



APPENDIX B

Field Sampling Sheets



PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: HWO1 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV, TMB DATE: ~~7/7/11~~ 7/7/11 TIME: ~~9:30~~ 9:30
 WEATHER: clear, warm TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 4.95 (7/7/11) (metres) One well volume: _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. U5431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: peristaltic pump
 Flow Rate: 120 m L/min Volume _____ Start: 9:35 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS. O ₂ (mg/L) or %	REMARKS
9:40		-91	17.3	6.77	1011.43	0.72ppm	DTW 5.11 mbtoc
9:45		-87	16.7	6.78	1549	0.69	DD set at 5.21 mbtoc
9:50		-80	18.0	6.76	1531	0.49	DD set at 5.31 mbtoc at 9:44
9:55		-75	17.9	6.78	1528	0.34	DD set at 5.41 mbtoc at 9:48
10:00		-70	17.1	6.75	1519	0.36	SS 10.05
10:05		-68	18.1	6.72	1454	0.37	DTW 5.17 at 10:18
10:10		-65	18.5	6.62	1392	0.97	
10:15		-62	18.0	6.61	1378	1.31	
10:20	bubbles coming up - turned pump off to allow recharge took samples and allowed to recharge intermittently						

Comments:

Odour: no yes if yes strong HC₂ chemical Sheen: no yes if yes _____
 Turbidity Start: Clear ||||| Very Silty black flecks
 Turbidity End: Clear ||||| Very Silty _____
 Other: Q8122-03 (COC No)

BOTTLE	Type	Size: 40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass		<u>3</u>						<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>HWO3</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MW25 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV, TMB DATE: 6/7/11 TIME: 13:30
 WEATHER: clear, warm TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 11.08 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: submersible pump
 Flow Rate: 210 L/min Volume _____ Start: 13:45 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS. O ₂ (mg/L) or %	REMARKS
13:55		65	21.9	5.60	800 <u>uS</u>	1.89	<u>DD ext at 11.18 mbloc</u>
14:00		80	21.8	5.51	797	0.95	
14:05		86	21.7	5.47	797	0.53	
14:10		94	21.6	5.45	800	0.27	
14:15		97	21.6	5.45	807	0.20	
14:20		100	21.6	5.45	810	0.17	
14:25		102	21.6	5.46	812	0.16	

Comments:

Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear |||| X ||||| Very Silty slightly milky light brown
 Turbidity End: Clear ||||| Very Silty
 Other: COC No. QB121-05

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>H₂O₂</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MW27 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: Sy THB DATE: 5/7/11 TIME: 10:45
 WEATHER: clear TEMPERATURE: _____

MONITORING WELL INFORMATION One well volume:
 Depth to Water Below Top of Casing: A 11.59 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST
 pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING
 Purge volume: Well vol X _____ = _____ litres Method: Submers
 Flow Rate: 120 L/min Volume _____ Start: 11:29 Finish: 12:22

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
11:35		176	21.5	6.27	800 μ S	2.00 ppm	DD set at 11.65 mbtloc
11:40		158	21.6	6.00	892	1.53	DTW 11.66 mbtloc at 11:30
11:45		142	21.8	5.09	894	0.78	DD set at 11.76 mbtloc
11:50		128	21.9	5.83	950	0.43	DTW 11.67 mbtloc at 11:40
11:55		125	22.0	5.83	944	0.43	
12:00		121	22.0	5.64	978	0.31	
12:05		117	22.0	5.64	980	0.28	
12:10		114	22.0	5.65	992	0.29	

Comments:
 Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear ||||| X ||||| Very Silty slightly milky
 Turbidity End: Clear ||||| W ||||| Very Silty
 Other: COC No. Q8120.02
 CPH2 PSI 40 10 45

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>H2O2</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MW 36 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV, THB DATE: 20/6/11 TIME: 12:44
 WEATHER: clear, cool TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 3.03 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible
 Flow Rate: 140 L/min Volume _____ Start: 12:55 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
13:00		82	20.0	5.77	1802.45	2.61ppm	DD set at 3.13 mbtoc
13:05		69	20.2	5.74	1833	1.82	
13:10		63	19.9	5.72	1859	1.12	
13:15		60	19.9	5.70	1875	0.72	
13:20		58	20.0	5.70	1884	0.53	
13:25		57	19.9	5.70	1884	0.46	
13:30		56	19.8	5.70	1885	0.42	

Comments:

Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear ||||||||||||||| W ||||||||||||||| Very Silty light brown
 Turbidity End: Clear ||||||||||||||| Very Silty
 Other: COC No Q8111-04
10 103 CPM4 P0130

