



December 4, 2014  
Project No. 0346.04.08

John Mefford  
Washington State Department of Ecology  
15 West Yakima Avenue, Suite 200  
Yakima, Washington 98902-3452

Re: Fourth Quarter 2014 Groundwater Monitoring Results  
Former Cream Wine/Carnation Property  
Facility Site No. 46552166, Cleanup Site No. 4863  
111 East Lincoln Avenue, Sunnyside, Washington

Dear Mr. Mefford:

Maul Foster & Alongi, Inc. (MFA) has prepared this letter summarizing the fourth quarter 2014 groundwater monitoring results for the former Cream Wine/Carnation Property (the Property), located at 111 East Lincoln Avenue in Sunnyside, Washington.

This monitoring event represents the fourth consecutive quarter of indicator hazardous substance (IHS) sampling results demonstrating concentrations below the cleanup level (CUL). Based on this finding, the cleanup action, as selected in the final Cleanup Action Plan (CAP) (Ecology, 2012), is considered complete and MFA recommends that groundwater monitoring activities at the Property be terminated.

Groundwater monitoring at the Property has been conducted to evaluate compliance with cleanup standards following completion of the remedial action, as discussed in the Completion Report (MFA, 2014). This was the fourth groundwater compliance monitoring event to be completed at the Property and it included the compliance monitoring wells selected in the Remedial Action Plan (MFA, 2013).

## FIELD PROCEDURES

Groundwater samples were collected from the four compliance monitoring wells (MW08, MW17, MW19, and MW20) (see attached figure), using industry standard low-flow methodology, a peristaltic pump, and disposable tubing. Water levels and water quality parameters were measured before sample collection (see Tables 1 and 2). Field parameters were recorded on field sampling data sheets (included as Attachment A). A field duplicate was collected from MW17. MW08 was pumped dry during purging for water quality measurements and was allowed over 12 hours to recharge before sampling. Given the minimal water available at MW08, only one round of water quality parameter measurements

was collected from that well in order to preserve a sufficient volume of water for sample collection.

Samples were clear, with no visual indication that any of the injected treatment product (EHC®-L) remained. Turbidity measurements were below 5 nephelometric turbidity units in all samples, except for the sample collected from MW08, which had an elevated turbidity measurement (see Table 2). However, the sample collected from MW08 appeared clear, and the elevated turbidity likely was attributable to the limited purging.

The samples were submitted under standard chain-of-custody documentation to Specialty Analytical in Clackamas, Oregon, and were analyzed for volatile organic compounds (VOCs) by U.S. Environmental Protection Agency Method 8260B.

## RESULTS

Water level data, water quality data, and groundwater analytical results are presented in Tables 1, 2, and 3, respectively. Table 3 includes analytical data from the performance monitoring event conducted in November 2013 (seven weeks following the injection treatment), and the first four quarterly compliance monitoring events conducted in February 2014, May 2014, August 2014, and November 2014. The laboratory analytical report for the November 2014 sample event is included as Attachment B and a memorandum discussing the data quality assurance and quality control (QA/QC) review is included as Attachment C. Note that a water sample was collected from a drum of investigation-derived waste on the Property for disposal characterization purposes (sample ID “DRUM”). Analytical results from this sample are included in the laboratory report and QA/QC review, but are not discussed in this report. The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

As shown in the attached figure, the groundwater flow direction at the time of sampling was toward the southeast, which is consistent with previous observations (MFA, 2014). Relative to historical sources of environmental contamination on the Property, monitoring well MW08, located on the north end of the Property, is upgradient, and monitoring wells MW17, MW19, and MW20, located on the southern property boundary, are downgradient.

## CLEANUP LEVEL COMPLIANCE

Tetrachloroethene (PCE) concentrations in groundwater were compared to the site-specific CUL of 5 micrograms per liter (ug/L), as selected in the final CAP (Ecology, 2012) (see Table 3). Model Toxics Control Act Method A and B CULs are provided in Table 3 for comparison to concentrations of other detected constituents, but PCE is the only IHS for the Property. All analytical results are reported to the method reporting limit (MRL), and the MRL for PCE was below the CUL in all samples.

PCE concentrations were also compared to the vapor intrusion screening level of 1 ug/L put forth in Ecology's draft vapor intrusion guidance (Ecology, 2009). Annual assessment of vapor intrusion risk is a required element of the cleanup action selected in the CAP; however, compliance with the cleanup standard at the Property is assessed relative to the 5-ug/L CUL.

PCE was not detected above the reporting limit of 1 ug/L in any of the wells sampled in November 2014 and has been below the CUL in all compliance monitoring network wells during the last four rounds of monitoring. These findings indicate that groundwater beneath the Property is in compliance with the cleanup standard, as put forth in the CAP (Ecology, 2012), and that vapor intrusion is not a risk at the Property.

Aside from PCE, a few VOCs (i.e., acetone, 2-butanone, carbon disulfide, and 2-hexanone) were detected in the compliance monitoring wells during the November 2014 sampling event; however, these constituents are not chemicals of concern associated with the Property and detected concentrations do not exceed applicable regulatory limits (see Table 3).

This is the fourth consecutive quarterly monitoring event demonstrating PCE concentrations below the applicable CUL. In accordance with the compliance monitoring program, as discussed in the Completion Report, compliance monitoring at the Property is now considered complete (MFA, 2014).

#### NEXT STEPS

The remedial action at the Property has been completed and the selected groundwater IHS (PCE) has been below the CUL for four consecutive quarters, which indicates that groundwater at the Property is in compliance with the cleanup standard and the groundwater monitoring program objectives have been satisfied. MFA recommends termination of the groundwater monitoring program and decommissioning of the remaining monitoring wells.

If you have any questions regarding this letter, please contact either of us.

Sincerely,

Maul Foster & Alongi, Inc.



Heather R. Hirsch, LHG  
Project Hydrogeologist



Michael Stringer, AICP  
Project Manager



HEATHER R. HIRSCH

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Attachments: Limitations  
References  
Tables  
Figure  
A—Field Sampling Data Sheets  
B—Laboratory Analytical Reports  
C—Data Validation Memorandum

cc: Jay Hester, Port of Sunnyside

## LIMITATIONS

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The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

## REFERENCES

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Ecology. 2009. Guidance for evaluating soil vapor intrusion in Washington State: investigation and remedial action. Review draft. Publication No. 09-09-047. Washington State Department of Ecology, Toxics Cleanup Program. October.

Ecology. 2012. Final cleanup action plan, Cream Wine site, Sunnyside, Washington. Washington State Department of Ecology, Toxics Cleanup Program, Central Regional Office, Yakima, Washington. December.

MFA. 2013. Remedial action plan and engineering design report. Former Cream Wine property. Maul Foster & Alongi, Inc. Bellingham, Washington. August 13.

MFA. 2014. Remedial action completion report. Former Cream Wine/Carnation property. Maul Foster & Alongi, Inc. Vancouver, Washington. April 9.

# TABLES



**Table 1—Water Level Data  
Former Cream Wine/Carnation Property  
Port of Sunnyside  
Sunnyside, Washington**

Location ID	MP Elevation (feet)	Datum	Measurement Date	Depth to Water (feet)	Groundwater Elevation (feet)	Total Well Depth (feet)	Measured Depth to Bottom (feet)	Approximate Thickness of Sediment Buildup in Well (feet)
MW08	755.12	NAVD 88	11/14/2013	20.70	734.42	--	--	--
			02/19/2014	21.07	734.05	25	21.12	3.9
			05/23/2014	20.72	734.40	25	21.90	3.1
			08/21/2014	19.51	735.61	25	21.90	3.1
			11/16/2014	19.78	735.34	25	21.90	3.1
MW17	751.25	NAVD 88	11/13/2013	21.56	729.69	--	--	--
			02/19/2014	21.27	729.98	30	28.99	1.0
			05/23/2014	20.83	730.42	30	29.05	0.9
			08/21/2014	20.52	730.73	30	29.05	0.9
			11/16/2014	20.55	730.70	30	29.05	0.9
MW19	751.59	NAVD 88	11/13/2013	21.90	729.69	--	--	--
			02/19/2014	21.83	729.76	30	27.40	2.6
			05/23/2014	21.41	730.18	30	27.65	2.4
			08/21/2014	21.11	730.48	30	27.65	2.4
			11/16/2014	21.16	730.43	30	27.65	2.4
MW20	751.18	NAVD 88	11/13/2013	22.79	728.39	--	--	--
			02/19/2014	22.92	728.26	30	27.59	2.4
			05/23/2014	21.41	729.77	30	27.90	2.1
			08/21/2014	22.40	728.78	30	29.55	0.4
			11/16/2014	22.43	728.75	30	29.55	0.4
NOTES: -- = not analyzed. MP = measuring point. NAVD 88 = North American Vertical Datum of 1988.								



