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JAW:sm

Project No: 39823,04

Doc Ref: P:\39823.04\Docs\39823.04.doc

21 May 2008

Johnson Property Group PO Box 34 COORANBONG NSW 2265

Attention: Mr Bryan Garland

Dear Sir

ADDITIONAL GROUNDWATER SAMPLING AND TESTING TRINITY POINT MARINA MORISSET PARK

Further to your recent request, Douglas Partners (DP) has undertaken an additional round of groundwater sampling and testing at the Trinity Point Marina Project.

Douglas Partners has previously undertaken geotechnical investigations at the site, which included the installation of groundwater monitoring wells, along with sampling and laboratory testing (Ref 1).

On 15 May 2008, an environmental engineer from DP visited the site and confirmed that the previously installed groundwater wells were still intact. An additional round of sampling was undertaken for the purpose of providing background water quality data. Prior to sampling, the groundwater level was measured in each of the wells and each of the wells was purged.

Bore 105, which was installed to a depth of about 5 m below the ground surface, was dry both during the recent and previous rounds of testing.

The groundwater levels that were measured during the recent visit, are summarised in the table below, which also includes the previously reported data from earlier testing at the site.





Table 1 - Summary of Groundwater Measurements in Wells

Project Component	Bore	Approximate Surface	Depth t	o Groundwa (m)	Range of Groundwater			
	B	Level (AHD)	5/10/07	9&10/10/07	16/10/07	24/10/07	15/5/08	Levels Observed (AHD)
Village	101	1.27	1.2	1.2	1.2	NM	1.04	0.0 to 0.2
	101A	1.27	NM	NM	1.15	1.22	0.87	0.0 to 0.4
Marina	102	0.89	NM	0.61	0.88	NM	0.57	0.0 to 0.3
N S	102A	0.89	NM	NM	0.83	0.94	0.64	-0.1 to 0.2
to G	103	2.47	1.51	1.57	1.63	NM	1.37	0.8 to 1.1
ш	104	3.82	2.83	2.85	2.93	NM	2.86	0.9 to 1.0
Blocks	105	6.62	Dry	Dry	Dry	Dry	Dry	-

It should be noted that groundwater levels are affected by factors such as climatic conditions and soil permeability and will therefore vary with time.

Groundwater pH and electrical conductivity (EC) were also measured in the wells during the recent sampling, using a portable meter. The results are summarised in Table 2, below, along with comparative values recorded during previous sampling in October 2007:

Table 2 – Summary of Groundwater Properties in Bores

Bore No	Date	Range of pH values	Range of EC values (mS/cm)
101	Oct 2007	7.1 to 7.3	1.7 to 3.8
701	15/5/2008	7.0	0.27 - 0.35
101A	Oct 2007	7.2 to 7.7	0.6 to 0.8
	15/5/2008	NM	NM
102	Oct 2007	6.8 to 7.3	8.7 to 21.1
102	15/5/2008	6.6 to 7.1	0.9 to 2.6
102A	Oct 2007	7.4 to 7.7	1.2 to 2.1
1027	15/5/2008	7.2 to 7.6	1.0 to 2.7
103	Oct 2007	5.0	0.6
100	15/5/2008	4.7 to 5.0	0.4 to 0.5
104	Oct 2007	4.1 to 4.2	5.6 to 6.8
104	15/5/2008	3.5 to 3.7	7.1 to 7.4
105	Oct 2007	dry	Dry
,,,,	15/5/2008	dry	Dry

Notes to Table 2:

EC - Electrical Conductivity

DO - Dissolved Oxygen

NM - Not measured



Groundwater samples were collected from each of the wells to obtain an additional set of background water quality data. The well in Bore 105 was dry, and hence no sample was collected. Groundwater was tested for the following:

- Metals: Arsenic (As); Antimony (Sb); Barium (Ba); Beryllium (Be); Boron (B); Cadmium (Cd); Chromium (Cr); Copper (Cu); Cobalt (Co); Lead (Pb); Manganese (Mn); Molybdenum (Mo); Nickel (Ni); Selenium (Se), Tin (Sn); Zinc (Zn); and Mercury (Hg);
- Nitrite, Nitrate, Chloride, Sulphate;
- · Total Phosphorous; Total Nitrogen;
- Total Iron.



