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TASMANIA
Pty Ltd
A.B.N 72 009 524 047

Comstock Mine Environmental Monitoring Report Fourth Quarterly 2001

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1.0 Introduction

The following report has been completed In compliance with Section 3.7.4 *Monitoring Schedule* of the environmental Permit Conditions issued by the Department of Primary Industries, Water and Environment, Tasmania, under the Environmental Management and Pollution Control Act 1994 for the Zeehan Zinc mine, leased by Oceania Tasmania Pty Ltd. This report summarises the required monitoring for the time period of October 2001 to December 2001.

Since October 2000, Zeehan Zinc Pty Ltd has not continued any mineral extraction operations at the mine site. There have been limited activities at the site during this time period.

As of July 6, 2001, the Department of Primary Industry, Water and Environment have published new permit conditions for a level 2 mining activity by Oceania Tasmania Pty. Ltd. at the Comstock Mine.

2.0 Water Monitoring

As required by the Permit Conditions, water monitoring of sites W1, W2, W3, and W4 has been completed.

The following four sub-sections summarise and interpret the sampling and analysis findings.

2.1 W1 – Comstock Creek Upstream

Sampling location W1 is situated upstream of the mine site in Comstock Creek adjacent to historical workings

Samples were taken on December 7, 2001 and analysed at 'Allison Laboratories' on December 7, 2001 for all of the required parameters (Figures 1, 2 and 3). Laboratory results are located in Appendix A.

On average, the results of this sampling location have remained comparable. Due to very little activity in this area, these results will likely continue as they have.

2.2 W2 – Main Adit Inlet

Sampling location W2 is situated in the collection areas beside the main adit inlet at the base of Allison's decline. These areas contain a sediment screen to reduce sediment flow off site, and limestone to reduce the acidity of the run off.

Samples were taken on December 7, 2001 and analysed at 'Allison Laboratories' on December 7, 2001 for all of the required parameters (Figures 1, 2 and 3). Laboratory results are located in Appendix A.

This site is presumed to be of the worst quality of water simply because of its location. Exposed pyritic material and, until recently, an inappropriately drained dump surrounds this site.

The pH of this area is around 2.4, with high acidity, aluminium, iron, and zinc. By maintaining the limestone and silt screens around the inlet, the quality of water entering the adit will improve. However, due to the shock of metal concentrations and a low pH during a storm event, these procedures will likely not be of great assistance.

Presently Oceania Tasmania Pty. Ltd. is searching for a method of better water management and treatment for now and the future of the mine.

2.3 W3 – Main Adit Outlet

Sampling location W3 is situated at the main adit outlet.

Samples were taken on December 7, 2001 and analysed at 'Allison Laboratories' on December 7, 2001 for all of the required parameters (Figures 1, 2 and 3). Laboratory results are located in Appendix A.

Results from this sampling event are comparable with past results. As activities increase on the mine site, it is likely that this water quality will worsen.

Presently Oceania Tasmania Pty. Ltd. is searching for a method of better water management and treatment for now and the future of the mine.

2.4 W4 – Base of Swansea Dump

Sampling location W4 is situated in a small pool at the base of the Swansea Tramway Waste Rock Dump.

Samples were taken on December 7, 2001 and analysed at 'Allison Laboratories' on December 7, 2001 for all of the required parameters (Figures 1, 2 and 3). Laboratory results are located in Appendix A.

Due to the lack of safe access and heavy equipment available on the site, this area has not been maintained appropriately. The dam must be emptied and additional limestone must be applied.

By the January 2002, this area will be further developed for the future tailings dams in the Swansea basin. At this time a safe access route will be put into place for all of the drainage area around Swansea Tramway Waste Rock Dump.

3.0 Erosion Monitoring

As required by the Permit Conditions, erosion monitoring of sites E1 and E2 has been completed. The following two sub-sections summarise the findings.

3.1 E1 – East Wall of Allison's Decline

This site represents the east wall of Allison's decline.

With the anticipation of continuing extraction of ore soon, these walls and batters have been and will continue being improved, and deemed a safe working environment by the mine manager.

Continued site inspections by the mining staff ensure that this will not become an issue in the future.

3.2 E2 – Southwestern Batter of Central Dump

This site represents the southwestern batter of the Central Mine Waste Rock Dump.

The Central Waste Rock Dump rehabilitation has commenced. Within this procedure are practices that will ensure appropriate erosion control. These include such things as proper re-contouring, compaction, clay lining, topsoil, riprap and grass seeding.