**Table 2—Water Quality Data  
Former Cream Wine/Carnation Property  
Port of Sunnyside  
Sunnyside, Washington**

Location ID	Screened Interval (ft bgs)	Date	Time	pH (SU)	Temperature (deg. C)	Conductivity (us/cm)	DO (mg/L)	ORP (mV)	Turbidity (NTU)
MW08	5 to 25	11/14/2013	14:30	6.11	14.79	3174	1.71	-14.4	> 1,000
		05/23/2014	15:00	6.09	18.02	691	3.90	-39	41.20
		08/21/2014	9:00	6.20	17.91	646	1.90	-42.5	20.60
		11/17/2014	9:00	6.19	17.95	624	3.18	-26.2	38.40
MW17	15 to 30	11/13/2013	16:00	5.16	16.55	4280	2.59	-107.2	> 1,000
		02/19/2014	10:30	5.13	16.28	5754	0.27	-321	46.31
		05/23/2014	9:06	6.97	16.90	3348	0.14	-60.3	8.40
		08/21/2014	11:30	6.26	18.20	1630	0.21	-77.3	7.80
		11/17/2014	15:10	6.16	17.69	1528	0.26	-74.6	3.95
MW19	14.5 to 29.5	11/13/2013	18:00	5.02	16.20	5032	1.20	-114.8	> 1,000
		02/19/2014	9:00	5.48	15.23	5767	0.41	-352	22.34
		05/23/2014	12:29	6.77	17.41	4070	0.29	-56	7.14
		08/21/2014	17:30	6.73	17.90	3214	0.30	-61	5.20
		11/17/2014	12:45	6.42	17.86	2928	0.40	-61.0	3.34
MW20	14.5 to 29.5	11/13/2013	14:30	7.02	14.34	1284	1.65	120.5	3.05
		02/19/2014	9:30	7.02	14.69	1321	0.89	121	2.65
		05/23/2014	14:08	7.74	16.96	1314	2.95	47	9.50
		08/21/2014	16:00	7.28	17.90	1221	1.70	84	2.14
		11/17/2014	14:50	7.04	17.03	1294	0.79	111	2.06
<p>NOTES:  deg. C = degrees Celsius.  DO = dissolved oxygen.  ft bgs = feet below ground surface.  mg/L = milligrams per liter.  mV = millivolts.  NTU = nephelometric turbidity units.  ORP = oxidation-reduction potential.  SU = standard units.  us/cm = microsiemens per centimeter.</p>									

Table 3—Groundwater Analytical Results  
Former Cream Wine/Carnation Property  
Port of Sunnyside  
Sunnyside, Washington

Location:		MW08				MW17						
Sample Name:		MW08	MW08	MW08	MW08	MW17	MWDUP	MW17	MW17DUP	MW17	MW17-DUP	MW17
Collection Date:		11/14/2013	05/23/2014	08/21/2014	11/17/2014	11/13/2013	11/13/2013	02/19/2014	02/19/2014	05/23/2014	05/23/2014	08/21/2014
MTCA Method A/B CUL (ug/L)												
<b>VOCs (ug/L)</b>												
1,1,1,2-Tetrachloroethane	1.7	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	200	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.22	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
1,1,2-Trichloroethane	0.77	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
1,1-Dichloroethane	7.7	1 U	0.3 U	0.3 U	0.3 U	10 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,1-Dichloroethene	400	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-Dichloropropene	NV	1 U	0.3 U	0.3 U	0.3 U	10 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,2,3-Trichlorobenzene	NV	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
1,2,3-Trichloropropane	0.0015	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	1.5	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
1,2,4-Trimethylbenzene	NV	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dibromo-3-chloropropane	0.055	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
1,2-Dibromoethane	0.01	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichlorobenzene	720	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
1,2-Dichloroethane	5	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-Dichloropropane	1.2	1 U	0.3 U	0.3 U	0.3 U	10 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
1,3,5-Trimethylbenzene	80	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	NV	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,3-Dichloropropane	NV	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	8.1	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
2,2-Dichloropropane	NV	1 U	0.3 U	0.3 U	0.3 U	10 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
2-Butanone	4800	10 U	10 U	10 U	10 U	<b>524</b>	<b>562</b>	<b>462</b>	<b>612</b>	<b>317</b>	<b>341</b>	<b>39.5</b>
2-Chlorotoluene	160	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
2-Hexanone	NV	10 U	<b>107</b>	10 U	10 U	100 U	100 U	10 U	10 U	10 U	<b>10.1</b>	10 U
4-Chlorotoluene	NV	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Isopropyltoluene	NV	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
4-Methyl-2-pentanone	640	20 U	20 U	20 U	20 U	200 U	200 U	20 U	20 U	20 U	20 U	20 U
Acetone	7200	<b>335</b>	<b>158</b>	10 U	<b>40.9</b>	500 U	500 U	<b>288</b>	<b>281</b>	<b>111</b>	<b>141</b>	10 U
Acrylonitrile	0.081	5 U	5 U	5 U	5 U	50 U	50 U	5 U	5 U	5 U	5 U	5 U
Benzene	5	<b>6.43</b>	0.3 U	0.3 U	0.3 U	<b>18.4</b>	<b>28.7</b>	<b>0.4</b>	<b>0.41</b>	0.3 U	<b>0.3</b>	0.3 U
Bromobenzene	NV	1 U	0.3 U	0.3 U	0.3 U	10 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Bromodichloromethane	0.71	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Bromoform	5.5	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
Bromomethane	11	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
Carbon disulfide	800	<b>15.7</b>	<b>1.24</b>	1 U	1 U	<b>27.8</b>	<b>30.4</b>	<b>1.03</b>	<b>1.04</b>	<b>2.92</b>	<b>2.77</b>	<b>2.23</b>
Carbon tetrachloride	0.63	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobenzene	160	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Chlorobromomethane	NV	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
Chloroethane	NV	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U

Table 3—Groundwater Analytical Results  
Former Cream Wine/Carnation Property  
Port of Sunnyside  
Sunnyside, Washington

Location:		MW08				MW17						
Sample Name:		MW08	MW08	MW08	MW08	MW17	MWDUP	MW17	MW17DUP	MW17	MW17-DUP	MW17
Collection Date:		11/14/2013	05/23/2014	08/21/2014	11/17/2014	11/13/2013	11/13/2013	02/19/2014	02/19/2014	05/23/2014	05/23/2014	08/21/2014
MTCA Method A/B CUL (ug/L)												
Chloroform	1.4	<b>2</b>	0.3 U	0.3 U	0.3 U	10 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Chloromethane	NV	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	16	<b>1.47</b>	0.3 U	0.3 U	0.3 U	<b>12.9</b>	<b>13.7</b>	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
cis-1,3-Dichloropropene <sup>a</sup>	0.44	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Dibromochloromethane	0.52	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
Dibromomethane	80	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
Dichlorodifluoromethane	1600	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Ethylbenzene	700	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	<b>0.79</b>	<b>0.95</b>	0.5 U	0.5 U	0.5 U
Freon 113	240000	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
Hexachlorobutadiene	0.56	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
Isopropylbenzene	800	1 U	0.3 U	0.3 U	0.3 U	10 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
m,p-Xylene	1600	2 U	1 U	1 U	1 U	20 U	20 U	<b>5.89</b>	<b>7.04</b>	1 U	1 U	1 U
Methyl tert-butyl ether	20	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Methylene chloride	5	20 U	20 U	20 U	20 U	200 U	200 U	20 U	20 U	20 U	20 U	20 U
Naphthalene	160	1 U	1 U	1 U	1 U	10 U	10 U	1 U	1 U	1 U	1 U	1 U
n-Butylbenzene	400	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
n-Propylbenzene	800	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-Xylene	1600	1 U	<b>0.31</b>	0.3 U	0.3 U	10 U	10 U	<b>2.11</b>	<b>2.48</b>	0.3 U	0.3 U	0.3 U
sec-Butylbenzene	800	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Styrene	1600	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tert-Butylbenzene	800	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
PCE	5	1 U	1 U	1 U	1 U	<b>4.10</b> j <sup>b</sup>	<b>4.00</b> j <sup>b</sup>	1 U	1 U	1 U	1 U	1 U
Toluene	1000	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,2-dichloroethene	160	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene <sup>a</sup>	0.44	1 U	0.5 U	0.5 U	0.5 U	10 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
Trichloroethene	5	1 U	<b>0.53</b>	0.3 U	0.3 U	10 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Trichlorofluoromethane	2400	1 U	1 U	1 U	1 U	<b>10.1</b>	10 U	1 U	1 U	1 U	1 U	1 U
Vinyl chloride	0.2	1 U	0.3 U	0.3 U	0.3 U	10 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	0.3 U
Total Xylenes	1000	ND	<b>0.81</b>	ND	ND	ND	ND	<b>8</b>	<b>9.52</b>	ND	ND	ND

Table 3—Groundwater Analytical Results  
Former Cream Wine/Carnation Property  
Port of Sunnyside  
Sunnyside, Washington