Table 3 - Summary of Laboratory Results for Groundwater Chemistry - Metals

	Мегсигу	<pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>5E-4⁽¹⁾/ 1E-4⁽²⁾</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>5E-4⁽¹⁾/ 1E-4⁽²⁾</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>5E-4⁽¹⁾/ 1E-4⁽²⁾</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>5E-4⁽¹⁾/ 1E-4⁽²⁾</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>5E-4⁽¹⁾/ 1E-4⁽²⁾</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>5E-4⁽¹⁾/ 1E-4⁽²⁾</th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th><pql< th=""><th>5E-4⁽¹⁾/ 1E-4⁽²⁾</th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th>5E-4⁽¹⁾/ 1E-4⁽²⁾</th></pql<></th></pql<>	<pql< th=""><th>5E-4⁽¹⁾/ 1E-4⁽²⁾</th></pql<>	5E-4 ⁽¹⁾ / 1E-4 ⁽²⁾
	negortil/I listoT	4.6	3.3	^PQL	1.0	Ł	3.2	0.79	<pql< th=""><th>0.8</th><th>1⁽¹⁾/ 0.2⁽²⁾</th></pql<>	0.8	1 ⁽¹⁾ / 0.2 ⁽²⁾
(T)	euroriqeoriq listoT		<0.5	0.13	^PQL	Þ	1.7	0.28	4PQL	0.47	0.1 ⁽¹⁾ / 0.05 ⁽²⁾
Analyte (mg/L	Sulphate, SO4	110	1300	4	180	Ę	4.5	72	52	170	1 ⁽¹⁾ , 0.4 ⁽²⁾
Ana	Chloride, Cl	850	8400	190	2600	Ę	18	920	150	3000	1 ⁽¹⁾ / 0.1 ⁽²⁾
	N as startiN	<pql< th=""><th>⊽</th><th>^PQL</th><th>40.1</th><th>¥</th><th>90'0</th><th>0.05</th><th>90.0</th><th>0.03</th><th>0.05⁽¹⁾/ 0.02⁽²⁾</th></pql<>	⊽	^PQL	40.1	¥	90'0	0.05	90.0	0.03	0.05 ⁽¹⁾ / 0.02 ⁽²⁾
	novi lefoT	2.4	250	0.25	15	눌	5.7	4.6	9.0	12	0.01
	иј <u>т</u>	^PQL	0.03	~PQL	<pql< th=""><th>^PQL</th><th>^PQL</th><th>₽<u>0</u></th><th><pql< th=""><th>^P@L</th><th>0.03⁽¹⁾/ 0.05 ⁽²⁾</th></pql<></th></pql<>	^PQL	^PQL	₽ <u>0</u>	<pql< th=""><th>^P@L</th><th>0.03⁽¹⁾/ 0.05 ⁽²⁾</th></pql<>	^P@L	0.03 ⁽¹⁾ / 0.05 ⁽²⁾
	⊃ni∑	12	120	33	110	14	58	22	35	210	-
	Selenium	-PQI	23	<pql< th=""><th>^PQ[</th><th>^PQL</th><th>^APQ^A</th><th>APQ.</th><th>^PQ!</th><th>^PQL</th><th>2</th></pql<>	^PQ[^PQL	^A PQ ^A	APQ.	^PQ!	^PQL	2
	Nickel	<pql< th=""><th>1.</th><th>3,4</th><th>13</th><th><pql< th=""><th>2.1</th><th>بر ن</th><th>2.4</th><th>8.4</th><th>-</th></pql<></th></pql<>	1.	3,4	13	<pql< th=""><th>2.1</th><th>بر ن</th><th>2.4</th><th>8.4</th><th>-</th></pql<>	2.1	بر ن	2.4	8.4	-
	Moiybdenum	2.5	2.6	AP OL	^PQL	2.5	4.4	12	1.1	0.1°	τ
	Manganese	260	1300	77	300	250	4	25	99	30	Y
	Pead	<pql< th=""><th><pql< th=""><th>5.4</th><th>40</th><th>^PQL</th><th>1.7</th><th>PQ.</th><th>15</th><th>29</th><th>—</th></pql<></th></pql<>	<pql< th=""><th>5.4</th><th>40</th><th>^PQL</th><th>1.7</th><th>PQ.</th><th>15</th><th>29</th><th>—</th></pql<>	5.4	40	^PQL	1.7	PQ.	15	29	—
(µg/L)	AlsdoD	^PQL	22	2.1	16	«PQL	<pql< th=""><th>Å PQ</th><th>^PQL</th><th>2.9</th><th>γ</th></pql<>	Å PQ	^PQL	2.9	γ
Analyte (µg/L	Соррег	^PQL	1.3	1,1	3.9	<pql< th=""><th>1.4</th><th>2.0</th><th>6.9</th><th>4.8</th><th>-</th></pql<>	1.4	2.0	6.9	4.8	-
	muimordD	1.2	6.3	<pql< th=""><th>15</th><th><pql< th=""><th>1.1</th><th>1.0</th><th>1.1</th><th>4.3</th><th>4</th></pql<></th></pql<>	15	<pql< th=""><th>1.1</th><th>1.0</th><th>1.1</th><th>4.3</th><th>4</th></pql<>	1.1	1.0	1.1	4.3	4
