



## **Comstock Mine Environmental Monitoring Report – March 2007 Quarter**



**May 2007**

**Heather Worby BSc (Hons)**

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## 1.0 Introduction

Oceania Tasmania Pty Ltd (Oceania) is a wholly owned subsidiary of Zeehan Zinc Limited (Zeehan Zinc), and holds Comstock Mining Leases, 43M/85, 19M/1995, 123M/47 and 9M/2002. No extraction of Zn-Pb-Ag ore has occurred on site since September 2000 with major works concentrated on a Gravity Plant Development and commissioning, communications, tailings dam development, rehabilitation and extensive resource drilling program.

Section 37 of the Level 2 Mining Activity Environmental Permit (DPIWE, 6 July 2001) states it is a requirement for Oceania to carry out routine water quality tests every 3 months. This report summarises the required monitoring schedule including data from May 2001 to May 2007.

## 2.0 Water Monitoring

Water samples at monitoring sites W1 and W3 (Figure 1) were collected in May 2007 and analysed at 'Analytical Services Tasmania' for pH, conductivity, total suspended solids (Al, Cd, Co, Cr, Cu, Fe, Mn, Ni, Pb, Zn), total alkalinity and acidity. Water monitoring site W2 and W4 (Figure 1) was not tested due to no flow. To supplement these sites, water samples were also collected from upstream Comstock Creek and downstream Comstock Creek. Laboratory results from sites W1, W2, W3, W4, upstream and downstream Comstock Creek are attached as Appendix A for the last six years.