Location:	MW17			MW19					MW20					
Sample Name:	MW17-DUP	MW17	MW17-DUP	MW19	MW19	MW19	MW19	MW19	MW20	MW20	MW20	MW20	MW20	
Collection Date:	08/21/2014	11/17/2014	11/17/2014	11/13/2013	02/19/2014	05/23/2014	08/20/2014	11/17/2014	11/13/2013	02/19/2014	05/23/2014	08/20/2014	11/17/14	
	MTCA Method A/B CUL (ug/L)													
<b>VOCs (ug/L)</b>														
1,1,1,2-Tetrachloroethane	1.7	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
1,1,1-Trichloroethane	200	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
1,1,2,2-Tetrachloroethane	0.22	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
1,1,2-Trichloroethane	0.77	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
1,1-Dichloroethane	7.7	0.3 U	0.3 U	0.3 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	0.3 U	3 U	0.3 U	0.3 U
1,1-Dichloroethene	400	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
1,1-Dichloropropene	NV	0.3 U	0.3 U	0.3 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	0.3 U	3 U	0.3 U	0.3 U
1,2,3-Trichlorobenzene	NV	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
1,2,3-Trichloropropane	0.0015	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
1,2,4-Trichlorobenzene	1.5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
1,2,4-Trimethylbenzene	NV	0.5 U	0.5 U	0.5 U	10 U	<b>0.6</b>	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
1,2-Dibromo-3-chloropropane	0.055	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
1,2-Dibromoethane	0.01	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
1,2-Dichlorobenzene	720	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
1,2-Dichloroethane	5	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
1,2-Dichloropropane	1.2	0.3 U	0.3 U	0.3 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	0.3 U	3 U	0.3 U	0.3 U
1,3,5-Trimethylbenzene	80	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
1,3-Dichlorobenzene	NV	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
1,3-Dichloropropane	NV	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
1,4-Dichlorobenzene	8.1	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
2,2-Dichloropropane	NV	0.3 U	0.3 U	0.3 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	0.3 U	3 U	0.3 U	0.3 U
2-Butanone	4800	<b>40.5</b>	<b>60</b>	<b>54.8</b>	<b>1010</b>	<b>348</b>	<b>545</b>	<b>99.8</b>	10 U	10 U	10 U	100 U	10 U	<b>188</b>
2-Chlorotoluene	160	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
2-Hexanone	NV	10 U	10 U	10 U	100 U	10 U	10 U	<b>13.9</b>	10 U	10 U	10 U	100 U	10 U	<b>21.6</b>
4-Chlorotoluene	NV	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
4-Isopropyltoluene	NV	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
4-Methyl-2-pentanone	640	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U	20 U	20 U	200 U	20 U	20 U
Acetone	7200	10 U	<b>98</b>	<b>153</b>	500 U	<b>187</b>	<b>300</b>	<b>271</b>	<b>18.9</b>	50 U	<b>80.8</b>	100 U	10 U	<b>133</b>
Acrylonitrile	0.081	5 U	5 U	5 U	50 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	5 U	5 U
Benzene	5	0.3 U	0.3 U	0.3 U	<b>28.2</b>	<b>0.42</b>	<b>0.5</b>	0.3 U	0.3 U	0.3 U	0.3 U	3 U	0.3 U	0.3 U
Bromobenzene	NV	0.3 U	0.3 U	0.3 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	0.3 U	3 U	0.3 U	0.3 U
Bromodichloromethane	0.71	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
Bromoform	5.5	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
Bromomethane	11	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
Carbon disulfide	800	<b>2.91</b>	<b>5.64</b>	<b>5.06</b>	<b>34</b>	<b>15.2</b>	<b>2.84</b>	<b>1.56</b>	1 U	2 U	1 U	10 U	1 U	<b>1.52</b>
Carbon tetrachloride	0.63	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
Chlorobenzene	160	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
Chlorobromomethane	NV	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
Chloroethane	NV	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U

Table 3—Groundwater Analytical Results  
Former Cream Wine/Carnation Property  
Port of Sunnyside  
Sunnyside, Washington

Location:	MW17			MW19					MW20					
Sample Name:	MW17-DUP	MW17	MW17-DUP	MW19	MW19	MW19	MW19	MW19	MW20	MW20	MW20	MW20	MW20	
Collection Date:	08/21/2014	11/17/2014	11/17/2014	11/13/2013	02/19/2014	05/23/2014	08/20/2014	11/17/2014	11/13/2013	02/19/2014	05/23/2014	08/20/2014	11/17/14	
	MTCA Method A/B CUL (ug/L)													
Chloroform	1.4	0.3 U	0.3 U	0.3 U	<b>17</b>	<b>1.02</b>	<b>0.54</b>	0.3 U	0.3 U	1 U	0.3 U	<b>4.7</b>	0.3 U	0.3 U
Chloromethane	NV	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
cis-1,2-Dichloroethene	16	0.3 U	0.3 U	0.3 U	<b>13.6</b>	0.3 U	0.3 U	0.3 U	0.3 U	1 U	0.3 U	3 U	0.3 U	0.3 U
cis-1,3-Dichloropropene <sup>a</sup>	0.44	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
Dibromochloromethane	0.52	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
Dibromomethane	80	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
Dichlorodifluoromethane	1600	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
Ethylbenzene	700	0.5 U	0.5 U	0.5 U	10 U	<b>0.91</b>	0.5 U	0.5 U	0.5 U	1 U	<b>0.76</b>	5 U	0.5 U	0.5 U
Freon 113	240000	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
Hexachlorobutadiene	0.56	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
Isopropylbenzene	800	0.3 U	0.3 U	0.3 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	0.3 U	3 U	0.3 U	0.3 U
m,p-Xylene	1600	1 U	1 U	1 U	20 U	<b>6.77</b>	1 U	1 U	1 U	2 U	<b>3.89</b>	10 U	1 U	1 U
Methyl tert-butyl ether	20	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
Methylene chloride	5	20 U	20 U	20 U	200 U	20 U	20 U	20 U	20 U	20 U	20 U	200 U	20 U	20 U
Naphthalene	160	1 U	1 U	1 U	10 U	<b>1.3</b>	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
n-Butylbenzene	400	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
n-Propylbenzene	800	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
o-Xylene	1600	0.3 U	0.3 U	0.3 U	10 U	<b>2.1</b>	<b>0.32</b>	0.3 U	0.3 U	1 U	<b>1.65</b>	3 U	0.3 U	0.3 U
sec-Butylbenzene	800	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
Styrene	1600	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
tert-Butylbenzene	800	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
PCE	5	1 U	1 U	1 U	<b>8.60</b> J <sup>b</sup>	1 U	1 U	1 U	1 U	1 U	1 U	0.58 U <sup>b</sup>	1 U	1 U
Toluene	1000	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
trans-1,2-dichloroethene	160	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
trans-1,3-Dichloropropene <sup>a</sup>	0.44	0.5 U	0.5 U	0.5 U	10 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U	5 U	0.5 U	0.5 U
Trichloroethene	5	0.3 U	0.3 U	0.3 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	0.3 U	3 U	0.3 U	0.3 U
Trichlorofluoromethane	2400	1 U	1 U	1 U	10 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	1 U	1 U
Vinyl chloride	0.2	0.3 U	0.3 U	0.3 U	10 U	0.3 U	0.3 U	0.3 U	0.3 U	1 U	0.3 U	3 U	0.3 U	0.3 U
Total Xylenes	1000	ND	ND	ND	ND	<b>8.87</b>	<b>0.82</b>	ND	ND	ND	<b>5.54</b>	ND	ND	ND

**Table 3—Groundwater Analytical Results  
Former Cream Wine/Carnation Property  
Port of Sunnyside  
Sunnyside, Washington**

NOTES:

CULs are provided for detected constituents only. Method B values are provided when Method A value was not available. No MTCA Method A or B values are available for 1,2,4-trimethylbenzene.

CUL exceedances are highlighted.

Detections are shown in **bold**.

PCE evaluated to MDL for samples that were diluted.

CUL = cleanup level.

J = Result is an estimated value.

MDL = method detection limit.

MTCA = Model Toxics Control Act.

ND = not detected.

NV = no value.

PCE = tetrachloroethene.

Total xylenes = sum of m,p-xylene and o-xylene. When one of the xylene values is non-detect, one-half of the non-detect value is used.

U = Analyte not detected at or above method reporting limit.

ug/L = micrograms per liter (parts per billion).

VOC = volatile organic compound.

<sup>a</sup>1,3-dichloropropene criteria are used for cis-1,3-dichloropropene and trans-1,3-dichloropropene.

<sup>b</sup>PCE evaluated to MDL.

FIGURE







### Figure Groundwater Elevation Contours - November 2014

Former Cream Wine/  
Carnation Property  
Port of Sunnyside  
Sunnyside, Washington

#### Legend

- Injection Point & Compliance Monitoring Well
- Compliance Monitoring Well

**MW08** Well ID and  
**735.34** Groundwater Elevation  
in feet

Approximate Direction of  
Groundwater Flow

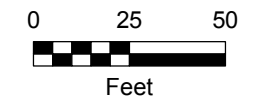
**730.5** Groundwater Elevation Contour  
(with Elevation in Feet)

Property Boundary (Approximate)

Tax Lots (Approximate)

#### Notes:

1. Well locations were surveyed by Gray's Survey and Engineering on June 18 and 19, 2012.
2. Groundwater elevations were measured on November 16, 2014.



Source: Aerial photograph (June 2011) obtained from Esri ArcGIS Online



This product is for informational purposes and may not have been prepared for, or be suitable for legal, engineering, or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.



# ATTACHMENT A

FIELD SAMPLING DATA SHEETS



# Maul Foster & Alongi, Inc.

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

## Water Field Sampling Data Sheet

<b>Client Name</b>	Port of Sunnyside	<b>Sample Location</b>	MW08
<b>Project #</b>	0346.04.06	<b>Sampler</b>	JJP
<b>Project Name</b>	Former Cream Wine Property	<b>Sampling Date</b>	11/17/2014
<b>Sampling Event</b>	November 2014	<b>Sample Name</b>	MW08
<b>Sub Area</b>		<b>Sample Depth</b>	21
<b>FSDS QA:</b>	CRW 11/18/2014	<b>Easting</b>	<input style="width: 50px;" type="text"/>
		<b>Northing</b>	<input style="width: 50px;" type="text"/>
		<b>TOC</b>	<input style="width: 50px;" type="text"/>

### Hydrology/Level Measurements

Date	Time	DT-Bottom	DT-Product	DT-Water	(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
					DTP-DTW	DTB-DTW	Pore Volume
11/16/2014	15:40	21.9		19.78		2.12	0.34

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

### Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump	4:10:00 PM	0.5	0.2	6.14	17.89	6.01	3.65	-32.4	28.3
Final Field Parameters	9:00:00 AM	0.25	0.1	6.19	17.95	624	3.18	-26.2	38.4

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

### Water Quality Observations:

Clear. Final field parameters measured on 11/17/14.

### Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	9:00:00 AM	VOA-Glass	4	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles	4	

### General Sampling Comments

Purged dry on 11/16/14. Final field parameters measured on 11/17/14.

Signature \_\_\_\_\_

# Maul Foster & Alongi, Inc.

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

## Water Field Sampling Data Sheet

<b>Client Name</b>	Port of Sunnyside	<b>Sample Location</b>	MW17		
<b>Project #</b>	0346.04.06	<b>Sampler</b>	JJP		
<b>Project Name</b>	Former Cream Wine Property	<b>Sampling Date</b>	11/17/2014		
<b>Sampling Event</b>	November 2014	<b>Sample Name</b>	MW17		
<b>Sub Area</b>		<b>Sample Depth</b>	25		
<b>FSDS QA:</b>	CRW 11/18/2014	<b>Eastings</b>		<b>Northings</b>	
		<b>TOC</b>			

### Hydrology/Level Measurements

Date	Time	DT-Bottom	DT-Product	DT-Water	(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
					DTP-DTW	DTB-DTW	Pore Volume
11/16/2014	15:10	29.05		20.55		8.55	1.38

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

### Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump	2:31:00 PM	0.5	0.2	6.21	17.26	1426	2.01	-92.4	13.6
	2:40:00 PM	1	0.2	6.19	17.64	1524	0.34	-76.1	4.2
	2:50:00 PM	1.25	0.2	6.17	17.65	1528	0.29	-75.9	4
	3:00:00 PM	1.5	0.2	6.17	17.67	1529	0.3	-75.6	4.15
Final Field Parameters	3:10:00 PM	2	0.2	6.16	17.69	1528	0.26	-74.6	3.95

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

### Water Quality Observations:

Clear.

### Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	3:10:00 PM	VOA-Glass	6	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles		6

### General Sampling Comments

Collected MW17-DUP at this location.

Signature \_\_\_\_\_

# Maul Foster & Alongi, Inc.

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

## Water Field Sampling Data Sheet

<b>Client Name</b>	Port of Sunnyside	<b>Sample Location</b>	MW19
<b>Project #</b>	0346.04.06	<b>Sampler</b>	JJP
<b>Project Name</b>	Former Cream Wine Property	<b>Sampling Date</b>	11/17/2014
<b>Sampling Event</b>	November 2014	<b>Sample Name</b>	MW19
<b>Sub Area</b>		<b>Sample Depth</b>	24
<b>FSDS QA:</b>	CRW 11/18/2014	<b>Easting</b>	<input style="width: 50px;" type="text"/>
		<b>Northing</b>	<input style="width: 50px;" type="text"/>
		<b>TOC</b>	<input style="width: 50px;" type="text"/>

### Hydrology/Level Measurements

Date	Time	DT-Bottom	DT-Product	DT-Water	(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
					DTP-DTW	DTB-DTW	Pore Volume
11/16/2014	15:34	27.65		21.16		6.49	1.057

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

### Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump	12:01:00 PM	0.25	0.2	6.26	16.24	2412	2.41	-23.6	12.6
	12:13:00 PM	0.5	0.2	6.41	17.86	2896	0.42	-48.6	3.24
	12:21:00 PM	0.75	0.2	6.42	17.89	2924	0.41	-60.3	3.34
	12:35:00 PM	1	0.2	6.41	17.91	2926	0.36	-60.7	3.76
	Final Field Parameters	12:45:00 PM	1.5	0.2	6.42	17.86	2928	0.4	-61

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

### Water Quality Observations:

Clear.

### Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	12:45:00 PM	VOA-Glass	3	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles		3

### General Sampling Comments

Signature \_\_\_\_\_

# Maul Foster & Alongi, Inc.

400 E. Mill Plain Blvd, Suite 400, Vancouver, WA 98660 (360) 694-2691 Fax. (360) 906-1958

## Water Field Sampling Data Sheet

<b>Client Name</b>	Port of Sunnyside	<b>Sample Location</b>	MW20
<b>Project #</b>	0346.04.06	<b>Sampler</b>	JJP
<b>Project Name</b>	Former Cream Wine Property	<b>Sampling Date</b>	11/17/2014
<b>Sampling Event</b>	November 2014	<b>Sample Name</b>	MW20
<b>Sub Area</b>		<b>Sample Depth</b>	26
<b>FSDS QA:</b>	CRW 11/18/2014	<b>Eastings</b>	<input style="width: 50px;" type="text"/>
		<b>Northing</b>	<input style="width: 50px;" type="text"/>
		<b>TOC</b>	<input style="width: 50px;" type="text"/>

### Hydrology/Level Measurements

Date	Time	DT-Bottom	DT-Product	DT-Water	(Product Thickness)	(Water Column)	(Gallons/ft x Water Column)
					DTP-DTW	DTB-DTW	Pore Volume
11/16/2014	15:25	29.55		22.43		7.12	1.16

(0.75" = 0.023 gal/ft) (1" = 0.041 gal/ft) (1.5" = 0.092 gal/ft) (2" = 0.163 gal/ft) (3" = 0.367 gal/ft) (4" = 0.653 gal/ft) (6" = 1.469 gal/ft) (8" = 2.611 gal/ft)

### Water Quality Data

Purge Method	Time	Purge Vol (gal)	Flowrate l/min	pH	Temp (C)	E Cond (uS/cm)	DO (mg/L)	EH	Turbidity
(2) Peristaltic Pump	2:03:00 PM	0.5	0.2	6.86	15.34	1163	4.24	79.4	9.45
	2:21:00 PM	1	0.2	7.02	16.89	1294	0.89	110.6	2.65
	2:40:00 PM	1.5	0.2	7.01	17.01	1293	0.76	110.9	2.01
Final Field Parameters	2:50:00 PM	1.75	0.2	7.04	17.03	1294	0.79	111	2.06

Methods: (1) Submersible Pump (2) Peristaltic Pump (3) Disposable Bailer (4) Vacuum Pump (5) Dedicated Bailer (6) Inertia Pump (7) Other (specify)

### Water Quality Observations:

Clear.

### Sample Information

Sampling Method	Sample Type	Sampling Time	Container Code/Preservative	#	Filtered
(2) Peristaltic Pump	Groundwater	2:50:00 PM	VOA-Glass	3	No
			Amber Glass		
			White Poly		
			Yellow Poly		
			Green Poly		
			Red Total Poly		
			Red Dissolved Poly		
			Total Bottles		3

### General Sampling Comments

Signature \_\_\_\_\_

# ATTACHMENT B

LABORATORY RESULTS





# Specialty Analytical

11711 SE Capps Road, Ste B  
Clackamas, Oregon 97015  
TEL: 503-607-1331 FAX: 503-607-1336  
Website: [www.specialtyanalytical.com](http://www.specialtyanalytical.com)

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November 24, 2014

Justin Pounds  
Maul Foster & Alongi  
400 E. Mill Plain Blvd.  
Suite 400  
Vancouver, WA 98660  
TEL: (360) 694-2691  
FAX (360) 906-1958  
RE: Port of Sunnyside / 0346.04.08/02

Dear Justin Pounds:

Order No.: 1411120

Specialty Analytical received 7 sample(s) on 11/19/2014 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications, except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

A handwritten signature in black ink, appearing to read "Marty French". The signature is stylized and cursive.

Marty French  
Lab Director

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-001  
**Client Sample ID:** MW08

**Collection Date:** 11/17/2014 9:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
1,1,1-Trichloroethane	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
1,1-Dichloroethane	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
1,1-Dichloropropene	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
1,2,3-Trichloropropane	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
1,2-Dichloroethane	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
1,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
1,3-Dichloropropane	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
2,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
2-Butanone	ND	10.0		µg/L	1	11/20/2014 1:02:00 PM
2-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
2-Hexanone	ND	10.0		µg/L	1	11/20/2014 1:02:00 PM
4-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
4-Isopropyltoluene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	11/20/2014 1:02:00 PM
Acetone	40.9	10.0		µg/L	1	11/20/2014 1:02:00 PM
Acrylonitrile	ND	5.00		µg/L	1	11/20/2014 1:02:00 PM
Benzene	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
Bromobenzene	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
Bromochloromethane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Bromodichloromethane	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
Bromoform	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Bromomethane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Carbon Disulfide	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Carbon tetrachloride	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
Chlorobenzene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM



# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-001  
**Client Sample ID:** MW08