	muimbsO	<pql< th=""><th><pql< th=""><th><pql< th=""><th>0.64</th><th><pql< th=""><th><pql< th=""><th>^PQL</th><th><pql< th=""><th>0.16</th><th>0.1</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th>0.64</th><th><pql< th=""><th><pql< th=""><th>^PQL</th><th><pql< th=""><th>0.16</th><th>0.1</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th>0.64</th><th><pql< th=""><th><pql< th=""><th>^PQL</th><th><pql< th=""><th>0.16</th><th>0.1</th></pql<></th></pql<></th></pql<></th></pql<>	0.64	<pql< th=""><th><pql< th=""><th>^PQL</th><th><pql< th=""><th>0.16</th><th>0.1</th></pql<></th></pql<></th></pql<>	<pql< th=""><th>^PQL</th><th><pql< th=""><th>0.16</th><th>0.1</th></pql<></th></pql<>	^PQL	<pql< th=""><th>0.16</th><th>0.1</th></pql<>	0.16	0.1
	noroB	470	1500	53	120	480	110	009	59	120	₩.
	Beryllium	<pql< th=""><th>^PQL</th><th><pql< th=""><th>3.6</th><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>4.4</th><th></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	^PQL	<pql< th=""><th>3.6</th><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>4.4</th><th></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	3.6	<pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>4.4</th><th></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th><pql< th=""><th>4.4</th><th></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th>4.4</th><th></th></pql<></th></pql<>	<pql< th=""><th>4.4</th><th></th></pql<>	4.4	
	muins8	33	190	40	140	34	7.1	15	46	78	4
	эіпэгтА	<pql< th=""><th>6.4</th><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>8.0</th><th>1.4</th><th><pql< th=""><th><pql< th=""><th>₩.</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	6.4	<pql< th=""><th><pql< th=""><th><pql< th=""><th>8.0</th><th>1.4</th><th><pql< th=""><th><pql< th=""><th>₩.</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th>8.0</th><th>1.4</th><th><pql< th=""><th><pql< th=""><th>₩.</th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th>8.0</th><th>1.4</th><th><pql< th=""><th><pql< th=""><th>₩.</th></pql<></th></pql<></th></pql<>	8.0	1.4	<pql< th=""><th><pql< th=""><th>₩.</th></pql<></th></pql<>	<pql< th=""><th>₩.</th></pql<>	₩.
	ynomitnA	<pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>2.8</th><th>2.9</th><th>1.0</th><th><pql< th=""><th>*</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th><pql< th=""><th><pql< th=""><th>2.8</th><th>2.9</th><th>1.0</th><th><pql< th=""><th>*</th></pql<></th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th><pql< th=""><th>2.8</th><th>2.9</th><th>1.0</th><th><pql< th=""><th>*</th></pql<></th></pql<></th></pql<></th></pql<>	<pql< th=""><th><pql< th=""><th>2.8</th><th>2.9</th><th>1.0</th><th><pql< th=""><th>*</th></pql<></th></pql<></th></pql<>	<pql< th=""><th>2.8</th><th>2.9</th><th>1.0</th><th><pql< th=""><th>*</th></pql<></th></pql<>	2.8	2.9	1.0	<pql< th=""><th>*</th></pql<>	*
	Location	101	102	103	104	01	101	102	103	104	
1	Project Component			Blocks II to G		OA Sample	Marina villade		Blocks E to G		Laboratory PQL
	Date of Sampling	Z	500	ber	oto()	15 May 2008				