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO₃</u>
3	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass				<u>2</u>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
4	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MW645 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: CB, TMB DATE: 29/6/11 TIME: 10:23
 WEATHER: rain off/on, cool TEMPERATURE: _____

MONITORING WELL INFORMATION
 Depth to Water Below Top of Casing: A 7.98 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST
 pH and Temp. Meter: Model TPS 90FLMV Serial No. 45431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING
 Purge volume: Well vol X _____ = _____ litres Method: submersible pump
 Flow Rate: 200 mL/min Volume _____ Start: 10:32 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
10:45		33	21.0	6.42	1466 uS	3.61 ppm	DD set at 0.00 mbar
10:50		-4	21.4	6.19	294 mS	2.22	
10:55		-13	21.9	6.05	3.31	0.60	
11:00		-20	21.9	6.04	3.33	0.31	
11:05		-10	21.9	6.04	3.30	0.15	
11:10		-16	21.9	6.05	3.27	0.10	
11:15		-11	21.9	6.06	3.23	0.07	

Comments:
 Odour: no yes if yes sulphur Sheen: no yes if yes _____
 Turbidity Start: Clear ||||| X ||||| Very Silty light yellow/brown
 Turbidity End: Clear ||||| Very Silty
 Other: COC no 98117-02

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO₃</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

 DEVELOPMENT

 PURGE/SAMPLE

 WELL NO.: MWG46

 JOB NO.: 087643011

 LOCATION: Bellevue

 COMPLETED BY: CB, TMB

 DATE: 29/6/11

 TIME: 8:39

 WEATHER: clear, rain (on/off)

TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 7.95 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
 Flow Rate: 150 mL/min Volume _____ Start: 9:15 am Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:20		149	17.5	5.73	437	3.15ppm	DD set at 8.00 metres
9:25		140	18.4	5.55	430	2.39	
9:30		131	18.9	5.52	428	1.36	
9:35		125	19.3	5.71	431	0.95	
9:40		110	19.6	5.97	474	0.47	
9:45		104	19.5	5.96	486	0.39	
9:50		96	19.5	6.00	508	0.33	
9:55		98	19.4	6.01	510	0.30	

Comments:

Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear ||||| X ||||| Very Silty
 Turbidity End: Clear ||||| ||||| Very Silty
 Other: COC no. Q8117-01

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO₃</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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top of pump at 10.50 mbtoc - then stuck
sampled from this level



- well cleared of roots to 10.7mbtoc - pump originally stuck at 8.7mbtoc
↳ roots pushed down w metal rods

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE
 WELL NO.: MW647 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: CLW THB DATE: 27/6/11 TIME: 9:11
 WEATHER: cool, clear TEMPERATURE: _____

MONITORING WELL INFORMATION
 One well volume: _____ litres
 Depth to Water Below Top of Casing: A 1260 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST
 pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No

WELL DEVELOPMENT/PURGING
 Purge volume: Well vol X _____ = _____ litres Method: submersible pump
 Flow Rate: 170 L/min Volume _____ Start: 9:59 Finish: 10:39

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
10:05		25	19.3	5.74	1637 uS	3.40 ppm	DD set at 12.78 mbt oc
10:10		31	19.6	5.64	1696	1.92	DTW 12.74 mbt oc
10:15		35	20.1	5.66	1822	0.82	
10:20		36	20.3	5.70	1895	0.51	
10:25		37	20.4	5.74	1918	0.37	
10:30		38	20.4	5.76	1922	0.33	
10:35		39	20.5	5.77	1925	0.29	

Comments:
 Odour: no yes if yes slight sulphur Sheen: no yes if yes _____
 Turbidity Start: Clear ||||| N ||||| _____ Very Silty light brown
 Turbidity End: Clear ||||| _____ Very Silty _____
 Other: COC no. QB114-02
 ID 106 PSI 53 CPM 4

BOTTLE	Type	Size: 40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass				<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: HLWG49 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV.TMB DATE: 5/7/11 TIME: 8:20
 WEATHER: clear, warm cold TEMPERATURE:

MONITORING WELL INFORMATION One well volume:
 Depth to Water Below Top of Casing: A 12.79 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST
 pH and Temp. Meter: Model TPS 90FLMV Serial No. US431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2:76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Filter: none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Yes No (~~submersible~~)

WELL DEVELOPMENT/PURGING
 Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
 Flow Rate: 15 m L/min Volume _____ Start: 8:32 Finish: 10:30