**Collection Date:** 11/17/2014 9:00:00 AM

**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
Chloroethane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Chloroform	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
Chloromethane	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
cis-1,2-Dichloroethene	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
cis-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Dibromomethane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Dichlorodifluoromethane	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
Ethylbenzene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
Hexachlorobutadiene	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Isopropylbenzene	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
m,p-Xylene	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Methyl tert-butyl ether	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
Methylene Chloride	ND	20.0		µg/L	1	11/20/2014 1:02:00 PM
Naphthalene	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
n-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
n-Propylbenzene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
o-Xylene	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
sec-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
Styrene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
tert-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
Tetrachloroethene	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Toluene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
trans-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 1:02:00 PM
Trichloroethene	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
Trichlorofluoromethane	ND	1.00		µg/L	1	11/20/2014 1:02:00 PM
Vinyl Chloride	ND	0.300		µg/L	1	11/20/2014 1:02:00 PM
Surr: 1,2-Dichloroethane-d4	53.2	72.2-129	SMI	%REC	1	11/20/2014 1:02:00 PM
Surr: 4-Bromofluorobenzene	109	73.5-125		%REC	1	11/20/2014 1:02:00 PM
Surr: Dibromofluoromethane	66.2	58.8-148		%REC	1	11/20/2014 1:02:00 PM
Surr: Toluene-d8	82.8	79.8-137		%REC	1	11/20/2014 1:02:00 PM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-002  
**Client Sample ID:** MW17

**Collection Date:** 11/17/2014 3:10:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
1,1,1-Trichloroethane	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
1,1-Dichloroethane	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
1,1-Dichloropropene	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
1,2,3-Trichloropropane	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
1,2-Dichloroethane	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
1,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
1,3-Dichloropropane	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
2,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
2-Butanone	60.0	10.0		µg/L	1	11/20/2014 1:37:00 PM
2-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
2-Hexanone	ND	10.0		µg/L	1	11/20/2014 1:37:00 PM
4-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
4-Isopropyltoluene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	11/20/2014 1:37:00 PM
Acetone	98.0	10.0		µg/L	1	11/20/2014 1:37:00 PM
Acrylonitrile	ND	5.00		µg/L	1	11/20/2014 1:37:00 PM
Benzene	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
Bromobenzene	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
Bromochloromethane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
Bromodichloromethane	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
Bromoform	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
Bromomethane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
Carbon Disulfide	5.64	1.00		µg/L	1	11/20/2014 1:37:00 PM
Carbon tetrachloride	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
Chlorobenzene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-002  
**Client Sample ID:** MW17

**Collection Date:** 11/17/2014 3:10:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
Chloroethane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
Chloroform	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
Chloromethane	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
cis-1,2-Dichloroethene	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
cis-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
Dibromomethane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
Dichlorodifluoromethane	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
Ethylbenzene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
Hexachlorobutadiene	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
Isopropylbenzene	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
m,p-Xylene	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
Methyl tert-butyl ether	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
Methylene Chloride	ND	20.0		µg/L	1	11/20/2014 1:37:00 PM
Naphthalene	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
n-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
n-Propylbenzene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
o-Xylene	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
sec-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
Styrene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
tert-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
Tetrachloroethene	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
Toluene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
trans-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 1:37:00 PM
Trichloroethene	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
Trichlorofluoromethane	ND	1.00		µg/L	1	11/20/2014 1:37:00 PM
Vinyl Chloride	ND	0.300		µg/L	1	11/20/2014 1:37:00 PM
Surr: 1,2-Dichloroethane-d4	109	72.2-129		%REC	1	11/20/2014 1:37:00 PM
Surr: 4-Bromofluorobenzene	105	73.5-125		%REC	1	11/20/2014 1:37:00 PM
Surr: Dibromofluoromethane	110	58.8-148		%REC	1	11/20/2014 1:37:00 PM
Surr: Toluene-d8	83.0	79.8-137		%REC	1	11/20/2014 1:37:00 PM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-003  
**Client Sample ID:** MW17-Dup

**Collection Date:** 11/17/2014 3:10:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
1,1,1-Trichloroethane	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
1,1-Dichloroethane	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
1,1-Dichloropropene	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
1,2,3-Trichloropropane	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
1,2-Dichloroethane	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
1,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
1,3-Dichloropropane	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
2,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
2-Butanone	54.8	10.0		µg/L	1	11/20/2014 2:13:00 PM
2-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
2-Hexanone	ND	10.0		µg/L	1	11/20/2014 2:13:00 PM
4-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
4-Isopropyltoluene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	11/20/2014 2:13:00 PM
Acetone	153	10.0		µg/L	1	11/20/2014 2:13:00 PM
Acrylonitrile	ND	5.00		µg/L	1	11/20/2014 2:13:00 PM
Benzene	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
Bromobenzene	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
Bromochloromethane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
Bromodichloromethane	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
Bromoform	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
Bromomethane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
Carbon Disulfide	5.06	1.00		µg/L	1	11/20/2014 2:13:00 PM
Carbon tetrachloride	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
Chlorobenzene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-003  
**Client Sample ID:** MW17-Dup

**Collection Date:** 11/17/2014 3:10:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
Chloroethane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
Chloroform	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
Chloromethane	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
cis-1,2-Dichloroethene	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
cis-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
Dibromomethane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
Dichlorodifluoromethane	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
Ethylbenzene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
Hexachlorobutadiene	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
Isopropylbenzene	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
m,p-Xylene	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
Methyl tert-butyl ether	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
Methylene Chloride	ND	20.0		µg/L	1	11/20/2014 2:13:00 PM
Naphthalene	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
n-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
n-Propylbenzene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
o-Xylene	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
sec-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
Styrene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
tert-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
Tetrachloroethene	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
Toluene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
trans-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 2:13:00 PM
Trichloroethene	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
Trichlorofluoromethane	ND	1.00		µg/L	1	11/20/2014 2:13:00 PM
Vinyl Chloride	ND	0.300		µg/L	1	11/20/2014 2:13:00 PM
Surr: 1,2-Dichloroethane-d4	113	72.2-129		%REC	1	11/20/2014 2:13:00 PM
Surr: 4-Bromofluorobenzene	106	73.5-125		%REC	1	11/20/2014 2:13:00 PM
Surr: Dibromofluoromethane	111	58.8-148		%REC	1	11/20/2014 2:13:00 PM
Surr: Toluene-d8	82.6	79.8-137		%REC	1	11/20/2014 2:13:00 PM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-004  
**Client Sample ID:** MW19

**Collection Date:** 11/17/2014 12:45:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
1,1,1-Trichloroethane	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
1,1-Dichloroethane	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
1,1-Dichloropropene	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
1,2,3-Trichloropropane	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
1,2-Dichloroethane	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
1,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
1,3-Dichloropropane	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
2,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
2-Butanone	ND	10.0		µg/L	1	11/20/2014 2:50:00 PM
2-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
2-Hexanone	ND	10.0		µg/L	1	11/20/2014 2:50:00 PM
4-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
4-Isopropyltoluene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	11/20/2014 2:50:00 PM
Acetone	18.9	10.0		µg/L	1	11/20/2014 2:50:00 PM
Acrylonitrile	ND	5.00		µg/L	1	11/20/2014 2:50:00 PM
Benzene	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
Bromobenzene	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
Bromochloromethane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Bromodichloromethane	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
Bromoform	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Bromomethane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Carbon Disulfide	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Carbon tetrachloride	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
Chlorobenzene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-004  
**Client Sample ID:** MW19

**Collection Date:** 11/17/2014 12:45:00 PM

**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
Chloroethane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Chloroform	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
Chloromethane	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
cis-1,2-Dichloroethene	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
cis-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Dibromomethane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Dichlorodifluoromethane	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
Ethylbenzene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
Hexachlorobutadiene	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Isopropylbenzene	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
m,p-Xylene	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Methyl tert-butyl ether	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
Methylene Chloride	ND	20.0		µg/L	1	11/20/2014 2:50:00 PM
Naphthalene	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
n-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
n-Propylbenzene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
o-Xylene	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
sec-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
Styrene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
tert-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
Tetrachloroethene	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Toluene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
trans-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 2:50:00 PM
Trichloroethene	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
Trichlorofluoromethane	ND	1.00		µg/L	1	11/20/2014 2:50:00 PM
Vinyl Chloride	ND	0.300		µg/L	1	11/20/2014 2:50:00 PM
Surr: 1,2-Dichloroethane-d4	113	72.2-129		%REC	1	11/20/2014 2:50:00 PM
Surr: 4-Bromofluorobenzene	103	73.5-125		%REC	1	11/20/2014 2:50:00 PM
Surr: Dibromofluoromethane	63.6	58.8-148		%REC	1	11/20/2014 2:50:00 PM
Surr: Toluene-d8	83.9	79.8-137		%REC	1	11/20/2014 2:50:00 PM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-005  
**Client Sample ID:** MW20

**Collection Date:** 11/17/2014 2:50:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>				Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
1,1,1-Trichloroethane	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
1,1-Dichloroethane	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
1,1-Dichloropropene	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
1,2,3-Trichloropropane	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
1,2-Dichloroethane	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
1,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
1,3-Dichloropropane	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
2,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
2-Butanone	188	10.0		µg/L	1	11/20/2014 3:26:00 PM
2-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
2-Hexanone	21.6	10.0		µg/L	1	11/20/2014 3:26:00 PM
4-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
4-Isopropyltoluene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	11/20/2014 3:26:00 PM
Acetone	133	10.0		µg/L	1	11/20/2014 3:26:00 PM
Acrylonitrile	ND	5.00		µg/L	1	11/20/2014 3:26:00 PM
Benzene	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
Bromobenzene	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
Bromochloromethane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
Bromodichloromethane	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
Bromoform	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
Bromomethane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
Carbon Disulfide	1.52	1.00		µg/L	1	11/20/2014 3:26:00 PM
Carbon tetrachloride	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
Chlorobenzene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM



# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-005  
**Client Sample ID:** MW20