Notes to Table 3:
PQL – Practical quantification limit
1 – PQL for October 2007 Testing
2 – PQL for May 2008 Testing
Sample D1 is a duplicate of Sample 101 during the October 2007 sampling
NT – Not tested

Project 39823.04 21 May 2008



We trust this meets with your current requirements. Please do not hesitate to contact the undersigned if you require additional information.

Yours faithfully DOUGLAS PARTNERS PTY LTD

Reviewed by:

Julie Wharton Associate

John Harvey Principal

References

 Douglas Partners Pty Ltd, "Report on Geotechnical Investigation, Proposed Trinity Point Marina and Tourist Development, 49 Lakeview Road, Morisset Park", Report No 39823, 5 December 2007.

Attachments

Laboratory Test Results
Chain of Custody Sheets
Drawing 2 – Test Location Plan from Ref 1

Copy to:

Mr Dan Messiter - Worley Parsons (by email)



20 May 2008

TEST REPORT

Douglas Partners Pty Ltd

Box 324 **Hunter Region Mail Centre** NSW 2310

Your Reference:

39823.04, Morisset

Report Number:

60994

Attention:

Julie Wharton

Dear Julie

The following samples were received from you on the date indicated.

Samples:

Oty.

5 Waters

Date of Receipt of Samples:

16/5/08

Date of Receipt of Instructions:

16/5/08

Date Preliminary Report Emailed:

Not Issued

These samples were analysed in accordance with your written instructions. A copy of the instructions is attached with the analytical report.

The results and associated quality control are contained in the following pages of this report. Unless otherwise stated, solid samples are expressed on a dry weight basis (moisture has been supplied for your information only), air and liquid samples as received.

Should you have any queries regarding this report please contact the undersigned.

Yours faithfully

SGS ENVIRONMENTAL SERVICES

Elward ibrahim **Edward Ibrahim**

Lab Manager



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REPORT NO: 60994

Inorganics					
Our Reference:	UNITS	60994-1	60994-2	60994-3	60994-4
Your Reference		101	102	103	104
Sample Type		Water	Water	Water	Water
Date Sampled	***	15/05/2008	15/05/2008	15/05/2008	15/05/2008
Date Extracted		20/05/2008	20/05/2008	20/05/2008	20/05/2008
Date Analysed		20/05/2008	20/05/2008	20/05/2008	20/05/2008
Nitrite as N	mg/L	0.010	<0.010	<0.010	<0.010
Nitrate as N	mg/L	0.080	0.050	0.060	0.030
Date Extracted (Total P)		20/05/2008	20/05/2008	20/05/2008	20/05/2008
Date Analysed (Total P)		20/05/2008	20/05/2008	20/05/2008	20/05/2008
Total Phosphorus	mg/L	1.7	0.28	<0.05	0.47
Date Extracted (TKN)		20/05/2008	20/05/2008	20/05/2008	20/05/2008
		20/05/2008	20/05/2008	20/05/2008	20/05/2008
Date Analysed (TKN)		20/05/2008	20/05/2008	20/05/2008	20/05/2008
Total Kjeldahl Nitrogen	mg/L	3.2	0.8	<0.2	0.8
Total Nitrogen	mg/L	3.2	0.79	<0.20	0.85
		1			