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:05		45	8.6	5.09	686uS	4.15 ppm	DDset at 1290 mbtoc
9:10		37	8.7	5.34	675	3.82	
9:15		34	8.8	5.41	724	3.46	
9:20		34	8.9	5.44	1066	3.21	
9:25		34	8.9	5.44	1064	3.16	
9:30		34	9.0	5.45	1063	3.11	
9:35		33	9.1	5.45	1062	3.10	

Comments:
 Odour: no yes if yes organic Sheen: no yes if yes _____
 Turbidity Start: Clear ||||| ||||| Very Silty light brown
 Turbidity End: Clear ||||| ||||| Very Silty
 Other: COG NO. 08250281 @ 8120-01
1043 CAP2 PSL50

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>8</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>TRACES</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MWG57 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: CW, TMB DATE: 27/6/11 TIME: 8:10
 WEATHER: cool, clear TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.185 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____

Pump: none Waterra Peristaltic Submersible
 _____ Stainless Steel Teflon PVC
 Filter: Yes No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump
 Flow Rate: 130 L/min Volume _____ Start: 8:21 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
<u>8:35</u>		<u>163</u>	<u>18.0</u>	<u>5.30</u>	<u>565</u>	<u>4.43 ppm</u>	<u>TD set at 12.25 mbtcc</u>
<u>8:40</u>		<u>157</u>	<u>18.4</u>	<u>5.19</u>	<u>596</u>	<u>3.67</u>	
<u>8:45</u>		<u>153</u>	<u>18.9</u>	<u>5.07</u>	<u>594</u>	<u>3.42</u>	
<u>8:50</u>		<u>151</u>	<u>19.1</u>	<u>5.01</u>	<u>594</u>	<u>3.29</u>	
<u>8:55</u>		<u>148</u>	<u>19.4</u>	<u>4.90</u>	<u>590</u>	<u>3.13</u>	
<u>9:00</u>		<u>147</u>	<u>19.4</u>	<u>4.84</u>	<u>589</u>	<u>2.91</u>	
<u>9:05</u>		<u>146</u>	<u>19.5</u>	<u>4.86</u>	<u>588</u>	<u>2.90</u>	

Comments:

Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear _____ Very Silty
 Turbidity End: Clear _____ Very Silty
 Other: QB114-01
ID 44 PSI 45 CPM 2

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MW060 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV TMB DATE: 19/6/11 TIME: 9:22
 WEATHER: clear TEMPERATURE: _____

MONITORING WELL INFORMATION One well volume:
 Depth to Water Below Top of Casing: A 2.19 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST
 pH and Temp. Meter: Model 45431 TPS90FLMV Serial No. E1 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING
 Purge volume: Well vol X _____ = _____ litres Method: _____
 Flow Rate: 180 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
9:35		-26	17.8	5.78	1951 μS	1.33	DTW 2.20 mbtoc
9:40		-8	18.3	5.69	1928	1.07	DTW 2.20 mbtoc
9:45		20	18.5	5.64	1918	0.76	
9:50		46	18.7	5.66	1910	0.55	DTW 2.195 mbtoc
9:55		54	18.8	5.69	1907	0.38	
10:00		50	18.8	5.72	1906	0.31	DTW 2.20 mbtoc
10:05		46	18.9	5.72	1903	0.34	DTW 2.20 mbtoc

Comments:
 Odour: no yes if yes sulphur Sheen: no yes if yes _____
 Turbidity Start: Clear ||||| X ||||| Very Silty black flecks
 Turbidity End: Clear ||||| Very Silty
 Other: COC No: QB109-01 (Leader)
COC No: QB110-01 (SGS)

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass				<u>1 (125ml)</u>					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>nitric washed</u> } <u>Leader</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass				<u>1 (125ml)</u>					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HCl</u> } <u>SGS</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass						<u>1</u>			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u> } <u>Leader</u>
4	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass				<u>1 (125ml)</u>					<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u> }
5	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass				<u>1 (125ml)</u>					<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HNO3</u> }
6	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u> }
7	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	<u>3</u>								<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u> }
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MW662
 COMPLETED BY: SV TMB
 WEATHER: clear, cool

JOB NO.: 087643011
 DATE: 20/6/11

LOCATION: Bellevue
 TIME: 10:22

TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 835 (metres) One well volume: _____ litres -for a 51 mm (2.0 inch) diameter well
 (B-A)*2.0 = _____
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. V5431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible
 Flow Rate: 160 mL /min Volume _____ Start: 1100 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
1107		178	19.4	4.76	851	3.49	
1107		183	19.7	4.74	849	3.261	
1112		187	19.9	4.71	836	2.37	
1117		188	19.9	4.71	801	2.11	
1122		189	19.9	4.72	758	1.92	
1127		189	19.9	4.71	748	1.91	
1132		189	20.1	4.72	738	1.82	DTW 839 mbgl

