals in BV Labs profession using accepted testing methodologies, quality assurance and quality control procedures (except where otherwise agreed by the client and BV Labs in writing). All data is in statistical control and has met quality control and method performance criteria unless otherwise noted. All method blanks are reported; unless indicated otherwise, associated sample data are not blank corrected. Where applicable, unless otherwise noted, Measurement Uncertainty has not been accounted for when stating conformity to the referenced standard.

BV Labs liability is limited to the actual cost of the requested analyses, unless otherwise agreed in writing. There is no other warranty expressed or implied. BV Labs has been retained to provide analysis of samples provided by the Client using the testing methodology referenced in this report. Interpretation and use of test results are the sole responsibility of the Client and are not within the scope of services provided by BV Labs, unless otherwise agreed in writing. BV Labs is not responsible for the accuracy or any data impacts, that result from the information provided by the customer or their agent.

Solid sample results, except biota, are based on dry weight unless otherwise indicated. Organic analyses are not recovery corrected except for isotope dilution methods.
Results relate to samples tested. When sampling is not conducted by BV Labs, results relate to the supplied samples tested.
This Certificate shall not be reproduced except in full, without the written approval of the laboratory.
Reference Method suffix “m” indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) Radium-226 results have not been corrected for blanks.

Your P.O. #: L2503878
Your C.O.C. #: N/A

Attention: Christine Paradis

ALS Laboratory Group
Environmental Div.
1081 Barton St.
Thunder Bay, ON
Canada P7B 5N3

Report Date: 2020/10/05
Report #: R6358113
Version: 1 - Final

CERTIFICATE OF ANALYSIS

BV LABS JOB #: C0O4309
Received: 2020/09/21, 06:00

Encryption Key

Please direct all questions regarding this Certificate of Analysis to your Project Manager.
Mayank Nigam, Project Manager
Email: Mayank.Nigam@bvlabs.com
Phone# (905) 826-3080
==========
This report has been generated and distributed using a secure automated process.
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BV Labs Job #: C0O4309
Report Date: 2020/10/05

ALS Laboratory Group
Your P.O. #: L2503878

RESULTS OF ANALYSES OF WATER

BV Labs ID		NRE827	NRE828	NRE829	NRE830		
Sampling Date		2020/09/13	2020/09/13	2020/09/13	2020/09/11		
COC Number		N/A	N/A	N/A	N/A		
	UNITS	L2503878-2 SP-SW-24	L2503878-5 SP-SW-21	L2503878-6 SP-SW-19	L2503878-16 SP-SW-12	RDL	QC Batch
Radium-226	Bq/L	<0.010	<0.010	<0.010	<0.010	0.010	6957149

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs ID		NRE831		
Sampling Date		2020/09/12		
COC Number		N/A		
	UNITS	L2503878-27 SP-SW-6	RDL	QC Batch
Radium-226	Bq/L	<0.010	0.010	6957149

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Laboratories 6790 Kitimat Rd, Unit 4, Mississauga, ON L5N 5L9 Phone: (905) 826-3080 Fax: (905) 826-4151 Toll Free: 1 877-726-3080 www.bvlabs.com

TEST SUMMARY

BV Labs ID: NRE827
Sample ID: L2503878-2 SP-SW-24
Matrix: Water

Collected: 2020/09/13
Shipped:
Received: 2020/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Radium Isotopes by Alpha Spectrometry	AS	6957149	N/A	2020/09/25	Fariba Kashavarz

BV Labs ID: NRE828
Sample ID: L2503878-5 SP-SW-21
Matrix: Water

Collected: 2020/09/13
Shipped:
Received: 2020/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Radium Isotopes by Alpha Spectrometry	AS	6957149	N/A	2020/09/25	Fariba Kashavarz

BV Labs ID: NRE829
Sample ID: L2503878-6 SP-SW-19
Matrix: Water

Collected: 2020/09/13
Shipped:
Received: 2020/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Radium Isotopes by Alpha Spectrometry	AS	6957149	N/A	2020/09/30	Fariba Kashavarz

BV Labs ID: NRE830
Sample ID: L2503878-16 SP-SW-12
Matrix: Water

Collected: 2020/09/11
Shipped:
Received: 2020/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Radium Isotopes by Alpha Spectrometry	AS	6957149	N/A	2020/09/25	Fariba Kashavarz

BV Labs ID: NRE831
Sample ID: L2503878-27 SP-SW-6
Matrix: Water

Collected: 2020/09/12
Shipped:
Received: 2020/09/21

Test Description	Instrumentation	Batch	Extracted	Date Analyzed	Analyst
Radium Isotopes by Alpha Spectrometry	AS	6957149	N/A	2020/09/30	Fariba Kashavarz

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GENERAL COMMENTS

Results relate only to the items tested.

Bureau Veritas Laboratories 6790 Kitimat Rd, Unit 4, Mississauga, ON L5N 5L9 Phone: (905) 826-3080 Fax: (905) 826-4151 Toll Free: 1 877-726-3080 www.bvlabs.com

BV Labs Job #: C0O4309
Report Date: 2020/10/05

ALS Laboratory Group
Your P.O. #: L2503878

QUALITY ASSURANCE REPORT

QA/QC Batch	Init	QC Type	Parameter	Date Analyzed	Value	Recovery	UNITS	QC Limits
6957149	FK1	Spiked Blank	Radium-226	2020/09/25		107	%	85 - 115
6957149	FK1	Method Blank	Radium-226	2020/09/30	<0.010		Bq/L	
6957149	FK1	RPD	Radium-226	2020/09/25	NC		%	N/A

N/A = Not Applicable

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

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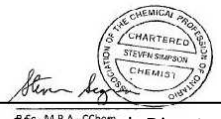
BV Labs Job #: C0O4309
Report Date: 2020/10/05

ALS Laboratory Group
Your P.O. #: L2503878

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).



Steven Simpson, Lab Director

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

Bureau Veritas Laboratories 6790 Kitimat Rd, Unit 4, Mississauga, ON L5N 5L9 Phone: (905) 826-3080 Fax: (905) 826-4151 Toll Free: 1 877-726-3080 www.bvlabs.com

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2503878-COFC

COC Number: 17 - 9M SD

Page 1 of 3

Report To	Contact and company name below will appear on the final report
Company:	Gold Canyon Resources Inc.
Contact:	David Mchaina
Phone:	519-241-9655
	Company address below will appear on the final report
Street:	c/o Suite 1805 - 925 West Georgia
City/Province:	Vancouver, BC
Postal Code:	V6C 3L2
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution

Select Report Format: ☒ PDF ☒ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report ☒ YES ☐ NO
☒ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX
Email 1: dmchaina@firstmininggold.com
Email 2: shaun@firstmininggold.com
Email 3: shila@firstmininggold.com

Invoice Distribution

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: accountspayable@firstmininggold.com
Email 2: dmchaina@firstmininggold.com

Oil and Gas Required Fields (client use)

AFE/Cost Center: | PO#
Major/Minor Code: | Routing Code:
Requisitioner:
Location:

Project Information

ALS Account # / Quote #: 20864 / Q64140
Job #: Springpole Surface Water
PO / AFE:
LSD: First Mining Gold Project

ALS Lab Work Order # (lab use only): L2503878
ALS Contact:
Sampler:

Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Alkalinity, Ammonia, Conductivity, CRB	Dissolved Metals, Dissolved Mercury	DOC, Fluoride, Hardness, pH, PO4	TDS, TOC, Total Metals, Total Mercury	Total Phosphorus, TSS	Methyl Mercury	Radium 226	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	SP-SW-18	Sept 13	10:32	Surface Water	9	x	x	x	x	x				
	SP-SW-24	Sept 13	10:43	Surface Water	11	x	x	x	x	x	x	x		
	SP-SW-20	Sept 13	11:57	Surface Water	9	x	x	x	x	x				
	SP-SW-27	Sept 13	12:23	Surface Water	9	x	x	x	x	x				
	SP-SW-21	Sept 13	13:24	Surface Water	11	x	x	x	x	x	x	x		
	SP-SW-19	Sept 13	13:37	Surface Water	11	x	x	x	x	x	x	x		
	SP-SW-23	Sept 13	14:06	Surface Water	9	x	x	x	x	x				
	SP-SW-3	Sept 13	14:53	Surface Water	9	x	x	x	x	x				
	SP-SW-9	Sept 13	16:27	Surface Water	9	x	x	x	x	x				
	Field Blank	Sept 13	16:27	Surface Water	9	x	x	x	x	x				
	SP-SW-26	Sept 13	17:43	Surface Water	9	x	x	x	x	x				
				Surface Water		x	x	x	x	x				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO
Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Compare to PW GQ & CCME

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☑ No ☐
Ice Packs ☒ Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
4.3							

SHIPMENT RELEASE (client use)

Released by: AL Date: Sept 15 Time: pm

INITIAL SHIPMENT RECEPTION (lab use only)

Received by: AL Date: Sept 16/20 Time: 12:30

FINAL SHIPMENT RECEPTION (lab use only)

Received by: Date: Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2019 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

Chain of Custody (COC) / Analytical Request Form

ALS www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2503878-COFC

Number: 17 - Page 2 of 3

Report To	Contact and company name below will appear on the final report
Company:	Gold Canyon Resources Inc.
Contact:	David Mchaina
Phone:	519-241-9655
	Company address below will appear on the final report
Street:	c/o Suite 1805 - 925 West Georgia
City/Province:	Vancouver, BC
Postal Code:	V6C 3L2
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution

Select Report Format: ☒ PDF ☒ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report ☒ YES ☐ NO
☒ Compare Results to Criteria on Report - provide details below if box checked
Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX
Email 1: dmchaina@firstmininggold.com
Email 2: shaun@firstmininggold.com
Email 3: shila@firstmininggold.com

Invoice Distribution

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax: accountspayable@firstmininggold.com
Email 2: dmchaina@firstmininggold.com

Oil and Gas Required Fields (client use)

AFE/Cost Center: | PO#
Major/Minor Code: | Routing Code:
Requisitioner:
Location:

Project Information

ALS Account # / Quote #: 20864 / Q64140
Job #: Springpole Surface Water
PO / AFE:
LSD: First Mining Gold Project

ALS Lab Work Order # (lab use only): L2503878

ALS Contact: | **Sampler:**

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Alkalinity, Ammonia, Conductivity, CR6,	Dissolved Metals, Dissolved Mercury	DOC, Fluoride, Hardness, pH, PO4	TDS, TOC, Total Metals, Total Mercury	Total Phosphorus, TSS	Methyl Mercury	Radium 226	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	SP - SW-13	Sept 11/20	11:50	Surface Water	9	x	x	x	x	x				
	SP - SW-14		12:29	Surface Water	9	x	x	x	x	x				
	SP - SW-11		13:11	Surface Water	9	x	x	x	x	x				
	SP - SW-5		13:23	Surface Water	9	x	x	x	x	x				
	SP - SW-12		14:04	Surface Water	11	x	x	x	x	x	x	x		
	SP - SW - DUP-01			Surface Water	9	x	x	x	x	x				
	SP - SW - 10		14:20	Surface Water	9	x	x	x	x	x				
	SP - SW - 8		15:57	Surface Water	10	x	x	x	x	x	x			
	SP - SW - 15		16:47	Surface Water	9	x	x	x	x	x				
	SP - SW - 2		17:19	Surface Water	9	x	x	x	x	x				
				Surface Water		x	x	x	x	x				
				Surface Water		x	x	x	x	x				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO
Are samples for human consumption/ use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

Compare to PWQO & CCME

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☐
Ice Packs ☑ | Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐
Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
4.3							

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
	Sept 15	PM	AL	Sept 16/20	12:30			

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

NOV 2018 FRONT

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2503878-COFC

Number: 17 - Page 3 of 3

Report To	Contact and company name below will appear on the final report
Company:	Gold Canyon Resources Inc.
Contact:	David Mchaina
Phone:	519-241-9655
	Company address below will appear on the final report
Street:	c/o Suite 1805 - 925 West Georgia
City/Province:	Vancouver, BC
Postal Code:	V6C 3L2
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution	
Select Report Format:	☑ PDF ☒ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report	☒ YES ☐ NO
☒ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☒ EMAIL ☐ MAIL ☐ FAX
Email 1	dmchaina@firstmininggold.com
Email 2	shaun@firstmininggold.com
Email 3	shila@firstmininggold.com

Invoice Distribution	
Select Invoice Distribution:	☐ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	accountspayable@firstmininggold.com
Email 2	dmchaina@firstmininggold.com

Project Information	
ALS Account # / Quote #:	20864 / Q64140
Job #:	Springpole Surface Water
PO / AFE:	
LSD:	First Mining Gold Project

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only): L2503878 | **ALS Contact:** | **Sampler:**

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☑ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Alkalinity, Ammonia, Conductivity, CR6,	Dissolved Metals, Dissolved Mercury	DOC, Fluoride, Hardness, pH, PO4	TDS, TOC, Total Metals, Total Mercury	Total Phosphorus, TSS	Methyl Mercury	Radium 226	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	SP-SW-22	12 Sept 2020	11:21	Surface Water	9	x	x	x	x	x	-			
	SP-SW-28		12:26	Surface Water	9	x	x	x	x	x	-			
	SP-SW-7		13:08	Surface Water	10	x	x	x	x	x	X			
	SP-SW-16		13:38	Surface Water	9	x	x	x	x	x				
	SP-SW-25		14:45	Surface Water	9	x	x	x	x	x				
	SP-SW-6		15:05	Surface Water	11	x	x	x	x	x	X	X		
	~~SP-SW-26~~			~~Surface Water~~	~~9~~	x	x	x	x	x				
	~~SP-SW-35~~			~~Surface Water~~		x	x	x	x	x				
	~~SP-SW-8~~			~~Surface Water~~		x	x	x	x	x				
	SP-SW-1	12 Sept	15:50	Surface Water	9	x	x	x	x	x				
	SP-SW-4	9:41	Sept 13	Surface Water	9	x	x	x	x	x				
	Trip Blank	—	—	Surface Water	9	x	x	x	x	x				

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	Compare to PWQO + CCME
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen	☐	SIF Observations	Yes ☑	No	☐
Ice Packs	☒ Ice Cubes ☐	Custody seal intact	Yes ☐	No	☐
Cooling Initiated	☐				

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
4.3							

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
	Sept 15	PM	AC	Sept 16 20	12:30			

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

REV 0.6 FRONT

Client: Gold Canyon Resources

Verified By	Date	Time

Sample Layout Verification:

Labels Verification:

Verified By

Sam
Enter int

L2503878-COFC

Do any samples require prep?