Anions in water					
Our Reference:	UNITS	60994-1	60994-2	60994-3	60994-4
Your Reference		101	102	103	104
Sample Type		Water	Water	Water	Water
Date Sampled		15/05/2008	15/05/2008	15/05/2008	15/05/2008
Date Extracted		19/05/2008	19/05/2008	19/05/2008	19/05/2008
Date Analysed		19/05/2008	19/05/2008	19/05/2008	19/05/2008
Chloride, Cl	mg/L	18	550	150	3,000
Sulphate, SO4	mg/L	4.5	72	52	170

Trace HM (ICP-MS)-Dissolved					
Our Reference:	UNITS	60994-1	60994-2	60994-3	60994-4
Your Reference		101	102	103	104
Sample Type		Water	Water	Water	Water
Date Sampled		15/05/2008	15/05/2008	15/05/2008	15/05/2008
Date Extracted (Metals-ICPMS)		16/05/2008	16/05/2008	16/05/2008	16/05/2008
Date Analysed (Metals-ICPMS)		16/05/2008	16/05/2008	16/05/2008	16/05/2008
Arsenic	μg/L	8.0	1.4	<1.0	<1.0
Cadmium	μg/L	<0.10	<0.10	<0.10	0,16
Chromium	μg/L	1.1	1.0	1.1	4.3
Copper	μg/L	1.4	2.0	6.9	4.8
Lead	μg/L	1.7	<1.0	15	29
Zinc	μg/L	58	22	35	210
Nickel	μg/L	2.1	1.3	2.4	8.4
Cobalt	μg/L	<1.0	<1.0	<1.0	2.9
Beryllium	hg/L	<1.0	<1.0	<1.0	4.4
Boron	μg/L	110	600	59	120
Barium	μg/L	7.1	15	46	78
Antimony	μg/L	2.8	2.9	1.0	<1.0
Manganese	μg/L	44	57	30	30
Molybdenum	µg/L	4.4	12	1.1	<1.0
Selenium	μg/L	<2.0	<2.0	<2.0	<2.0

Trace HM (ICP-MS)-Totals					
Our Reference:	UNITS	60994-1	60994-2	60994-3	60994-4
Your Reference		101	102	103	104
Sample Type	**	Water	Water	Water	Water
Date Sampled		15/05/2008	15/05/2008	15/05/2008	15/05/2008
Date Extracted (Metals-ICPMS)		19/05/2008	19/05/2008	19/05/2008	19/05/2008
Date Analysed (Metals-ICPMS)		19/05/2008	19/05/2008	19/05/2008	19/05/2008
Iron (Total)*	µg/L	5,700	4,600	800	12,000

Metals in water by ICP-OES					
Our Reference:	UNITS	60994-1	60994-2	60994-3	60994-4
Your Reference		101	102	103	104
Sample Type		Water	Water	Water	Water
Date Sampled		15/05/2008	15/05/2008	15/05/2008	15/05/2008
Date Extracted (Metals)		19/05/2008	19/05/2008	19/05/2008	19/05/2008
Date Analysed (Metals)		19/05/2008	19/05/2008	19/05/2008	19/05/2008
Tin (Dissolved)	mg/L	<0.05	<0.05	<0.05	<0.05

Mercury Cold Vapor/Hg Analyser					
Our Reference:	UNITS	60994-1	60994-2	60994-3	60994-4
Your Reference		101	102	103	104
Sample Type	***************************************	Water	Water	Water	Water
Date Sampled		15/05/2008	15/05/2008	15/05/2008	15/05/2008
Date Extracted (Mercury)		19/05/2008	19/05/2008	19/05/2008	19/05/2008
Date Analysed (Mercury)		19/05/2008	19/05/2008	19/05/2008	19/05/2008
Mercury (Dissolved)	mg/L	<0.0001	<0.0001	<0.0001	<0.0001