Comments:

Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear |||||||||||||||||||*||||||||||||| Very Silty lt. brown
 Turbidity End: Clear ||||||||||||||||||| Very Silty
 Other: COC No. 08111-02
ID 101 CPM4 PSI 30

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			1						<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			1						<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>H2O2</u>
3	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>
4	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		3							<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MWG64 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: CB. THB DATE: 30/6/11 TIME: 11:09
 WEATHER: cool, cloudy, rain (hard) TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 11.60 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. 45431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____
 none Waterra Type _____
 none Stainless Steel Peristaltic Submersible
 Filter: Yes No (metals only) Teflon PVC

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres
 Flow Rate: 120 m L/min Method: submersible pump
 Start: 11:20 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS. O ₂ (mg/L) or %	REMARKS
11:35		-47	16.8	5.93	117.4	3.03	DD xl of 1200 mporc DW 1150
11:40		-43	19.7	5.92	119.2	1.16	
11:45		-44	20.2	5.91	119.5	0.74	
11:50		-46	20.3	5.97	119.7	0.52	
11:55		-42	20.3	6.01	119.3	0.47	
12:00		-42	20.3	6.03	119.3	0.42	
12:05		-50	20.3	6.03	119.6	0.38	

Comments:

Odour: no yes if yes hydrocarbon Sheen: no yes if yes _____
 Turbidity Start: Clear Turbidity End: Clear Very Silty _____
 Other: COC No Q8118-04 CPM-2 PSI-20 Very Silty _____

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass									<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass									<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass		<u>3</u>							<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>11.6.11.3</u>
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MW666 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV TMB DATE: 19/6/11 TIME: 10:26
 WEATHER: clear TEMPERATURE: _____

MONITORING WELL INFORMATION One well volume: _____ litres

Depth to Water Below Top of Casing: A 2.77 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well

Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well

Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. _____ Calibration Buffers: 4 7 10

Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____

Dissolved Oxygen Meter: Model _____ Serial No. _____

Eh Meter: Model _____ Serial No. _____ Type _____

none Waterra Peristaltic Submersible

none Stainless Steel Teflon PVC

Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: _____

Flow Rate: 180 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
10:35		-69	19.1	5.65	755	1.19	
10:40		-71	19.2	5.59	756	0.76	DTW 2.78 mbtoc
10:45		-72	19.5	5.53	730	0.46	
10:50		-70	19.5	5.51	724	0.35	DTW 2.78 mbtoc
10:55		-67	19.7	5.51	718	0.27	
11:00		-66	19.7	5.51	717	0.25	
11:05		-67	19.7	5.51	717	0.22	DTW 2.78 mbtoc

Comments:

Odour: no yes if yes sulphur Sheen: no yes if yes _____

Turbidity Start: Clear Very Silty

Turbidity End: Clear _____ Very Silty

Other: COC No QB109-02 (leader)
QB110-02 (SGS)

BOTTLE	Type	Size:	40mL	125mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>11</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>nitric washed</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HCl</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass						<u>1</u>			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
4	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HACOs</u>
6	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
7	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MWG68 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV, THB DATE: 19/6/11 TIME: 11:22
 WEATHER: clear TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 2.64 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. _____ Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: _____
 Flow Rate: 240 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
<u>11:35</u>		<u>-51</u>	<u>19.6</u>	<u>5.60</u>	<u>590uS</u>	<u>1.21</u>	<u>DTW 2.65 mbtoc</u>
<u>11:40</u>		<u>-22</u>	<u>19.6</u>	<u>5.44</u>	<u>577</u>	<u>0.71</u>	
<u>11:45</u>		<u>-10</u>	<u>19.7</u>	<u>5.36</u>	<u>574</u>	<u>0.36</u>	<u>DTW 2.65 mbtoc</u>
<u>11:50</u>		<u>-11</u>	<u>19.7</u>	<u>5.33</u>	<u>574</u>	<u>0.33</u>	
<u>11:55</u>		<u>-15</u>	<u>19.7</u>	<u>5.32</u>	<u>576</u>	<u>0.22</u>	
<u>12:00</u>		<u>-21</u>	<u>19.7</u>	<u>5.31</u>	<u>576</u>	<u>0.19</u>	
<u>12:05</u>		<u>-28</u>	<u>19.0</u>	<u>5.30</u>	<u>577</u>	<u>0.19</u>	<u>DTW 2.65 mbtoc</u>

Comments:

Odour: no yes if yes slight sulphur Sheen: no yes if yes _____
 Turbidity Start: Clear Very Silty
 Turbidity End: Clear _____ Very Silty
 Other: COCLX QB109-03
QB110-03