NO P F/P

		Sample #:															
1L	Plastic																
500mL	Plastic																
250mL	Plastic																
145mL	Plastic																
60mL	Plastic																
Micro																	
Toxicity Pail																	
1L	Glass																
500mL	Glass																
250mL	Glass																
120mL	Glass																
60mL	Glass																
40mL	Vial (Glass)																
40mL	Methanol Vials																
Soil Jar (120, 250 or 500mL)																	
Other:																	
Other:																	
Total Number of Bottles																	

Trip/Travel/Field Blank Information

Solids Batch#:	Metals Batch#:	T:	D:
Routine Batch#:	Mercury Batch#:	T:	D:
BOD Batch#:	Cyanide Batch#:	T:	D:
Nutrients Batch#:	OGG Batch#:		
DOC/Carbon Batch#:	Phenols Batch#:		
VOC Batch#:			
Other:			

COOLER TRACKING

EPP		Coleman	
Small		Micro (5QT)	
Med		Sm(9QT)	
Lrg		Med(16QT)	
Micro Box		Lrg(28QT)	
		Lrg(48QT)	

Gold Canyon Resources Inc.
ATTN: Steve Lines
c/o Suite 2070, 1188 West Georgia Street
Vancouver BC V6E 4A2

Date Received: 10-NOV-20
Report Date: 08-DEC-20 09:26 (MT)
Version: FINAL

Client Phone: 844-306-8827

Certificate of Analysis

Lab Work Order #: L2527922

Project P.O. #: NOT SUBMITTED
Job Reference: SPRINGPOLE PUMP TEST - SURFACE WATER
C of C Numbers:
Legal Site Desc: First Mining Gold Project

C. Paradis

Christine Paradis
Project Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-1 SP-SW-15 Sampled By: Client on 08-NOV-20 @ 09:38 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	64.1		1.0	uS/cm		12-NOV-20	R5284767
Hardness (as CaCO3)	30.8		0.50	mg/L		17-NOV-20	
pH	7.51		0.10	pH		12-NOV-20	R5284767
Total Dissolved Solids	49		13	mg/L		10-NOV-20	R5283807
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	31.2		2.0	mg/L		12-NOV-20	R5284767
Ammonia, Total (as N)	0.788		0.050	mg/L	14-NOV-20	16-NOV-20	R5286560
Fluoride (F)	0.036		0.020	mg/L	11-NOV-20	14-NOV-20	R5285959
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-NOV-20	12-NOV-20	R5284856
Phosphorus (P)-Total	0.0095		0.0030	mg/L	17-NOV-20	18-NOV-20	R5287691
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				08-NOV-20	12-NOV-20	R5284649
Dissolved Organic Carbon	8.8	DLM	2.5	mg/L	08-NOV-20	17-NOV-20	R5287255
Total Organic Carbon	8.91		0.50	mg/L		18-NOV-20	R5288559
Total Metals							
Aluminum (Al)-Total	0.0074		0.0030	mg/L	13-NOV-20	16-NOV-20	R5286651
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Arsenic (As)-Total	0.00066		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Barium (Ba)-Total	0.00712		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Boron (B)-Total	<0.015	DLB	0.015	mg/L	13-NOV-20	16-NOV-20	R5286651
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Calcium (Ca)-Total	10.8		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Chromium (Cr)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Copper (Cu)-Total	0.00066		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Iron (Fe)-Total	0.035		0.010	mg/L	13-NOV-20	16-NOV-20	R5286651
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286651
Magnesium (Mg)-Total	1.61		0.0050	mg/L	13-NOV-20	16-NOV-20	R5286651
Manganese (Mn)-Total	0.00441		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-NOV-20	R5285068
Molybdenum (Mo)-Total	0.000122		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Potassium (K)-Total	0.693		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Rubidium (Rb)-Total	0.00175		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Selenium (Se)-Total	0.000095		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Silicon (Si)-Total	1.16		0.10	mg/L	13-NOV-20	16-NOV-20	R5286651
Silver (Ag)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-1 SP-SW-15 Sampled By: Client on 08-NOV-20 @ 09:38 Matrix: Surface Water							
Total Metals							
Sodium (Na)-Total	0.767		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Strontium (Sr)-Total	0.0253		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Sulfur (S)-Total	<0.50		0.50	mg/L	13-NOV-20	16-NOV-20	R5286651
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-NOV-20	16-NOV-20	R5286651
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Uranium (U)-Total	0.000013		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-NOV-20	16-NOV-20	R5286651
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					13-NOV-20	R5284771
Dissolved Metals Filtration Location	FIELD					13-NOV-20	R5286077
Aluminum (Al)-Dissolved	0.0022		0.0010	mg/L	13-NOV-20	14-NOV-20	R5286257
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Arsenic (As)-Dissolved	0.00053		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Barium (Ba)-Dissolved	0.00661		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	13-NOV-20	14-NOV-20	R5286257
Boron (B)-Dissolved	<0.010		0.010	mg/L	13-NOV-20	14-NOV-20	R5286257
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	13-NOV-20	14-NOV-20	R5286257
Calcium (Ca)-Dissolved	9.92		0.050	mg/L	13-NOV-20	14-NOV-20	R5286257
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	14-NOV-20	R5286257
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Copper (Cu)-Dissolved	0.00058		0.00020	mg/L	13-NOV-20	14-NOV-20	R5286257
Iron (Fe)-Dissolved	0.012		0.010	mg/L	13-NOV-20	14-NOV-20	R5286257
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	13-NOV-20	14-NOV-20	R5286257
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	13-NOV-20	14-NOV-20	R5286257
Magnesium (Mg)-Dissolved	1.45		0.0050	mg/L	13-NOV-20	14-NOV-20	R5286257
Manganese (Mn)-Dissolved	0.00047		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	13-NOV-20	13-NOV-20	R5285167
Molybdenum (Mo)-Dissolved	0.000085		0.000050	mg/L	13-NOV-20	14-NOV-20	R5286257
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	13-NOV-20	14-NOV-20	R5286257
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	13-NOV-20	14-NOV-20	R5286257
Potassium (K)-Dissolved	0.666		0.050	mg/L	13-NOV-20	14-NOV-20	R5286257
Rubidium (Rb)-Dissolved	0.00169		0.00020	mg/L	13-NOV-20	14-NOV-20	R5286257
Selenium (Se)-Dissolved	0.000097		0.000050	mg/L	13-NOV-20	14-NOV-20	R5286257