Method ID	Methodology Summary
AN277	
AN276	
AN293	Determination of Total Phosphorus by discrete analyser following digestion with Sulphuric Acid, K2SO4 and HgSO4. Method based on APHA 4500-P E / USEPA 365.4.
AN292	Determination of Total Kjeldahl Nitrogen by discrete analyser following digestion with Sulphuric Acid, K2SO4 and HgSO4. Method based on APHA 4500-Norg D / USEPA 351.2.
SEI-033	Total Kjeldahl Nitrogen - determined titrimetrically, in accordance with APHA 20th ED, 4500-Norg B.
SEI-038	Anions - a range of Anions are determined by Ion Chromatography, in accordance with APHA 20th ED, 4110-B.
SEP-015	Water sample is digested with Nitric Acid at 105°C for total metals analysed by ICPMS.
AN318	Determination of elements at trace levels in waters by ICP-MS. Method based on USEPA 6020A
SEM-010	Metals - Determination of various metals by ICP-OES following appropriate sample preparation or digestion process.
SEM-005	Mercury - Determination of Mercury by Cold Vapour Generation Atomic Absorption Spectroscopy.

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QUALITY CONTROL	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate	Spike Sm#	Matrix Spike % Recovery
Inorganics					Andrew Annual Property Control of the Control of th	Base + Duplicate + %RPD	of Hermited States were well as a second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second states were well as a second state of the second s	Duplicate + %RPD
Date Extracted				20/05/2 008	60994-1	20/05/2008 20/05/2008	LCS	20/05/2008%
Date Analysed				20/05/2 008	60994-1	20/05/2008 20/05/2008	LCS	20/05/2008%
Nitrite as N	mg/L	0.01	AN277	<0.010	60994-1	0.010 <0.010	LCS	95%
Nitrate as N	mg/L	0.01	AN276	<0.010	60994-1	0.080 0.070 RPD: 13	LCS	94%
Date Extracted (Total P)				20/05/2 008	60994-1	20/05/2008 20/05/2008	LCS	20/05/2008%
Date Analysed (Total P)				20/05/2 008	60994-1	20/05/2008 20/05/2008	LCS	20/05/2008%
Total Phosphorus	mg/L	0.05	AN293	<0.05	60994-1	1.7 1.7 RPD: 0	LCS	103%
Date Extracted (TKN)			- Appendix and a second	20/05/2 008	60994-1	20/05/200820/05/2 008 20/05/200820/05/2 008	LCS	20/05/2008%
Date Analysed (TKN)				20/05/2 008	60994-1	20/05/2008 20/05/2008	LCS	20/05/2008%
Total Kjeldahl Nitrogen	mg/L	0.2	AN292	<0.2	60994-1	3.2 3.2 RPD: 0	LCS	101%
Total Nitrogen	mg/L	0.2	SEI-033	<0.20	60994-1	3.2 3.2 RPD: 0	[NR]	[NR]
QUALITY CONTROL	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate	Spike Sm#	Matrix Spike % Recovery
Anions in water						Base + Duplicate + %RPD		Duplicate + %RPD
Date Extracted			~~~	19/05/0 8	60994-1	19/05/2008 19/05/2008	LCS	19/05/08%
Date Analysed				19/05/0 8	60994-1	19/05/2008 19/05/2008	LCS	19/05/08%
Chloride, Cl	mg/L	0.1	SEI-038	<0.1	60994-1	18 17 RPD: 6	LCS	110%
Sulphate, SO4	mg/L	0.4	SEI-038	<0.4	60994-1	4.5 4.5 RPD: 0	LCS	108%
QUALITY CONTROL	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate	Spike Sm#	Matrix Spike % Recovery
Trace HM (ICP-MS)-Dissolved						Base + Duplicate + %RPD		Duplicate + %RPD
Date Extracted (Metals-ICPMS)			SEP-015	16/05/0 8	[NT]	[NT]	LCS	16/05/08%
Date Analysed (Metals-ICPMS)			SEP-015	16/05/0 8	[NT]	[TM]	LCS	16/05/08%
Arsenic	μg/L	1	AN318	<1.0	[NT]	[NT]	LCS	92%
Cadmium	μg/L	0.1	AN318	<0.10	[NT]	[NT]	LCS	94%
Chromium	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	91%
Copper	μg/L	1	AN318	<1.0	[NT]	[NT]	LCS	92%
Lead	μg/L	1	AN318	<1.0	[NT]	[NT]	LCS	99%
Zinc	μg/L	1	AN318	<1.0	[NT]	[NT]	LCS	94%
Nickel	μg/L	1	AN318	<1.0	[NT]	[NT]	LCS	89%