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>nitric washed</u>
2	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>HCl</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass						<u>1</u>			<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
4	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>H₂O₂s</u>
6	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass				<u>3</u>	<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
7	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	<u>none</u>

} SGS
} Leeder

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: ~~MW670~~ MW670 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV THB DATE: 23/6/11 TIME: 7:57
 WEATHER: clear, cool TEMPERATURE: _____

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 12.895 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 Material: none Stainless Steel Teflon PVC
 Filter: Yes No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible
 Flow Rate: 210 L/min Volume _____ Start: 8:25 Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS. O ₂ (mg/L) or %	REMARKS
8:25		191	17.5	5.31	561 uS	6.42	DD set at 13.0 m below
8:30		160	19.2	5.17	549	3.46	
8:35		159	19.9	4.91	553	2.73	
8:40		154	20.1	4.84	554	2.54	
8:45		151	20.2	4.76	558	2.38	
8:50		150	20.3	4.67	560	2.33	
8:55		148	20.4	4.68	560	2.21	
9:00		134	20.6	5.59	775	1.33	

Comments:

Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear ||||| ||||| Very Silty slightly milky
 Turbidity End: Clear ||||| Very Silty
 Other: Q8113-01
10 76 PSI 40

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>93</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MWG91A JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV, THB DATE: 23/6/11 TIME: 11:08
 WEATHER: clear, cool TEMPERATURE:

MONITORING WELL INFORMATION

One well volume:

Depth to Water Below Top of Casing: A 12.44 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well

Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well

Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS 90FLMV Serial No. U5431 Calibration Buffers: 4 7 10

Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____

Dissolved Oxygen Meter: Model _____ Serial No. _____

Eh Meter: Model _____ Serial No. _____ Type _____

Pump: none Waterra Peristaltic Submersible

Material: none Stainless Steel Teflon PVC

Filter: Yes No

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: Submersible pump

Flow Rate: 105 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS. O ₂ (mg/L) or %	REMARKS
11:55		125	22.3	5.91	900.45	5.35 ppm	
12:00		128	22.4	5.81	911	4.04	
12:05		133	22.3	5.78	912	2.95	
12:10		135	22.2	5.75	913	2.56	
12:15		136	22.3	5.75	914	2.54	
12:20		138	22.2	5.73	916	2.12	
12:25		138	22.2	5.72	915	2.00	DTW 12.44 mbtcc

Comments:

Odour: no yes if yes _____ Sheen: no yes if yes _____

Turbidity Start: Clear ||||| ||||| Very Silty slightly milky

Turbidity End: Clear ||||| Very Silty

Other: Q8113-04
ID 74 PSI 35

BOTTLE	Type	Size: 40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass				<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	<u>4</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE
 WELL NO.: MWG918 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV, THB DATE: 23/6/11 TIME: 12:45
 WEATHER: clear, cool TEMPERATURE: _____

MONITORING WELL INFORMATION
 One well volume: _____ litres
 Depth to Water Below Top of Casing: A 12.48 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST
 pH and Temp. Meter: Model TPS90FLMV Serial No. 45431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No

WELL DEVELOPMENT/PURGING
 Purge volume: Well vol X _____ = _____ litres Method: submersible pump
 Flow Rate: 125 L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
13:15		120	22.1	5.73	760.45	3.40 ppm	
13:20		128	21.8	5.68	771	2.28	
13:25		130	21.7	5.62	773	1.61	DTW 12.44 mbtoc
13:30		132	21.7	5.60	773	1.45	DD sed w 2.54 mbtoc
13:35		134	21.9	5.60	775	1.36	
13:40		135	21.8	5.60	776	1.36	
13:45		136	21.6	5.58	775	1.36	

Comments:
 Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear ||||| ||||| Very Silty slightly milky
 Turbidity End: Clear ||||| ||||| Very Silty
 Other: Q6113-05
 ID 72 PSI 38

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		4							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: MW691C JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV, THB DATE: 23/6/11 TIME: 14:14
 WEATHER: cloudy, cool TEMPERATURE: _____

MONITORING WELL INFORMATION
 Depth to Water Below Top of Casing: A 12.35 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST
 pH and Temp. Meter: Model TPS90FLMV Serial No. U5431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No

WELL DEVELOPMENT/PURGING
 Purge volume: Well vol X _____ = _____ litres Method: Submersible Pump
 Flow Rate: 150 ~~240~~ L/min Volume _____ Start: _____ Finish: _____