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-1 SP-SW-15 Sampled By: Client on 08-NOV-20 @ 09:38 Matrix: Surface Water							
Dissolved Metals							
Silicon (Si)-Dissolved	1.02		0.050	mg/L	13-NOV-20	14-NOV-20	R5286257
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	14-NOV-20	R5286257
Sodium (Na)-Dissolved	0.676		0.050	mg/L	13-NOV-20	14-NOV-20	R5286257
Strontium (Sr)-Dissolved	0.0233		0.00020	mg/L	13-NOV-20	14-NOV-20	R5286257
Sulfur (S)-Dissolved	0.79		0.50	mg/L	13-NOV-20	14-NOV-20	R5286257
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	13-NOV-20	14-NOV-20	R5286257
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	14-NOV-20	R5286257
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	13-NOV-20	14-NOV-20	R5286257
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Uranium (U)-Dissolved	0.000014		0.000010	mg/L	13-NOV-20	14-NOV-20	R5286257
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	13-NOV-20	14-NOV-20	R5286257
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	13-NOV-20	14-NOV-20	R5286257
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	13-NOV-20	14-NOV-20	R5286257
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-NOV-20	R5286043
L2527922-2 SP-SW-02 Sampled By: Client on 08-NOV-20 @ 10:04 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	63.3		1.0	uS/cm		12-NOV-20	R5284767
Hardness (as CaCO3)	30.9		0.50	mg/L		17-NOV-20	
pH	7.53		0.10	pH		12-NOV-20	R5284767
Total Dissolved Solids	45		13	mg/L		10-NOV-20	R5283807
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	31.3		2.0	mg/L		12-NOV-20	R5284767
Ammonia, Total (as N)	0.441		0.0050	mg/L	14-NOV-20	16-NOV-20	R5286560
Fluoride (F)	0.035		0.020	mg/L	11-NOV-20	14-NOV-20	R5285959
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L	09-NOV-20	12-NOV-20	R5284856
Phosphorus (P)-Total	0.0111		0.0030	mg/L	17-NOV-20	18-NOV-20	R5287691
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				08-NOV-20	12-NOV-20	R5284649
Dissolved Organic Carbon	8.7	DLM	2.5	mg/L	08-NOV-20	17-NOV-20	R5287255
Total Organic Carbon	8.77		0.50	mg/L		18-NOV-20	R5288559
Total Metals							
Aluminum (Al)-Total	0.0101		0.0030	mg/L	13-NOV-20	16-NOV-20	R5286651
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Arsenic (As)-Total	0.00067		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Barium (Ba)-Total	0.00723		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-2 SP-SW-02 Sampled By: Client on 08-NOV-20 @ 10:04 Matrix: Surface Water							
Total Metals							
Boron (B)-Total	<0.015	DLB	0.015	mg/L	13-NOV-20	16-NOV-20	R5286651
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Calcium (Ca)-Total	10.7		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Chromium (Cr)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Copper (Cu)-Total	0.00066		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Iron (Fe)-Total	0.073		0.010	mg/L	13-NOV-20	16-NOV-20	R5286651
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286651
Magnesium (Mg)-Total	1.61		0.0050	mg/L	13-NOV-20	16-NOV-20	R5286651
Manganese (Mn)-Total	0.00488		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-NOV-20	R5285068
Molybdenum (Mo)-Total	0.000120		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Potassium (K)-Total	0.684		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Rubidium (Rb)-Total	0.00183		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Selenium (Se)-Total	0.000054		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Silicon (Si)-Total	1.16		0.10	mg/L	13-NOV-20	16-NOV-20	R5286651
Silver (Ag)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Sodium (Na)-Total	0.736		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Strontium (Sr)-Total	0.0248		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Sulfur (S)-Total	0.50		0.50	mg/L	13-NOV-20	16-NOV-20	R5286651
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Titanium (Ti)-Total	0.00077		0.00030	mg/L	13-NOV-20	16-NOV-20	R5286651
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Uranium (U)-Total	0.000012		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Vanadium (V)-Total	0.00057		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-NOV-20	16-NOV-20	R5286651
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					13-NOV-20	R5284771
Dissolved Metals Filtration Location	FIELD					13-NOV-20	R5286077
Aluminum (Al)-Dissolved	0.0013		0.0010	mg/L	13-NOV-20	14-NOV-20	R5286257
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Arsenic (As)-Dissolved	0.00054		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Barium (Ba)-Dissolved	0.00657		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-2 SP-SW-02 Sampled By: Client on 08-NOV-20 @ 10:04 Matrix: Surface Water							
Dissolved Metals							
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	13-NOV-20	14-NOV-20	R5286257
Boron (B)-Dissolved	<0.010		0.010	mg/L	13-NOV-20	14-NOV-20	R5286257
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	13-NOV-20	14-NOV-20	R5286257
Calcium (Ca)-Dissolved	9.92		0.050	mg/L	13-NOV-20	14-NOV-20	R5286257
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	14-NOV-20	R5286257
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Copper (Cu)-Dissolved	0.00062		0.00020	mg/L	13-NOV-20	14-NOV-20	R5286257
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	13-NOV-20	14-NOV-20	R5286257
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	13-NOV-20	14-NOV-20	R5286257
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	13-NOV-20	14-NOV-20	R5286257
Magnesium (Mg)-Dissolved	1.49		0.0050	mg/L	13-NOV-20	14-NOV-20	R5286257
Manganese (Mn)-Dissolved	0.00020		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	13-NOV-20	13-NOV-20	R5285167
Molybdenum (Mo)-Dissolved	0.000101		0.000050	mg/L	13-NOV-20	14-NOV-20	R5286257
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	13-NOV-20	14-NOV-20	R5286257
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	13-NOV-20	14-NOV-20	R5286257
Potassium (K)-Dissolved	0.650		0.050	mg/L	13-NOV-20	14-NOV-20	R5286257
Rubidium (Rb)-Dissolved	0.00169		0.00020	mg/L	13-NOV-20	14-NOV-20	R5286257
Selenium (Se)-Dissolved	0.000087		0.000050	mg/L	13-NOV-20	14-NOV-20	R5286257
Silicon (Si)-Dissolved	1.00		0.050	mg/L	13-NOV-20	14-NOV-20	R5286257
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	14-NOV-20	R5286257
Sodium (Na)-Dissolved	0.675		0.050	mg/L	13-NOV-20	14-NOV-20	R5286257
Strontium (Sr)-Dissolved	0.0236		0.00020	mg/L	13-NOV-20	14-NOV-20	R5286257
Sulfur (S)-Dissolved	0.71		0.50	mg/L	13-NOV-20	14-NOV-20	R5286257
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	13-NOV-20	14-NOV-20	R5286257
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	14-NOV-20	R5286257
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	13-NOV-20	14-NOV-20	R5286257
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	14-NOV-20	R5286257
Uranium (U)-Dissolved	0.000015		0.000010	mg/L	13-NOV-20	14-NOV-20	R5286257
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	13-NOV-20	14-NOV-20	R5286257
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	13-NOV-20	14-NOV-20	R5286257
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	13-NOV-20	14-NOV-20	R5286257
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-NOV-20	R5286043
L2527922-3 SP-SW-25 Sampled By: Client on 08-NOV-20 @ 10:40 Matrix: Surface Water							
Physical Tests							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-3 SP-SW-25 Sampled By: Client on 08-NOV-20 @ 10:40 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	64.7		1.0	uS/cm		12-NOV-20	R5284767
Hardness (as CaCO3)	33.5		0.50	mg/L		17-NOV-20	
pH	7.54		0.10	pH		12-NOV-20	R5284767
Total Dissolved Solids	49		13	mg/L		10-NOV-20	R5283807
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	31.2		2.0	mg/L		12-NOV-20	R5284767
Ammonia, Total (as N)	0.848		0.050	mg/L	14-NOV-20	16-NOV-20	R5286560
Fluoride (F)	0.033		0.020	mg/L	11-NOV-20	14-NOV-20	R5285959
Orthophosphate-Dissolved (as P)	0.0033		0.0030	mg/L	09-NOV-20	12-NOV-20	R5284856
Phosphorus (P)-Total	0.0110		0.0030	mg/L	17-NOV-20	18-NOV-20	R5287691
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				08-NOV-20	12-NOV-20	R5284649
Dissolved Organic Carbon	9.8	DLM	2.5	mg/L	08-NOV-20	17-NOV-20	R5287255
Total Organic Carbon	8.61		0.50	mg/L		18-NOV-20	R5288559
Total Metals							
Aluminum (Al)-Total	0.0072		0.0030	mg/L	13-NOV-20	16-NOV-20	R5286651
Antimony (Sb)-Total	0.00117		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Arsenic (As)-Total	0.00065		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Barium (Ba)-Total	0.00740		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Boron (B)-Total	<0.015	DLB	0.015	mg/L	13-NOV-20	16-NOV-20	R5286651
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Calcium (Ca)-Total	11.0		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Chromium (Cr)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Copper (Cu)-Total	0.00067		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Iron (Fe)-Total	0.039		0.010	mg/L	13-NOV-20	16-NOV-20	R5286651
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286651
Magnesium (Mg)-Total	1.63		0.0050	mg/L	13-NOV-20	16-NOV-20	R5286651
Manganese (Mn)-Total	0.00790		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-NOV-20	R5285068
Molybdenum (Mo)-Total	0.000122		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Potassium (K)-Total	0.701		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Rubidium (Rb)-Total	0.00184		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Selenium (Se)-Total	0.000076		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Silicon (Si)-Total	1.29		0.10	mg/L	13-NOV-20	16-NOV-20	R5286651
Silver (Ag)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-3 SP-SW-25 Sampled By: Client on 08-NOV-20 @ 10:40 Matrix: Surface Water							
Total Metals							
Sodium (Na)-Total	0.752		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Strontium (Sr)-Total	0.0263		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Sulfur (S)-Total	0.56		0.50	mg/L	13-NOV-20	16-NOV-20	R5286651
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-NOV-20	16-NOV-20	R5286651
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Uranium (U)-Total	0.000013		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-NOV-20	16-NOV-20	R5286651
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					13-NOV-20	R5284771
Dissolved Metals Filtration Location	FIELD					13-NOV-20	R5286077
Aluminum (Al)-Dissolved	0.0024		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286710
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Arsenic (As)-Dissolved	0.00054		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Barium (Ba)-Dissolved	0.00709		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Boron (B)-Dissolved	<0.010		0.010	mg/L	13-NOV-20	16-NOV-20	R5286710
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Calcium (Ca)-Dissolved	10.8		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Chromium (Cr)-Dissolved	0.00017		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Copper (Cu)-Dissolved	0.00061		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	13-NOV-20	16-NOV-20	R5286710
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286710
Magnesium (Mg)-Dissolved	1.59		0.0050	mg/L	13-NOV-20	16-NOV-20	R5286710
Manganese (Mn)-Dissolved	0.00035		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	13-NOV-20	13-NOV-20	R5285167
Molybdenum (Mo)-Dissolved	0.000121		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286710
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Potassium (K)-Dissolved	0.696		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Rubidium (Rb)-Dissolved	0.00173		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Selenium (Se)-Dissolved	0.000052		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-3 SP-SW-25 Sampled By: Client on 08-NOV-20 @ 10:40 Matrix: Surface Water							
Dissolved Metals							
Silicon (Si)-Dissolved	1.27		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Sodium (Na)-Dissolved	0.739		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Strontium (Sr)-Dissolved	0.0257		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	13-NOV-20	16-NOV-20	R5286710
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	13-NOV-20	16-NOV-20	R5286710
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Uranium (U)-Dissolved	0.000014		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286710
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286710
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-NOV-20	R5286043
L2527922-4 SP-SW-06 Sampled By: Client on 08-NOV-20 @ 11:32 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	64.4		1.0	uS/cm		12-NOV-20	R5284767
Hardness (as CaCO3)	33.3		0.50	mg/L		17-NOV-20	
pH	7.54		0.10	pH		12-NOV-20	R5284767
Total Dissolved Solids	33		13	mg/L		10-NOV-20	R5283807
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	32.0		2.0	mg/L		12-NOV-20	R5284767
Ammonia, Total (as N)	0.0762		0.0050	mg/L	14-NOV-20	16-NOV-20	R5286560
Fluoride (F)	<0.020		0.020	mg/L	11-NOV-20	14-NOV-20	R5285959
Orthophosphate-Dissolved (as P)	0.0035		0.0030	mg/L	09-NOV-20	12-NOV-20	R5284856
Phosphorus (P)-Total	0.0113		0.0030	mg/L	17-NOV-20	18-NOV-20	R5287691
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				08-NOV-20	12-NOV-20	R5284649
Dissolved Organic Carbon	9.0	DLM	2.5	mg/L	08-NOV-20	17-NOV-20	R5287255
Total Organic Carbon	8.58		0.50	mg/L		18-NOV-20	R5288559
Total Metals							
Aluminum (Al)-Total	0.0069		0.0030	mg/L	13-NOV-20	16-NOV-20	R5286651
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Arsenic (As)-Total	0.00067		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Barium (Ba)-Total	0.00775		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-4 SP-SW-06 Sampled By: Client on 08-NOV-20 @ 11:32 Matrix: Surface Water							
Total Metals							
Boron (B)-Total	<0.015	DLB	0.015	mg/L	13-NOV-20	16-NOV-20	R5286651
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Calcium (Ca)-Total	11.0		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Chromium (Cr)-Total	0.00065		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Copper (Cu)-Total	0.00077		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Iron (Fe)-Total	0.044		0.010	mg/L	13-NOV-20	16-NOV-20	R5286651
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286651
Magnesium (Mg)-Total	1.66		0.0050	mg/L	13-NOV-20	16-NOV-20	R5286651
Manganese (Mn)-Total	0.00812		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-NOV-20	R5285068
Molybdenum (Mo)-Total	0.000115		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Potassium (K)-Total	0.718		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Rubidium (Rb)-Total	0.00188		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Selenium (Se)-Total	0.000112		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Silicon (Si)-Total	1.29		0.10	mg/L	13-NOV-20	16-NOV-20	R5286651
Silver (Ag)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Sodium (Na)-Total	0.773		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Strontium (Sr)-Total	0.0263		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Sulfur (S)-Total	<0.50		0.50	mg/L	13-NOV-20	16-NOV-20	R5286651
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-NOV-20	16-NOV-20	R5286651
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Uranium (U)-Total	0.000011		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-NOV-20	16-NOV-20	R5286651
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					13-NOV-20	R5284771
Dissolved Metals Filtration Location	FIELD					13-NOV-20	R5286077
Aluminum (Al)-Dissolved	0.0016		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286710
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Arsenic (As)-Dissolved	0.00053		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Barium (Ba)-Dissolved	0.00701		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-4 SP-SW-06 Sampled By: Client on 08-NOV-20 @ 11:32 Matrix: Surface Water							
Dissolved Metals							
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Boron (B)-Dissolved	<0.010		0.010	mg/L	13-NOV-20	16-NOV-20	R5286710
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Calcium (Ca)-Dissolved	10.8		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Chromium (Cr)-Dissolved	0.00012		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Copper (Cu)-Dissolved	0.00064		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	13-NOV-20	16-NOV-20	R5286710
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Lithium (Li)-Dissolved	0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286710
Magnesium (Mg)-Dissolved	1.55		0.0050	mg/L	13-NOV-20	16-NOV-20	R5286710
Manganese (Mn)-Dissolved	0.00033		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	13-NOV-20	13-NOV-20	R5285167
Molybdenum (Mo)-Dissolved	0.000112		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286710
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Potassium (K)-Dissolved	0.711		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Rubidium (Rb)-Dissolved	0.00173		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Selenium (Se)-Dissolved	0.000073		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Silicon (Si)-Dissolved	1.27		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Sodium (Na)-Dissolved	0.795		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Strontium (Sr)-Dissolved	0.0252		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	13-NOV-20	16-NOV-20	R5286710
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Thallium (Tl)-Dissolved	0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	13-NOV-20	16-NOV-20	R5286710
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Uranium (U)-Dissolved	0.000013		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286710
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286710
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-NOV-20	R5286043
Methylmercury (as MeHg)-Total	<0.000020		0.000020	ug/L	25-NOV-20	25-NOV-20	R5298346
Radiological Parameters							
Ra-226	<0.010		0.010	Bq/L		27-NOV-20	R5300819

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-5 SP-SW-01 Sampled By: Client on 08-NOV-20 @ 11:50 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	72.4		1.0	uS/cm		12-NOV-20	R5284767
Hardness (as CaCO3)	33.8		0.50	mg/L		17-NOV-20	
pH	7.57		0.10	pH		12-NOV-20	R5284767
Total Dissolved Solids	41		13	mg/L		10-NOV-20	R5283807
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	33.2		2.0	mg/L		12-NOV-20	R5284767
Ammonia, Total (as N)	0.0632		0.0050	mg/L	14-NOV-20	16-NOV-20	R5286560
Fluoride (F)	0.020		0.020	mg/L	11-NOV-20	14-NOV-20	R5285959
Orthophosphate-Dissolved (as P)	0.0032		0.0030	mg/L	09-NOV-20	12-NOV-20	R5284856
Phosphorus (P)-Total	0.0104		0.0030	mg/L	17-NOV-20	18-NOV-20	R5287691
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				08-NOV-20	12-NOV-20	R5284649
Dissolved Organic Carbon	7.18		0.50	mg/L	08-NOV-20	19-NOV-20	R5287255
Total Organic Carbon	8.20		0.50	mg/L		18-NOV-20	R5288559
Total Metals							
Aluminum (Al)-Total	0.0068		0.0030	mg/L	13-NOV-20	16-NOV-20	R5286651
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Arsenic (As)-Total	0.00064		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Barium (Ba)-Total	0.00785		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Boron (B)-Total	<0.015	DLB	0.015	mg/L	13-NOV-20	16-NOV-20	R5286651
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Calcium (Ca)-Total	11.0		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Chromium (Cr)-Total	0.00025		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Copper (Cu)-Total	0.00074		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Iron (Fe)-Total	0.040		0.010	mg/L	13-NOV-20	16-NOV-20	R5286651
Lead (Pb)-Total	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Lithium (Li)-Total	<0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286651
Magnesium (Mg)-Total	1.61		0.0050	mg/L	13-NOV-20	16-NOV-20	R5286651
Manganese (Mn)-Total	0.00799		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		13-NOV-20	R5285133
Molybdenum (Mo)-Total	0.000122		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Phosphorus (P)-Total	<0.050		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Potassium (K)-Total	0.704		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Rubidium (Rb)-Total	0.00176		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Selenium (Se)-Total	0.000107		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286651
Silicon (Si)-Total	1.31		0.10	mg/L	13-NOV-20	16-NOV-20	R5286651
Silver (Ag)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-5 SP-SW-01 Sampled By: Client on 08-NOV-20 @ 11:50 Matrix: Surface Water							
Total Metals							
Sodium (Na)-Total	0.771		0.050	mg/L	13-NOV-20	16-NOV-20	R5286651
Strontium (Sr)-Total	0.0273		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Sulfur (S)-Total	<0.50		0.50	mg/L	13-NOV-20	16-NOV-20	R5286651
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Thorium (Th)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Tin (Sn)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	13-NOV-20	16-NOV-20	R5286651
Tungsten (W)-Total	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286651
Uranium (U)-Total	0.000014		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286651
Vanadium (V)-Total	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286651
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	13-NOV-20	16-NOV-20	R5286651
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286651
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					13-NOV-20	R5284771
Dissolved Metals Filtration Location	FIELD					13-NOV-20	R5286077
Aluminum (Al)-Dissolved	0.0013		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286710
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Arsenic (As)-Dissolved	0.00053		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Barium (Ba)-Dissolved	0.00707		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Boron (B)-Dissolved	<0.010		0.010	mg/L	13-NOV-20	16-NOV-20	R5286710
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Calcium (Ca)-Dissolved	11.0		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Chromium (Cr)-Dissolved	0.00017		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Copper (Cu)-Dissolved	0.00065		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	13-NOV-20	16-NOV-20	R5286710
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Lithium (Li)-Dissolved	0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286710
Magnesium (Mg)-Dissolved	1.57		0.0050	mg/L	13-NOV-20	16-NOV-20	R5286710
Manganese (Mn)-Dissolved	0.00035		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	13-NOV-20	13-NOV-20	R5285167
Molybdenum (Mo)-Dissolved	0.000115		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286710
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Potassium (K)-Dissolved	0.703		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Rubidium (Rb)-Dissolved	0.00169		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Selenium (Se)-Dissolved	0.000067		0.000050	mg/L	13-NOV-20	16-NOV-20	R5286710

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2527922-5 SP-SW-01 Sampled By: Client on 08-NOV-20 @ 11:50 Matrix: Surface Water							
Dissolved Metals							
Silicon (Si)-Dissolved	1.33		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Sodium (Na)-Dissolved	0.768		0.050	mg/L	13-NOV-20	16-NOV-20	R5286710
Strontium (Sr)-Dissolved	0.0266		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	13-NOV-20	16-NOV-20	R5286710
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	13-NOV-20	16-NOV-20	R5286710
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	13-NOV-20	16-NOV-20	R5286710
Uranium (U)-Dissolved	0.000011		0.000010	mg/L	13-NOV-20	16-NOV-20	R5286710
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	13-NOV-20	16-NOV-20	R5286710
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	13-NOV-20	16-NOV-20	R5286710
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	13-NOV-20	16-NOV-20	R5286710
Speciated Metals							
Chromium, Hexavalent	<0.50		0.50	ug/L		13-NOV-20	R5286043

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2527922-1, -2, -3, -4, -5
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2527922-1, -2, -3, -4, -5
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2527922-1, -2, -3, -4, -5
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2527922-1, -2, -3, -4, -5
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L2527922-1, -2, -3, -4, -5
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2527922-1, -2, -3, -4, -5
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2527922-1, -2, -3, -4, -5
Matrix Spike	Ammonia, Total (as N)	MS-B	L2527922-1, -2, -3, -4, -5

Sample Parameter Qualifier key listed:

Qualifier	Description
DLB	Detection Limit Raised. Analyte detected at comparable level in Method Blank.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ALK-TITR-TB	Water	Alkalinity	APHA 2320B modified

This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

CR-CR6-PWQO-IC-WT	Water	Chromium +6	EPA 7199

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution. Chromium (III) is calculated as the difference between the total chromium and the chromium (VI) results.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

DOC-WT	Water	Dissolved Organic Carbon	APHA 5310B

Sample is filtered through a 0.45um filter, then injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic carbon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

EC-TITR-TB	Water	Conductivity	APHA 2510 B

This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.