Continued site inspections by the mining staff ensure that this will not become an issue in the future.

4.0 NAG pH, NAG & AMD

Initially, these tests were to be performed on a six-monthly basis to the Central Waste Rock Dump.

Since then, the Central Waste Rock Dump has been analysed twice and is presently undergoing rehabilitation so testing would now be considered inappropriate.

Plans to revise the approval clause to include the Swansea Tramway Waste Rock Dump are now underway and will likely commenced by the Second Quarterly Report of 2002.

5.0 Summary

With ore extraction starting soon, activities on the Comstock Mine will be increasing rapidly. With this increase in activity and capital, proper management of the site will become a priority. Health and environmental issues will be in the foreground when planning and executing activities.

With the addition of a full-time permanent mine manager, regular inspections and sampling will commence and be maintained to meet government and in-house regulations.

Figure 1. Water sampling results for pH on 07/12/01.

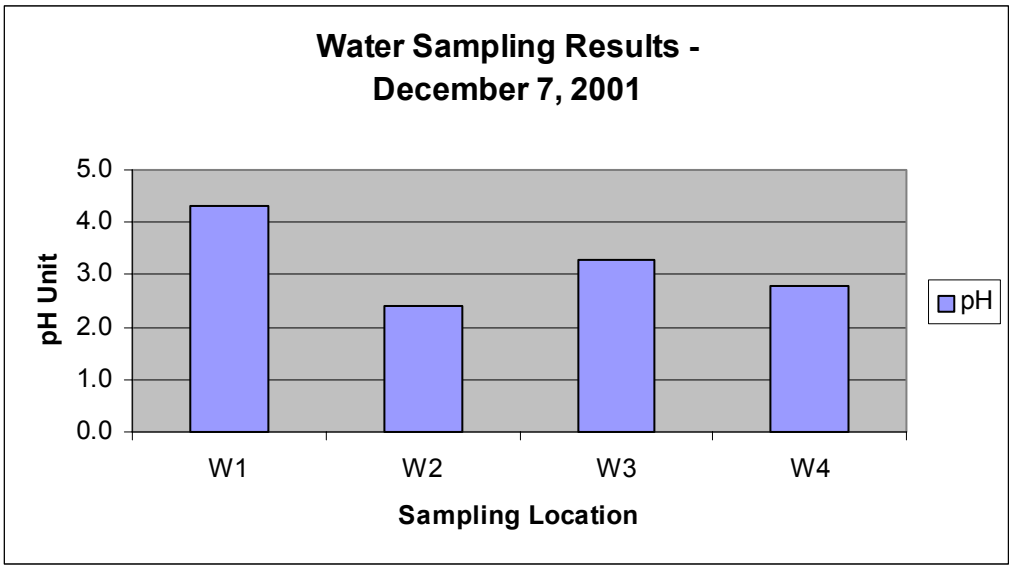


Figure 2. Water sampling results for TSS on 07/12/01

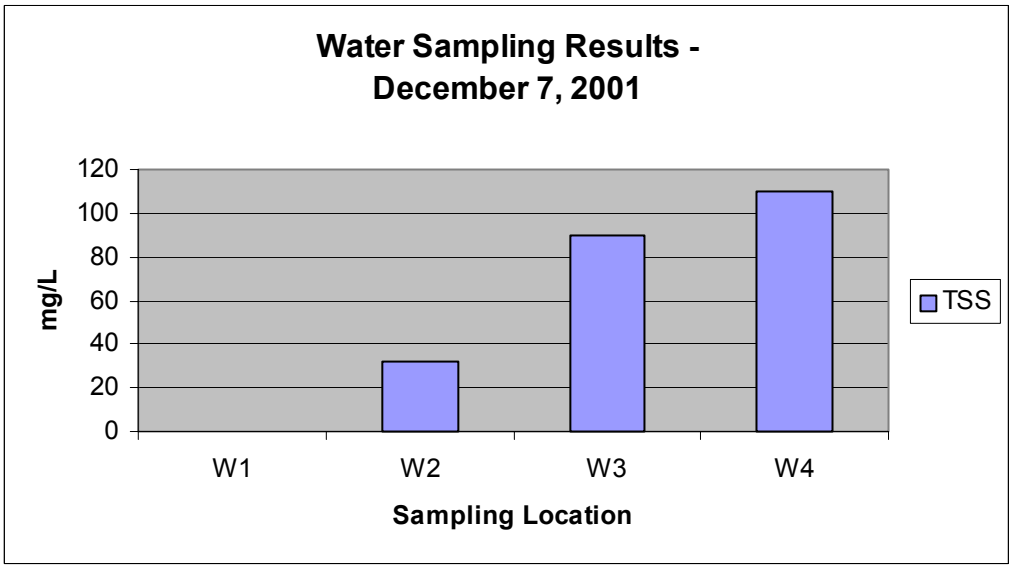
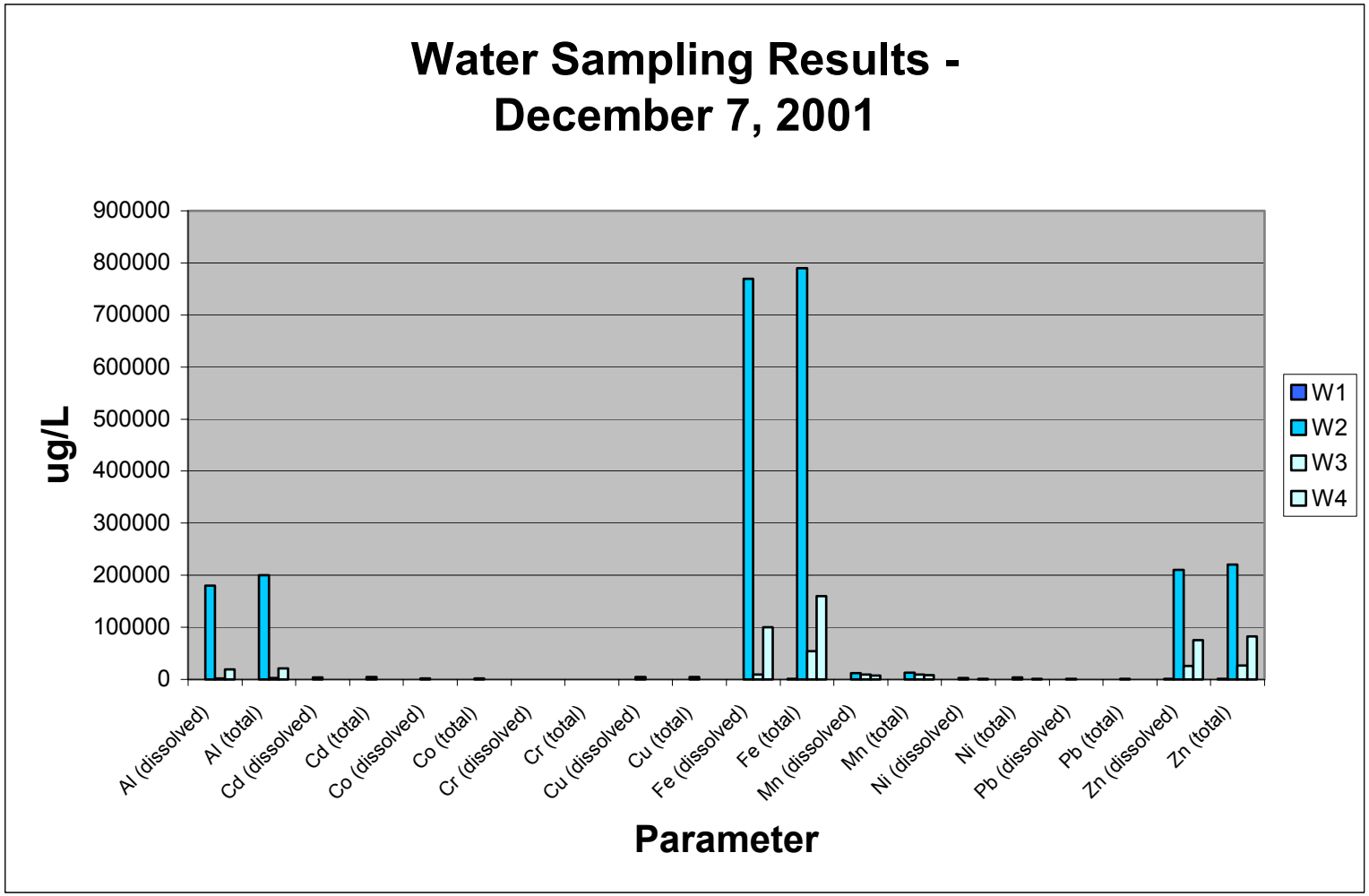


Figure 3. Water sampling results for metals on 07/12/01.