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
14:23		128	21.2	5.30	778	2.63 ppm	DD 12.45 m bptoc (x1)
14:28		130	21.2	5.26	782	1.02	
14:33		132	21.2	5.24	784	0.68	
14:38		134	21.2	5.25	785	0.52	
14:43		136	21.2	5.25	789	0.45	
14:48		130	21.2	5.25	791	0.42	
14:53		138	21.2	5.26	795	0.40	

Comments:
 Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear |||| ||||| Very Silty
 Turbidity End: Clear ||||| Very Silty
 Other: QB113-06
ID 80 P21 30 CPM3

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					2				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		4							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
4	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

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PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: SG05 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SV, TMB DATE: 7/7/11 TIME: 12:02
 WEATHER: clear, warm TEMPERATURE:

MONITORING WELL INFORMATION *depth from bridge* One well volume:
 Depth to Water Below Top of Casing: A 5.78 (metres) (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST
 pH and Temp. Meter: Model TPS 90FLMV Serial No. 45431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2.76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 none Stainless Steel Teflon PVC
 Filter: Yes No (*metals only*)

WELL DEVELOPMENT/PURGING
 Purge volume: Well vol X _____ = _____ litres Method: peristaltic pump
 Flow Rate: 245 mL/min Volume _____ Start: 11:55 Finish: 12:41

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
12:00		-10	12.5	8.52	641.45	6.13 ppm	
12:05		-11	11.6	7.92	620	5.89	
12:10		0	11.1	7.50	613	5.66	
12:15		10	10.7	7.16	608	5.65	

Comments:
 Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear ||| X ||| Very Silty
 Turbidity End: Clear ||| Very Silty
 Other: COC No. Q8122-05 Dup Q8122-06

BOTTLE	Type	Size:	40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass					<u>24</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass		<u>36</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>42</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>H2O2</u>
4	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass			<u>42</u>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass									<input type="checkbox"/> Yes <input type="checkbox"/> No	

PF067: GROUNDWATER DEVELOPMENT AND PURGING/SAMPLING DATA SHEET

DEVELOPMENT PURGE/SAMPLE

WELL NO.: SG07 JOB NO.: 087643011 LOCATION: Bellevue
 COMPLETED BY: SU, THB DATE: 7/7/11 TIME: 14:16
 WEATHER: cloudy, cool TEMPERATURE:

MONITORING WELL INFORMATION

Depth to Water Below Top of Casing: A 0.945 (metres) One well volume: (B-A)*2.0 = _____ litres -for a 51 mm (2.0 inch) diameter well
 Depth to Bottom of Well Below Top of Casing: B _____ (metres) (B-A)*1.1 = _____ litres -for a 38 mm (1.5 inch) diameter well
 Diameter Standpipe: C _____ (mm)

EQUIPMENT LIST

pH and Temp. Meter: Model TPS90FLMV Serial No. 45431 Calibration Buffers: 4 7 10
 Conductivity Meter: Model _____ Serial No. _____ Calibration Solutions: 2:76 and _____
 Dissolved Oxygen Meter: Model _____ Serial No. _____
 Eh Meter: Model _____ Serial No. _____ Type _____
 Pump: none Waterra Peristaltic Submersible
 L: none Stainless Steel Teflon PVC
 Filter: Yes No (metals only)

WELL DEVELOPMENT/PURGING

Purge volume: Well vol X _____ = _____ litres Method: _____
 Flow Rate: 180 L/min Volume _____ Start: 13:45 Finish: 14:10

TIME	VOLUME REMOVED (L)	Eh (mV)	TEMP (°C)	pH (UNITS)	COND. (uS/cm)	DIS.O ₂ (mg/L) or %	REMARKS
<u>13:50</u>		<u>36</u>	<u>11.4</u>	<u>6.33</u>	<u>604.45</u>	<u>5.96 ppm</u>	
<u>13:55</u>		<u>46</u>	<u>10.9</u>	<u>6.35</u>	<u>600</u>	<u>5.74</u>	
<u>14:00</u>		<u>55</u>	<u>10.9</u>	<u>6.35</u>	<u>600</u>	<u>5.64</u>	
<u>14:05</u>		<u>61</u>	<u>10.6</u>	<u>6.34</u>	<u>598</u>	<u>5.63</u>	
14:10							

Comments:

Odour: no yes if yes _____ Sheen: no yes if yes _____
 Turbidity Start: Clear |||| X ||||| Very Silty
 Turbidity End: Clear ||||| Very Silty
 Other: COL No. QB122-00