F-IC-N-TB	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

HARDNESS-CALC-TB	Water	Hardness (as CaCO3)	CALCULATION
HG-D-CVAA-WT	Water	Dissolved Mercury in Water by CVAAS	EPA 1631E (mod)

Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

HG-T-CVAA-WT	Water	Total Mercury in Water by CVAAS	EPA 1631E (mod)

Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.

MEHG-T-GCAF-VA	Water	Total Methylmercury in Water by GCAFS	EPA 1630

This method follows Method 1630 of the US EPA. Samples are distilled under an inert gas flow to isolate methylmercury and minimize matrix interferences. The distillate is analyzed by aqueous phase ethylation, purge and trap, desorption and GC separation. The separated species are then pyrolized to elemental Hg and quantified by cold vapour atomic flourescence spectroscopy. Results are reported "as MeHg".

MET-D-CCMS-TB	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020B (mod)

Reference Information

Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

MET-T-CCMS-TB	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020B (mod)

Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

NH3-F-TB	Water	Ammonia, Total (as N)	catnr 157/158 062217/99321057 (modified)

Ammonia is determined by Flow-injection analysis with fluorescence detection

P-T-COL-TB	Water	Total Phosphorus by Discrete Analyzer	APHA 4500-P B, F, G (modified)

Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.

PH-TITR-TB	Water	pH	APHA 4500-H

This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode

PO4-DO-COL-TB	Water	Dissolved Orthophosphate	APHA 4500-P B, F, G (modified)

Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.

RA226-MMER-BE	Water	Radium 226	Radium Isotopes by Alpha Spectrometry

Determination of Gamma Emitting Radionuclides In Water and Solids by Gamma Spectrometry.

TDS-TB	Water	Total Dissolved Solids	APHA 2540 C (modified)

Aqueous matrices are analyzed using gravimetry and evaporation

TOC-WT	Water	Total Organic Carbon	APHA 5310B

Sample is injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic cabon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA
BE	BECQUEREL LABORATORIES INC. - MISSISSAUGA, ONTARIO, CANADA
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L2527922 Report Date: 08-DEC-20

Client: Gold Canyon Resources Inc.
c/o Suite 2070, 1188 West Georgia Street
Vancouver BC V6E 4A2

Contact: Steve Lines

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALK-TITR-TB	**Water**							
Batch R5284767								
WG3443090-3 DUP		**L2527922-1**						
Alkalinity, Total (as CaCO3)		31.2	31.0		mg/L	0.6	20	12-NOV-20
WG3443090-2 LCS								
Alkalinity, Total (as CaCO3)			104.0		%		85-115	12-NOV-20
WG3443090-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	12-NOV-20
CR-CR6-PWQO-IC-WT	**Water**							
Batch R5286043								
WG3444647-2 LCS								
Chromium, Hexavalent			99.9		%		80-120	13-NOV-20
WG3444647-1 MB								
Chromium, Hexavalent			<0.50		ug/L		0.5	13-NOV-20
DOC-WT	**Water**							
Batch R5287255								
WG3444095-2 LCS								
Dissolved Organic Carbon			95.5		%		80-120	17-NOV-20
WG3444095-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	17-NOV-20
EC-TITR-TB	**Water**							
Batch R5284767								
WG3443090-3 DUP		**L2527922-1**						
Conductivity (EC)		64.1	63.5		uS/cm	0.9	10	12-NOV-20
WG3443090-2 LCS								
Conductivity (EC)			98.2		%		90-110	12-NOV-20
WG3443090-1 MB								
Conductivity (EC)			<1.0		uS/cm		2	12-NOV-20
F-IC-N-TB	**Water**							
Batch R5285959								
WG3443088-2 LCS								
Fluoride (F)			104.1		%		90-110	14-NOV-20
WG3443088-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	14-NOV-20
HG-D-CVAA-WT	**Water**							
Batch R5285167								
WG3444280-2 LCS								
Mercury (Hg)-Dissolved			94.1		%		80-120	13-NOV-20
WG3444280-1 MB								

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-CVAA-WT	**Water**							
Batch R5285167								
WG3444280-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	13-NOV-20
HG-T-CVAA-WT	**Water**							
Batch R5285068								
WG3444276-2 LCS								
Mercury (Hg)-Total			111.0		%		80-120	13-NOV-20
WG3444276-1 MB								
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	13-NOV-20
Batch R5285133								
WG3444277-3 DUP		**L2527922-5**						
Mercury (Hg)-Total		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	13-NOV-20
WG3444277-2 LCS								
Mercury (Hg)-Total			114.0		%		80-120	13-NOV-20
WG3444277-1 MB								
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	13-NOV-20
MEHG-T-GCAF-VA	**Water**							
Batch R5298346								
WG3452475-3 LCS								
Methylmercury (as MeHg)-Total			88.8		%		70-130	25-NOV-20
WG3452475-1 MB								
Methylmercury (as MeHg)-Total			<0.000020		ug/L		0.00002	25-NOV-20
MET-D-CCMS-TB	**Water**							
Batch R5286257								
WG3444592-3 DUP		**L2527922-2**						
Aluminum (Al)-Dissolved		0.0013	0.0012		mg/L	9.7	20	14-NOV-20
Antimony (Sb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	14-NOV-20
Arsenic (As)-Dissolved		0.00054	0.00054		mg/L	0.0	20	14-NOV-20
Barium (Ba)-Dissolved		0.00657	0.00652		mg/L	0.7	20	14-NOV-20
Beryllium (Be)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	14-NOV-20
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	14-NOV-20
Boron (B)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	14-NOV-20
Cadmium (Cd)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	14-NOV-20
Calcium (Ca)-Dissolved		9.92	9.98		mg/L	0.6	20	14-NOV-20
Cesium (Cs)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	14-NOV-20
Chromium (Cr)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	14-NOV-20
Cobalt (Co)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	14-NOV-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5286257								
WG3444592-3 DUP		**L2527922-2**						
Copper (Cu)-Dissolved		0.00062	0.00061		mg/L	0.9	20	14-NOV-20
Iron (Fe)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	14-NOV-20
Lead (Pb)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	14-NOV-20
Lithium (Li)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	14-NOV-20
Magnesium (Mg)-Dissolved		1.49	1.46		mg/L	2.0	20	14-NOV-20
Manganese (Mn)-Dissolved		0.00020	0.00020		mg/L	0.5	20	14-NOV-20
Molybdenum (Mo)-Dissolved		0.000101	0.000093		mg/L	8.0	20	14-NOV-20
Nickel (Ni)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	14-NOV-20
Phosphorus (P)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	14-NOV-20
Potassium (K)-Dissolved		0.650	0.663		mg/L	2.0	20	14-NOV-20
Rubidium (Rb)-Dissolved		0.00169	0.00170		mg/L	0.7	20	14-NOV-20
Selenium (Se)-Dissolved		0.000087	0.000063	J	mg/L	0.000024	0.0001	14-NOV-20
Silicon (Si)-Dissolved		1.00	1.00		mg/L	0.1	20	14-NOV-20
Silver (Ag)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	14-NOV-20
Sodium (Na)-Dissolved		0.675	0.693		mg/L	2.6	20	14-NOV-20
Strontium (Sr)-Dissolved		0.0236	0.0237		mg/L	0.6	20	14-NOV-20
Sulfur (S)-Dissolved		0.71	0.73		mg/L	3.3	20	14-NOV-20
Tellurium (Te)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	14-NOV-20
Thallium (Tl)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	14-NOV-20
Thorium (Th)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	14-NOV-20
Tin (Sn)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	14-NOV-20
Titanium (Ti)-Dissolved		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	14-NOV-20
Tungsten (W)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	14-NOV-20
Uranium (U)-Dissolved		0.000015	0.000012	J	mg/L	0.000003	0.00002	14-NOV-20
Vanadium (V)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	14-NOV-20
Zinc (Zn)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	14-NOV-20
Zirconium (Zr)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	14-NOV-20
WG3444592-2 LCS								
Aluminum (Al)-Dissolved			101.5		%		80-120	14-NOV-20
Antimony (Sb)-Dissolved			100.3		%		80-120	14-NOV-20
Arsenic (As)-Dissolved			104.4		%		80-120	14-NOV-20
Barium (Ba)-Dissolved			97.7		%		80-120	14-NOV-20
Beryllium (Be)-Dissolved			95.7		%		80-120	14-NOV-20
Bismuth (Bi)-Dissolved			95.9		%		80-120	14-NOV-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5286257								
WG3444592-2 LCS								
Boron (B)-Dissolved			83.6		%		80-120	14-NOV-20
Cadmium (Cd)-Dissolved			101.9		%		80-120	14-NOV-20
Calcium (Ca)-Dissolved			97.0		%		80-120	14-NOV-20
Cesium (Cs)-Dissolved			104.3		%		80-120	14-NOV-20
Chromium (Cr)-Dissolved			100.4		%		80-120	14-NOV-20
Cobalt (Co)-Dissolved			101.8		%		80-120	14-NOV-20
Copper (Cu)-Dissolved			100.7		%		80-120	14-NOV-20
Iron (Fe)-Dissolved			119.8		%		80-120	14-NOV-20
Lead (Pb)-Dissolved			103.2		%		80-120	14-NOV-20
Lithium (Li)-Dissolved			100.5		%		80-120	14-NOV-20
Magnesium (Mg)-Dissolved			99.3		%		80-120	14-NOV-20
Manganese (Mn)-Dissolved			102.7		%		80-120	14-NOV-20
Molybdenum (Mo)-Dissolved			100.0		%		80-120	14-NOV-20
Nickel (Ni)-Dissolved			101.2		%		80-120	14-NOV-20
Phosphorus (P)-Dissolved			105.0		%		80-120	14-NOV-20
Potassium (K)-Dissolved			100.7		%		80-120	14-NOV-20
Rubidium (Rb)-Dissolved			105.9		%		80-120	14-NOV-20
Selenium (Se)-Dissolved			103.6		%		80-120	14-NOV-20
Silicon (Si)-Dissolved			100.6		%		80-120	14-NOV-20
Silver (Ag)-Dissolved			101.8		%		80-120	14-NOV-20
Sodium (Na)-Dissolved			97.2		%		80-120	14-NOV-20
Strontium (Sr)-Dissolved			107.0		%		80-120	14-NOV-20
Sulfur (S)-Dissolved			111.8		%		80-120	14-NOV-20
Tellurium (Te)-Dissolved			96.9		%		80-120	14-NOV-20
Thallium (Tl)-Dissolved			102.8		%		80-120	14-NOV-20
Thorium (Th)-Dissolved			106.5		%		80-120	14-NOV-20
Tin (Sn)-Dissolved			100.6		%		80-120	14-NOV-20
Titanium (Ti)-Dissolved			98.2		%		80-120	14-NOV-20
Tungsten (W)-Dissolved			104.5		%		80-120	14-NOV-20
Uranium (U)-Dissolved			106.0		%		80-120	14-NOV-20
Vanadium (V)-Dissolved			101.6		%		80-120	14-NOV-20
Zinc (Zn)-Dissolved			105.3		%		80-120	14-NOV-20
Zirconium (Zr)-Dissolved			103.7		%		80-120	14-NOV-20
WG3444592-1 MB								