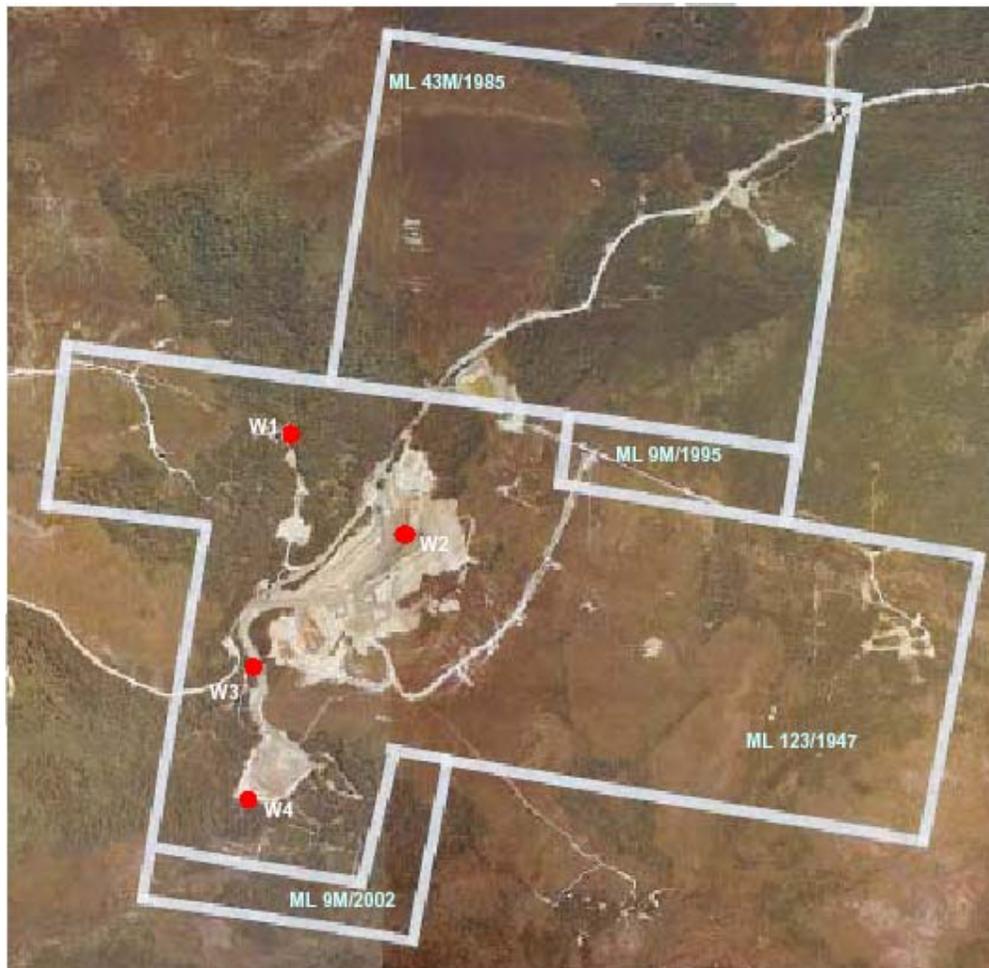


Figure 1. Location Map of the Comstock mine showing water monitoring locations

### 3.0 Results

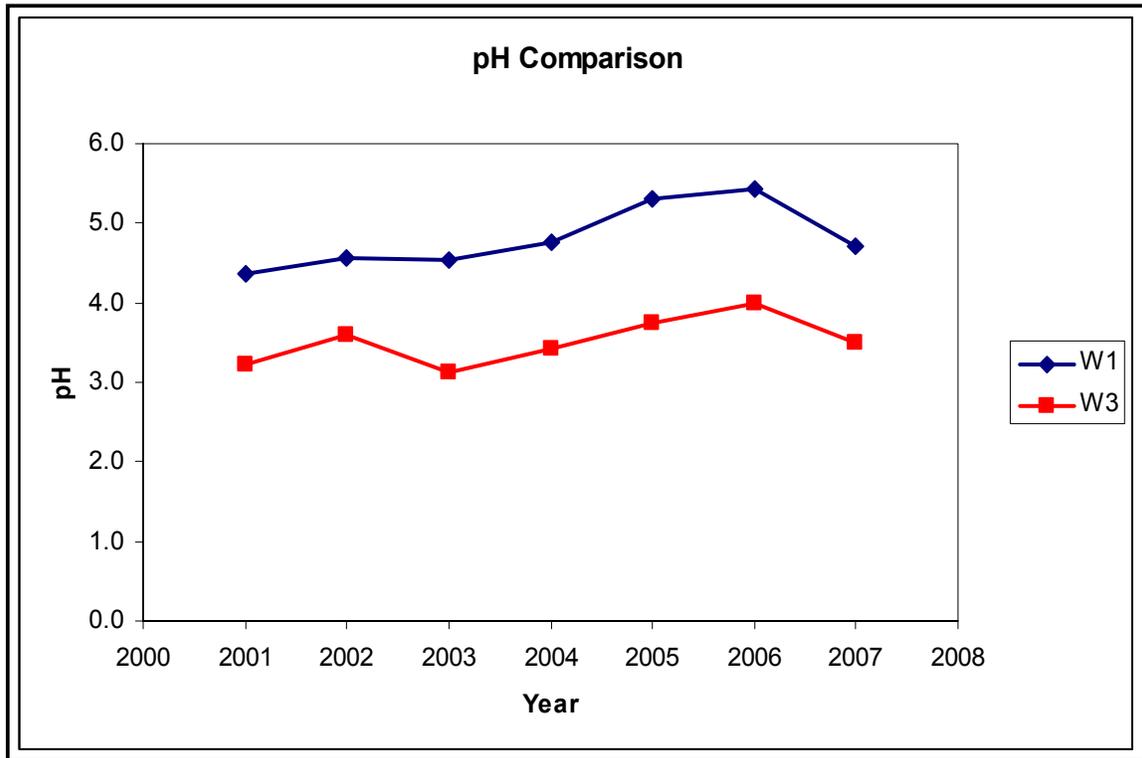


Figure 2 – Average yearly pH values at W1 and W3 (adit outlet).