BOTTLE	Type	Size: 40mL	100mL	250mL	500mL	1L	2L	4L	Filtered	Preservatives
1	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass				<u>2</u>				<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
2	<input type="checkbox"/> Plastic <input checked="" type="checkbox"/> Glass	<u>3</u>							<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
3	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass		<u>1</u>						<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<u>H2O2</u>
4	<input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass		<u>1</u>						<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<u>none</u>
5	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
6	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
7	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	
8	<input type="checkbox"/> Plastic <input type="checkbox"/> Glass								<input type="checkbox"/> Yes <input type="checkbox"/> No	

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APPENDIX C

Calibration Certificates



Gas Detection Air Sampling & Monitoring Environmental & Water Quality Monitoring

Air-Met Scientific Pty Ltd

ABN 73 006 849 949

Ph 1300 137 067

MP30 Drawdown Meter

Instrument MP30 Drawdown Meter

Serial No. 1505

Item	Test	Pass	
Battery	Compartment	✓	
	Cap above 7.9v	✓	9v
Probe	Cleaned/Decon.	✓	
	Operation	✓	
Connectors	Condition	✓	
Tape check	Cleaned	✓	
	Checked for cuts	✓	
Instrument Test	At surface level	✓	

This is to certify that the above instrument has been cleaned and tested

Tested By _____ **Gaurav Kanwar**

Test Date 13-Jun-11

Next Test 13-Dec-11



Multi Parameter Water Meter

Instrument 90 FLMV

Serial No. U5431

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
	Recharge OK?	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. Salinity	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Standards					
ph 7.00	✓	7. DO Air	✓		
2. pH 4.00	✓				
3. EC 0.00ms/cm	✓				
4. EC 2.76ms/cm	✓				
Temp C	✓				
6. 240 Redox (mV)					
7. DO 0.00 ppm	✓				

Calibrated by:

Gaurav Kanwar

Calibration date:

13-Jun-11

Next calibration due:

10-Dec-11



Multi Parameter Water Meter

Instrument 90 FLMV

Serial No. U5435

Item	Test	Pass	Comments
Battery	Charge Condition	✓	
	Fuses	✓	
	Capacity	✓	
	Recharge OK?	✓	
Switch/keypad	Operation	✓	
Display	Intensity	✓	
	Operation (segments)	✓	
Grill Filter	Condition	✓	
	Seal	✓	
PCB	Condition	✓	
Connectors	Condition	✓	
Sensor	1. pH	✓	
	2. mV	✓	
	3. Salinity	✓	
	4. D.O	✓	
	5. Temp	✓	
Alarms	Beeper		
	Settings		
Software	Version		
Data logger	Operation		
Download	Operation		
Other tests:			

Certificate of Calibration

This is to certify that the above instrument has been calibrated to the following specifications:

Diffusion mode Aspirated mode

Standards					
ph 7.00	✓	7. DO Air	✓		
2. pH 4.00	✓				
3. EC 0.00ms/cm	✓				
4. EC 2.76ms/cm	✓				
Temp C	✓				
6. 240 Redox (mV)					
7. DO 0.00 ppm	✓				

Calibrated by:

Gaurav Kanwar

Calibration date:

8-Jun-11

Next calibration due:

05-Dec-11



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 02/08/2011

Field Person: CB.

Instrument Supplier and Instrument ID : 90FLMV Serial No. T8778.

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76 2.79	2.60
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.03 7.04	6.14 7.08
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3 or X	In 3 or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			<u>In field</u> 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 14/6/11

Field Person: BL/SV

Instrument Supplier and Instrument ID : 90FLMV Serial No: US435
TPSEI

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

US435 | TPSEI US435 | TPSEI

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S}/\text{cm}$, mS/cm)	7,000 $\mu\text{S}/\text{cm}$ KCl	6,300 – 7,700 $\mu\text{S}/\text{cm}$ or 6.3 – 7.7 mS/cm	2.96 2.74	2.78 2.70
Temp: _____	12.88 mS/cm KCl	11.70 – 14.00 mS/cm		
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S}/\text{cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u>	pH 3.7 – 4.3	4.07 4.00	4.45 4.01
	pH 7.0 green	pH 6.7 – 7.3		
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			

J
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**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 19/6/11

Field Person: SV, TMB

Instrument Supplier and Instrument ID : 90FLM^{TPS} Serial No: E1

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76	2.60
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.96 7.02	4.01 7.02
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			<u>Out</u> 3or X	<u>In</u> 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			<u>In field</u> 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 16/6/11

Field Person: JHB SV

Instrument Supplier and Instrument ID : 90FLMV Serial No:
U5431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm <u>2.76</u> 11.70 – 14.00 mS/cm	<u>2.83</u>	<u>2.66</u>
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 <u>4.0</u> pH 6.7 – 7.3 <u>7.0</u>	<u>4.02</u> <u>6.98</u>	<u>4.05</u> <u>6.98</u>
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			<u>Out</u> 3or X	<u>In</u> 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			<u>In field</u> 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 0871643011