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5286257								
WG3444592-1 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	14-NOV-20
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	14-NOV-20
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	14-NOV-20
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	14-NOV-20
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	14-NOV-20
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	14-NOV-20
Boron (B)-Dissolved			<0.010		mg/L		0.01	14-NOV-20
Cadmium (Cd)-Dissolved			<0.000005C		mg/L		0.000005	14-NOV-20
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	14-NOV-20
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	14-NOV-20
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	14-NOV-20
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	14-NOV-20
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	14-NOV-20
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	14-NOV-20
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	14-NOV-20
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	14-NOV-20
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	14-NOV-20
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	14-NOV-20
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	14-NOV-20
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	14-NOV-20
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	14-NOV-20
Potassium (K)-Dissolved			<0.050		mg/L		0.05	14-NOV-20
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	14-NOV-20
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	14-NOV-20
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	14-NOV-20
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	14-NOV-20
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	14-NOV-20
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	14-NOV-20
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	14-NOV-20
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	14-NOV-20
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	14-NOV-20
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	14-NOV-20
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	14-NOV-20
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	14-NOV-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5286257								
WG3444592-1 MB								
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	14-NOV-20
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	14-NOV-20
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	14-NOV-20
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	14-NOV-20
Zirconium (Zr)-Dissolved			<0.00020		mg/L		0.0002	14-NOV-20
Batch R5286710								
WG3444592-6 LCS								
Aluminum (Al)-Dissolved			102.3		%		80-120	16-NOV-20
Antimony (Sb)-Dissolved			98.9		%		80-120	16-NOV-20
Arsenic (As)-Dissolved			104.2		%		80-120	16-NOV-20
Barium (Ba)-Dissolved			101.7		%		80-120	16-NOV-20
Beryllium (Be)-Dissolved			100.1		%		80-120	16-NOV-20
Bismuth (Bi)-Dissolved			106.3		%		80-120	16-NOV-20
Boron (B)-Dissolved			89.9		%		80-120	16-NOV-20
Cadmium (Cd)-Dissolved			102.7		%		80-120	16-NOV-20
Calcium (Ca)-Dissolved			101.8		%		80-120	16-NOV-20
Cesium (Cs)-Dissolved			104.2		%		80-120	16-NOV-20
Chromium (Cr)-Dissolved			101.8		%		80-120	16-NOV-20
Cobalt (Co)-Dissolved			100.3		%		80-120	16-NOV-20
Copper (Cu)-Dissolved			99.7		%		80-120	16-NOV-20
Iron (Fe)-Dissolved			119.6		%		80-120	16-NOV-20
Lead (Pb)-Dissolved			100.3		%		80-120	16-NOV-20
Lithium (Li)-Dissolved			102.8		%		80-120	16-NOV-20
Magnesium (Mg)-Dissolved			100.2		%		80-120	16-NOV-20
Manganese (Mn)-Dissolved			99.2		%		80-120	16-NOV-20
Molybdenum (Mo)-Dissolved			103.5		%		80-120	16-NOV-20
Nickel (Ni)-Dissolved			100.9		%		80-120	16-NOV-20
Phosphorus (P)-Dissolved			104.2		%		80-120	16-NOV-20
Potassium (K)-Dissolved			102.5		%		80-120	16-NOV-20
Rubidium (Rb)-Dissolved			100.5		%		80-120	16-NOV-20
Selenium (Se)-Dissolved			100.7		%		80-120	16-NOV-20
Silicon (Si)-Dissolved			105.8		%		80-120	16-NOV-20
Silver (Ag)-Dissolved			102.4		%		80-120	16-NOV-20
Sodium (Na)-Dissolved			102.3		%		80-120	16-NOV-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5286710								
WG3444592-6 LCS								
Strontium (Sr)-Dissolved			105.6		%		80-120	16-NOV-20
Sulfur (S)-Dissolved			96.8		%		80-120	16-NOV-20
Tellurium (Te)-Dissolved			110.7		%		80-120	16-NOV-20
Thallium (Tl)-Dissolved			100.7		%		80-120	16-NOV-20
Thorium (Th)-Dissolved			106.1		%		80-120	16-NOV-20
Tin (Sn)-Dissolved			99.7		%		80-120	16-NOV-20
Titanium (Ti)-Dissolved			100.0		%		80-120	16-NOV-20
Tungsten (W)-Dissolved			101.8		%		80-120	16-NOV-20
Uranium (U)-Dissolved			108.4		%		80-120	16-NOV-20
Vanadium (V)-Dissolved			101.2		%		80-120	16-NOV-20
Zinc (Zn)-Dissolved			107.0		%		80-120	16-NOV-20
Zirconium (Zr)-Dissolved			107.3		%		80-120	16-NOV-20
WG3444592-5 MB								
Aluminum (Al)-Dissolved			<0.0010		mg/L		0.001	16-NOV-20
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	16-NOV-20
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	16-NOV-20
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	16-NOV-20
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	16-NOV-20
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	16-NOV-20
Boron (B)-Dissolved			<0.010		mg/L		0.01	16-NOV-20
Cadmium (Cd)-Dissolved			<0.000005C		mg/L		0.000005	16-NOV-20
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	16-NOV-20
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	16-NOV-20
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	16-NOV-20
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	16-NOV-20
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	16-NOV-20
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	16-NOV-20
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	16-NOV-20
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	16-NOV-20
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	16-NOV-20
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	16-NOV-20
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	16-NOV-20
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	16-NOV-20
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	16-NOV-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5286710								
WG3444592-5 MB								
Potassium (K)-Dissolved			<0.050		mg/L		0.05	16-NOV-20
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	16-NOV-20
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	16-NOV-20
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	16-NOV-20
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	16-NOV-20
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	16-NOV-20
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	16-NOV-20
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	16-NOV-20
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	16-NOV-20
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	16-NOV-20
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	16-NOV-20
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	16-NOV-20
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	16-NOV-20
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	16-NOV-20
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	16-NOV-20
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	16-NOV-20
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	16-NOV-20
Zirconium (Zr)-Dissolved			<0.00020		mg/L		0.0002	16-NOV-20
WG3444592-4 MS		**L2527922-3**						
Aluminum (Al)-Dissolved			109.4		%		70-130	16-NOV-20
Antimony (Sb)-Dissolved			106.3		%		70-130	16-NOV-20
Arsenic (As)-Dissolved			110.9		%		70-130	16-NOV-20
Barium (Ba)-Dissolved			105.6		%		70-130	16-NOV-20
Beryllium (Be)-Dissolved			109.0		%		70-130	16-NOV-20
Bismuth (Bi)-Dissolved			108.4		%		70-130	16-NOV-20
Boron (B)-Dissolved			94.0		%		70-130	16-NOV-20
Cadmium (Cd)-Dissolved			113.1		%		70-130	16-NOV-20
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	16-NOV-20
Cesium (Cs)-Dissolved			112.9		%		70-130	16-NOV-20
Chromium (Cr)-Dissolved			109.2		%		70-130	16-NOV-20
Cobalt (Co)-Dissolved			108.3		%		70-130	16-NOV-20
Copper (Cu)-Dissolved			109.0		%		70-130	16-NOV-20
Iron (Fe)-Dissolved			107.9		%		70-130	16-NOV-20
Lead (Pb)-Dissolved			107.2		%		70-130	16-NOV-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB	**Water**							
Batch R5286710								
WG3444592-4 MS		**L2527922-3**						
Lithium (Li)-Dissolved			110.0		%		70-130	16-NOV-20
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	16-NOV-20
Manganese (Mn)-Dissolved			106.4		%		70-130	16-NOV-20
Molybdenum (Mo)-Dissolved			107.9		%		70-130	16-NOV-20
Nickel (Ni)-Dissolved			109.3		%		70-130	16-NOV-20
Phosphorus (P)-Dissolved			113.7		%		70-130	16-NOV-20
Potassium (K)-Dissolved			108.2		%		70-130	16-NOV-20
Rubidium (Rb)-Dissolved			108.9		%		70-130	16-NOV-20
Selenium (Se)-Dissolved			108.1		%		70-130	16-NOV-20
Silicon (Si)-Dissolved			107.2		%		70-130	16-NOV-20
Silver (Ag)-Dissolved			108.7		%		70-130	16-NOV-20
Sodium (Na)-Dissolved			107.2		%		70-130	16-NOV-20
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	16-NOV-20
Sulfur (S)-Dissolved			111.5		%		70-130	16-NOV-20
Tellurium (Te)-Dissolved			116.4		%		70-130	16-NOV-20
Thallium (Tl)-Dissolved			106.8		%		70-130	16-NOV-20
Thorium (Th)-Dissolved			114.9		%		70-130	16-NOV-20
Tin (Sn)-Dissolved			105.6		%		70-130	16-NOV-20
Titanium (Ti)-Dissolved			106.1		%		70-130	16-NOV-20
Tungsten (W)-Dissolved			107.0		%		70-130	16-NOV-20
Uranium (U)-Dissolved			110.5		%		70-130	16-NOV-20
Vanadium (V)-Dissolved			107.9		%		70-130	16-NOV-20
Zinc (Zn)-Dissolved			119.8		%		70-130	16-NOV-20
Zirconium (Zr)-Dissolved			115.5		%		70-130	16-NOV-20
MET-T-CCMS-TB	**Water**							
Batch R5286651								
WG3443861-2 LCS								
Aluminum (Al)-Total			102.2		%		80-120	16-NOV-20
Antimony (Sb)-Total			101.7		%		80-120	16-NOV-20
Arsenic (As)-Total			105.0		%		80-120	16-NOV-20
Barium (Ba)-Total			99.6		%		80-120	16-NOV-20
Beryllium (Be)-Total			96.8		%		80-120	16-NOV-20
Bismuth (Bi)-Total			99.7		%		80-120	16-NOV-20
Boron (B)-Total			89.3		%		80-120	16-NOV-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5286651								
WG3443861-2 LCS								
Cadmium (Cd)-Total			103.3		%		80-120	16-NOV-20
Calcium (Ca)-Total			100.8		%		80-120	16-NOV-20
Cesium (Cs)-Total			102.9		%		80-120	16-NOV-20
Chromium (Cr)-Total			102.1		%		80-120	16-NOV-20
Cobalt (Co)-Total			103.4		%		80-120	16-NOV-20
Copper (Cu)-Total			100.4		%		80-120	16-NOV-20
Iron (Fe)-Total			119.3		%		80-120	16-NOV-20
Lead (Pb)-Total			100.1		%		80-120	16-NOV-20
Lithium (Li)-Total			101.3		%		80-120	16-NOV-20
Magnesium (Mg)-Total			104.5		%		80-120	16-NOV-20
Manganese (Mn)-Total			100.8		%		80-120	16-NOV-20
Molybdenum (Mo)-Total			102.1		%		80-120	16-NOV-20
Nickel (Ni)-Total			101.2		%		80-120	16-NOV-20
Phosphorus (P)-Total			107.5		%		80-120	16-NOV-20
Potassium (K)-Total			103.0		%		80-120	16-NOV-20
Rubidium (Rb)-Total			103.6		%		80-120	16-NOV-20
Selenium (Se)-Total			102.4		%		80-120	16-NOV-20
Silicon (Si)-Total			104.9		%		80-120	16-NOV-20
Silver (Ag)-Total			102.2		%		80-120	16-NOV-20
Sodium (Na)-Total			100.8		%		80-120	16-NOV-20
Strontium (Sr)-Total			106.2		%		80-120	16-NOV-20
Sulfur (S)-Total			98.2		%		80-120	16-NOV-20
Tellurium (Te)-Total			102.4		%		80-120	16-NOV-20
Thallium (Tl)-Total			100.0		%		80-120	16-NOV-20
Thorium (Th)-Total			105.8		%		80-120	16-NOV-20
Tin (Sn)-Total			98.4		%		80-120	16-NOV-20
Titanium (Ti)-Total			100.9		%		80-120	16-NOV-20
Tungsten (W)-Total			101.6		%		80-120	16-NOV-20
Uranium (U)-Total			103.3		%		80-120	16-NOV-20
Vanadium (V)-Total			103.4		%		80-120	16-NOV-20
Zinc (Zn)-Total			106.1		%		80-120	16-NOV-20
Zirconium (Zr)-Total			104.8		%		80-120	16-NOV-20
WG3443861-1 MB								
Aluminum (Al)-Total			<0.0030		mg/L		0.003	16-NOV-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5286651								
WG3443861-1 MB								
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	16-NOV-20
Arsenic (As)-Total			<0.00010		mg/L		0.0001	16-NOV-20
Barium (Ba)-Total			<0.00010		mg/L		0.0001	16-NOV-20
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	16-NOV-20
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	16-NOV-20
Boron (B)-Total			<0.015		mg/L		0.015	16-NOV-20
Cadmium (Cd)-Total			<0.000005(		mg/L		0.000005	16-NOV-20
Calcium (Ca)-Total			<0.050		mg/L		0.05	16-NOV-20
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	16-NOV-20
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	16-NOV-20
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	16-NOV-20
Copper (Cu)-Total			<0.00050		mg/L		0.0005	16-NOV-20
Iron (Fe)-Total			<0.010		mg/L		0.01	16-NOV-20
Lead (Pb)-Total			<0.000050		mg/L		0.00005	16-NOV-20
Lithium (Li)-Total			<0.0010		mg/L		0.001	16-NOV-20
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	16-NOV-20
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	16-NOV-20
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	16-NOV-20
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	16-NOV-20
Phosphorus (P)-Total			<0.050		mg/L		0.05	16-NOV-20
Potassium (K)-Total			<0.050		mg/L		0.05	16-NOV-20
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	16-NOV-20
Selenium (Se)-Total			<0.000050		mg/L		0.00005	16-NOV-20
Silicon (Si)-Total			<0.80		mg/L		0.8	16-NOV-20
Silver (Ag)-Total			<0.000010		mg/L		0.00001	16-NOV-20
Sodium (Na)-Total			<0.050		mg/L		0.05	16-NOV-20
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	16-NOV-20
Sulfur (S)-Total			<0.50		mg/L		0.5	16-NOV-20
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	16-NOV-20
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	16-NOV-20
Thorium (Th)-Total			<0.00010		mg/L		0.0001	16-NOV-20
Tin (Sn)-Total			<0.00010		mg/L		0.0001	16-NOV-20
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	16-NOV-20
Tungsten (W)-Total			<0.00010		mg/L		0.0001	16-NOV-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB	**Water**							
Batch R5286651								
WG3443861-1 MB								
Uranium (U)-Total			<0.000010		mg/L		0.00001	16-NOV-20
Vanadium (V)-Total			<0.00050		mg/L		0.0005	16-NOV-20
Zinc (Zn)-Total			<0.0030		mg/L		0.003	16-NOV-20
Zirconium (Zr)-Total			<0.00020		mg/L		0.0002	16-NOV-20
NH3-F-TB	**Water**							
Batch R5286560								
WG3445171-3 DUP		**L2527922-1**						
Ammonia, Total (as N)		0.788	0.781		mg/L	0.9	20	16-NOV-20
WG3445171-2 LCS								
Ammonia, Total (as N)			100.1		%		85-115	16-NOV-20
WG3445171-1 MB								
Ammonia, Total (as N)			<0.0050		mg/L		0.005	16-NOV-20
WG3445171-4 MS		**L2527922-2**						
Ammonia, Total (as N)			N/A	MS-B	%		-	16-NOV-20
P-T-COL-TB	**Water**							
Batch R5287691								
WG3445184-7 DUP		**L2527922-3**						
Phosphorus (P)-Total		0.0110	0.0105		mg/L	4.7	20	18-NOV-20
WG3445184-6 LCS								
Phosphorus (P)-Total			100.2		%		80-120	18-NOV-20
WG3445184-5 MB								
Phosphorus (P)-Total			<0.0030		mg/L		0.003	18-NOV-20
WG3445184-8 MS		**L2527922-4**						
Phosphorus (P)-Total			110.2		%		70-130	18-NOV-20
PH-TITR-TB	**Water**							
Batch R5284767								
WG3443090-3 DUP		**L2527922-1**						
pH		7.51	7.52	J	pH	0.01	0.2	12-NOV-20
WG3443090-2 LCS								
pH			6.99		pH		6.9-7.1	12-NOV-20
PO4-DO-COL-TB	**Water**							
Batch R5284856								
WG3441878-2 LCS								
Orthophosphate-Dissolved (as P)			104.3		%		80-120	12-NOV-20
WG3441878-1 MB								
Orthophosphate-Dissolved (as P)			<0.0030		mg/L		0.003	12-NOV-20