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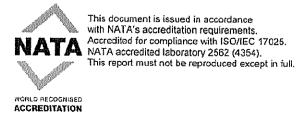
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QUALITY CONTROL Trace HM (ICP-MS)-Dissolved	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Cobalt	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	98%
Beryllium	μg/L	1	AN318	<1.0	[TN]	[NT]	LCS	93%
Boron	μg/L	1	AN318	<1.0	[NT]	[NT]	LCS	92%
Barium	μg/L.	1	AN318	<1.0	[NT]	[NT]	LCS	94%
Antimony	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	112%
Manganese	µg/L	1	AN318	<1.0	[NT]	[NT]	LCS	95%
Molybdenum	μg/L	1	AN318	<1.0	[NT]	[NT]	LCS	85%
Selenium	μg/L	2	AN318	<2.0	[TN]	[NT]	LCS	92%
QUALITY CONTROL Trace HM	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate +	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
(ICP-MS)-Totals						%RPD		-
Date Extracted (Metals-ICPMS)			SEP-015	19/05/0 8	[NT]	[NT]	LCS	19/05/08%
Date Analysed (Metals-ICPMS)			SEP-015	19/05/0 8	[NT]	[NT]	LCS	19/05/08%
Iron (Total)*	µg/L	5	AN318	<5.0	[NT]	[NT]	LCS	99%
QUALITY CONTROL Metals in water by ICP-OES	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Date Extracted (Metals)				19/05/0 8	[NT]	[NT]	LCS	19/05/08%
Date Analysed (Metals)		- 11-		19/05/0 8	[NT]	[NT]	LCS	19/05/08%
Tin (Dissolved)	mg/L	0.05	SEM-010	<0.05	[NT]	[NT]	LCS	96%
QUALITY CONTROL Mercury Cold Vapor/Hg Analyser	UNITS	LOR	METHOD	Blank	Duplicate Sm#	Duplicate Base + Duplicate + %RPD	Spike Sm#	Matrix Spike % Recovery Duplicate + %RPD
Date Extracted (Mercury)				19/05/0 8	[NT]	[ТИ]	LCS	19/05/08%
Date Analysed (Mercury)				19/05/0 8	[TN]	[NT]	LCS	19/05/08%
Mercury (Dissolved)	mg/L	0.0001	SEM-005	<0.000 1	[NT]	[NT]	LCS	88%



QUALITY CONTROL UNITS LOR METHOD Blank
Hold sample-NO
test required Sample on HOLD [NT]



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[RPD] : Relative Percentage Difference

: Not part of NATA Accreditation

Result Codes

Insufficient Sample for this test IINSI

[NR] Not Requested

[NT] Not tested

[N/A] : Not Applicable

Report Comments

Date Organics extraction commenced:

NATA Corporate Accreditation No. 2562, Site No 4354

Note: Test results are not corrected for recovery (excluding Dioxins/Furans* and PAH in XAD and PUF).

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Quality Control Protocol

Method Blank: An analyte free matrix to which all reagents are added in the same volume or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. A method blank is prepared every 20 samples.

Duplicate: A separate portion of a sample being analysed that is treated the same as the other samples in the batch. One duplicate is processed at least every 10 samples.