**Collection Date:** 11/17/2014 2:50:00 PM

**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>				Analyst: <b>CK</b>
Chloroethane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
Chloroform	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
Chloromethane	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
cis-1,2-Dichloroethene	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
cis-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
Dibromomethane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
Dichlorodifluoromethane	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
Ethylbenzene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
Hexachlorobutadiene	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
Isopropylbenzene	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
m,p-Xylene	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
Methyl tert-butyl ether	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
Methylene Chloride	ND	20.0		µg/L	1	11/20/2014 3:26:00 PM
Naphthalene	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
n-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
n-Propylbenzene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
o-Xylene	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
sec-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
Styrene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
tert-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
Tetrachloroethene	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
Toluene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
trans-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 3:26:00 PM
Trichloroethene	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
Trichlorofluoromethane	ND	1.00		µg/L	1	11/20/2014 3:26:00 PM
Vinyl Chloride	ND	0.300		µg/L	1	11/20/2014 3:26:00 PM
Surr: 1,2-Dichloroethane-d4	103	72.2-129		%REC	1	11/20/2014 3:26:00 PM
Surr: 4-Bromofluorobenzene	104	73.5-125		%REC	1	11/20/2014 3:26:00 PM
Surr: Dibromofluoromethane	102	58.8-148		%REC	1	11/20/2014 3:26:00 PM
Surr: Toluene-d8	87.4	79.8-137		%REC	1	11/20/2014 3:26:00 PM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-006  
**Client Sample ID:** Drum

**Collection Date:** 11/17/2014 3:30:00 PM  
**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
1,1,1,2-Tetrachloroethane	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
1,1,1-Trichloroethane	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
1,1-Dichloroethane	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
1,1-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
1,1-Dichloropropene	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
1,2,3-Trichloropropane	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
1,2-Dichloroethane	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
1,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
1,3-Dichloropropane	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
2,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
2-Butanone	69.8	10.0		µg/L	1	11/20/2014 4:02:00 PM
2-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
2-Hexanone	13.0	10.0		µg/L	1	11/20/2014 4:02:00 PM
4-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
4-Isopropyltoluene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	11/20/2014 4:02:00 PM
Acetone	130	10.0		µg/L	1	11/20/2014 4:02:00 PM
Acrylonitrile	ND	5.00		µg/L	1	11/20/2014 4:02:00 PM
Benzene	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
Bromobenzene	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
Bromochloromethane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
Bromodichloromethane	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
Bromoform	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
Bromomethane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
Carbon Disulfide	1.64	1.00		µg/L	1	11/20/2014 4:02:00 PM
Carbon tetrachloride	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
Chlorobenzene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-006  
**Client Sample ID:** Drum

**Collection Date:** 11/17/2014 3:30:00 PM

**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>				Analyst: <b>CK</b>
Chloroethane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
Chloroform	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
Chloromethane	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
cis-1,2-Dichloroethene	0.660	0.300		µg/L	1	11/20/2014 4:02:00 PM
cis-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
Dibromochloromethane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
Dibromomethane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
Dichlorodifluoromethane	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
Ethylbenzene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
Hexachlorobutadiene	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
Isopropylbenzene	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
m,p-Xylene	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
Methyl tert-butyl ether	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
Methylene Chloride	ND	20.0		µg/L	1	11/20/2014 4:02:00 PM
Naphthalene	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
n-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
n-Propylbenzene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
o-Xylene	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
sec-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
Styrene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
tert-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
Tetrachloroethene	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
Toluene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
trans-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 4:02:00 PM
Trichloroethene	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
Trichlorofluoromethane	ND	1.00		µg/L	1	11/20/2014 4:02:00 PM
Vinyl Chloride	ND	0.300		µg/L	1	11/20/2014 4:02:00 PM
Surr: 1,2-Dichloroethane-d4	108	72.2-129		%REC	1	11/20/2014 4:02:00 PM
Surr: 4-Bromofluorobenzene	104	73.5-125		%REC	1	11/20/2014 4:02:00 PM
Surr: Dibromofluoromethane	67.4	58.8-148		%REC	1	11/20/2014 4:02:00 PM
Surr: Toluene-d8	84.3	79.8-137		%REC	1	11/20/2014 4:02:00 PM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-007  
**Client Sample ID:** Trip Blank

**Collection Date:** 11/17/2014

**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>				Analyst: <b>CK</b>
1,1,1,2-Tetrachloroethane	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
1,1,1-Trichloroethane	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
1,1,2,2-Tetrachloroethane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
1,1,2-Trichloroethane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
1,1-Dichloroethane	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
1,1-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
1,1-Dichloropropene	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
1,2,3-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
1,2,3-Trichloropropane	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
1,2,4-Trichlorobenzene	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
1,2,4-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
1,2-Dibromo-3-chloropropane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
1,2-Dibromoethane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
1,2-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
1,2-Dichloroethane	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
1,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
1,3,5-Trimethylbenzene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
1,3-Dichlorobenzene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
1,3-Dichloropropane	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
1,4-Dichlorobenzene	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
2,2-Dichloropropane	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
2-Butanone	ND	10.0		µg/L	1	11/20/2014 11:51:00 AM
2-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
2-Hexanone	ND	10.0		µg/L	1	11/20/2014 11:51:00 AM
4-Chlorotoluene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
4-Isopropyltoluene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
4-Methyl-2-pentanone	ND	20.0		µg/L	1	11/20/2014 11:51:00 AM
Acetone	ND	10.0		µg/L	1	11/20/2014 11:51:00 AM
Acrylonitrile	ND	5.00		µg/L	1	11/20/2014 11:51:00 AM
Benzene	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
Bromobenzene	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
Bromochloromethane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Bromodichloromethane	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
Bromoform	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Bromomethane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Carbon Disulfide	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Carbon tetrachloride	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
Chlorobenzene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM

# Specialty Analytical

Date Reported: 24-Nov-14

**CLIENT:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02  
**Lab ID:** 1411120-007  
**Client Sample ID:** Trip Blank

**Collection Date:** 11/17/2014

**Matrix:** GROUNDWATER

Analyses	Result	RL	Qual	Unit	DF	Date Analyzed
<b>VOLATILE ORGANICS BY GC/MS</b>		<b>SW8260B</b>		Analyst: <b>CK</b>		
Chloroethane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Chloroform	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
Chloromethane	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
cis-1,2-Dichloroethene	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
cis-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
Dibromochloromethane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Dibromomethane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Dichlorodifluoromethane	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
Ethylbenzene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
Hexachlorobutadiene	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Isopropylbenzene	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
m,p-Xylene	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Methyl tert-butyl ether	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
Methylene Chloride	ND	20.0		µg/L	1	11/20/2014 11:51:00 AM
Naphthalene	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
n-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
n-Propylbenzene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
o-Xylene	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
sec-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
Styrene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
tert-Butylbenzene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
Tetrachloroethene	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Toluene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
trans-1,2-Dichloroethene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
trans-1,3-Dichloropropene	ND	0.500		µg/L	1	11/20/2014 11:51:00 AM
Trichloroethene	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
Trichlorofluoromethane	ND	1.00		µg/L	1	11/20/2014 11:51:00 AM
Vinyl Chloride	ND	0.300		µg/L	1	11/20/2014 11:51:00 AM
Surr: 1,2-Dichloroethane-d4	116	72.2-129		%REC	1	11/20/2014 11:51:00 AM
Surr: 4-Bromofluorobenzene	102	73.5-125		%REC	1	11/20/2014 11:51:00 AM
Surr: Dibromofluoromethane	110	58.8-148		%REC	1	11/20/2014 11:51:00 AM
Surr: Toluene-d8	84.0	79.8-137		%REC	1	11/20/2014 11:51:00 AM

Flush PDFFactory queue

Flush PDFFactory queue

# QC SUMMARY REPORT

WO#: 1411120

24-Nov-14

## Specialty Analytical

**Client:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02

**TestCode:** 8260\_25\_W

Sample ID: <b>CCV MSVWS-2005</b>	SampType: <b>CCV</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>CCV</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/19/2014</b>	SeqNo: <b>231522</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	42.0	0.500	40.00	0	105	80	120				
1,2-Dichloropropane	36.8	0.300	40.00	0	92.0	80	120				
Chloroform	32.6	0.300	40.00	0	81.6	80	120				
Ethylbenzene	35.9	0.500	40.00	0	89.8	80	120				
Toluene	34.0	0.500	40.00	0	85.1	80	120				
Vinyl Chloride	35.9	0.300	40.00	0	89.8	80	120				

Sample ID: <b>LCS MSVWS-2006</b>	SampType: <b>LCS</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/19/2014</b>	SeqNo: <b>231522</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	38.6	0.500	40.00	0	96.5	61.2	135				
Benzene	32.3	0.300	40.00	0	80.8	76.8	125				
Chlorobenzene	35.7	0.500	40.00	0	89.3	84.1	116				
Toluene	33.5	0.500	40.00	0	83.6	82	122				
Trichloroethene	36.5	0.300	40.00	0	91.2	68.5	124				

Sample ID: <b>1411120-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>MW08</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/19/2014</b>	SeqNo: <b>231524</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	41.8	0.500	40.00	0	104	47.8	165				
Benzene	36.5	0.300	40.00	0	91.2	71.5	118				