Quality Control Report

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TDS-TB	**Water**							
Batch R5283807								
WG3442837-2 LCS								
Total Dissolved Solids			97.8		%		85-115	10-NOV-20
WG3442837-1 MB								
Total Dissolved Solids			<10		mg/L		10	10-NOV-20
TOC-WT	**Water**							
Batch R5288559								
WG3444241-3 DUP		**L2527922-5**						
Total Organic Carbon		8.20	8.74		mg/L	6.5	20	18-NOV-20
WG3444241-2 LCS								
Total Organic Carbon			97.4		%		80-120	18-NOV-20
WG3444241-1 MB								
Total Organic Carbon			<0.50		mg/L		0.5	18-NOV-20
WG3444241-4 MS		**L2527922-5**						
Total Organic Carbon			96.8		%		70-130	18-NOV-20

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Chain of Custody (COC) / Analytical Request Form

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2527922-COFC

COC Number: 17 -

SD

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Gold Canyon Resources Inc.
Contact:	David Mchaina
Phone:	519-241-9655
	Company address below will appear on the final report
Street:	c/o Suite 1805 - 925 West Georgia
City/Province:	Vancouver, BC
Postal Code:	V6C 3L2
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Report Format / Distribution

Select Report Format: ☐ PDF ☐ EXCEL ☐ EDD (DIGITAL)

Quality Control (QC) Report with Report ☐ YES ☐ NO

☐ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☐ EMAIL ☐ MAIL ☐ FAX

Email 1: dmchaina@firstmininggold.com

Email 2: shila@firstmininggold.com

Email 3: shaun@firstmininggold.com

Invoice Distribution

Select Invoice Distribution: ☐ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: accountspayable@firstmininggold.com

Email 2: dmchaina@firstmininggold.com

Select Service Level Below - Contact your AM to confirm all E&P TATs (surcharges may apply)

Regular [R] ☐ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days): 4 day [P4-20%] ☐ | 3 day [P3-25%] ☐ | 2 day [P2-50%] ☐

EMERGENCY: 1 Business day [E - 100%] ☐ | Same Day, Weekend or Statutory holiday [E2 -200% (Laboratory opening fees may apply)] ☐

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Project Information

ALS Account # / Quote #:	20864 / Q64154
Job #:	Springpole Pump Test - Groundwater
PO / AFE:	
LSD:	First Mining Gold Project
ALS Lab Work Order # (lab use only):	L2527922

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#:
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	
ALS Contact:	Sampler:

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Alkalinity, Ammonia, Conductivity, CR6	Dissolved Metals, Dissolved Mercury	DOC, Fluoride, Hardness, pH, PO4	TDS, TOC, Total Metals, Total Mercury	Total Phosphorus	Methyl Mercury	Radium-226	SAMPLES ON HOLD	SUSPECTED HAZARD (see Special Instructions)
	SP-SW-15	8-Nov-20	9:38	Surface Water	10	x	x	x	x	x				
	SP-SW-02	8-Nov-20	10:04	Surface Water	10	x	x	x	x	x				
	SP-SW-25	8-Nov-20	10:40	Surface Water	10	x	x	x	x	x				
	SP-SW-06	8-Nov-20	11:32	Surface Water	11	x	x	x	x	x	x	x		
	SP-SW-01	8-Nov-20	11:50	Surface Water	9	x	x	x	x	x				

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System?

☐ YES ☑ NO

Are samples for human consumption/ use?

☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ | SIF Observations Yes ☐ No ☑

Ice Packs ☑ Ice Cubes ☐ | Custody seal intact Yes ☐ No ☐

Cooling Initiated ☑

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
7.8							

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:
SD	Nov 10/2020	11:10

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NOV 2018 FRONT

Failure to complete all portions of this form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on the back page of the white - report copy.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.

APPENDIX E

Ground Penetrating Radar Profiles

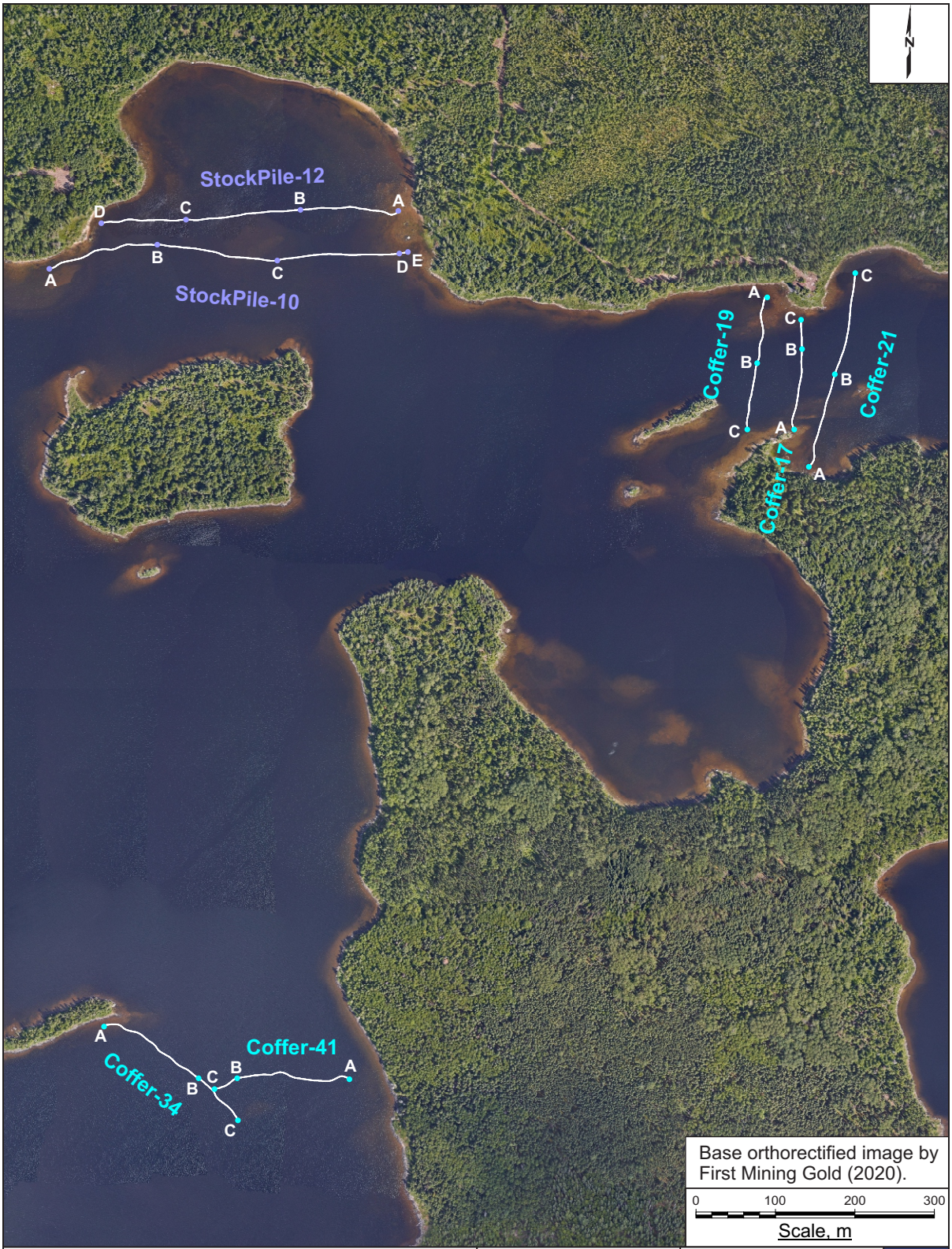

Figure E12 Location of the GPR survey conducted on the water surface along the proposed Cofferdam and Stockpile areas in August 2020.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	**Date**
Springpole, ON	February 2021

FFC

Base orthorectified image by First Mining Gold.

Figure E1 Locations of the GPR survey conducted on the ice (lake) surface along the proposed Cofferdam and Stockpile areas in March 2020.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	**Date**
Springpole, ON	February 2021

FFC

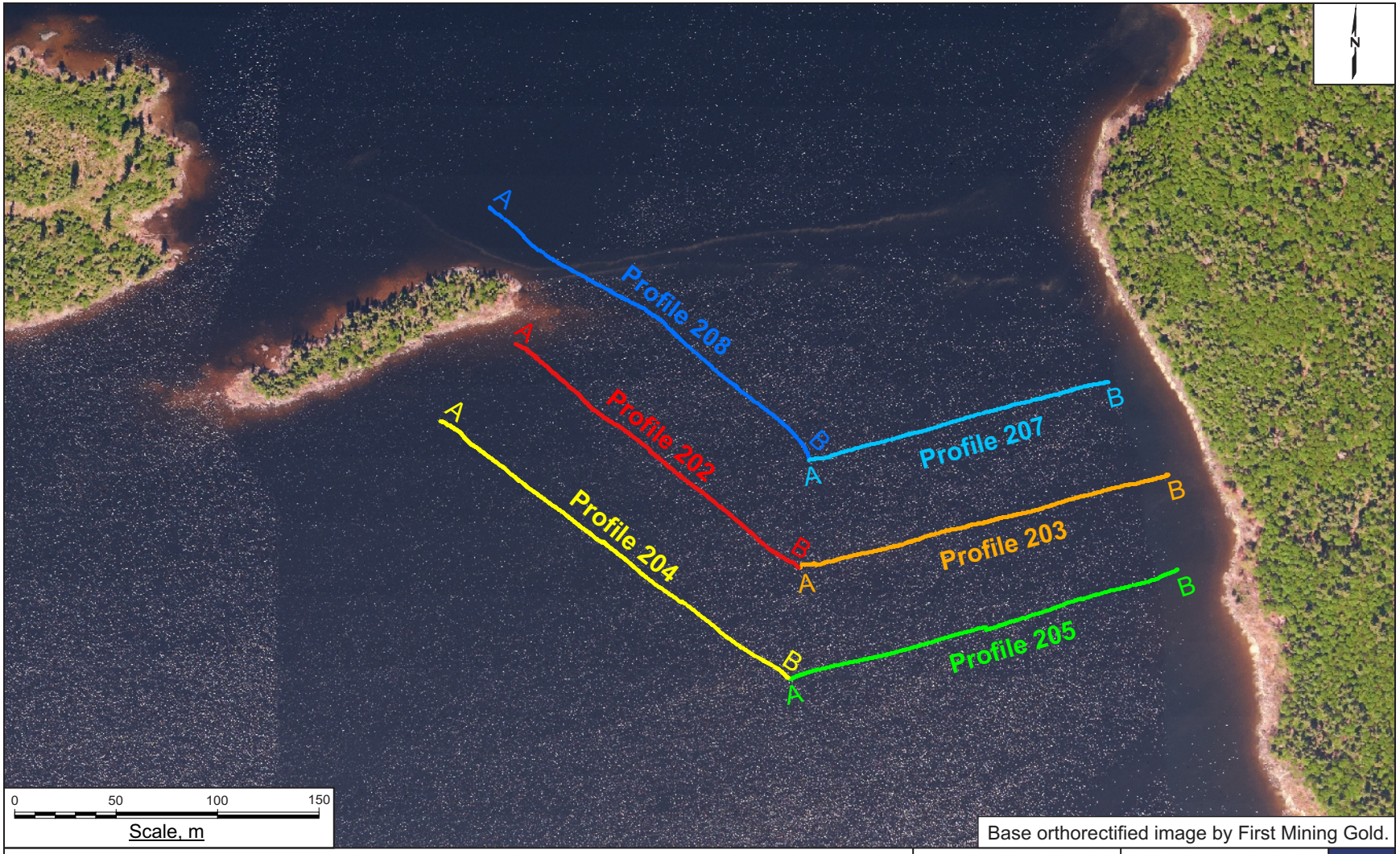

Figure E2 Location of the GPR survey conducted on the ice (lake) surface along the proposed Cofferdam area in March 2020.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