APPENDIX A

Laboratory Analysis of Water Samples

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ALLISON LABORATORIES
INDUSTRIAL AND AGRICULTURAL ANALYSIS
TANK AND CARGO SURVEYS

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RESULTS OF ANALYSIS

Samples labelled as shown below were delivered to these laboratories on 7th of December 2001. The results of analyses conducted on these are tabulated herewith:

Laboratory Reference		157774	157775	157776	157777
Sample Identification		W 1 7.12.01	W 2 7.12.01	W 3 7.12.01	W 4 7.12.01
pH		4.3	2.4	3.3	2.8
Conductivity	µS/cm	130	5080	960	2050
Total Suspended Solids	mg/L	< 1	32	90	110
Total Dissolved Solids	mg/L	45	5940	540	1300
Acidity to pH 8.3	mg/L as $CaCO_3$	8	3500	120	590
Total Aluminium	mg/L	0.43	200	2.9	21
Total Arsenic	mg/L	0.0022	1.47	0.21	0.081
Total Cadmium	mg/L	< 0.01	4.2	0.05	0.28
Total Cobalt	mg/L	< 0.01	1.5	0.05	0.35
Total Chromium	mg/L	< 0.02	0.20	< 0.02	0.02
Total Copper	mg/L	< 0.01	5.0	<0.01	0.077
Total Iron	mg/L	0.63	790	54	160
Total Manganese	mg/L	0.19	13	9.3	8.2
Total Nickel	mg/L	0.02	3.3	0.11	0.93
Total Lead	mg/L	0.22	0.74	0.25	0.30
Total Zinc	mg/L	0.92	220	27	83

K J Allison *B.Sc.*
Chemist

Samples received 07.12.01
Analysis complete 14.12.01

Methodology: This sample was analysed essentially in accord with the relevant methods as set out in "Standard Methods for the Examination of Water & Wastewater" 17th Ed. (1989). APHA .

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Laboratory Reference		157774	157775	157776	157777
Sample Identification		W 1 7.12.01	W 2 7.12.01	W 3 7.12.01	W 4 7.12.01
Dissolved Aluminium	mg/L	0.34	180	1.8	19
Dissolved Arsenic	mg/L	0.0004	1.41	0.043	0.014
Dissolved Cadmium	mg/L	< 0.01	4.0	0.05	0.26
Dissolved Cobalt	mg/L	< 0.01	1.4	0.05	0.34
Dissolved Chromium	mg/L	< 0.02	0.20	< 0.02	< 0.02
Dissolved Copper	mg/L	< 0.01	4.7	< 0.01	0.075
Dissolved Iron	mg/L	0.31	770	9.3	100
Dissolved Manganese	mg/L	0.19	12	9.1	7.5
Dissolved Nickel	mg/L	0.02	3.0	0.11	0.87
Dissolved Lead	mg/L	0.17	0.52	0.12	0.27
Dissolved Zinc	mg/L	0.91	210	26	75

K J Allison *B.Sc.*
Chemist

Samples received 07.12.01
Analysis complete 14.12.01

Methodology: This sample was analysed essentially in accord with the relevant methods as set out in "Standard Methods for the Examination of Water & Wastewater" 17th Ed. (1989), APHA .

