

**FIRST QUARTER 2011
GROUNDWATER MONITORING REPORT**

**FORMER MOLALLA KWIK GAS
305 WEST MAIN STREET
MOLALLA, OREGON
DEQ FILE No.: 03-05-461**

ECN PROJECT No. 05-106



May 26, 2011



ENVIRONMENTAL COMPLIANCE NORTHWEST

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May 26, 2011
ECN Project No. 05-106

Mr. Jason Powell
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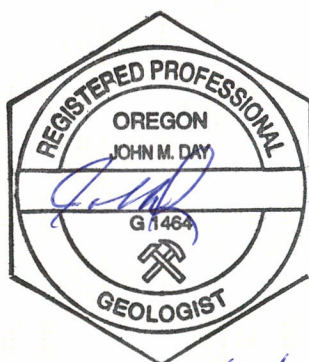
**SUBJECT: First Quarter 2011
Groundwater Monitoring Report
Former Molalla Kwik Gas
305 West Main Street
Molalla, Oregon
DEQ LUST File No.: 03-05-461**

Dear Mr. Powell:

Environmental Compliance Northwest, Inc., (ECN) is pleased to submit this Groundwater Monitoring Report for the above referenced facility. We hope this report meets your needs at this time. If you should require additional information, please contact us at 503-372-9760.

Sincerely,

ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.



Exp. 10/31/11

John M. Day, RG
Principal Geologist
President

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1.0 INTRODUCTION

This report describes results of the First Quarter 2011 groundwater monitoring and sampling activities conducted at the former Kwik Gas service station located at 305 West Main Street in Molalla, Oregon (Figure 1).

2.0 SITE DESCRIPTION

The site is located on the north side of West Main Street, approximately 100 feet west of Kennel Avenue near downtown Molalla and was formerly used as a fuel service station. The site is currently occupied by an automobile detail facility. A former service station building is located in the southeastern portion of the site. The UST cavity, formerly containing four 10,000-gallon tanks is located in the northwestern portion of the site and a former fuel dispenser island is located south of the station building. The site and surrounding area are relatively flat generally covered with gravel, with the exception of the former fuel dispenser island area, which is paved with asphalt. The locations of pertinent site features are shown on Figure 2.

3.0 BACKGROUND

The following background information was obtained from DEQ files, verbal discussions with Powell Distributing Company (Powell) personnel, and activities observed and conducted by ECN. The facility operated since at least 1977 until 2005 and consisted of a retail fueling and automotive repair facility. The former UST system consisted of three gasoline USTs and one diesel UST, located in the northwest corner of the site and one fuel dispenser island, located in the southern portion of the site (Figure 2). In April 2005, an apparent leak was detected in the underground product piping. A portion of the piping was uncovered and several small holes were observed in the piping.

In March 2005, ECN conducted initial site assessment activities consisting of drilling two hand auger borings adjacent to the fuel product piping. Subsurface soil sampling indicated the presence of petroleum hydrocarbon impact to soil in to the maximum explored depth of 8.5 feet below ground surface (bgs).

Also in March 2005, ECN conducted site assessment activities, including drilling a total of nine soil borings. Seven borings were completed adjacent and in the vicinity of the underground product piping trench. Two of the borings were completed adjacent to the former fuel island. Petroleum hydrocarbons were detected in soil samples collected from each boring, with the exception of the boring completed located near the northwest corner of the former service station

building. Grab groundwater samples were collected from four of the borings. Petroleum hydrocarbons were detected in each grab groundwater sample collected.

Between September and October 2006, the UST system (consisting of four USTs and underground product piping) were decommissioned by removal. Two soil samples were collected from beneath each UST. In addition, one soil sample was collected from the south sidewall of the UST cavity and from beneath each of the three former fuel dispensers.

Petroleum hydrocarbons were not detected the soil samples collected from beneath the former USTs, with the exception of the southeastern portion of the former UST cavity, near the location where the product piping entered the cavity. Gasoline- and diesel-range hydrocarbons were detected in the soil samples collected from the former fuel dispensers (ECN, 2007).

A total of four monitoring wells (MW-1 through MW-4) were installed and two soil borings (B-101 and B-102) were completed in May 2007. The locations of the monitoring wells are shown on Figures 2 and 3. Borings B-101 and B-102 were drilled north and east of the existing building, respectively, to further define soil and groundwater impacts. Laboratory results indicated that the highest petroleum hydrocarbons were detected in the samples collected from MW-4, located adjacent to the former underground product piping. Lower petroleum hydrocarbon concentrations were detected in the other three monitoring wells, as well as in boring B-102 (ECN, 2010a).