Surrogate Spike: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. Surrogates are added to samples before extraction to monitor extraction efficiency and percent recovery in each sample.

Internal Standard: Added to all samples requiring analysis for organics (where relevant) or metals by ICP after the extraction/digestion process; the compounds/elements serve to give a standard of retention time and/or response, which is invariant from run-to-run with the instruments.

Laboratory Control Sample: A known matrix spiked with compound(s) representative of the target analytes. It is used to document laboratory performance. When the results of the matrix spike analysis indicates a potential problem due to the sample matrix itself, the LCS results are used to verify that the laboratory can perform the analysis in a clean matrix.

Matrix Spike: An aliquot of sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Quality Acceptance Criteria

Unless otherwise specified in the test method, the following general acceptance criteria apply:

Method Blanks:

Duplicates:

<5 x LOR: No RPD criteria applied.

>5 x LOR: 0-30% RPD is accepted.

LCS's:

Determined by Control Charts.

Where control charts have not been developed, the Matrix Spikes criteria apply. 70-130% recovery is accepted for metals / inorganics.

Matrix Spikes: 60-140% is accepted for organics.

Surrogates:

60-130% recovery is accepted for BTEX.

70-130% recovery is accepted for other organics.



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La company

CHAIN OF CUSTODY DESPATCH SHEET

2000 (evel Please hold ALEXANDRIA NSW 2015 Ph; (02) 8594 0400..... をなるがらわ duplicate をひびれ Sample. TCLP Notes Address: BOX 324 Hunter Region Mall Centre Douglas Partners Pty Ltd Matt Hill Fax: (02) 4950 9601 Send results to: するでしている。 SGS Australia PTY LTD...... NSW 2310 Č. Unit 16/33 Maddox Street Ś THE PERSON Date: 16/51 Lab Ref. 60 994 PQL = practical quantitation limit *As per Laboratory Method (Detection Limit) | SAMPLES RECEIVED* |
- Metals to Analyse (Please circle): As Cd Cr Cu Pb Zn Hg NX/III.
Date relinquished: | Carlot | Ca 쇚 Total number of samples in container 36-49hvs. Mit MotSe Signature: ma 0.1 Mall Altri: 0 metals Analytes ANZECE Project Name: 39923.04 DP Order No. 75236
Project No: 34923.04 DP Order No. 75236
DP Contact Person: Julie Whathon (Dana William Exp.) fridge / shelved (circle). suiphale Witnite Total Total Total Chloride Standard 72 hr (48hr) 24hr > > 0 Nihate Ivan 3 <u>P</u> CI Douglas Partners Sample Type S-soil W-water mg/kg 3 558 Date Sampled TAT (Circle): Sample D POL (S) 107 103 40 010 0



SGS Environmental Services

Unit 16, 33 Maddox St. Alexandria NSW 2015

Telephone Number :

(+61 2) 8594 0400

Fax Number

(+61 2) 8594 0499

SAMPLE RECEIPT CONFIRMATION

COMPANY

Douglas Partners Pty Ltd

FAX NO.

02 4960 9601

ATTENTION

Julie Wharton

PAGES

1

FROM

Sample Receipt

DATE

16/05/08

This is to confirm that samples for Project 39823.04, Morisset were received on 16/5/08 the results are expected to be ready on 20/05/2008. Please quote SGS Reference: 60994 when making enquiries regarding this project. Please refer to below which details information about the integrity of the samples and other useful information.

Samples will be held for 1 month for water samples and 2 months for soil samples from date of receipt of samples, unless otherwise instructed.

Samples received in good order: YES Samples received in correct containers: YES Samples received without headspace: YES Sufficient quantity supplied: YES Upon receipt sample temperature: Cool Cooling Method: Ice Sample containers provided by: SGS Samples Clearly Labelled: YES Turnaround time requested: 48hr Completed documentation received: YES

Comments:

Terms and conditions are available from www.au.sgs.com

The signed chain of custody will be returned to you with the original report.

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