



Groundwater - Well Sampling Data Form

Job Information	
Date: 25.11.13	Time: arrive 1600 depart 1640
Project Name: Symphony	Project Number:
Site Location: Bingswater	Sampler: J.L
Well ID: BE MW07	Weather: Cloudy

Equipment	
Water quality equipment description:	Interface probe number: NSLW 4254 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column 78.690 m (-) 2.960 m (=) 5.73 m $\frac{2.960}{5.73}$ Water Column (x) Conversion Factor (=) Litres per 1 Well Volume 5.73 m (x) 1.96 (=) ~11 L Depth to product: <u>1</u> m Product Thickness: <u>1</u> m Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N									

Water Quality Parameters								
Beginning purge time: 1615				Ending purge time: 1635				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
								Reddish brown turbid water No odour Initially dry @ ~32L water becoming less turbid brown/cloudy Dry @ ~60L
*pH, temp, cond readings not necessary if well is purged dry								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth

-60	Total Well Volume Actual amount of water prior to sampling	Sample time _____ Containers used _____
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks		
Was pre-cleaning sampling equipment used for these samples?	Y	N
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N
Was documentation of equipment conducted?	Y	N NA
Were air bubbles present in vials at time of collection?	Y	N NA
Was sample for metals field filtered prior to preservations?	Y	N NA
Duplicate sample collected?	Y	N Duplicate sample ID _____
Rinsate blank collected?	Y	N Rinsate blank ID _____

(BQ_10)



Groundwater - Well Sampling Data Form

Job Information	
Date: 25-11-13	Time: arrive 1330 depart 1410
Project Name: Symphony	Project Number:
Site Location: Baywater	Sampler: J.G
Well ID: BE-mw08	Weather: Fine

Equipment	
Water quality equipment description:	Interface probe number: NSW 4254 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	1.86	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column 6.845 m (-) 3.210 m (=) 3.635 m 3.210 3.635									
Water Column (x) Conversion Factor (=) Litres per 1 Well Volume 3.635 m (x) 1.96 (=) ~ 7 L									
Depth to product: / m		Product Thickness: / m		Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N					

Water Quality Parameters									
Beginning purge time: 1340			Ending purge time: 1400						
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								Very brown turbid - No odour	
								dry @ ~ 7L	
								110 r ~ 10L	
								dry @ ~ 17L	
								dry @ ~ 21L	
*pH, temp, cond readings not necessary if well is purged dry							Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		
~ 20L		Total Well Volume Actual amount of water prior to sampling			Sample time _____		Containers used _____		
Flow rate mL/minute		Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA			Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N				

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

WELL DEVELOPMENT		Job Information	
Date: 11/12/13	Time: arrive 9:40am	depart 10:25am	
Project Name: SYMPHONY	Project Number: 0224198		
Site Location: Antenne	Sampler: TH		
Well ID: BF_MW01	Weather: CLEAR + HOT		

Equipment	
Water quality equipment description: —	Interface probe number: Catech IP4261 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
14.860 m	(-) 10.233 m	(=) 4.627 m							
			Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume				
			4.627 m	(x) 1.96	(=) 9.07				
Depth to product: — m		Product Thickness: — m		Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N					

Water Quality Parameters								
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):	
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
100L	9:50 - 10:15							very turbid, clearing with pumping until bottom of well is reached when grey turbidity returns no odour, pumping well, showing a little after 20h. clear after pumping clear after well agitated
> 10 WELL VOLUMES DEVELOPED								
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		
Total Well Volume			Sample time			Containers used		
Actual amount of water prior to sampling								
Flow rate		Did field parameters stabilise?				Was the well dry purged?		
mL/minute		Y N NA				Y N		

Field QC Checks		
Was pre-cleaned sampling equipment used for these samples?	Y	N
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N
Was documentation of equipment conducted?	Y	N NA
Were air bubbles present in vials at time of collection?	Y	N NA
Was sample for metals field filtered prior to preservations?	Y	N NA
Duplicate sample collected?	Y	N
Rinsate blank collected?	Y	N
		Duplicate sample ID _____
		Rinsate blank ID _____



Groundwater - Well Sampling Data Form

WELL DEVELOPMENT Job Information	
Date: 11/12/13	Time: arrive 10:35. depart 11:20
Project Name: SYMPHONY	Project Number:
Site Location: ANTIENE	Sampler:
Well ID: BE-MW02	Weather:

Equipment	
Water quality equipment description:	Interface probe number:
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic Submersible Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V $= Pr \times r \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
16.037 m	(-) 13.208 m	(=) 2.829 m							
	Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume						
	2.829 m	(x) 1.96	(=) 5.54						
Depth to product:	_____ m	Product Thickness:	_____ m	Verified with Bailer:	<input type="checkbox"/> Y <input checked="" type="checkbox"/> N				

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
10	10:40							light brown turbid, clean with on-going purging, no odour	
2	10:55							As above	
0.25	11:05							As above	
0.1	11:10							brown turbid	
PUMPED DRY									
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth			
Total Well Volume Actual amount of water prior to sampling _____			Sample time _____			Containers used _____			
Flow rate mL/minute _____			Did field parameters stabilise? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA			Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

REQUIRES PROPER WELL CAP

WELL DEVELOPMENT Job Information

Date: 11/2/13 Time: arrive 11:30 depart 3:30

Project Name: SYMPHONY Project Number: 022419K

Site Location: Antenne Sampler: TH

Well ID: BF-MW03 Weather: HOT & CLEAR

Equipment

Water quality equipment description: Interface probe number: Cotech IP#4261 30m

Purging equipment: Bailer type: Plastic Teflon Stainless Steel Bailer (pump would not work)

Pump type: Peristaltic Submersible Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations

Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	

Total Well Depth (-) Water level (=) Water Column
20.100 m (-) 17.396 m (=) 2.704 m

Water Column (x) Conversion Factor (=) Litres per 1 Well Volume
2.704 m (x) 1.96 (=) 5.30 L

Depth to product: _____ m Product Thickness: _____ m Verified with Bailer: Y N

Water Quality Parameters

Beginning purge time:		Ending purge time:				Pump Intake Depth (mbtoc):			Comments
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm		
12L	2:20 - 2:45							returned at 2:20 with SS Bailer to develop well. grey to white, slight draw. DIPPED TO SEE SWL SWL 19.85	
								JG CONFIRMED: VERY SLOW TO RECHARGE DURING ESTABLISHMENT	
								HENCE, CONSIDERED DEVELOPED	

*pH, temp, cond readings not necessary if well is purged dry

Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth

Total Well Volume Actual amount of water prior to sampling Sample time _____ Containers used _____

Flow rate mL/minute Did field parameters stabilise? Y N NA Was the well dry purged? Y N

Field QC Checks

Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y <input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y <input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Duplicate sample collected?	<input type="checkbox"/> Y <input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y <input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

WELL DEVELOPMENT		Job Information	
Date: 11/12/13	Time: arrive 1pm	depart 1:45	
Project Name: SYMPHONY	Project Number: 0224198		
Site Location: RAVENSWORTH COAL UNLOADER	Sampler: TH		
Well ID: BE-MW05	Weather: HOT + WINDY + CLEAR		

Equipment			
Water quality equipment description:		Interface probe number: Geotech IP 4261 30m	
Purging equipment: (please circle)	Bailer type: Plastic	Teflon	stainless steel Bailer
	Pump type: Peristaltic	Submersible	Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres
Total Well Depth	(-) Water level	(=) Water Column							
10.057 m	(-) 8.840 m	(=) 1.217 m							
Water Column		(x) Conversion Factor	(=) Litres per 1 Well Volume						
		1.217 m	(x) 1.96	(=) 2.39					
Depth to product:	Product Thickness:		Verified with Bailer:		Y N				

Water Quality Parameters								
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):	
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
20	1:05pm - 1:30							yellow / brown turbidity no odour, large volume of sediment / fine sand removed from well. turbidity did not clear with continued bailing.
<p>CONSIDER 7/10 well values removed DEVELOPED</p>								

*pH, temp, cond readings not necessary if well is purged dry

Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth

Total Well Volume	Actual amount of water prior to sampling	Sample time	Containers used
Flow rate	mL/minute	Did field parameters stabilise?	Was the well dry purged?
		Y N NA	Y N

Field QC Checks		
Was pre-cleaned sampling equipment used for these samples?	Y	N
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N
Was documentation of equipment conducted?	Y	N NA
Were air bubbles present in vials at time of collection?	Y	N NA
Was sample for metals field filtered prior to preservations?	Y	N NA
Duplicate sample collected?	Y	N
Rinsate blank collected?	Y	N
	Duplicate sample ID	_____
	Rinsate blank ID	_____



Groundwater - Well Sampling Data Form

Job Information	
Date: 18/12/13	Time: arrive 3:15pm depart 4:05.
Project Name: SYMPHONY	Project Number: 0224193
Site Location: BAYSWATER	Sampler: TM
Well ID: BF_MW09	Weather: HOT & CLEAR