Groundwater monitoring has been conducted at the site since the monitoring wells were installed.

A work plan for additional site assessment activities, including installation of two additional monitoring wells, and a proposal for risk-based corrective action plan (RBCAP) development was submitted to DEQ on December 10, 2010. In February 2011, DEQ responded, generally agreeing with the work plan and requested installation of soil vapor sampling points to further assess the vapor intrusion to building exposure pathway. The additional field activities were conducted in April 2011. Due to rainfall and shallow groundwater levels, it was not feasible to collect soil vapor samples. Soil vapor sampling will be conducted in summer 2011. The results will presented in an upcoming report.

4.0 FIELD ACTIVITIES

Field procedures for the First Quarter 2011 groundwater monitoring and sampling were performed in accordance with DEQ guidelines. On March 30, 2011, depth to groundwater was

measured in monitoring wells MW-1 through MW-4 and, in accordance with the February 2011 DEQ letter, groundwater samples were collected monitoring wells MW-1 and MW-4. Prior to purging and sampling, the depth to water in the wells was measured from a permanent mark on top the well casing to the nearest 0.01-foot using an electronic water level indicator. The depth to water and top of casing elevation data were used to calculate the groundwater elevation in each well in reference to mean sea level (MSL). The survey data and historic groundwater elevation measurements collected through the First Quarter 2011 monitoring event are presented in Table 1.

Prior to sample collection, monitoring wells were purged of at least three casing volumes. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in the well. The collected water sample was then transferred from the bailer into laboratory-supplied containers.

5.0 ANALYTICAL TEST METHODS

The groundwater sample collected during the First Quarter 2011 monitoring event from MW-1 was analyzed for gasoline-range hydrocarbons by Northwest Method NWTPH-Gx) as well as, benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method 8021M. The groundwater sample collected from well MW-4 was analyzed for DEQ risk-based decision making (RBDM) volatile organic compounds (VOCs) by EPA Method 8260B. In addition to BTEX, the RBDM VOCs include: 1,2,4-trimethylbenzene (1,2,4-TMB); ethylene dibromide (EDB); ethylene dichloride (EDC); 1,3,5-trimethylbenzene (1,3,5-TMB); isopropylbenzene (IPB) methyl-tertiary butyl ether (MTBE); n-propylbenzene (NPB); and naphthalene. The groundwater sample collected from MW-4 was also analyzed for diesel-range hydrocarbons (diesel) and lube oil-range petroleum hydrocarbons (lube oil) by Northwest Method NWTPH-Dx, gasoline-range hydrocarbons by Northwest Method NWTPH-Gx. The groundwater sample from MW-4 was also analyzed for polynuclear aromatic hydrocarbons (PAHs) by DEQ Method 8270SIM.

6.0 FINDINGS

Following are the physical and chemical results for the First Quarter 2011 groundwater monitoring and sampling activities at the site. Naphthalene results are reported on both Table 1 and 2. The differing results shown in groundwater samples are a result of separate extraction methods. The concentrations from the VOC analyses are reported on the analytical results map (Figure 3).

Physical Results

The depth to water in the monitoring wells, as measured on March 30, 2011, ranged from 3.40 to 7.11 feet below the top of well casings. The groundwater flow direction was interpreted to be to the southwest with an average hydraulic gradient of approximately 0.037 feet per foot. Compared to the fourth quarter 2010 monitoring data, groundwater elevations in the monitoring wells increased between 0.13 and 1.03 feet.

The groundwater elevation and flow direction data for the First Quarter 2011 monitoring event are shown on Figure 2.

Chemical Results

MW-1: Gasoline-range hydrocarbons and BTEX constituents were not detected at or above the corresponding laboratory reporting limits.

MW-4: Diesel-range hydrocarbons (3,190 µg/L); lube oil-range hydrocarbons (687 µg/L); gasoline-range hydrocarbons (11,500 µg/L); benzene (588 µg/L); toluene (4.43 µg/L); ethylbenzene (162 µg/L); total xylenes (108.3 µg/L); 1,2,4-TMB (116 µg/L); 1,3,5-TMB (20.8 µg/L); IPB (133 µg/L); MTBE (3.29 µg/L); NPB (151 µg/L); and naphthalene (134 µg/L) were detected. The following PAHs were also detected: acenaphthene (0.202 µg/L); anthracene (0.067 µg/L); fluorine (0.308 µg/L); naphthalene (49.9 µg/L); and phenanthrene (0.269 µg/L).