Figure E3 Location of the GPR survey conducted on the ice (lake) surface at the proposed StockPile area in March 2020.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

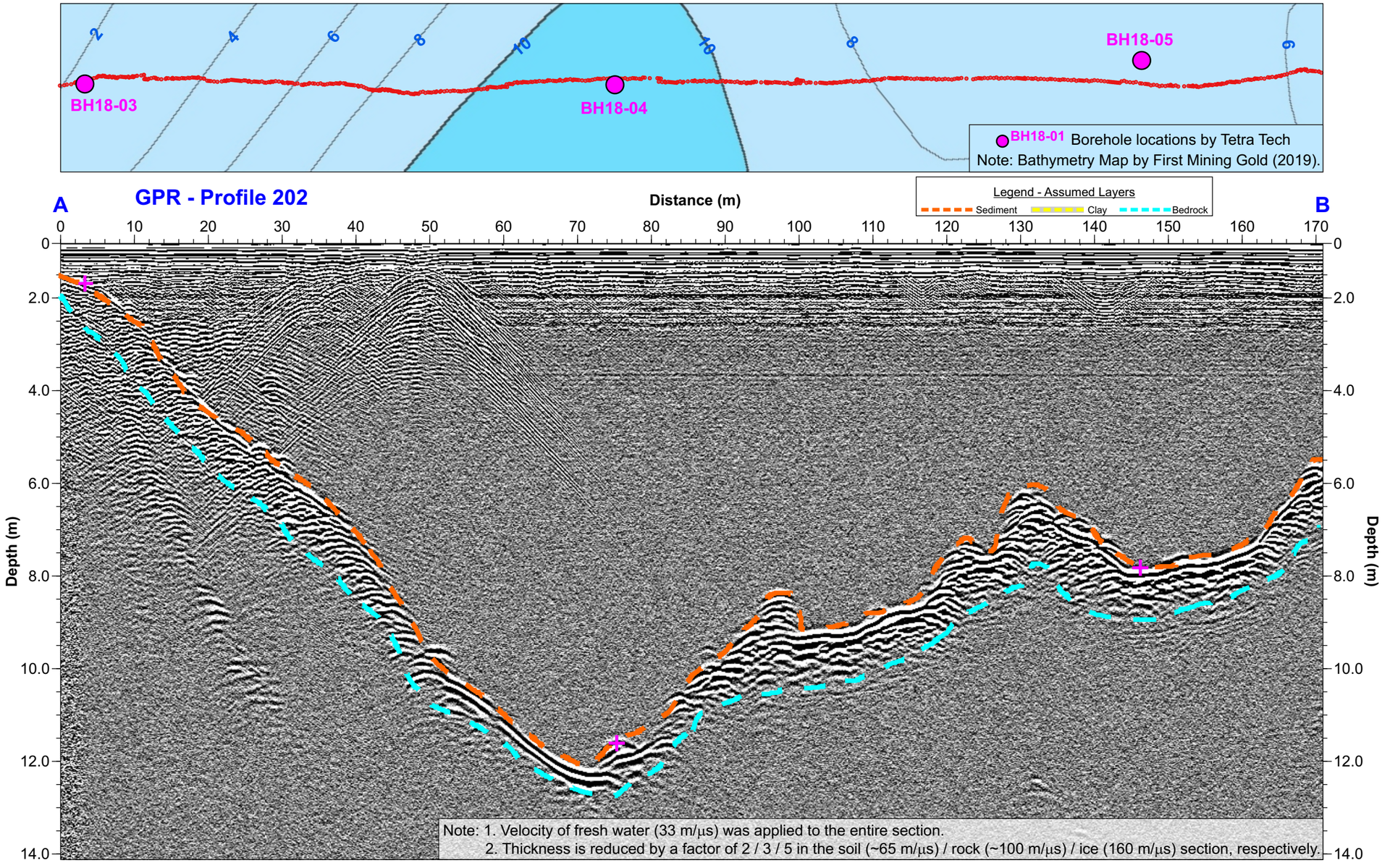

Figure E4 Ground penetrating radar survey on ice (lake) surface using 170 MHz antenna for Profile 202 at the Springpole site, ON.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

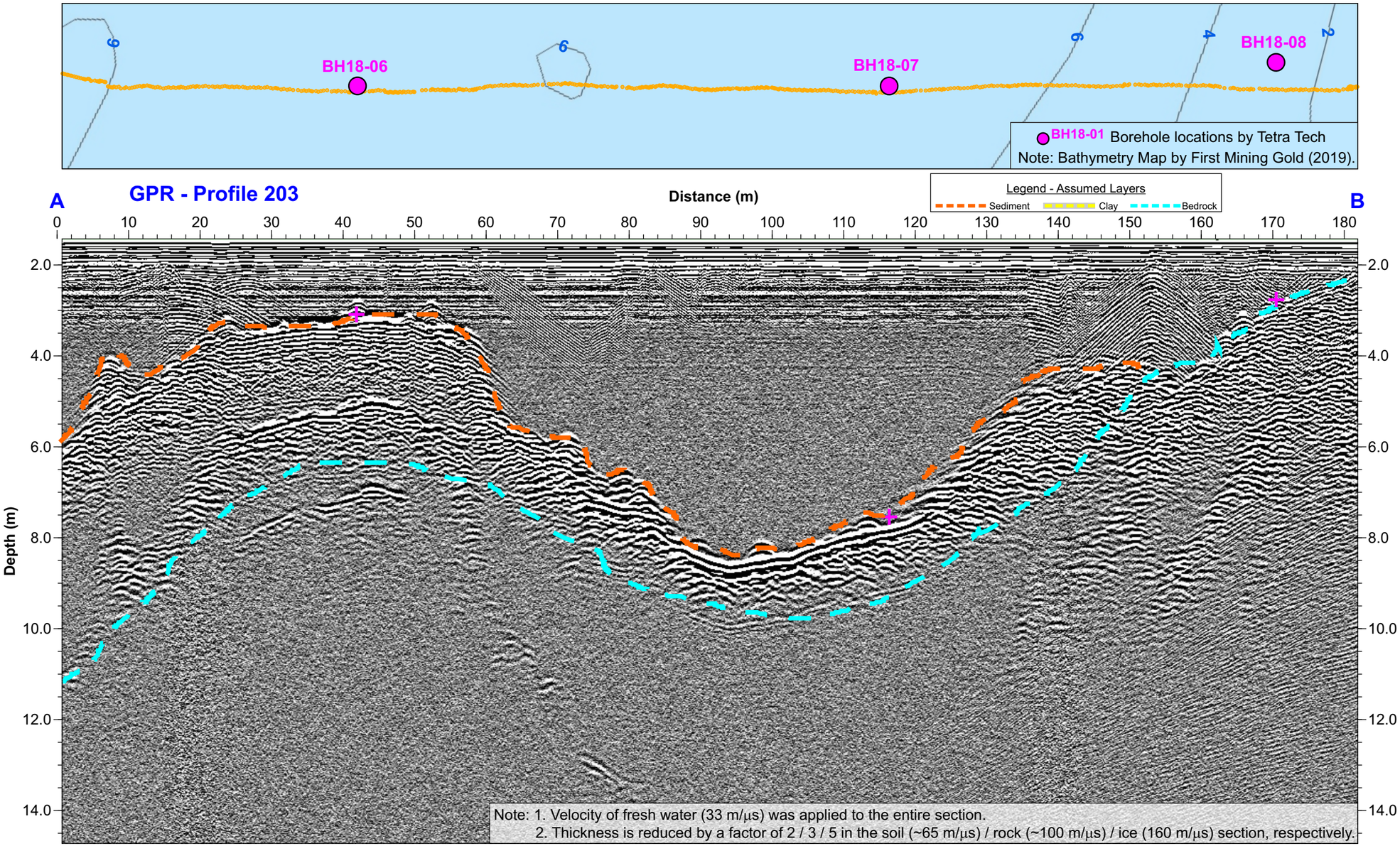

Figure E5 Ground penetrating radar survey on ice (lake) surface using 170 MHz antenna for Profile 203 at the Springpole site, ON.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

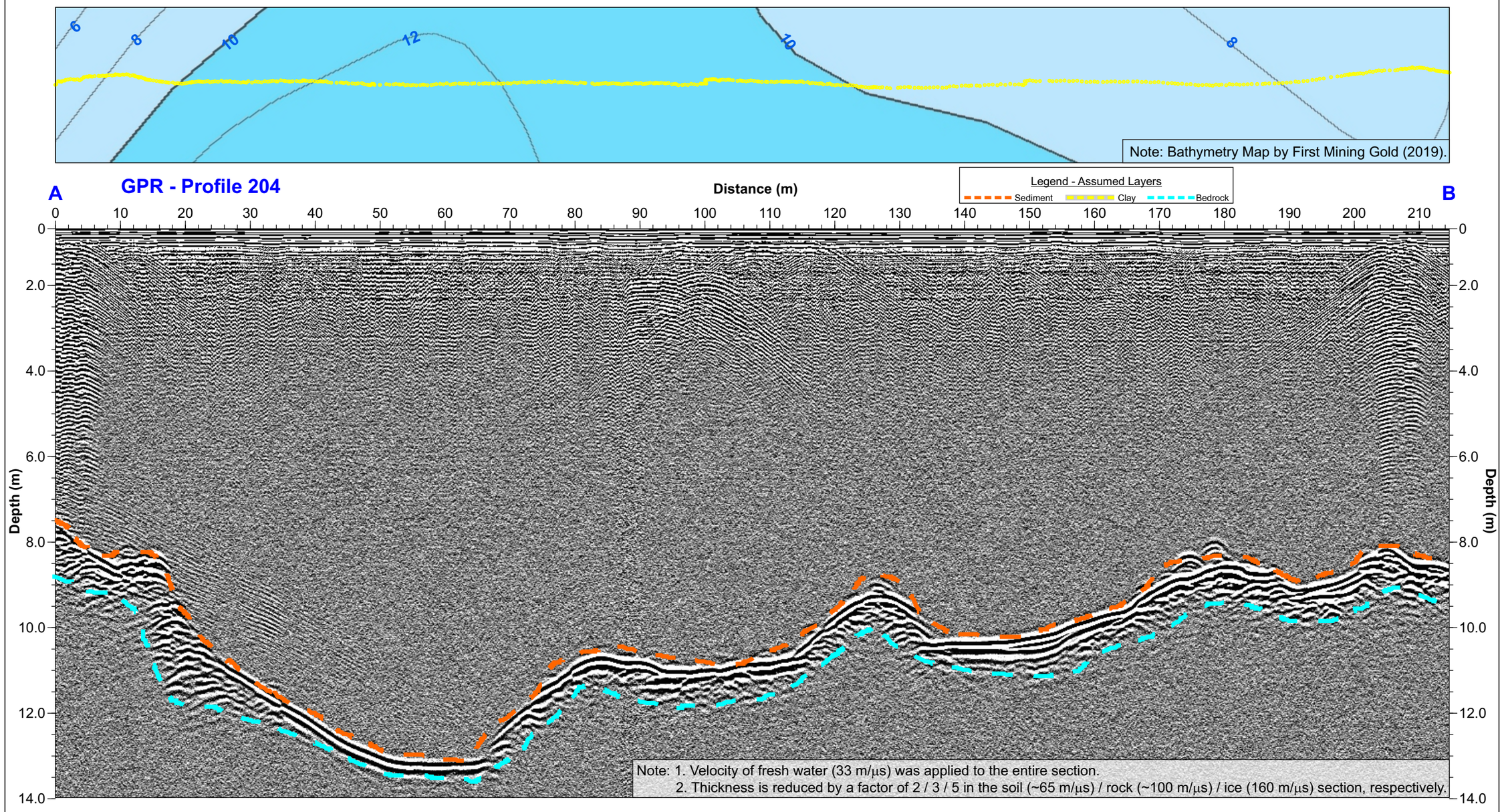

Figure E6 Ground penetrating radar survey on ice (lake) surface using 170 MHz antenna for Profile 204 at the Springpole site, ON.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