Equipment	
Water quality equipment description:	Interface probe number:
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic Submersible Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
16.030 m	(-) 13.558 m	(=) 2.472 m							
	Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume						
	2.472 m	(x) 1.96	(=) 4.85						
Depth to product: — m	Product Thickness: — m	Verified with Bailer: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N							

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
7	3:35							known turbidity - well is taken no odour turbidity clearing with pumping.	
3	3:45							As above (but less turbid).	
1L	3:50							As above.	
1L	3:57							As above.	
<p><i>SLOW RECHARGE DEVELOPED</i></p>									
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth			
Total Well Volume			Sample time			Containers used			
Actual amount of water prior to sampling									
Flow rate mL/minute		Did field parameters stabilise?		Y N NA		Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N			

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Well Development		Job Information	
Date: 15/11/13	Time: arrive 08:00	depart 09:25	
Project Name: Project Symphony	Project Number: 0224193		
Site Location: Bayswater	Sampler: N.H		
Well ID: BG-MW01	Weather: overcast		

Equipment			
Water quality equipment description: 12V submersible pump		Interface probe number: SI22605A	
Purging equipment: (please circle)	Bailer type: Plastic	Teflon	
	Pump type: Peristaltic	Submersible	
		Micro-purge	Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
6.070 m	(-) 0.0 m	(=) 6.070 m							
Water Column			(x) Conversion Factor	(=) Litres per 1 Well Volume					
6.070 m			(x) 1.96	(=) 11.9 L					
Depth to product: 4 m	Product Thickness: - m	Verified with Bailer:	Y		N				

Water Quality Parameters									
Beginning purge time: 0825			Ending purge time:				Pump Intake Depth (mbtoc): 5.5		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
20	08:30							Turbid, brown. Sulfur odour.	
25	08:35							Turbid, brown. Well purged dry. Allowed to recharge.	
30	08:50							Turbid, becoming clearer. Well purged dry. Allowed to recharge. Pumped another 5L.	
35	08:55							Allowed to recharge. Pumped another 5L.	
40	09:35							Allowed to recharge. Pumped another 5L.	
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth			
Total Well Volume		Actual amount of water prior to sampling				Sample time		Containers used	
Flow rate		mL/minute				Did field parameters stabilise?		Was the well dry purged?	
100 L		-				Y N NA		Y N	

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was pre-cleaning sampling equipment properly protected from contamination?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Was documentation of equipment conducted?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Were air bubbles present in vials at time of collection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Duplicate sample collected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rinsate blank collected?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Duplicate sample ID			_____
Rinsate blank ID			_____



Groundwater - Well Sampling Data Form

Job Information	
Date: 15/11/13	Time: arrive 09:35 depart
Project Name: Project Symphony	Project Number: 022493
Site Location: Bayswater	Sampler: N.H
Well ID: BG-MW02	Weather: Overcast becoming Fine.

Equipment	
Water quality equipment description: 12V submersible pump	Interface probe number: S122605A
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 \times h$
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Total Well Depth (-) Water level (=) Water Column	6.560 m (-) 0.0 m (=) 6.560 m								
	Water Column (x) Conversion Factor (=) Litres per 1 Well Volume	6.560 m (x) 1.96 (=) 12.8							
Depth to product: - m	Product Thickness: - m	Verified with Bailer: <input type="checkbox"/> Y <input type="checkbox"/> N							

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
30	9.50							Turbid, brown. No odour. Purged dry	
60	10.00							Allowed to recharge for 5 mins. Water clear. No odour.	
*pH, temp, cond readings not necessary if well is purged dry			Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth						
60	Total Well Volume		Actual amount of water prior to sampling			Sample time		Containers used	
-	Flow rate mL/minute		Did field parameters stabilise?			Y N <u>NA</u>		Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

Field QC Checks		
Was pre-cleaned sampling equipment used for these samples?	Y	N
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N
Was documentation of equipment conducted?	Y	N NA
Were air bubbles present in vials at time of collection?	Y	N NA
Was sample for metals field filtered prior to preservations?	Y	N NA
Duplicate sample collected?	Y	N Duplicate sample ID _____
Rinsate blank collected?	Y	N Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Well Development		Job Information	
Date: 15/11/13	Time: arrive 8:00	depart 13:40	
Project Name: Project Symphony	Project Number: 0224913		
Site Location: Baywater	Sampler: N.H		
Well ID: MWO3	Weather: Fine		

Equipment			
Water quality equipment description: 12v submersible pump		Interface probe number:	
Purging equipment: (please circle)	Bailer type: Plastic	Teflon	
	Pump type: Peristaltic	Submersible	Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $P \times r \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth (-) Water level (=) Water Column	3.765 m (-) 2.775 m (=) 1.0 m								
Water Column		(x) Conversion Factor	Litres per 1 Well Volume						
1.0 m		(x) 1.96	= 1.96 L						
Depth to product: 0.1 m		Product Thickness: 4 m		Verified with Bailer:		<input type="checkbox"/> Y <input type="checkbox"/> N			

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
2								clear. No odour. pumped dry	
*pH, temp, cond readings not necessary if well is purged dry			Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth						
2	Total Well Volume			Sample time			Containers used		
	Actual amount of water prior to sampling								
1	Flow rate mL/minute			Did field parameters stabilise?			Was the well dry purged?		
				Y N NA			Y N		

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>18/11/13</u>	Time: arrive <u>08:30</u> depart _____
Project Name: <u>Project Symphony</u>	Project Number: <u>0224193</u>
Site Location: <u>basewater</u>	Sampler: <u>N.H</u>
Well ID: <u>AG-MW03</u>	Weather: <u>overcast, Rain</u>

Equipment	
Water quality equipment description:	Interface probe number:
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> <u>Teflon</u>
	Pump type: <u>Peristaltic</u> <u>Submersible</u> <u>Micro-purge</u> <u>Amazon</u> <u>Other:</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth <u>3.770</u> m (-) Water level <u>1.745</u> m (=) Water Column <u>2.025</u> m									
Water Column <u>2.025</u> m (x) Conversion Factor <u>1.96</u> (=) Litres per 1 Well Volume <u>3.97</u> L									
Depth to product: _____ m	Product Thickness: _____ m	Verified with Bailer: <input type="checkbox"/> Y <input type="checkbox"/> N							

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
<u>4</u>	<u>08:45</u>							<u>Clear. Purged dry after ~4L. Allowed to</u>	
<u>6</u>	<u>09:15</u>							<u>recharge. for 30 mins. Pumped another 2L. Dry</u>	
<u>8</u>	<u>09:40</u>							<u>Allowed to recharge. Pumped another 2L. Dry</u>	
<u>11</u>	<u>10:10</u>							<u>Allowed to recharge. Pumped another 3L. Dry</u>	
*pH, temp, cond readings not necessary if well is purged dry									
Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth									
<u>11</u>	Total Well Volume			Sample time <u>✓</u>			Containers used <u>✓</u>		
<u>✓</u>	Actual amount of water prior to sampling			Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA			Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		
	Flow rate mL/minute								

Field QC Checks		
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N <input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N <input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N <input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Well Development		Job Information	
Date: 15/11/13	Time: arrive 1.40	depart 14:00	
Project Name: Project Symphony	Project Number: 0224193		
Site Location: Old Mill Bayswater	Sampler: N.H		
Well ID: BG-MW04	Weather: Fine		

Equipment			
Water quality equipment description: 12V submersible pump		Interface probe number:	
Purging equipment: (please circle)	Bailer type: Plastic	Teflon	
	Pump type: Peristaltic	Submersible	Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations										
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 h$	
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm	
Total Well Depth	(-) Water level	(=) Water Column								
4.635 m	(-) 2.115 m	(=) 2.52 m								
Water Column		(x) Conversion Factor		(=) Litres per 1 Well Volume						
2.52 m		(x) 1.96		(=) 4.9 L						
Depth to product: _____ m		Product Thickness: _____ m		Verified with Bailer:		<input type="checkbox"/> Y <input type="checkbox"/> N				

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
5	1:50							Turbid, brown, becoming clear. Dry after 5L	

*pH, temp, cond readings not necessary if well is purged dry

Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth

5	Total Well Volume	Actual amount of water prior to sampling	Sample time	Containers used
—	Flow rate	mL/minute	Did field parameters stabilise?	Was the well dry purged?
			Y N NA	Y N

Field QC Checks		
Was pre-cleaned sampling equipment used for these samples?	Y	N
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N
Was documentation of equipment conducted?	Y	N NA
Were air bubbles present in vials at time of collection?	Y	N NA
Was sample for metals field filtered prior to preservations?	Y	N NA
Duplicate sample collected?	Y	N
Rinsate blank collected?	Y	N
Duplicate sample ID		_____
Rinsate blank ID		_____



Groundwater - Well Sampling Data Form

Well Development		Job Information	
Date: 18/11/13	Time: arrive 0900	depart	
Project Name: Project Symphony	Project Number: 022493		
Site Location: Bayswater	Sampler: N.H		
Well ID: BG-MW04	Weather: Overcast + rain		