APPENDIX B

Water Sampling Data Collection

Site	Date	TSS mg/L	Alkalinity (total) CaCO3 mg/L	Acidity CaCO3 mg/L	pH	Al (dissolved) ug/L	Al (total) ug/L	Cd (dissolved) ug/L	Cd (total) ug/L
S14	10/22/97						2560		39
S10	10/22/97						2800		42
S14	06/10/99	59	<1	61		1780	2190	19	19
S14	08/10/99	59	<1	49		1430	2110	19	20
S2	08/10/99	6	2	9	6.2	287	370	<1	1
S10	03/08/00	57	<1	98		441	1960	12	14
S1	06/27/00				4.6	0		0	
S2	06/27/00				6.2	340		0	
S10	06/27/00				5.0	1150		50	
S14	06/27/00				5.3	630		30	
S12	06/27/00				6.2	110		20	
S11	06/27/00				6.2	220		10	
S3	06/27/00				3.3	13060		160	
S1	09/22/00				5.5	0		40	
S2	09/22/00				6.4	580		30	
S10	09/22/00				6.0	10		20	
S14	09/22/00				5.8	0		20	
S12	09/22/00				6.1	160		10	
S11	09/22/00				6.4	90		10	
S3	09/22/00				no flow	no flow		no flow	
S1	01/15/01	2			4.7	234	452	<1	1
S10	01/15/01	107			3.1	7040	8230	254	254
S13	01/15/01	132			3.0	78700	86600	514	530
S10	02/04/01	86	<1		3.5	<20	1870	<1	18
S10	03/28/01	68	<1		3.4	8250	8430	191	190
S13	03/28/01	163	<1		2.6				
S1	05/18/01	4	<1	20	4.2		1020	<5	<5
S9	05/18/01	16	4	11	5.5		905	15	14
S6	05/18/01	15	<1	63	3.5		4040	<5	<5
S4	05/18/01	19	<1	2760	2.5		164000	2010	2060
S5	05/18/01	16	<1	209	3.0		13400	<5	6
S2	05/18/01	<1	<1	22	4.1		1010	<5	<5
S10	05/18/01	64	<1	105	3.5		2260	106	129
S12	05/18/01	91	<1	135	3.2		11500	16	20
S13	05/18/01	17	<1	729	2.8		47500	46	62
S1	10/09/01	<1		9	4.3		420		<5
S4	10/09/01	4		1800	2.5		110000		2100
S10	10/09/01	50		740	3.0		2900		33
S13	10/09/01	75		1510	3.0		21000		260
S1	07/12/01	<1		8	4.3	340	430	10	10
S4	07/12/01	32		3500	2.4	180000	200000	4000	4200
S10	07/12/01	90		120	3.3	1800	2900	50	50
S13	07/12/01	110		590	2.8	19000	21000	260	280

Site	Date	Co (dissolved) ug/L	Co (total) ug/L	Cr (dissolved) ug/L	Cr (total) ug/L	Cu (dissolved) ug/L	Cu (total) ug/L	Fe (dissolved) ug/L	Fe (total) ug/L
S14	10/22/97		66		7		<5		59100
S10	10/22/97		76		8		6		67700
S14	06/10/99	23	23	<1	<1	10	12	351	25100
S14	08/10/99	25	26	1	<1	14	13	678	30700
S2	08/10/99	<1	<1	1	<1	11	9	681	1300
S10	03/08/00	37	40	<1	<1	2	2	11700	43100
S1	06/27/00	10		0		30		470	
S2	06/27/00	30		20		40		600	
S10	06/27/00	40		50		50		19820	
S14	06/27/00	40		50		40		13410	
S12	06/27/00	60		30		40		7440	
S11	06/27/00	90		50		0		37640	
S3	06/27/00	350		20		70		2470	
S1	09/22/00	50		40		10		46040	
S2	09/22/00	60		40		0		48980	
S10	09/22/00	60		0		60		8980	
S14	09/22/00	50		0		40		9240	
S12	09/22/00	90		20		30		34460	
S11	09/22/00	30		0		40		1050	
S3	09/22/00	no flow		no flow		no flow		no flow	
S1	01/15/01	3	3	<1	1	4	6	636	2360
S10	01/15/01	112	114	1	3	125	128	1010	49000
S13	01/15/01	1730	1710	92	186	69	73	139000	390000
S10	02/04/01	<1	50	<1	<1	<1	3	<20	43700
S10	03/28/01	53	55	<1	2	56	56	2220	33600
S13	03/28/01								
S1	05/18/01	7	8	<1	<1	27	26	866	850
S9	05/18/01	4	5	<1	<1	22	23	2290	2430
S6	05/18/01	11	11	3	3	123	122	3780	3810
S4	05/18/01	1230	1250	149	153	4650	4780	605000	622000
S5	05/18/01	42	42	2	3	55	70	18300	24400
S2	05/18/01	8	8	<1	<1	21	27	608	794
S10	05/18/01	32	39	<1	<1	7	7	31100	38300
S12	05/18/01	49	62	3	5	181	229	15900	20000
S13	05/18/01	446	579	33	43	264	341	77600	117000
S1	10/09/01		5		<1		10		670
S4	10/09/01		930		130		3000		500000
S10	10/09/01		63		<1		5		57000
S13	10/09/01		370		35		77		140000
S1	07/12/01	10	10	20	20	10	10	310	630
S4	07/12/01	1400	1500	200	200	4700	5000	770000	790000
S10	07/12/01	50	50	20	20	10	10	9300	54000
S13	07/12/01	340	350	20	200	75	77	100000	160000