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery



# QC SUMMARY REPORT

WO#: 1411120

24-Nov-14

## Specialty Analytical

**Client:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02

**TestCode:** 8260\_25\_W

Sample ID: <b>1411120-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>MW08</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/19/2014</b>	SeqNo: <b>231524</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorobenzene	35.1	0.500	40.00	0	87.7	79.8	114				
Toluene	34.9	0.500	40.00	0.2300	86.6	79.6	121				
Trichloroethene	41.4	0.300	40.00	0	103	73.6	120				

Sample ID: <b>1411120-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>MW08</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/19/2014</b>	SeqNo: <b>231525</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	39.5	0.500	40.00	0	98.7	47.8	165	41.79	5.68	20
Benzene	35.4	0.300	40.00	0	88.6	71.5	118	36.46	2.87	20
Chlorobenzene	34.4	0.500	40.00	0	86.0	79.8	114	35.07	1.99	20
Toluene	34.0	0.500	40.00	0.2300	84.3	79.6	121	34.89	2.70	20
Trichloroethene	41.9	0.300	40.00	0	105	73.6	120	41.37	1.34	20

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/19/2014</b>	SeqNo: <b>231526</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1,2-Tetrachloroethane	ND	0.500									
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	1.00									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	R RPD outside accepted recovery limits	S Spike Recovery outside accepted recovery

# QC SUMMARY REPORT

WO#: 1411120

24-Nov-14

## Specialty Analytical

**Client:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02

**TestCode:** 8260\_25\_W

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/19/2014</b>	SeqNo: <b>231526</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethane	ND	0.300									
1,1-Dichloroethene	ND	0.500									
1,1-Dichloropropene	ND	0.300									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2,4-Trimethylbenzene	ND	0.500									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dichloroethane	ND	0.500									
1,2-Dichloropropane	ND	0.300									
1,3,5-Trimethylbenzene	ND	0.500									
1,3-Dichlorobenzene	ND	0.500									
1,3-Dichloropropane	ND	0.500									
1,4-Dichlorobenzene	ND	1.00									
2,2-Dichloropropane	ND	0.300									
2-Butanone	ND	10.0									
2-Chlorotoluene	ND	0.500									
2-Hexanone	ND	10.0									
4-Chlorotoluene	ND	0.500									
4-Isopropyltoluene	ND	0.500									
4-Methyl-2-pentanone	ND	20.0									
Acetone	ND	10.0									
Acrylonitrile	ND	5.00									
Benzene	ND	0.300									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted recovery

# QC SUMMARY REPORT

WO#: 1411120

24-Nov-14

## Specialty Analytical

**Client:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02

**TestCode:** 8260\_25\_W

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/19/2014</b>	SeqNo: <b>231526</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Bromobenzene	ND	0.300									
Bromochloromethane	ND	1.00									
Bromodichloromethane	ND	0.500									
Bromoform	ND	1.00									
Bromomethane	ND	1.00									
Carbon Disulfide	ND	1.00									
Carbon tetrachloride	ND	0.500									
Chlorobenzene	ND	0.500									
Chloroethane	ND	1.00									
Chloroform	ND	0.300									
Chloromethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.300									
cis-1,3-Dichloropropene	ND	0.500									
Dibromochloromethane	ND	1.00									
Dibromomethane	ND	1.00									
Dichlorodifluoromethane	ND	0.500									
Ethylbenzene	ND	0.500									
Hexachlorobutadiene	ND	1.00									
Isopropylbenzene	ND	0.300									
m,p-Xylene	ND	1.00									
Methyl tert-butyl ether	ND	0.500									
Methylene Chloride	ND	20.0									
Naphthalene	ND	1.00									
n-Butylbenzene	ND	0.500									
n-Propylbenzene	ND	0.500									
o-Xylene	ND	0.300									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted recovery

# QC SUMMARY REPORT

WO#: 1411120

24-Nov-14

## Specialty Analytical

**Client:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02

**TestCode:** 8260\_25\_W

Sample ID: <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/19/2014</b>	SeqNo: <b>231526</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
sec-Butylbenzene	ND	0.500									
Styrene	ND	0.500									
tert-Butylbenzene	ND	0.500									
Tetrachloroethene	ND	1.00									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
trans-1,3-Dichloropropene	ND	0.500									
Trichloroethene	ND	0.300									
Trichlorofluoromethane	ND	1.00									
Vinyl Chloride	ND	0.300									
Surr: 1,2-Dichloroethane-d4	123		100.0		123	72.2	129				
Surr: 4-Bromofluorobenzene	102		100.0		102	73.5	125				
Surr: Dibromofluoromethane	111		100.0		111	58.8	148				
Surr: Toluene-d8	87.8		100.0		87.8	79.8	137				

Sample ID: <b>CCV MSVWS-2005</b>	SampType: <b>CCV</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>CCV</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/20/2014</b>	SeqNo: <b>231539</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	59.5	0.500	60.00	0	99.2	80	120				
1,2-Dichloropropane	60.4	0.300	60.00	0	101	80	120				
Chloroform	53.2	0.300	60.00	0	88.7	80	120				
Ethylbenzene	53.9	0.500	60.00	0	89.9	80	120				
Toluene	52.7	0.500	60.00	0	87.8	80	120				

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery

# QC SUMMARY REPORT

WO#: 1411120

24-Nov-14

## Specialty Analytical

**Client:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02

**TestCode:** 8260\_25\_W

Sample ID: <b>CCV MSVWS-2005</b>	SampType: <b>CCV</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>CCV</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/20/2014</b>	SeqNo: <b>231539</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Vinyl Chloride	57.6	0.300	60.00	0	95.9	80	120				

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>CCB</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/20/2014</b>	SeqNo: <b>231540</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.500									
1,1,1-Trichloroethane	ND	0.500									
1,1,2,2-Tetrachloroethane	ND	1.00									
1,1,2-Trichloro-1,2,2-trifluoroethane	ND	1.00									
1,1,2-Trichloroethane	ND	1.00									
1,1-Dichloroethane	ND	0.300									
1,1-Dichloroethene	ND	0.500									
1,1-Dichloropropene	ND	0.300									
1,2,3-Trichlorobenzene	ND	1.00									
1,2,3-Trichloropropane	ND	0.500									
1,2,4-Trichlorobenzene	ND	1.00									
1,2,4-Trimethylbenzene	ND	0.500									
1,2-Dibromo-3-chloropropane	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichlorobenzene	ND	1.00									
1,2-Dichloroethane	ND	0.500									
1,2-Dichloropropane	ND	0.300									
1,3,5-Trimethylbenzene	ND	0.500									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted recovery

# QC SUMMARY REPORT

WO#: 1411120

24-Nov-14

## Specialty Analytical

**Client:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02

**TestCode:** 8260\_25\_W

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>CCB</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/20/2014</b>	SeqNo: <b>231540</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3-Dichlorobenzene	ND	0.500									
1,3-Dichloropropane	ND	0.500									
1,4-Dichlorobenzene	ND	1.00									
2,2-Dichloropropane	ND	0.300									
2-Butanone	ND	10.0									
2-Chlorotoluene	ND	0.500									
2-Hexanone	ND	10.0									
4-Chlorotoluene	ND	0.500									
4-Isopropyltoluene	ND	0.500									
4-Methyl-2-pentanone	ND	20.0									
Acetone	ND	10.0									
Acrylonitrile	ND	5.00									
Benzene	ND	0.300									
Bromobenzene	ND	0.300									
Bromochloromethane	ND	1.00									
Bromodichloromethane	ND	0.500									
Bromoform	ND	1.00									
Bromomethane	ND	1.00									
Carbon Disulfide	ND	1.00									
Carbon tetrachloride	ND	0.500									
Chlorobenzene	ND	0.500									
Chloroethane	ND	1.00									
Chloroform	ND	0.300									
Chloromethane	ND	0.500									
cis-1,2-Dichloroethene	ND	0.300									
cis-1,3-Dichloropropene	ND	0.500									

**Qualifiers:** B Analyte detected in the associated Method Blank  
 O RSD is greater than RSDlimit

H Holding times for preparation or analysis exceeded  
 R RPD outside accepted recovery limits

ND Not Detected at the Reporting Limit  
 S Spike Recovery outside accepted recovery

# QC SUMMARY REPORT

WO#: 1411120

24-Nov-14

## Specialty Analytical

**Client:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02

**TestCode:** 8260\_25\_W

Sample ID: CCB	SampType: CCB	TestCode: 8260_25_W	Units: µg/L	Prep Date:	RunNo: 17782						
Client ID: CCB	Batch ID: R17782	TestNo: SW8260B		Analysis Date: 11/20/2014	SeqNo: 231540						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Dibromochloromethane	ND	1.00									
Dibromomethane	ND	1.00									
Dichlorodifluoromethane	ND	0.500									
Ethylbenzene	ND	0.500									
Hexachlorobutadiene	ND	1.00									
Isopropylbenzene	ND	0.300									
m,p-Xylene	ND	1.00									
Methyl tert-butyl ether	ND	0.500									
Methylene Chloride	ND	20.0									
Naphthalene	ND	1.00									
n-Butylbenzene	ND	0.500									
n-Propylbenzene	ND	0.500									
o-Xylene	ND	0.300									
sec-Butylbenzene	ND	0.500									
Styrene	ND	0.500									
tert-Butylbenzene	ND	0.500									
Tetrachloroethene	ND	1.00									
Toluene	ND	0.500									
trans-1,2-Dichloroethene	ND	0.500									
trans-1,3-Dichloropropene	ND	0.500									
Trichloroethene	ND	0.300									
Trichlorofluoromethane	ND	1.00									
Vinyl Chloride	ND	0.300									
Surr: 1,2-Dichloroethane-d4	117		100.0		117	72.2	129				
Surr: 4-Bromofluorobenzene	103		100.0		103	73.5	125				
Surr: Dibromofluoromethane	109		100.0		109	58.8	148				