Equipment			
Water quality equipment description:		Interface probe number:	
Purging equipment: (please circle)	Bailer type: Plastic Teflon		
	Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other:		

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
4.635 m	(-) 2.090 m	(=) 2.545 m							
			Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume				
			2.545 m	(x) 1.96	(=) 4.99 L				
Depth to product:	m		Product Thickness:	m		Verified with Bailer:		<input type="checkbox"/> Y <input type="checkbox"/> N	

Water Quality Parameters								
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):	
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
8	10.30							brown, turbid, became clear after 5L. Purged dry after 8L. Allowed to recharge for 30 mins. Purged another 8L. Allowed to recharge for 30 mins. Purged another 8L. Dr. Allowed to recharge for 15 mins. 4L purged dry.
8	11.00							
8	11.30							
28	11.45							

*pH, temp, cond readings not necessary if well is purged dry

Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth

28	Total Well Volume	Actual amount of water prior to sampling	Sample time	Containers used
—	Flow rate	mL/minute	Did field parameters stabilise?	Was the well dry purged?
			<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks		
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y <input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y <input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	
Duplicate sample collected?	<input type="checkbox"/> Y <input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y <input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Well Development		Job Information	
Date: 15/11/13	Time: arrive 14:10	depart 14:25	
Project Name: Project Symphons	Project Number: 022443		
Site Location: Bayswater	Sampler: N.H		
Well ID: BG-MX105	Weather: Fine		

Equipment			
Water quality equipment description: D.V submersible pump		Interface probe number:	
Purging equipment: (please circle)	Bailer type: Plastic Teflon	Pump type: Peristaltic Submersible	Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Total Well Depth	(-) Water level	(=) Water Column							
5.610 m	(-) 1.980 m	(=) 3.63 m							
Water Column			(x) Conversion Factor	(=) Litres per 1 Well Volume					
3.63 m			(x) 1.96	(=) 7.1 L					
Depth to product:	— m	Product Thickness:	— m	Verified with Bailer:	<input type="checkbox"/> Y	<input type="checkbox"/> N			

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
7								Turbid, brown, becoming clear after ~5L. purged dry after 7L.	
*pH, temp, cond readings not necessary if well is purged dry									
Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth									

7	Total Well Volume	Actual amount of water prior to sampling	Sample time	Containers used
	Flow rate	mL/minute	Did field parameters stabilise?	Was the well dry purged?
			<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks		
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N <input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N <input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N <input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N
Duplicate sample ID		_____
Rinsate blank ID		_____



Groundwater - Well Sampling Data Form

Job Information		
Date: 18/11/13	Time: arrive 12:40	depart 13:30
Project Name: Project Symphony	Project Number: 022493	
Site Location: Beyswater	Sampler: N.H.	
Well ID: BG-MW05	Weather: Rain	

Equipment		
Water quality equipment description:		Interface probe number:
Purging equipment: (please circle)	Bailer type: Plastic Teflon	
	Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other:	

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Total Well Depth (-) Water level (=) Water Column									
5.610 m (-) 1.925 m (=) 3.685 m									
Water Column (x) Conversion Factor (=) Litres per 1 Well Volume									
3.685 m (x) 1.96 (=) 7.22 L									
Depth to product: — m	Product Thickness: — m	Verified with Bailer: <input type="checkbox"/> Y <input type="checkbox"/> N							

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
8	12:45							brown, turbid. becoming clear after 5L.	
15	13:00							Purged dry after 8L. Allowed to recharge.	
21	13:15							Pumped another 7L Dry Allowed to	
27	13:30							recharge for 15 mins. Pumped another 6 L. Dr.	
								Allowed to recharge for 15 mins. Pumped another	
								6L. Dry.	
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth			
27	Total Well Volume Actual amount of water prior to sampling			Sample time			Containers used		
—	Flow rate mL/minute			Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA			Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N		

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 15/4/13	Time: arrive 14:35 depart 14:50
Project Name: Project Symphony	Project Number: 0224193
Site Location: Bayswater	Sampler: N.H
Well ID: BG-MW06	Weather: Fine

Equipment	
Water quality equipment description: 12 U submersible pump	Interface probe number:
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
0.075 m	(-) 1.915 m	(=) 4.3 m							
			Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume				
			4.3 m	(x) 1.96	(=) 8.3 L				
Depth to product:	7 m	Product Thickness:	7 m	Verified with Bailer:	<input type="checkbox"/> Y	<input type="checkbox"/> N			

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
8								brown, turbid. Purged dry after 8L.	
*pH, temp, cond readings not necessary if well is purged dry									
Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth									
8	Total Well Volume			Sample time			Containers used		
Actual amount of water prior to sampling									
—	Flow rate			Did field parameters stabilise?			Was the well dry purged?		
mL/minute									
Y N <u>NA</u> Y N									

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 18/11/13	Time: arrive 12:00 depart 12:35
Project Name: Project Symphony	Project Number: 0224193
Site Location: Baywater	Sampler: N.H
Well ID: BG-MW06	Weather: Rain

Equipment	
Water quality equipment description:	Interface probe number:
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Total Well Depth (-) Water level (=) Water Column	6.070 m (-) 1.900 m (=) 4.270 m Water Column (x) Conversion Factor (=) Litres per 1' Well Volume 4.270 m (x) 1.96 (=) 8.37 L								
Depth to product: _____ m	Product Thickness: _____ m	Verified with Bailer: <input type="checkbox"/> Y <input type="checkbox"/> N							

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
20	12:05							Brown, turbid, becoming clear after 15L purge	
30	12:20							Dry after 20L. Allowed to recharge for 15 mins. 10L purged. Dry. Allowed to recharge for 15 mins. Purged another 10L. Clear. Well dry.	
40	12:35								
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth			

40	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
—	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks		
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N <input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N <input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N <input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>5/2/13</u>	Time: arrive <u>09:00</u> depart
Project Name: <u>Symphony</u>	Project Number: <u>0004193</u>
Site Location: <u>Bayswater</u>	Sampler: <u>N.H</u>
Well ID: <u>BG-MW07</u>	Weather: <u>overcast, showers</u>

Equipment	
Water quality equipment description: <u>NA</u>	Interface probe number: <u>SYD 3954</u>
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> <u>Teflon</u> Pump type: <u>Peristaltic</u> <u>Submersible</u> <u>Micro-purge</u> <u>Amazon</u> <u>Other:</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column <u>5.320</u> m (-) 3.670 m (=) <u>1.65</u> m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume <u>1.65</u> m (x) <u>1.96</u> (=) <u>3.234</u> L									
Depth to product: _____ m		Product Thickness: _____ m		Verified with Bailer: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N <u>NA</u>					

Water Quality Parameters									
Beginning purge time:					Ending purge time:				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
4	09:10							Slightly turbid, becoming clear after 2L. Purged dry. Allowed to recharge.	
2	09:15							Clear to cloudy - purged dry after another 2L. Allowed to recharge.	
1	09:20							Clear to cloudy - purged dry after another 2L. Develop d.	
*pH, temp, cond readings not necessary if well is purged dry Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth									

<u>6</u>	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 22.11.13	Time: arrive 955 depart 1040
Project Name: Synchrony	Project Number:
Site Location: Buyswater	Sampler: J.L
Well ID: BH MW01	Weather: Rain

Equipment	
Water quality equipment description:	Interface probe number: NSW 425430m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>Mansoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
9.8855 m	2.895 m	6.96 m							
2.895	Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume						
6.96	6.96 m	1.96	(=) ~13.5 L						
Depth to product: / m	Product Thickness: / m	Verified with Bailer: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N							

Water Quality Parameters								
Beginning purge time: 1000			Ending purge time: 1035			Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
								Brownish Red - No odour - very turbid
								dry @ ~100L
								dry @ ~105L
								dry @ ~110L
								slightly less turbid as withdrawal continues. - turbid
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		

110	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 22.11.13	Time: arrive 915 depart 950
Project Name: Synpham	Project Number:
Site Location: Bryswater	Sampler: J.H
Well ID: BH02 BH-MW02	Weather: Rain

Equipment	
Water quality equipment description:	Interface probe number: NSW 4254 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 \times h$
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Total Well Depth	(-) Water level	(=) Water Column							
8.260 m	(-) 3.060 m	(=) 5.20 m							
3.06	Water Column (x) Conversion Factor (=) Litres per 1 Well Volume								
7.20	5.20 m (x) 1.96 (=) 10 L								
Depth to product: 1 m	Product Thickness: 1 m	Verified with Bailer: <input checked="" type="checkbox"/> <input type="checkbox"/>							

Water Quality Parameters								
Beginning purge time: 910			Ending purge time: 945			Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
								dark brown turbid water
								initially dry @ ~ 13L
								dry @ ~ 15L
								dry @ ~ 17L
								dry @ ~ 20L
								brown - No odour
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		

~20	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information			
Date: 20.11.13	Time: arrive 945	depart 1030	
Project Name: Symphonia	Project Number:		
Site Location: Bayswater	Sampler: J. Grant		
Well ID: BH- 100 MW03	Weather: Sunny		