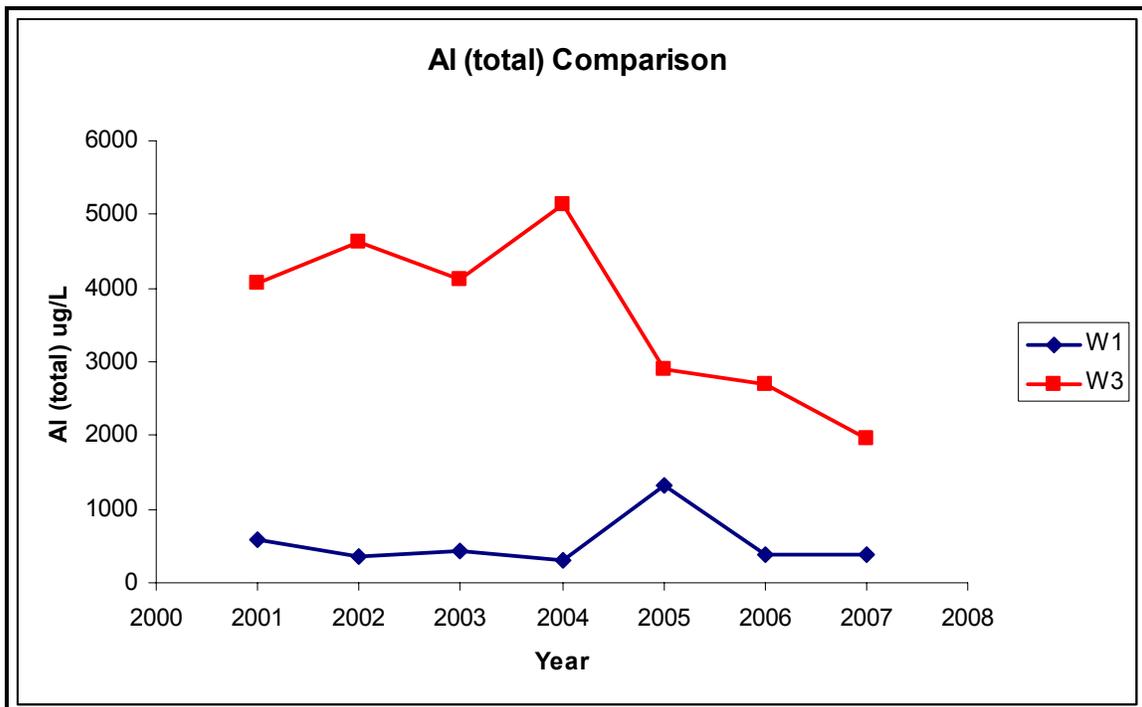


Figure 3 – Yearly averages of Al (total) at site W1 (upstream) and W3 (adit outlet)

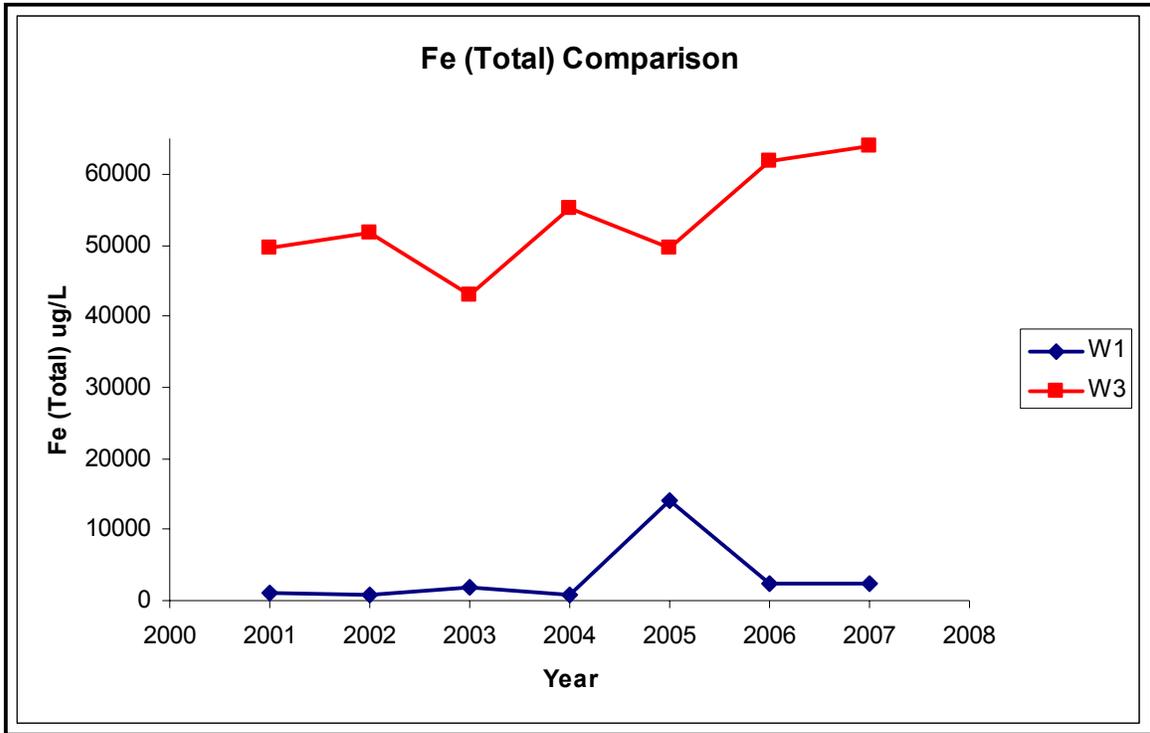


Figure 4 – Yearly averages of Fe (total) at site W1 (upstream) and W3 (adit outlet)