The groundwater sampling results for the First Quarter 2011 monitoring event are shown on Figure 3 and summarized in Tables 1 and 2. A TPH-Gx hydrograph for MW-4 is presented in Appendix B, showing the historic relationship of gasoline-range hydrocarbons and groundwater elevations.

7.0 RISK-BASED EVALUATION OVERVIEW

In 1999, the Oregon DEQ issued the *Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites* guidance document (DEQ, 1999). This guidance document listed Risk-Based Concentration (RBC) cleanup levels that are based on current and potential future land and water uses at a site. The RBC cleanup levels are periodically revised, the most recent being September 15, 2009.

A detailed assessment of potential exposure pathways currently being conducted for the site. Although a conceptual site model has not been completed, based on our current knowledge of site conditions, the potentially complete exposure pathways for groundwater include: 1) vapor

intrusion into buildings (occupational); 2) volatilization to outdoor air (occupational); and 3) groundwater in an excavation for a construction or excavation worker. The potentially applicable RBCs are shown on Tables 1 and 2.

None of the groundwater samples collected during the First Quarter 2011 monitoring event exceeded the potentially applicable exposure pathway RBCs. The results of additional monitoring well installations and the planned soil vapor sampling points will be presented in Risk-Based Correction Action Plan.

8.0 SUMMARY AND CONCLUSIONS

The site was operated as a retail fueling facility until March 2005. An apparent petroleum hydrocarbon release from the underground product piping was reported to DEQ on March 15, 2005. The site is currently operated as automotive detailing facility and is an area of commercial development.

ECN conducted site assessment activities between March and April 2005, consisting of advancing hand soil borings, limited excavation of apparent impacted soil associated with the product piping release, and drilling a total nine soil borings. Soil and water samples collected during the site assessment activities indicated that both soil and the shallow water-bearing zone in the vicinity of the product piping were impacted by petroleum hydrocarbons.

The four USTs at the site were decommissioned by removal in October 2006. Petroleum hydrocarbon-impacted backfill material was encountered adjacent to the fill port of one the USTs. Analytical results of samples collected from beneath the former fuel dispensers indicated that residual diesel- and gasoline-range hydrocarbons were present in the southern portion of the site.

A total of four groundwater monitoring wells and two soil borings were completed at the site in May 2007. Analytical results from the groundwater samples collected indicated that petroleum hydrocarbons were present in each monitoring well, the highest levels reported were in MW-4

Based on historic groundwater elevation direction data, it appears that the generalized shallow water-bearing zone flow direction varies between west-southwest and southwest at varying gradients. The hydraulic gradient calculated for the First Quarter 2011 monitoring event is an order of magnitude less than the third quarter 2010 monitoring event.

Additional site assessment activities were conducted in April 2011 and will be presented in an upcoming report.

None of the groundwater collected during the First Quarter 2011 groundwater sampling event exceeded the potentially complete exposure pathway RBCs.

The TPH-Gx Hydrograph for MW-4 does not show a definitive relationship between gasoline-range hydrocarbons and groundwater elevations.

9.0 REFERENCES

ECN, 2007. Site Assessment and UST Decommissioning Report, Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. April 17.

ECN, 2010a. Additional Site Assessment and Monitoring Installation Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. October 14.

ECN, 2010b. First Quarter 2008 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 1.

ECN, 2010c. Third Quarter 2008 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 2.

ECN, 2010d. First Quarter 2009 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 3.

ECN, 2010e. Second Quarter 2009 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 4.

ECN, 2010f. Third Quarter 2009 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 5.

ECN, 2010g. Fourth Quarter 2009 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 6.

ECN, 2010h. First Quarter 2010 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 7.

ECN, 2010i. Second Quarter 2010 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 8.

ECN, 2010j. Third Quarter 2010 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 9.

ECN, 2011. Fourth Quarter 2010 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. February 18.

Oregon Department of Environmental Quality, 1999 and 2003. Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites (OAR 340-122-0205 through 0360). September 29, 1999, updated September 22, 2003.

Oregon Department of Environmental Quality, 2000. UST Cleanup Manual, Cleanup Rules for Leaking Petroleum UST Systems, OAR 340-122-0205 through 340-122-0360, and Associated Documents. Oregon Department of Environmental Quality, Portland, Oregon, December.

Oregon Department of Environmental Quality, 2009. Risk-Based Concentrations for Individual Chemicals. September 15.

Oregon Department of Environmental Letter, 2011. Molalla Kwik Gas, File No. 03.05.461. February 11.