Equipment			
Water quality equipment description:		Interface probe number: N.S.W 4254 30M	
Purging equipment: (please circle)	Bailer type: Plastic	Teflon	
	Pump type: Peristaltic	Submersible	Micro-purge Amazon Other: Monsoon

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column 9.1075 m (-) 1.400 m (=) 7.675 m 1.400 7.675									
Water Column (x) Conversion Factor (=) Litres per 1 Well Volume 7.675 m (x) 1.96 (=) 15 L									
Depth to product: _____ m		Product Thickness: _____ m		Verified with Bailer:		Y		N	

Water Quality Parameters									
Beginning purge time: 955			Ending purge time: 1025						
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								Brown turbid water - No odour	
								Initial dry @ 20L	
								Water changed to light cloudy	
								Dry @ 40L	
							Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		
Total Well Volume		Actual amount of water prior to sampling			Sample time _____		Containers used _____		
Flow rate mL/minute		Did field parameters stabilise?			Y N NA		Was the well dry purged? Y N		

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____

Misc



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>20.11.17</u>	Time: arrive <u>845</u> depart <u>920</u>
Project Name: <u>Symphony</u>	Project Number:
Site Location: <u>Burgswater</u>	Sampler: <u>J. Grant</u>
Well ID: <u>BH-MW04</u>	Weather: <u>Sunny</u>

Equipment	
Water quality equipment description:	Interface probe number: <u>NSW 4254 3dm</u>
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> Teflon Pump type: <u>Peristaltic</u> Submersible Micro-purge Amazon Other: <u>Munsdon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h. V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	<u>1.96</u>	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) <u>8.040</u> m (-) Water level (=) <u>3.690</u> m (=) Water Column <u>5.34</u> m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume <u>5.34</u> m (x) <u>1.96</u> (=) <u>~10</u> L									
Depth to product: <u>1</u> m Product Thickness: <u>1</u> m Verified with Bailer: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N									

Water Quality Parameters									
Beginning purge time: <u>855</u>					Ending purge time: <u>910</u>				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								<u>Very turbid brown - No odour</u> <u>Good recharge - water becoming less turbid</u>	
*pH, temp, cond readings not necessary if well is purged dry									
Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth									

<u>60L</u>	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 20.11.13	Time: arrive _____ depart _____
Project Name: Synthon	Project Number: _____
Site Location: Busswater	Sampler: _____
Well ID: BH-MW05	Weather: _____

Equipment	
Water quality equipment description:	Interface probe number: NSW 4254 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon <u>Other: Mason</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
Conversion Factor (volume in factor L/m)	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Total Well Depth (-) Water level (=) Water Column $0.105890 \text{ m} (-) 7.635 \text{ m} (=) 7.955 \text{ m}$ $\frac{7.635}{7.955}$ Water Column (x) Conversion Factor (=) Litres per 1 Well Volume $7.955 \text{ m} (x) 1.96 (=) \sim 5.8 \text{ L}$									
Depth to product: _____ m		Product Thickness: _____ m		Verified with Bailer: <input type="checkbox"/> Y <input type="checkbox"/> N					

Water Quality Parameters									
Beginning purge time: 10:50			Ending purge time: 11:00						
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								Turbid brown - No odour - initial dig @ ~ 12L	
								Dig again @ ~ 17L	
*pH, temp, cond readings not necessary if well is purged dry								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth	

17L	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information

Date: 20.11.13	Time: arrive 1105	depart 1125
Project Name: Symphony	Project Number:	
Site Location: Baginbun	Sampler: J. Grant	
Well ID: BH-MW06	Weather: Sunny	

Equipment

Water quality equipment description:		Interface probe number: NSW 4254 30m	
Purging equipment: (please circle)	Bailer type: Plastic	Teflon	
	Pump type: Peristaltic	Submersible	Micro-purge Amazon Other: <u>Manson</u>

Well Gauging and Purge Volume Calculations

Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column									
7.600 m (-) 4.590 m (=) 3.010 m									
Water Column (x) Conversion Factor (=) Litres per 1 Well Volume									
3.010 m (x) 1.96 (=) ~6 L									
Depth to product: / m		Product Thickness: / m		Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N					

Water Quality Parameters

Beginning purge time: 1110				Ending purge time: 1125							
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments			
								Brown turbid - No odour			
								Good discharge			
								50L removed			
								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth			
50L		Total Well Volume			Actual amount of water prior to sampling			Sample time		Containers used	
		Flow rate mL/minute			Did field parameters stabilise?			Y N NA		Was the well dry purged?	
								Y N		Y N	

Field QC Checks

Was pre-cleaning sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information

Date: 20.11.17	Time: arrive 1140	depart 1210
Project Name: Symphonia	Project Number:	
Site Location: Bayswater	Sampler: J. Grant	
Well ID: BH-mw07	Weather: Sunny	

Equipment

Water quality equipment description:		Interface probe number: NSW 4254 30m	
Purging equipment: (please circle)	Bailer type: Plastic	Teflon	
	Pump type: Peristaltic	Submersible	Micro-purge Amazon Other: Monsoon

Well Gauging and Purge Volume Calculations

Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V $= Pr \times r \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column 3.70 m (-) 3.04 m (=) 0.66 m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume 0.66 m (x) 1.96 (=) 1.2 L Depth to product: 1 m Product Thickness: 1 m Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N									

Water Quality Parameters

Beginning purge time:				Ending purge time:				Comments
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	
								Grey turbid to Grey cloudy - No odour - Quick discharge 20L removed
*pH, temp, cond readings not necessary if well is purged dry								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth

20	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks

Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

BQ MW01

Job Information	
Date: 22.11.13	Time: arrive 1135 depart 1240
Project Name: Symphony	Project Number:
Site Location: Bagswater	Sampler: J.G
Well ID: BH-MW08	Weather: Overcast

Equipment	
Water quality equipment description:	Interface probe number: NSW 4254 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
67.015 m	(-) 1.965 m	(=) 5.050 m							
1.965	Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume						
5.050	5.050 m	(x) 1.96	(=) ~ 10 L						
Depth to product: / m	Product Thickness: / m	Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N							

Water Quality Parameters								
Beginning purge time: 1200			Ending purge time: 1230			Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
								Cloudy Grey, No odour
								Initial dry @ ~ 18L
								dry @ ~ 27L
								dry @ ~ 30L
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		

-30L	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 21.11.13	Time: arrive 1430 depart 1500
Project Name: Symphon	Project Number:
Site Location: Bayswater	Sampler: J.K
Well ID: BL-MW01	Weather: Fine

Equipment	
Water quality equipment description:	Interface probe number: NSW
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.98	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
53.990 m	(-) 7.609 m	(=) 5.391 m							
7.609	Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume						
5.391	5.391 m	(x) 1.98	(=) ~ 10.5 L						
Depth to product: _____ m	Product Thickness: _____ m	Verified with Bailer:	<input type="checkbox"/> Y	<input type="checkbox"/> N					

Water Quality Parameters								
Beginning purge time: 1440			Ending purge time: 1455			Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
								Reddish brown turbid water - no odour
								becoming less turbid
								Removed Re 40L
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		
40	Total Well Volume			Sample time _____		Containers used _____		
	Actual amount of water prior to sampling							
	Flow rate mL/minute			Did field parameters stabilise?		Was the well dry purged?		
				<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA		<input type="checkbox"/> Y <input type="checkbox"/> N		

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 21.11.13	Time: arrive 1535 depart 1405
Project Name: Symphony	Project Number:
Site Location: Bayswater	Sampler: J.L
Well ID: B1 MW02	Weather: fine

Equipment	
Water quality equipment description:	Interface probe number: NSW 4254 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
10.460 m	(-) 7.100 m	(=) 2.360 m							
7.100		Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume					
2.360		2.360 m	(x) 1.96	(=) 4.6					
Depth to product: _____ m	Product Thickness: _____ m	Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N							

Water Quality Parameters								
Beginning purge time: 1345		Ending purge time: 1400		Pump Intake Depth (mbtoc):				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
								Reddish brown very turbid - no odour
								Dry @ ~18L
								Dry @ ~25L
								Dry @ ~30L
								less turbid
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		

-30	Total Well Volume	Actual amount of water prior to sampling	Sample time _____	Containers used _____
	Flow rate	mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>21.11.13</u>	Time: arrive <u>1605</u> depart <u>1640</u>
Project Name: <u>Symphany</u>	Project Number:
Site Location: <u>Dayswater</u>	Sampler: <u>J.K</u>
Well ID: <u>B1-MW03</u>	Weather: <u>fine</u>

Equipment	
Water quality equipment description:	Interface probe number: <u>NSW 4254 30m</u>
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	<u>1.96</u>	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	<u>18.190</u> m	(-) Water level	<u>7.750</u> m	(=) Water Column	<u>4.44</u> m				
	<u>7.750</u>			Water Column	<u>4.44</u> m	(x) Conversion Factor	<u>1.96</u>	(=) Litres per 1 Well Volume	<u>~8.8</u>
Depth to product:	<u> </u> m	Product Thickness:	<u> </u> m	Verified with Bailer:	<input type="checkbox"/> Y	<input checked="" type="checkbox"/> N			