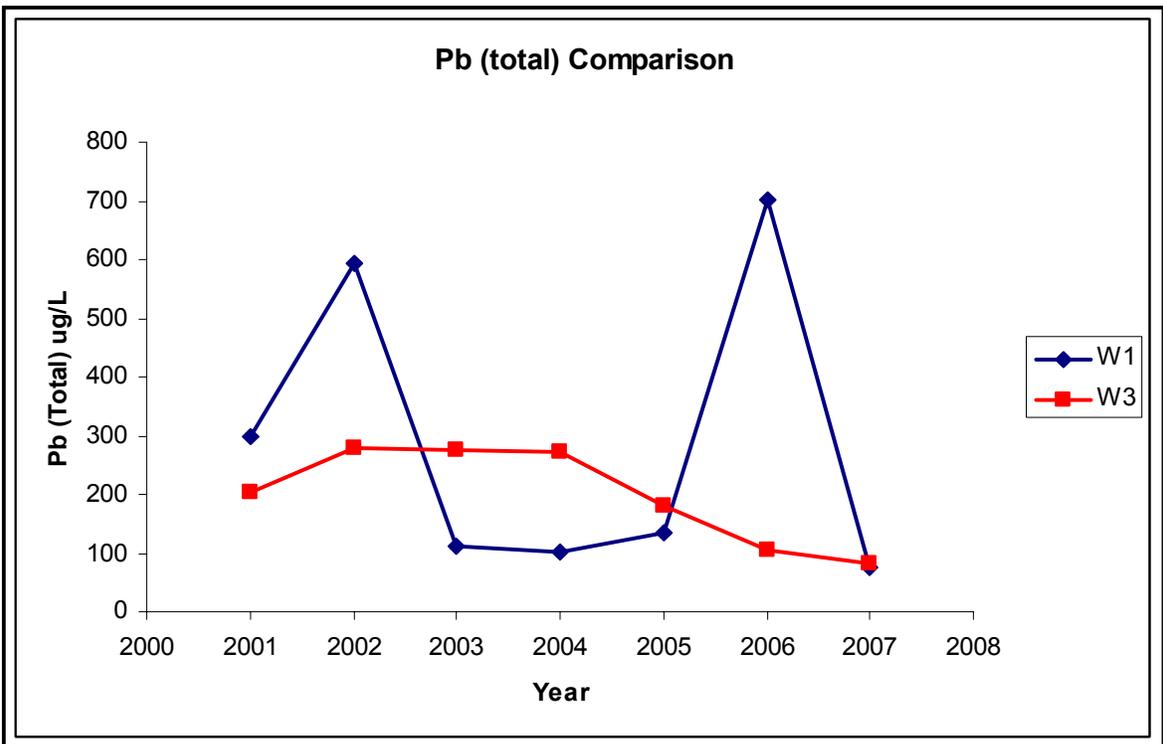


Figure 5 – Yearly averages of Pb (total) at site W1 (upstream) and W3 (adit outlet)