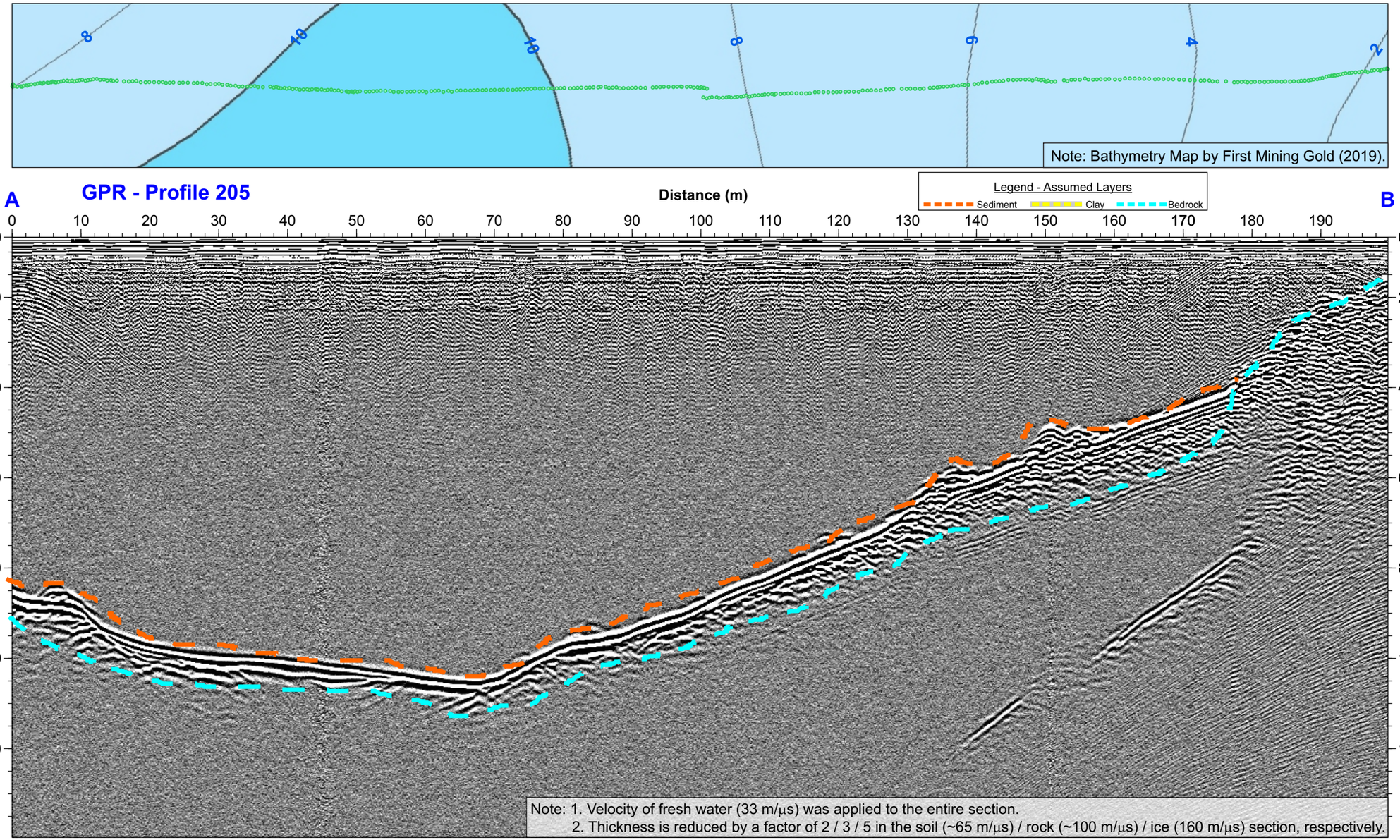

Figure E7 Ground penetrating radar survey on ice (lake) surface using 170 MHz antenna for Profile 205 at the Springpole site, ON.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

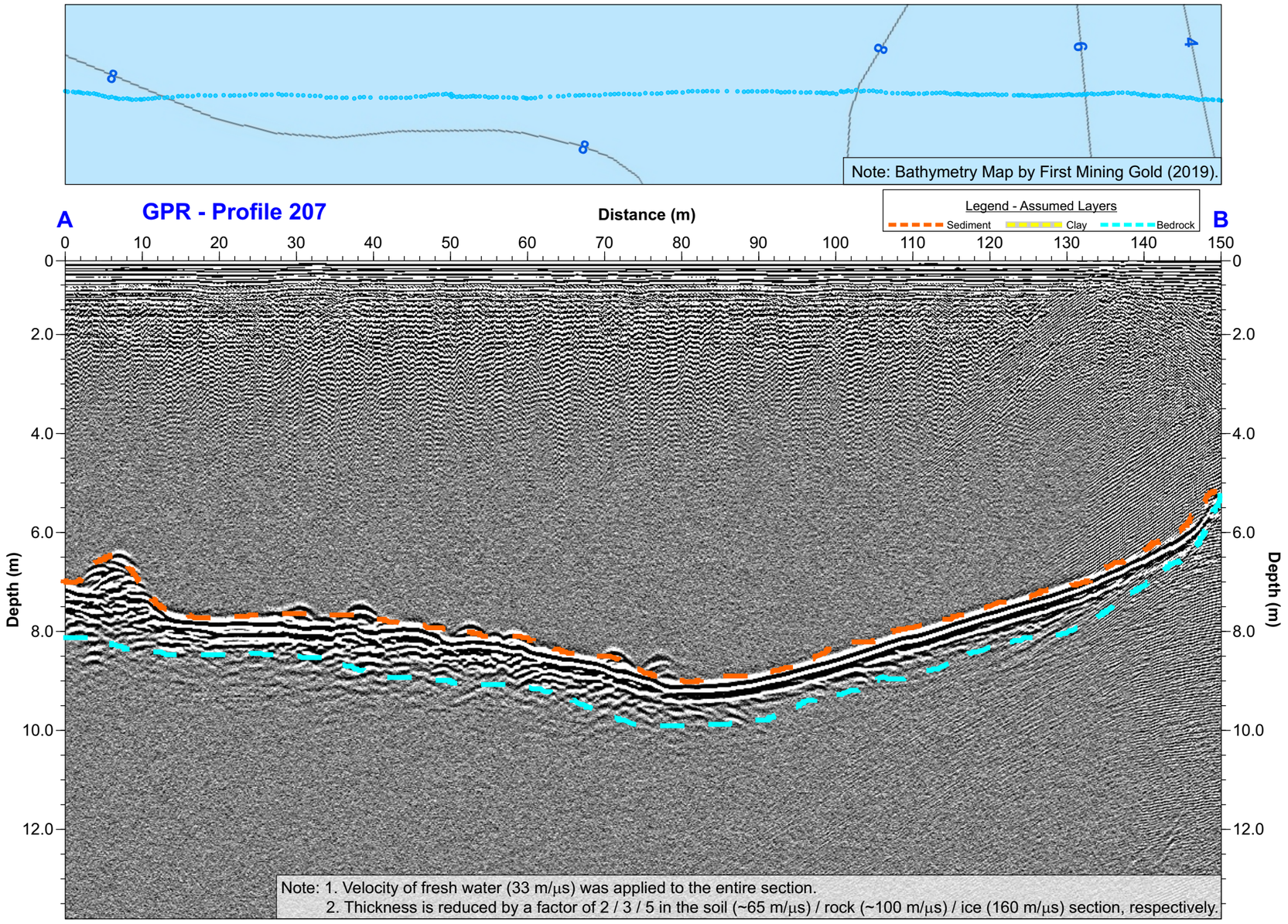

Figure E8 Ground penetrating radar survey on ice (lake) surface using 170 MHz antenna for Profile 207 at the Springpole site, ON.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

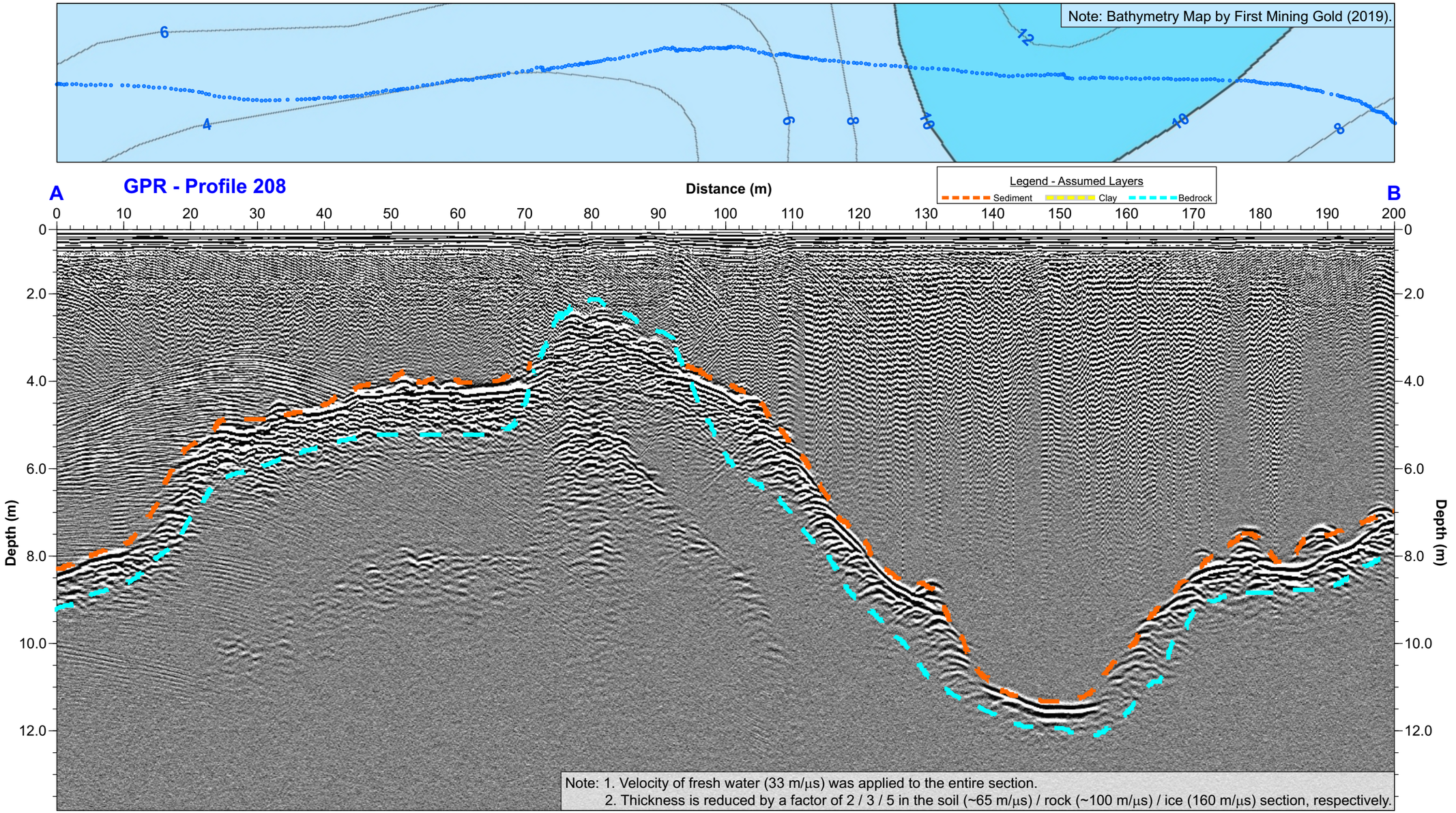

Figure E9 Ground penetrating radar survey on ice (lake) surface using 170 MHz antenna for Profile 208 at the Springpole site, ON.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC

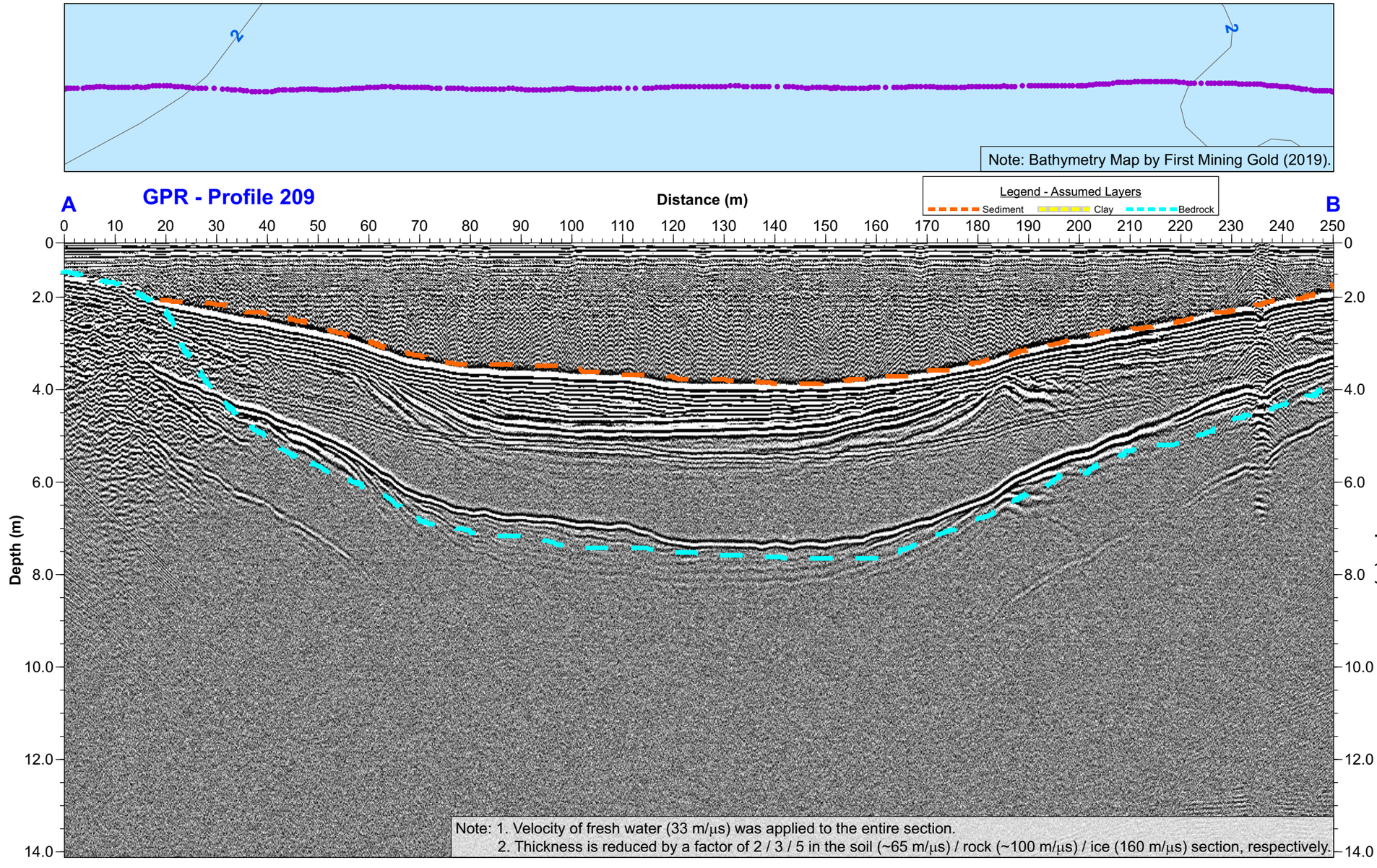

Figure E10 Ground penetrating radar survey on ice (lake) surface using 170 MHz antenna for Profile 209 at the Springpole site, ON.

Project No.	Document Reference
3134	FFC-NL-3134-007
Location	Date
Springpole, ON	February 2021

FFC