Water Quality Parameters									
Beginning purge time: <u>1610</u>		Ending purge time: <u>1630</u>			Pump Intake Depth (mbtoc):				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								<u>Reddish / brown / turbid</u>	
								<u>No odour</u>	
								<u>initial dry @ ~16L</u>	
								<u>dry @ ~18L</u>	
								<u>dry @ ~20L</u>	
*pH, temp, cond readings not necessary if well is purged dry							Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		
<u>20</u>	Total Well Volume Actual amount of water prior to sampling			Sample time			Containers used		
	Flow rate mL/minute			Did field parameters stabilise?			Was the well dry purged?		
				<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA			<input type="checkbox"/> Y <input type="checkbox"/> N		

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 22.11.12	Time: arrive 1050 depart 1130
Project Name: Symphon	Project Number:
Site Location: Dryswater	Sampler: J. G
Well ID: BL-MW01	Weather: Overcast

Equipment	
Water quality equipment description:	Interface probe number: USW 4254 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: MONSPOON

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Total Well Depth	(-) Water level	(=) Water Column							
5.955 m	1.380 m	4.655 m							
1.380	Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume						
4.655	4.655 m	1.96	~ 9 L						
Depth to product: 1 m	Product Thickness: 1 m	Verified with Bailer: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N							

Water Quality Parameters								
Beginning purge time: 1100			Ending purge time: 1120			Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
								Dark brown - turbid
								No odour
								Initial Dry @ 20 L
								becoming cloudy grey
								Dry @ ~25 L
								Dry @ ~30 L
								Dry @ ~31 L
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		

31	Total Well Volume	Sample time	Containers used
	Actual amount of water prior to sampling		
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 11/10/13	Time: arrive 15:10 depart
Project Name: Symphony	Project Number: 0224193
Site Location: Bayswater	Sampler: N.H
Well ID: BL-MW/02	Weather: Fine

Equipment	
Water quality equipment description: NA	Interface probe number: Festwell 9300159
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
9.360 m	(-) 7.835 m	(=) 1.525 m							
	Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume						
	1.525 m	(x) 1.96	(=) 2.989 L						
Depth to product: — m	Product Thickness: — m	Verified with Bailer: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	NA						

Water Quality Parameters								
Beginning purge time: 15:20			Ending purge time:				Pump Intake Depth (mbtoc):	
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
5	15:23							grey, very turbid, no odour. Purged dry after 5L. Allowed to recharge.
6	15:33							as above. Purged dry after another 1L.
7	15:43							as above. Purged dry after another 1L.
8	15:55							as above. Slow recharge. Purged dry after 1L. ~ 2.5 well volumes removed. Purged dry 3 times.
								<u>Developed</u>
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		
8	Total Well Volume		Actual amount of water prior to sampling		Sample time		Containers used	
	Flow rate mL/minute		Did field parameters stabilise?		Y N <u>NA</u>		Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>28.11.13</u>	Time: arrive <u>1520</u> depart <u>1600</u>
Project Name: <u>Symphony</u>	Project Number: <u>022496</u>
Site Location: <u>Bayswater</u>	Sampler: <u>J.L</u>
Well ID: <u>BL MW03</u>	Weather: <u>Hot & Sunny</u>

Equipment	
Water quality equipment description:	Interface probe number: <u>NSW 4254 30m</u>
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> <u>Teflon</u> Pump type: <u>Peristaltic</u> <u>Submersible</u> <u>Micro-purge</u> <u>Amazon</u> <u>Other: <u>Monsoon</u></u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	<u>1.96</u>	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column <u>3.100</u> m (-) <u>1.785</u> m (=) <u>1.315</u> m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume <u>1.315</u> m (x) <u>1.96</u> (=) <u>~2.6</u> L									
Depth to product: <u> </u> m		Product Thickness: <u> </u> m		Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N					

Water Quality Parameters									
Beginning purge time: <u>1530</u>			Ending purge time: <u>1550</u>						
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								<u>Dark Grey very turbid water</u> <u>no odour - 'black blotches'</u> <u>on surface of GW - potentially</u> <u>oil.</u> <u>Dry @ - 8L</u> <u>- 12L</u> <u>- 20L</u> <u>Good recharge</u>	
*pH, temp, cond readings not necessary if well is purged dry								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth	
<u>-20</u>	Total Well Volume Actual amount of water prior to sampling			Sample time _____ Containers used _____					
	Flow rate mL/minute			Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA			Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N		

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____

28.11.13
1.785
1.315



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>5/12/13</u>	Time: arrive <u>14:55</u> depart _____
Project Name: <u>Symphony</u>	Project Number: <u>0224193</u>
Site Location: <u>Bayswater</u>	Sampler: <u>N.H</u>
Well ID: <u>BL-MW04</u>	Weather: <u>overcast, windy</u>

Equipment	
Water quality equipment description:	Interface probe number:
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> <u>Teflon</u>
	Pump type: <u>Peristaltic</u> <u>Submersible</u> <u>Micro-purge</u> <u>Amazon</u> <u>Other:</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	<u>1.96</u>	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column <u>3.520</u> m (-) <u>2.935</u> m (=) <u>0.585</u> m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume <u>0.585</u> m (x) <u>1.96</u> (=) <u>1.145</u> L									
Depth to product: _____ m		Product Thickness: _____ m		Verified with Bailer: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N <u>NA</u>					

Water Quality Parameters									
Beginning purge time: <u>15:0</u>					Ending purge time: _____				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
<u>2</u>	<u>15:10</u>							<u>clear, no odour. Purged dry after 2L. Allowed to recharge.</u>	
<u>4</u>	<u>15:15</u>							<u>clear, no odour. Purged dry after another 2L. Allowed to recharge.</u>	
<u>5</u>	<u>15:20</u>							<u>clear, no odour. Purged dry after another 2L. slow recharge. Developed.</u>	
*pH, temp, cond readings not necessary if well is purged dry								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth	
Total Well Volume Actual amount of water prior to sampling _____					Sample time _____ Containers used _____				
Flow rate mL/minute _____					Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N				

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>17.12.13</u>	Time: arrive <u>900</u> depart <u>1630</u>
Project Name: <u>Symphony</u>	Project Number: <u>0224193</u>
Site Location: <u>bugswater</u>	Sampler: <u>J. Grant / Hamish C</u>
Well ID: <u>BC-MW05</u>	Weather: <u>fine</u>

Equipment	
Water quality equipment description:	Interface probe number: <u>Syd 3954 60m</u>
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> <u>Teflon</u> Pump type: <u>Peristaltic</u> <u>Submersible</u> <u>Micro-purge</u> <u>Amazon</u> <u>Other: hammerhead</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
Conversion Factor (volume in factor L/m)	0.98	<u>1.96</u>	7.85	31.4	49.1	70.7	125.7	196.3	V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Total Well Depth (-) Water level (=) Water Column	<u>30.348</u> m (-) <u>17.575</u> m (=) <u>12.770</u> m								
Water Column (x) Conversion Factor (=) Litres per 1 Well Volume	<u>12.770</u> m (x) <u>1.96</u> (=) <u>~ 25</u> L								
Depth to product: <u> </u> m	Product Thickness: <u> </u> m	Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N							

Water Quality Parameters									
Beginning purge time:					Ending purge time:				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
*pH, temp, cond readings not necessary if well is purged dry							Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		
Total Well Volume		Actual amount of water prior to sampling			Sample time		Containers used		
Flow rate		mL/minute			Did field parameters stabilise?		Was the well dry purged?		
					Y N NA		Y N		

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID <u> </u>
Rinsate blank collected?	Y	N	Rinsate blank ID <u> </u>

2 12
30.348
17.575
12.770



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>22.11.13</u>	Time: arrive <u>730</u> depart <u>800</u>
Project Name: <u>Symphony</u>	Project Number:
Site Location: <u>Dayswater</u>	Sampler: <u>JH</u>
Well ID: <u>BL MW05</u>	Weather: <u>overcast</u>

Equipment	
Water quality equipment description:	Interface probe number: <u>NSW 4254 30m</u>
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> <u>Teflon</u> Pump type: <u>Peristaltic</u> <u>Submersible</u> <u>Micro-purge</u> <u>Amazon</u> <u>Other: Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V $= Pr \times r \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	<u>1.96</u>	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
<u>7.200</u> m	<u>4.120</u> m	<u>3.08</u> m							
<u>4.120</u>	Water Column	(x) Conversion Factor							
<u>3.08</u>	<u>3.08</u> m	<u>1.96</u>							
Depth to product: <u> </u> m		Product Thickness: <u> </u> m	Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N						

Water Quality Parameters								
Beginning purge time: <u>T40</u>			Ending purge time: <u>755</u>			Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
								<u>Grey/brown turbid water -</u>
								<u>No odour</u>
								<u>initially dry @ 12L</u>
								<u>Dry @ ~ 14L</u>
								<u>Dry @ ~ 15L</u>
								<u>Becoming cloudy grey</u>
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		