**Qualifiers:** B Analyte detected in the associated Method Blank H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
 O RSD is greater than RSDlimit R RPD outside accepted recovery limits S Spike Recovery outside accepted recovery

# QC SUMMARY REPORT

WO#: 1411120

24-Nov-14

## Specialty Analytical

**Client:** Maul Foster & Alongi  
**Project:** Port of Sunnyside / 0346.04.08/02

**TestCode:** 8260\_25\_W

Sample ID: <b>CCB</b>	SampType: <b>CCB</b>	TestCode: <b>8260_25_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>17782</b>						
Client ID: <b>CCB</b>	Batch ID: <b>R17782</b>	TestNo: <b>SW8260B</b>		Analysis Date: <b>11/20/2014</b>	SeqNo: <b>231540</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: Toluene-d8	83.2		100.0		83.2	79.8	137				
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## KEY TO FLAGS

Rev. May 12, 2010

- A This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
- A1 This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
- A2 This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
- A3 The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
- A4 The product appears to be aged or degraded diesel.
- B The blank exhibited a positive result great than the reporting limit for this compound.
- CN See Case Narrative.
- D Result is based from a dilution.
- E Result exceeds the calibration range for this compound. The result should be considered as estimate.
- F The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
- G Result may be biased high due to biogenic interferences. Clean up is recommended.
- H Sample was analyzed outside recommended holding time.
- HT At clients request, samples was analyzed outside of recommended holding time.
- J The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
- K Diesel result is biased high due to amount of Oil contained in the sample.
- L Diesel result is biased high due to amount of Gasoline contained in the sample.
- M Oil result is biased high due to amount of Diesel contained in the sample.
- MC Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
- MI Result is outside control limits due to matrix interference.
- MSA Value determined by Method of Standard Addition.
- O Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
- Q Detection levels elevated due to sample matrix.
- R RPD control limits were exceeded.
- RF Duplicate failed due to result being at or near the method-reporting limit.
- RP Matrix spike values exceed established QC limits; post digestion spike is in control.
- S Recovery is outside control limits.
- SC Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
- \* The result for this parameter was greater than the maximum contaminant level of the TCLP regulatory limit.



# ATTACHMENT C

DATA VALIDATION MEMORANDUM



# DATA QUALITY ASSURANCE/QUALITY CONTROL REVIEW

PROJECT NO. 0346.04.08 | NOVEMBER 24, 2014 | PORT OF SUNNYSIDE

This report presents the results of the data quality assurance/quality control review of the analytical results for groundwater samples collected by the Maul Foster & Alongi, Inc. (MFA) project team on the former Cream Wine/Carnation property located at 111 East Lincoln Avenue in Sunnyside, Washington. The samples were collected in November 2014.

Specialty Analytical, Inc. (SA) performed the analyses. SA report number 1411120 was reviewed. The analyses performed and samples analyzed are listed below. A data validation tracking sheet associated with the analysis, documenting data review, is attached.

Analysis	Reference
Volatile Organic Compounds	USEPA 8260B

USEPA = U.S. Environmental Protection Agency.

Samples Analyzed
<b>Report 1411120</b>
MW08
MW17
MW17-Dup
MW19
MW20
Drum
Trip Blank

## DATA QUALIFICATIONS

Analytical results were evaluated according to applicable sections of USEPA procedures (USEPA, 2008) and appropriate laboratory and method-specific guidelines (SA 2014; USEPA, 1986).

The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

## HOLDING TIMES, PRESERVATION, AND SAMPLE STORAGE

### Holding Times

Extractions and analyses were performed within the recommended holding time criteria.

### Preservation and Sample Storage

The samples were preserved and stored appropriately.

## BLANKS

### Method Blanks

Laboratory method blank analyses were performed at the required frequencies. For purposes of data qualification, the method blanks were associated with all samples prepared in the analytical batch. All laboratory method blanks were non-detect.

### Trip Blanks

A trip blank was submitted with this sample delivery group (Trip Blank). The trip blank was non-detect for all target analytes.

### Equipment Rinsate Blanks

Equipment rinsate blanks were not required for this sampling event, as all samples were collected using dedicated, single-use equipment.

### Continuing Calibration Blanks

A continuing calibration blank (CCB) was provided for USEPA Method 8260B analysis. The CCB was non-detect.

## SURROGATE RECOVERY RESULTS

The samples were spiked with surrogate compounds to evaluate laboratory performance on individual samples.

In report 1411120, USEPA Method 8260B surrogate 1,2-dichloroethane-d4 had 53.2% percent recovery for sample MW08. The remaining surrogate results were within acceptance limits; thus, no results were qualified.

All remaining surrogate recoveries were within acceptance limits.

## MATRIX SPIKE/MATRIX SPIKE DUPLICATE RESULTS

Matrix spike/matrix spike duplicate (MS/MSD) results are used to evaluate laboratory precision and accuracy. All MS/MSD samples were extracted and analyzed at the required frequency. All MS/MSD recoveries were within acceptance limits for percent recovery and relative percent differences (RPDs).

## LABORATORY DUPLICATE RESULTS

Duplicate results are used to evaluate laboratory precision. Laboratory duplicate samples were not reported for 1411120.

## LABORATORY CONTROL SAMPLE RESULTS

A laboratory control sample (LCS) is spiked with target analytes to provide information on laboratory precision and accuracy. An LCS sample was extracted and analyzed at the required frequency. All LCS analytes were within acceptance limits for percent recovery.

## FIELD DUPLICATE RESULTS

Field duplicate samples measure both field and laboratory precision. One field duplicate was submitted for analysis (MW17/MW17-Dup). MFA uses acceptance criteria of 100 percent RPD for results that are less than five times the method reporting limit, or 50 percent RPD for results that are greater than five times the method reporting limit. Non-detect data are not used in the evaluation of field duplicate results. All analytes were within the acceptance criteria.

## CONTINUING CALIBRATION VERIFICATION RESULTS

Continuing calibration verification (CCV) results are used to demonstrate instrument precision and accuracy through the end of the sample batch. All CCVs were within acceptance limits for percent recovery.

## REPORTING LIMITS

SA used routine reporting limits for non-detect results, except when samples required dilutions because of high analyte concentrations and/or matrix interferences.

## DATA PACKAGE

The data packages were reviewed for transcription errors, omissions, and anomalies.

A sample collection date was not indicated on the chain of custody for sample Trip Blank. A collection date of 11/17/2014 was assigned to the trip blank at the laboratory, based on the collection date of the remaining samples.

Sample collection times recorded on the chain of custody for MW17 and MW17-DUP were corrected from 11:00 a.m. to 15:10 p.m. after samples were received by the laboratory. The correct sample collection times are shown in the report.

No additional issues were found.

## REFERENCES

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- SA. 2014. Quality assurance manual. Specialty Analytical, Inc., Clackamas, Oregon.
- USEPA. 1986. Test methods for evaluating solid waste: physical/chemical methods. EPA-530/SW-846. U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. September (revision 6, February 2007).
- USEPA. 2008. USEPA contract laboratory program, national functional guidelines for organics data review. EPA 540/R-08/01. U.S. Environmental Protection Agency, Office of Emergency and Remedial Response. June.

# DATA VALIDATION TRACKING

This document tracks Stage 2A validation completion for the analysis indicated below.

Lab Report	1411120
Analysis/Method	VOCs/USEPA 8260B
Batch Number(s)	R17782

Reviewer	MEB
Date	11/24/2014

	Validation Area	Acceptable Yes/No/NA/N	Comments	Q
Sample	Temperature	Yes		
	Holding Time	Yes		
	Trip Blank	Yes		
	Field/Eq. Blank	NA		
	Field Dup RPD	Yes		
Calibr	CCB	Yes		
	ICV	NR		
	CCV	Yes		
Batch	Method Blank	Yes		
	LCS/LCSD %	Yes		
	LCS/LCSD RPD	NA		
	Lab Dup RPD	NA		
	MS/MSD %	Yes		
	MS/MSD RPD	Yes		
General	Dilution	Yes		
	Reporting Limit	Yes		
	MDL	NA		
	Surrogates	No	1,2-dichloroethane-d4 = 53.2% for MW08. Remaining surrogates are OK. No qualification.	
Dioxin	Labeled Analog	NA		
	EMPC	NA		
	2378-TCDF Conf	NA		

Samples reviewed (in bold font):			
MW08	MW17-Dup	MW20	Trip Blank
<b>MW17</b>	<b>MW19</b>	<b>Drum</b>	-

<b>Notes:</b>		
<p><b>Definitions:</b></p> <p>Calibr. = calibration.</p> <p>CCB = continuing calibration blank</p> <p>CCV = continuing calibration verification.</p> <p>EMPC = estimated maximum potential concentration.</p> <p>ICV = initial calibration verification results</p> <p>LCS/LCSD = laboratory control sample/laboratory control sample duplicate.</p> <p>MDL = method detection limit.</p> <p>MS/MSD = matrix spike/matrix spike duplicate.</p> <p>NA = not applicable.</p> <p>NR = not reported.</p> <p>Q = qualifier.</p> <p>RPD = relative percent difference.</p> <p>VOC = volatile organic compound.</p> <p>USEPA = U.S. Environmental Protection Agency.</p>		