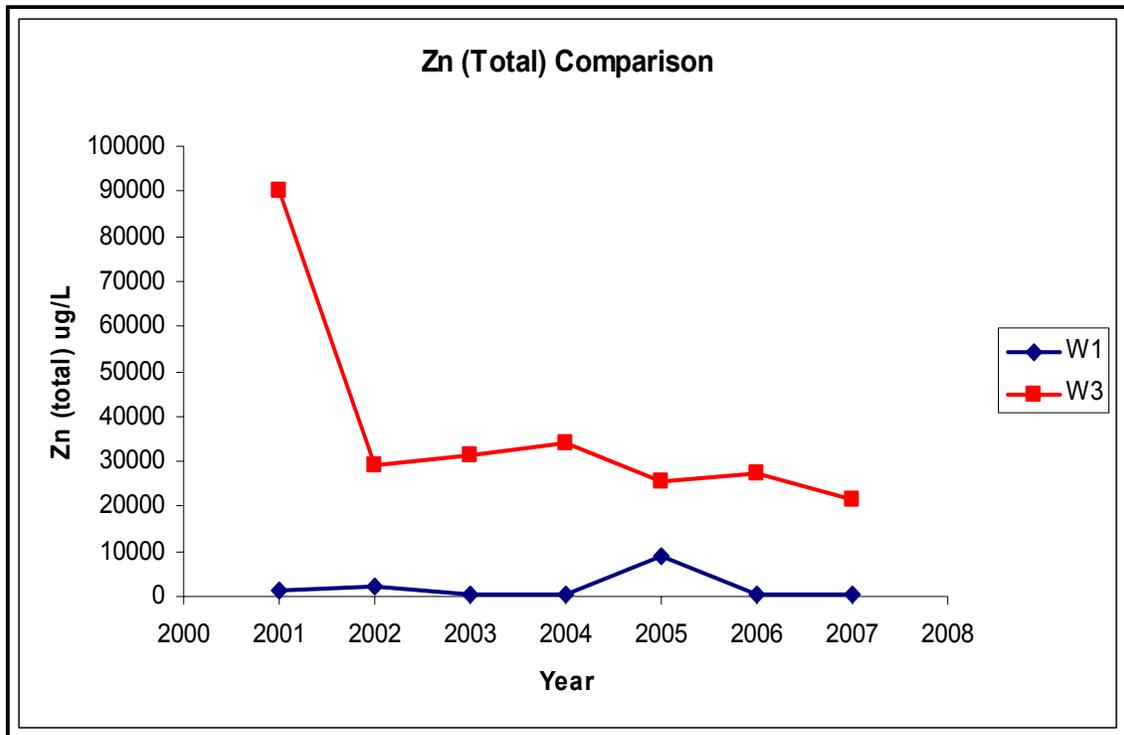


Figure 6 – Yearly Averages of Zn (total) at site W1 (upstream) and W3 (adit outlet)

**Appendix A**  
**Laboratory Results**



**ANALYTICAL SERVICES TASMANIA**

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## Laboratory Report

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**Report No:** 31893      **Issue No:** 1      **Report Date:** 29-May-2007 11:00

**Status:** Full Report

**Site Description:** Comstock/Oceana

**Received:** 09-May-07

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**Submitted to:** Sandy Bay Laboratory

**Submitted By:** Heather Worby

**Client Order No:** 428

**Report To:** Heather Worby

**Client:** ZZ Exploration Pty Ltd

**Address:** 3/65 Murray Street Hobart7000

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The tests, calibrations or measurements covered by this document have been performed in accordance with NATA requirements which include the requirements of ISO/IEC 17025 and are traceable to national standards of measurement.

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Samples analysed as received.



ANALYTICAL SERVICES TASMANIA

Report No: 31893		Issue No: 1		Report Date: 29-May-2007 11:00			
Method	Analyte	Units / Sampled On :	Lab.No.: 107510		107511	107512	107513
			U Comstock Ck	L Comstock Ck	W1	W3	
		Sample Id.:	27/04/07 10:03	27/04/07 10:44	27/04/07 09:49	27/04/07 10:24	
1001-Water	pH		4.7	3.2	4.7	3.5	
1002-Water	Conductivity	µS/cm	122	916	121	819	
1005-Water	TSS	mg/L	4	5	6	85	
1101-Water	Alkalinity Total	mg CaCO3/L	<2	<2	<2	<2	
1102-Water	Acidity	mg CaCO3/L	11	157	8	106	
1301-Water	Al Dissolved	µg/L	204	14000	194	1600	
	Al Total	µg/L	403	14100	386	1970	
	As Dissolved	µg/L	<5	<5	<5	<5	
	As Total	µg/L	<5	<5	<5	204	
	Cd Dissolved	µg/L	1	79	<1	13	
	Cd Total	µg/L	1	79	1	14	
	Co Dissolved	µg/L	4	174	3	49	
	Co Total	µg/L	4	174	4	51	
	Cr Dissolved	µg/L	<1	10	<1	<1	
	Cr Total	µg/L	2	13	<1	<1	
	Cu Dissolved	µg/L	2	78	2	<1	
	Cu Total	µg/L	4	80	3	1	
	Fe Dissolved	µg/L	168	2240	187	432	
	Fe Total	µg/L	2340	11200	2520	63900	
	Mn Dissolved	µg/L	301	9160	288	9620	
	Mn Total	µg/L	314	9220	299	9720	
	Ni Dissolved	µg/L	8	226	8	97	
	Ni Total	µg/L	10	228	9	99	