<u>~15L</u>	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks		
Was pre-cleaned sampling equipment used for these samples?	Y	N
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N
Was documentation of equipment conducted?	Y	N NA
Were air bubbles present in vials at time of collection?	Y	N NA
Was sample for metals field filtered prior to preservations?	Y	N NA
Duplicate sample collected?	Y	N
Rinsate blank collected?	Y	N
	Duplicate sample ID _____	
	Rinsate blank ID _____	



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>25.11.13</u>	Time: arrive <u>1505</u> depart
Project Name: <u>Symphony</u>	Project Number:
Site Location: <u>Bingwater</u>	Sampler: <u>J.L</u>
Well ID: <u>BL-MW06</u>	Weather: <u>Rain</u>

Equipment	
Water quality equipment description:	Interface probe number: <u>NSW 4254 30m</u>
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> <u>Teflon</u> Pump type: <u>Peristaltic</u> <u>Submersible</u> <u>Micro-purge</u> <u>Amazon</u> <u>Other: Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	<u>1.96</u>	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column									
<u>4.970</u> m (-) <u>2.940</u> m (=) <u>2.03</u> m									
<u>2.940</u>									
<u>2.030</u>									
Water Column (x) Conversion Factor (=) Litres per 1 Well Volume									
<u>2.03</u> m (x) <u>1.96</u> (=) <u>~6</u> L									
Depth to product: <u> </u> m			Product Thickness: <u> </u> m			Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N			

Water Quality Parameters									
Beginning purge time:					Ending purge time:				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								Very turbid grey/brown water dry @ ~ 6L small dark oil 'blotches' on surface of collected water - No distinct odour dry @ ~ 7L very slow recharge ~ 7.2 " "	
								*pH, temp, cond readings not necessary if well is purged dry Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth	
<u>~ 7</u>		Total Well Volume Actual amount of water prior to sampling			Sample time _____		Containers used _____		
		Flow rate mL/minute			Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA			Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N	

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 10/12/13	Time: arrive 15:25 depart
Project Name: Symphony	Project Number: 0224193
Site Location: Bayswater	Sampler: N.H
Well ID: BM MW03	Weather: Fine, hot, windy

Equipment	
Water quality equipment description: NA	Interface probe number: SYD 3954
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
3.660 m	(-) 1.120 m	(=) 2.54 m							
		Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume					
		2.54 m	(x) 1.96	(=) 4.978 L					
Depth to product: — m	Product Thickness: — m	Verified with Bailer:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA						

Water Quality Parameters								
Beginning purge time: 15:30			Ending purge time:			Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
5	15:32							No monument yet.
7	15:45							brown, turbid, no odour. Purged dry after 5L. Allowed to recharge.
9	15:50							brown, turbid, no odour. Purged another 2L. Dry. Allowed to recharge.
11	15:55							as above - slow recharge.
								→ 2 well volumes removed. Purged dry 3 times
								developed

*pH, temp, cond readings not necessary if well is purged dry

Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth

11	Total Well Volume	Actual amount of water prior to sampling	Sample time	Containers used
	Flow rate	mL/minute	Did field parameters stabilise?	Was the well dry purged?
			<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> X3

Field QC Checks		
Was pre-cleaned sampling equipment used for these samples?	Y	N
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N
Was documentation of equipment conducted?	Y	N NA
Were air bubbles present in vials at time of collection?	Y	N NA
Was sample for metals field filtered prior to preservations?	Y	N NA
Duplicate sample collected?	Y	N Duplicate sample ID _____
Rinsate blank collected?	Y	N Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 10/12/13	Time: arrive 16:05 depart
Project Name: Symphony	Project Number: 0224193
Site Location: Bayswater	Sampler: N.H
Well ID: BM-MW05	Weather: Fine, hot, windy

Equipment	
Water quality equipment description: NA	Interface probe number: SYD 3954
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic Submersible Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
4.040 m	(-) 1.680 m	(=) 2.360 m							
			Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume				
			2.360 m	(x) 1.96	(=) 4.63				
Depth to product:	— m	Product Thickness:	— m	Verified with Bailer:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA				

Water Quality Parameters									
Beginning purge time: 16:10		Ending purge time:				Pump Intake Depth (mbtoc):			
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
10	16:13							* No monument yet -	
18	16:20							brown, turbid, no odour. Purged dry after 10L. Allowed to recharge	
26	16:25							as above, purged dry after another 8L. becoming clearer after 20L. Purged another 8L. Dry. Allowed to recharge	
32	16:31							cloudy to clear. Purged another 8L. Dry ~ 6 well volumes removed. Purged dry 4 times.	
								reasonable recharge.	

*pH, temp, cond readings not necessary if well is purged dry

Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth

32	Total Well Volume Actual amount of water prior to sampling	Sample time	Containers used
—	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N X4

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 9/12	Time: arrive 9/14:20 depart
Project Name: Symphony	Project Number: 0224193
Site Location: Bayswater	Sampler: N.H
Well ID: BM_MW07	Weather: Fine, hot

Equipment	
Water quality equipment description:	Interface probe number:
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic Submersible Micro-purge Amazon Other: stainless steel bailer

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Total Well Depth	(-) Water level	(=) Water Column							
6.860 m	(-) 5.660 m	(=) 1.200 m							
Water Column		(x) Conversion Factor	(=) Litres per 1 Well Volume						
1.200 m		(x) 1.96	(=) 2.352 L						
Depth to product:	Product Thickness:	Verified with Bailer:	Y N NA						

Water Quality Parameters									
Beginning purge time:			Ending purge time:				Pump Intake Depth (mbtoc):		Comments
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm		
2								Brown, turbid, silty water - blocked pump	
12								Purge 10L with bailer, brown, silty water becoming less turbid	
32								Purged another 20L with pump - becoming clear after about 15L	
52								clear after 40L. No odour. Actually recharging developed	

*pH, temp, cond readings not necessary if well is purged dry

Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth

52	Total Well Volume	Actual amount of water prior to sampling	Sample time	Containers used
	Flow rate	mL/minute	Did field parameters stabilise?	Was the well dry purged?
			Y N NA	Y N

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 10/12/13	Time: arrive 14:45 depart
Project Name: Symphony	Project Number: 0224193
Site Location: Bayswater	Sampler: N.H
Well ID: BN MW02	Weather: Fine, hot, windy

Equipment	
Water quality equipment description: NA	Interface probe number: SYD 3954
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic Submersible Micro-purge Amazon Other: Stainless Steel bailer

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
10.240 m	(-) 9.945 m	(=) 0.29 m							
Water Column			(x) Conversion Factor	(=) Litres per 1 Well Volume					
0.29 m			(x) 1.96	(=) 0.568 L					
Depth to product:	Product Thickness:		Verified with Bailer:		Y N NA				

Water Quality Parameters									
Beginning purge time: 14:55			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
0.5	15:00							dark brown to grey, very turbid. Purged dry with bailer after 0.5L. Allowed to recharge.	
0.6	15:15							Attempted to bail. Only <100mL recharged.	
*pH, temp, cond readings not necessary if well is purged dry							Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		
0.6	Total Well Volume			Sample time			Containers used		
	Actual amount of water prior to sampling								
	Flow rate mL/minute			Did field parameters stabilise?			Was the well dry purged?		
				Y N NA			Y N		

Field QC Checks				
Was pre-cleaned sampling equipment used for these samples?	Y	N		
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N		
Was documentation of equipment conducted?	Y	N	NA	
Were air bubbles present in vials at time of collection?	Y	N	NA	
Was sample for metals field filtered prior to preservations?	Y	N	NA	
Duplicate sample collected?	Y	N	Duplicate sample ID _____	
Rinsate blank collected?	Y	N	Rinsate blank ID _____	



Groundwater - Well Sampling Data Form

Job Information	
Date: 11/12/13	Time: arrive 10:05 depart 10:40
Project Name: Symphony	Project Number: 0224193
Site Location: Bayswater	Sampler: NH
Well ID: 150-MW01	Weather: Firt

Equipment	
Water quality equipment description: NA	Interface probe number: SYD 3954
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic Submersible Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations												
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm			
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7				
Total Well Depth	(-) Water level	(=) Water Column										
10.900 m	(-) 7.575 m	(=) 3.325 m										
			Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume							
			3.325 m	(x) 1.96	(=) 6.517 L							
Depth to product:	— m	Product Thickness:	— m	Verified with Bailer:	<table border="1"> <tr> <td>Y</td> <td>N</td> <td>NA</td> </tr> </table>					Y	N	NA
Y	N	NA										

Water Quality Parameters								
Beginning purge time: 10:15			Ending purge time:			Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
16	10:20							grey to cloudy, no odour. becoming cloudy and clear after 5L. Purged dry after 16L. allowed to recharge cloudy to clear. Purged dry after another 2L. slow recharge. ~3 well volumes removed, purged dry 3 times Developed
18	10:25							
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		