Site	Date	Mn (dissolved) ug/L	Mn (total) ug/L	Ni (dissolved) ug/L	Ni (total) ug/L	Pb (dissolved) ug/L	Pb (total) ug/L	Zn (dissolved) ug/L	Zn (total) ug/L
S14	10/22/97		10800		147		380		33000
S10	10/22/97		12200		166		373		37700
S14	06/10/99	4290	4270	47	42	81	147	14700	14900
S14	08/10/99	4220	4230	51	51	80	155	14400	14900
S2	08/10/99	129	138	3	4	52	85	284	298
S10	03/08/00	8620	8770	73	75	<5	46	22500	23200
S1	06/27/00	40		40		80		230	
S2	06/27/00	70		50		140		170	
S10	06/27/00	2780		30		170		13590	
S14	06/27/00	1970		20		370		9710	
S12	06/27/00	6270		70		210		2880	
S11	06/27/00	5580		130		190		11670	
S3	06/27/00	820		380		5670		36000	
S1	09/22/00	7560		50		130		24600	
S2	09/22/00	7720		50		130		25760	
S10	09/22/00	6720		10		180		2840	
S14	09/22/00	6980		70		190		2730	
S12	09/22/00	5470		70		230		11870	
S11	09/22/00	120		0		210		650	
S3	09/22/00	no flow		no flow		no flow		no flow	
S1	01/15/01	285	281	9	11	64	142	345	366
S10	01/15/01	8680	8660	250	256	91	122	37200	37100
S13	01/15/01	13400	13000	5260	5150	3200	11600	258000	257000
S10	02/04/01	<5	8650	<1	95	<5	70	<1	20
S10	03/28/01	6340	6360	109	110	579	631	33700	33900
S13	03/28/01								
S1	05/18/01	336	335	15	15	593	591	3180	3130
S9	05/18/01	435	436	8	8	192	198	1180	1170
S6	05/18/01	269	269	20	22	488	488	6160	6130
S4	05/18/01	7620	7790	2630	2680	852	684	161000	161000
S5	05/18/01	443	687	55	71	1520	2020	6840	6930
S2	05/18/01	260	337	14	18	641	838	2520	3250
S10	05/18/01	5030	6080	62	75	231	287	13500	16500
S12	05/18/01	1370	1740	81	107	290	375	11900	15800
S13	05/18/01	4560	5770	991	1280	780	998	119000	160000
S1	10/09/01		210		20		240		1200
S4	10/09/01		5100		2100		670		120000
S10	10/09/01		8800		130		160		280000
S13	10/09/01		8100		800		390		850000
S1	07/12/01	190	190	20	20	170	220	910	920
S4	07/12/01	12000	13000	3000	3300	520	740	210000	220000
S10	07/12/01	9100	9300	110	110	120	250	26000	27000

S13	07/12/01	7500	8200	870	930	270	300	75000	83000

22/10/97, 10/06/99, 10/08/99, 08/03/00 (SEMF, Development Proposal and Environmental Management Plan, May 2000)

27/06/00, 22/09/00 (Meskanen, U., Acid Mine Drainage at the Comstock Ag-Pb-Zn Mine,... – Thesis, November 2000)

15/01/01 (Sarah Bunce – SEMF, March 21, 2001)

04/02/01 (Paul Heath – Oceania, March 21, 2001)

03/28/01 (Shane Bartel - Oceania Tasmania)

05/18/01 (Shane Bartel - Oceania Tasmania)

10/09/01 (Shane Bartel - Oceania Tasmania)

7/12/01 (Paul Heath - Oceania Tasmania)

S1 - Comstock Creek - furthest upstream *(was W1)*

S2 - Comstock Creek - upstream beside old workings area

S3 - upper bench adit entrance

S4 - decline adit entrance *(was W2)*

S5 - marsh area east of proposed processing mill location

S6 - collection pond beside proposed processing mill location

S7 - main drainage inlet before treatment pond #1

S8 - discharge from treatment pond #1

S9 - Comstock Creek - before mixing with adit drainage

S10 - main adit drainage before mixing with Comstock Creek *(was W3)*

S11 - 2nd independent adit drainage south of Swansea dump after limestone buffer

S12 - 1st independent adit drainage south of Swansea dump after stormwater mixing

S13 - discharge from second collection dam west of Swansea dump *(was W4)*

S14 - Comstock Creek - downstream of mixing, before lease boundary