Date: 16/6/11

Field Person: SV TMB

Instrument Supplier and Instrument ID : 90FLM^{TPS} Serial No: E1

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.65 2.75	2.84
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 <u>4</u> pH 6.7 – 7.3 <u>7</u>	3.95 6.99	4.04 7.01
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 0871643011

Date: 19/6/11

Field Person: SV, JMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: US431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity ($\mu\text{S/cm}$, mS/cm) Temp: _____	7,000 $\mu\text{S/cm}$ KCl 12.88 mS/cm KCl	6,300 – 7,700 $\mu\text{S/cm}$ or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76 2.76	2.70
TDS (mg/L , ppM , ppK)	7,000 $\mu\text{S/cm}$ KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.05 7.00	4.01 6.96
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 20/6/11

Field Person: SV, TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: U5431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76	2.84
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.08 7.03	3.94 6.94
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 0871643011

Date: 2/6/11

Field Person: SV, TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 45431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	<u>Out</u> Reading	<u>In</u> Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.79	2.78
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.97 6.95	4.09 6.99
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			<u>Out</u> 3or X	<u>In</u> 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			<u>In field</u> 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 23/6/11

Field Person: SU, MVB

Instrument Supplier and Instrument ID : 90FLMV Serial No: U5431

Mandatory checks before you leave for the field **and** when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76 2.84	2.73
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 <u>4</u> pH 6.7 – 7.3 <u>7</u>	4.08 6.95	4.06 6.96
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 27/6/11

Field Person: CW/TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 45431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76 2.73	2.76
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.96 6.94	3.95 6.89
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 28/6/11

Field Person: CW/TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 45431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76 2.70	2.71
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.85 6.83	3.98 6.82
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 29/6/11

Field Person: CB + TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 15431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76 2.73	2.69
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.13 7.22	4.11 7.12
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 20/06/2011

Field Person: CB + TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: U5431.

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.81m	2.64
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red or pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.95 6.83	4.37 7.34
PID (ppm)	Clean air	0 – 0.5 ppm		
	100 ppm	90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			

} slightly high.



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 0871643011

Date: 4/7/11

Field Person: SV, TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: US431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76	2.74
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	4.0 7.05	3.98 6.8
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 5/7/11

Field Person: SV, TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 115431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76	2.77 2.76
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.9 6.8	4.03 6.8
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 0871643011

Date: 6/7/11

Field Person: Sv. THB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 45431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	Out Reading	In Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	274	273
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.83 6.80	3.91 6.70
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			Out 3or X	In 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			In field 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific	to gas meter		



**ENVIRONMENTAL FIELD EQUIPMENT CHECK
(Prior and After Use)**

Job Number: 087643011

Date: 7/7/11

Field Person: SV TMB

Instrument Supplier and Instrument ID : 90FLMV Serial No: 45431

Mandatory checks before you leave for the field and when you get back to the office (only for those instruments used and parameters measured):

Parameter (and potential units)	Standard Solution	Acceptable Range	<u>Out</u> Reading	<u>In</u> Reading
Electrical Conductivity (μ S/cm, mS/cm) Temp: _____	7,000 μ S/cm KCl 12.88 mS/cm KCl	6,300 – 7,700 μ S/cm or 6.3 – 7.7 mS/cm 11.70 – 14.00 mS/cm	2.76	2.74
TDS (mg/L, ppM, ppK)	7,000 μ S/cm KCl	3,600 – 4,400 mg/L or ppM or 3.6 – 4.4 ppK		
Dissolved Oxygen (DO) (ppM Sal, %)	Clean air	10 – 11 ppm or 19 – 25%		
Redox (mV)	240 mV for platinum and gold probes	200 mV – 280 mV		
pH (no units)	pH 4.0 red <u>or</u> pH 7.0 green	pH 3.7 – 4.3 pH 6.7 – 7.3	3.8 6.7	4.1 7.3
PID (ppm)	Clean air 100 ppm	0 – 0.5 ppm 90 – 110 ppm		
			<u>Out</u> 3or X	<u>In</u> 3or X
Interface probe	Diesel/water in glass jar	Intermittent/continuous beep		
			<u>In field</u> 1 to 5	
Whale pump strength	In field			
Methane, oxygen and carbon dioxide	Complete sheet specific to gas meter			

calibrated 90FLMV-45431 at 7.45 (pH)



APPENDIX D

Limitations



LIMITATIONS

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