18	Total Well Volume	Actual amount of water prior to sampling	Sample time	Containers used
	Flow rate mL/minute	Did field parameters stabilise?	Y N NA	Was the well dry purged?
				Y N

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 9/12/13	Time: arrive 10:50 depart
Project Name: Symphony	Project Number: 024193
Site Location: Bayswater	Sampler: N.H
Well ID: B0-MW02	Weather: Fine hot

Equipment	
Water quality equipment description: NA	Interface probe number: 540 3954
Purging equipment: (please circle)	Bailer type: Plastic <input type="checkbox"/> Teflon <input checked="" type="checkbox"/>
	Pump type: Peristaltic <input type="checkbox"/> <u>Submersible</u> <input checked="" type="checkbox"/> Micro-purge <input type="checkbox"/> Amazon <input type="checkbox"/> Other: <input type="checkbox"/>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
3.695 m	(-) 1.415 m	(=) 2.28 m							
Water Column			(x) Conversion Factor	(=) Litres per 1 Well Volume					
2.28 m			(x) 1.96	(=) 4.47 L					
Depth to product: _____ m	Product Thickness: _____ m	Verified with Bailer: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA							

Water Quality Parameters									
Beginning purge time: 11:00			Ending purge time:				Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
5	11:02							Clear. No odour. Purged dry after 5L. Allowed to recharge.	
7	11:07							As above. Purged dry after another 2L. Allowed to recharge.	
8	11:13							As above. Purged dry after another 2L. Allowed to recharge.	
9	11:17							As above. Purged dry after another 2L. Allowed to recharge.	
10	11:21							Slow - Recharged. Developed.	
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth			

10	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
—	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 9/12/13	Time: arrive 12:20 depart
Project Name: Symphony	Project Number: 020493
Site Location: Baywater	Sampler: N.H
Well ID: BO-MW03	Weather: Fine, hot

Equipment	
Water quality equipment description: NA	Interface probe number: SYD 3954
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V $= Pr \times r \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
5.830 m	(-) 1.500 m	(=) 1.85 m							
			Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume				
			1.85 m	(x) 1.96	(=) 3.587 L				
Depth to product: — m		Product Thickness: — m		Verified with Bailer: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N <input type="checkbox"/> NA					

Water Quality Parameters									
Beginning purge time: 11:29		Ending purge time:				Pump Intake Depth (mbtoc):			
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
4L	11:30							brown, turbid. slight sulphur odour. Purged dry after 4L. Allowed to recharge.	
5	11:35							brown, turbid. slight sulphur odour. Purged dry after another 1L. Allowed to recharge.	
6	11:40							as above. Purged dry after another 1L. Allowed to recharge.	
7	11:45							brown, turbid. Purged dry after another 1L.	
8	11:50							as above. slow recharge, becoming clearer.	
								Developed	
								used s.s. bailer to remove silty mud from base of well was blocking pump	
*pH, temp, cond readings not necessary if well is purged dry						Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth			

8	Total Well Volume Actual amount of water prior to sampling	Sample time	Containers used
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 9/12/13	Time: arrive 12:15 depart 12:50
Project Name: Symphony	Project Number: 0224193
Site Location: Bayswater	Sampler: N.H
Well ID: 80_MW04	Weather: Fine hot

Equipment	
Water quality equipment description: NA	Interface probe number: SYD 3954
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other: Stainless steel bailer

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
3.780 m	(-) 1.735 m	(=) 2.045 m							
Water Column		(x) Conversion Factor	(=) Litres per 1 Well Volume						
2.045 m		(x) 1.96	(=) 4.01 L						
Depth to product: — m	Product Thickness: — m	Verified with Bailer: <input checked="" type="checkbox"/> Y <input type="checkbox"/> N	NA						

Water Quality Parameters								
Beginning purge time: 12:22			Ending purge time: 12:45			Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
8	12:25							clear no odour purged dry after 8L. Allowed to recharge.
12	12:35							As above. Purged dry after another 4L. Allowed to recharge.
14	12:40							As above. Purged dry after another 2L.
16	12:45							As above. Purged dry after another 2L. Slow recharge.
								Developed
								Used S.S. bailer to remove silt from base of well. Was blocking pump

*pH, temp, cond readings not necessary if well is purged dry				Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth				
16	Total Well Volume	Actual amount of water prior to sampling	Sample time	Containers used				
—	Flow rate mL/minute	Did field parameters stabilise?	<input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	Was the well dry purged?	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N			

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 9/12/13	Time: arrive 12:55 depart
Project Name: 0224192 Symphony	Project Number: 0224192
Site Location: Bayswater	Sampler: N.H
Well ID: B0 MW05	Weather: Fine, hot

Equipment	
Water quality equipment description: NA	Interface probe number: 540 3954
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic <u>Submersible</u> Micro-purge Amazon Other:

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	1.96	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water Level	(=) Water Column							
5.515 m	(-) 3.290 m	(=) 2.225 m							
			Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume				
			2.225 m	(x) 1.96	(=) 4.361 L				
Depth to product: — m		Product Thickness: — m		Verified with Bailer: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N		NA			

Water Quality Parameters								
Beginning purge time: 13:00			Ending purge time: 13:18			Pump Intake Depth (mbtoc):		
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments
20	13:05							brown, turbid. No odour. Actively recharging as jumping as above becoming cloudy to clear after 30L. Actively recharging as above turned dry after a total of 50L. Allowed to recharge, becoming clear after 55L.
40	13:10							
50	13:15							
60	13:18							
								Developed. Good recharge

*pH, temp, cond readings not necessary if well is purged dry

Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth

60	Total Well Volume Actual amount of water prior to sampling	Sample time	Containers used
—	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input checked="" type="checkbox"/> N

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 27.11.13	Time: arrive 9:25 depart 10:00
Project Name: Symphony	Project Number:
Site Location: Dayswater	Sampler: J. Grant
Well ID: BP_MW01	Weather: Sunny

Equipment	
Water quality equipment description:	Interface probe number: NSW 9254 20m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column 3.275 m (-) 0.880 m (=) 2.395 m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume 2.395 m (x) 1.96 (=) 4.69 L									
Depth to product: / m	Product Thickness: / m		Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N						

Water Quality Parameters									
Beginning purge time: 9:35					Ending purge time: 9:45				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								light brown turbid water - No odour Initial dry @ ~ 10L becoming cloudy ~ 16L ~ 20L	
*pH, temp, cond readings not necessary if well is purged dry Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth									

20	Total Well Volume Actual amount of water prior to sampling	Sample time _____	Containers used _____
	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____

Handwritten calculations and signatures at the bottom of the page.



Groundwater - Well Sampling Data Form

Job Information

Date: 21.11.13	Time: arrive 1200 depart 1240
Project Name: Symphony	Project Number:
Site Location: Bayswater	Sampler: J.H
Well ID: BP-MW02	Weather: fine

Equipment

Water quality equipment description:	Interface probe number: NSW 4254 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon
	Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>MONSOON</u>

Well Gauging and Purge Volume Calculations

Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V $= Pr \times r \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column	$7.920 \text{ m} (-) 1.360 \text{ m} (=) 6.560 \text{ m}$								
	1.360 6.560								
	Water Column (x) Conversion Factor (=) Litres per 1 Well Volume $6.560 \text{ m} (x) 1.96 (=) \sim 13 \text{ L}$								
Depth to product: _____ m	Product Thickness: _____ m	Verified with Bailer: <input type="checkbox"/> Y <input type="checkbox"/> N							

Water Quality Parameters

Beginning purge time: 1210		Ending purge time: 1230							
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								Dark brown water to brown-turbid 60L removed	
								fast recharge	
*pH, temp, cond readings not necessary if well is purged dry								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth	
60	Total Well Volume			Actual amount of water prior to sampling			Sample time _____	Containers used _____	
	Flow rate mL/minute			Did field parameters stabilise?			<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA	Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N	

Field QC Checks

Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 22.11.13	Time: arrive 1300 depart 1335
Project Name: Symphons	Project Number:
Site Location: Bayswater	Sampler: J-L
Well ID: BP-MW04	Weather: Overcast

Equipment	
Water quality equipment description:	Interface probe number: NSW 4254 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <u>Monsoon</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.49	(1.96)	7.85	12.3	17.7	31.4	49.1	70.7	
Total Well Depth	(-) Water level	(=) Water Column							
6.310 m	(-) 1.910 m	(=) 5.400 m							
$\frac{1.910}{5.400}$		Water Column	(x) Conversion Factor	(=) Litres per 1 Well Volume					
		5.400 m	(x) 1.96	(=) ~ 10.5 L					
Depth to product:	m	Product Thickness:	m	Verified with Bailer:	<input type="checkbox"/> Y	<input type="checkbox"/> N			

Water Quality Parameters									
Beginning purge time: 1310		Ending purge time: 1325		Pump Intake Depth (mbtoc):					
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								Very turbid - brown no odour - @ initially dry @ ~ 12L silty mud only silty mud remaining - Monsoon unable to pump mud - aborted @ ~ 12L - no recharge after 15 min	
*pH, temp, cond readings not necessary if well is purged dry							Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth		
-12	Total Well Volume Actual amount of water prior to sampling			Sample time _____			Containers used _____		
	Flow rate mL/minute			Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA			Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N		

Field QC Checks			
Was pre-cleaned sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information

Date: 21.11.13	Time: arrive 1130 depart 1200
Project Name: <i>Symphony</i>	Project Number:
Site Location: <i>Dayswater</i>	Sampler: <i>J.L</i>
Well ID: <i>BL-MW05</i>	Weather: <i>fine</i>

Equipment

Water quality equipment description:	Interface probe number: <i>NSW 4254 30m</i>
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: <i>Monsoon</i>

Well Gauging and Purge Volume Calculations

Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V $= Pr \times r \times h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	<u>1.96</u>	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column <i>2.745</i> m (-) <i>2.680</i> m (=) <i>5.065</i> m <i>2.680</i> <i>5.065</i>									
Water Column (x) Conversion Factor (=) Litres per 1 Well Volume <i>5.065</i> m (x) <i>1.96</i> (=) <i>~ 10</i> L									
Depth to product: _____ m Product Thickness: _____ m Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N									

Water Quality Parameters

Beginning purge time: <i>1135</i>				Ending purge time: <i>1155</i>							
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments			
								<i>Grey/brown turbid - Organic / sulphur odour - slight -</i>			
								<i>Dry @ ~25L</i>			
								<i>brown turbid</i>			
								<i>Dry @ ~27L</i>			
								<i>Dry @ 30L</i>			
*pH, temp, cond readings not necessary if well is purged dry								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth			
<i>30</i>		Total Well Volume Actual amount of water prior to sampling				Sample time _____		Containers used _____			
		Flow rate mL/minute		Did field parameters stabilise?			<input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA		Was the well dry purged?		
							<input type="checkbox"/> Y <input type="checkbox"/> N				

Field QC Checks

Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

Job Information	
Date: 27.11.13	Time: arrive 820 depart 900
Project Name: Symphony	Project Number:
Site Location: Ryegate	Sampler: J. Grant
Well ID: BP_MW06	Weather: Sunny

Equipment	
Water quality equipment description:	Interface probe number: NSW 4254 30m
Purging equipment: (please circle)	Bailer type: Plastic Teflon Pump type: Peristaltic Submersible Micro-purge Amazon Other: Manover

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = $\pi r^2 h$ V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	1.96	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column 6.365 m (-) 1.425 m (=) 4.940 m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume 4.94 m (x) 1.96 (=) 9.68 L									
Depth to product: 1 m		Product Thickness: 1 m		Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N					

Water Quality Parameters									
Beginning purge time: 825			Ending purge time: 850						
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								Very muddy / turbid silt / water	
								initial dty @ ~122	
								No odour	
								~ 14L	
								~ 25L	
								~ 35L	
								~ 40L	
								~ 50L	
*pH, temp, cond readings not necessary if well is purged dry								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth	
50L		Total Well Volume Actual amount of water prior to sampling			Sample time _____		Containers used _____		
Flow rate mL/minute		Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA			Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N				

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID _____
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID _____



Groundwater - Well Sampling Data Form

17.575 30.345

Job Information	
Date: 18.12.13 17.12.13	Time: arrive 18:05 7:05 depart 8:45
Project Name: <u>Symphony</u>	Project Number: <u>0224193</u>
Site Location: <u>Bugswater</u>	Sampler: <u>J. Lam + / hammer</u>
Well ID: <u>BQ-MW01</u>	Weather: <u>Fine</u>

Equipment	
Water quality equipment description:	Interface probe number: <u>510 3954 60m</u>
Purging equipment: (please circle)	Bailer type: <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Teflon Pump type: <input checked="" type="checkbox"/> Peristaltic <input type="checkbox"/> Submersible <input type="checkbox"/> Micro-purge <input type="checkbox"/> Amazon <input type="checkbox"/> Other: <u>hammer head</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	<u>1.96</u>	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column <u>51.230</u> m (-) <u>11.885</u> m (=) <u>39.345</u> m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume <u>39.345</u> m (x) <u>1.96</u> (=) <u>~ 78</u> L									
Depth to product: <u>/</u> m		Product Thickness: <u>/</u> m		Verified with Bailer: <input type="checkbox"/> Y <input checked="" type="checkbox"/> N					

Water Quality Parameters									
Beginning purge time:					Ending purge time:				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
								<u>Water Turbid Greyish brown becoming slightly less turbid</u> <u>dry @ ~ 90L</u> <u>rechecked water @ 49.350 mg/l</u>	
*pH, temp, cond readings not necessary if well is purged dry								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth	

Total Well Volume Actual amount of water prior to sampling _____	Sample time _____ Containers used _____
Flow rate mL/minute _____	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> NA Was the well dry purged? <input type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	Y	N	
Was pre-cleaning sampling equipment properly protected from contamination?	Y	N	
Was documentation of equipment conducted?	Y	N	NA
Were air bubbles present in vials at time of collection?	Y	N	NA
Was sample for metals field filtered prior to preservations?	Y	N	NA
Duplicate sample collected?	Y	N	Duplicate sample ID _____
Rinsate blank collected?	Y	N	Rinsate blank ID _____

Groundwater - well sampling data form.cdr 101114
 51.230
 11.885
 39.345



Groundwater - Well Sampling Data Form

Job Information	
Date: <u>6/12/13</u>	Time: arrive <u>13:05</u> depart <u>13:45</u>
Project Name: <u>Symphony</u>	Project Number: <u>0224193</u>
Site Location: <u>Bayswater</u>	Sampler: <u>N.H</u>
Well ID: <u>BA-MW02</u>	Weather: <u>Fine, windy</u>

Equipment	
Water quality equipment description: <u>NA</u>	Interface probe number: <u>84D 3954</u>
Purging equipment: (please circle)	Bailer type: <u>Plastic</u> <u>Teflon</u>
	Pump type: <u>Peristaltic</u> <u>Submersible</u> <u>Micro-purge</u> <u>Amazon</u> <u>Other:</u>

Well Gauging and Purge Volume Calculations									
Casing Diameter	25mm	50mm	100mm	125mm	150mm	200mm	250mm	300mm	Volume of water in well / V = Pr x r x h V = volume in litres P = 3.14159 r = radius in cm h = height of water column in cm
Conversion Factor (volume in factor L/m)	0.98	<u>1.96</u>	7.85	31.4	49.1	70.7	125.7	196.3	
Total Well Depth (-) Water level (=) Water Column <u>6.575</u> m (-) <u>3.110</u> m (=) <u>3.465</u> m Water Column (x) Conversion Factor (=) Litres per 1 Well Volume <u>3.465</u> m (x) <u>1.96</u> (=) <u>6.791</u> L Depth to product: <u>—</u> m Product Thickness: <u>—</u> m Verified with Bailer: <input checked="" type="checkbox"/> Y <input checked="" type="checkbox"/> N <u>NA</u>									

Water Quality Parameters									
Beginning purge time: <u>13:10</u>					Ending purge time: <u>13:28</u>				
Litres	Time	PH	Temp °C	Cond mS/cm	DO mg/L	Redox mV	Drawdown <10cm	Comments	
<u>12</u>	<u>13:14</u>							<u>brown, turbid, no odour. Purged dry after 12L. Allowed to recharge.</u>	
<u>16</u>	<u>13:20</u>							<u>brown, turbid, no odour. Purged dry after 4L. Allowed to recharge.</u>	
<u>20</u>	<u>13:24</u>							<u>becoming clear after 18L. Purged dry after another 4L.</u>	
<u>22</u>	<u>13:28</u>							<u>clear, no odour. Purged dry after another 2L. developed 3.5 well volumes removed.</u>	
*pH, temp, cond readings not necessary if well is purged dry								Example Comments: clear / slightly cloudy / turbid / very turbid / no odour / slight odour / odour / strong odour / drawdown depth	

<u>22</u>	Total Well Volume Actual amount of water prior to sampling	Sample time: <u>—</u>	Containers used: <u>—</u>
<u>—</u>	Flow rate mL/minute	Did field parameters stabilise? <input type="checkbox"/> Y <input type="checkbox"/> N <input checked="" type="checkbox"/> NA	Was the well dry purged? <input checked="" type="checkbox"/> Y <input type="checkbox"/> N

Field QC Checks			
Was pre-cleaning sampling equipment used for these samples?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was pre-cleaning sampling equipment properly protected from contamination?	<input type="checkbox"/> Y	<input type="checkbox"/> N	
Was documentation of equipment conducted?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Were air bubbles present in vials at time of collection?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Was sample for metals field filtered prior to preservations?	<input type="checkbox"/> Y	<input type="checkbox"/> N	<input type="checkbox"/> NA
Duplicate sample collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Duplicate sample ID: <u>—</u>
Rinsate blank collected?	<input type="checkbox"/> Y	<input type="checkbox"/> N	Rinsate blank ID: <u>—</u>