10.0 LIMITATIONS

Environmental Compliance Northwest, Inc., has performed the work described in this report in accordance with the generally accepted standard of care existing in the State of Oregon at the time of the assessment. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface and historical conditions applicable to the study area. More extensive studies may be used to supplement the information presented in this report. Environmental Compliance Northwest, Inc., should be notified for additional consultation if Powell Distributing Company wishes to reduce uncertainties beyond the level associated with this assessment. Our assessment of the property also may change, as new data becomes available during additional site exploration, remediation, or development.

Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings, and opinions can be considered valid only as of the date of the report.

No warranty, express or implied is made.

TABLES

TABLE 1
Groundwater Analytical Results - TPH-Dx, TPH-G, RBDM VOCs, and Dissolved Lead
Former Kwik Gas Station
305 West Main Street
Molalla, Oregon
ECN Project No. 05-106



Well I.D.	Date of Sampling	Casing Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Change in Elevation (Feet)	TPH-Dx [1]		TPH-G [2]	B [3]	T [3]	E [3]	X [3]	1,2,4-TMB [3]	EDB [3]	EDC [3]	1,3,5-TMB [3]	IPB [3]	MTBE [3]	NPB [3]	Naphthalene [3]	Dissolved Lead [4]	LAB
						Diesel	Lube Oil															
MW-1	6/5/2007	94.77	13.82	80.95	---	247	116	624	40.5	7.16	51.2	67.4	9.34	ND<1.00	ND<1.00	5.98	2.95	ND<1.00	5.04	ND<1.00	---	SA
	3/30/2008	94.77	8.06	86.71	5.76	ND<245	ND<491	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA	
	9/28/2008	94.77	17.41	77.36	-9.35	ND<243	ND<487	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	3/26/2009	94.77	9.54	85.23	7.87	ND<238	ND<476	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	6/30/2009	94.77	14.43	80.34	-4.89	ND<86.3	ND<216	---	0.910	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA	
	9/29/2009	94.77	20.13	74.64	-5.70	ND<249	ND<498	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	12/26/2009	94.77	10.54	84.23	9.59	ND<243	ND<487	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	3/30/2010	94.77	8.74	86.03	1.80	ND<77.1	ND<193	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA	
	6/30/2010	94.77	12.83	81.94	-4.09	ND<76.1	ND<190	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	9/28/2010	94.77	16.38	78.39	-3.55	ND<82.6	ND<210	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	12/30/2010	94.77	6.08	88.69	10.30	ND<78.4	ND<196	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	3/30/2011	94.77	7.11	87.66	-1.03	---	---	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
MW-2	6/5/2007	93.73	9.36	84.37	---	237	ND<100	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	3/30/2008	93.73	3.35	90.38	6.01	ND<248	ND<495	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA	
	9/28/2008	93.73	11.10	82.63	-7.75	ND<242	ND<483	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	3/26/2009	93.73	3.50	90.23	7.60	ND<236	ND<473	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	6/30/2009	93.73	9.36	84.37	-5.86	ND<82.5	ND<206	---	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA	
	9/29/2009	93.73	14.09	79.64	-4.73	ND<485	ND<971	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	12/26/2009	93.73	4.03	89.70	10.06	ND<275	ND<552	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	3/30/2010	93.73	3.42	90.31	0.61	ND<77.8	ND<195	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA	
	6/30/2010	93.73	8.12	85.61	-4.70	ND<76.6	ND<192	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	9/28/2010	93.73	9.23	84.50	-1.11	ND<78.7	ND<197	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	12/30/2010	93.73	3.27	90.46	5.96	ND<76.8	ND<192	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	SA	
	3/30/2011	93.73	3.40	90.33	-0.13	Not Sampled																---
MW-3	6/5/2007	93.44	6.65	86.79	---	ND<49.9	ND<49.9	363	ND<0.300	0.84	2.04	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	3/30/2008	93.44	4.31	89.13	2.34	269	ND<485	589	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	9/28/2008	93.44	6.46	86.98	-2.15	350	ND<541	787	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	0.65	SA	
	3/26/2009	93.44	4.62	88.82	1.84	277	ND<478	429	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.1	SA
	6/30/2009	93.44	6.79	86.65	-2.17	194	ND<203	---	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.21	ND<1.00	ND<1.00	ND<1.00	1.1	SA
	9/29/2009	93.44	8.96	84.48	-2.17	275	ND<482	631	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.26	ND<1.00	ND<1.00	ND<1.00	1.8	SA
	12/26/2009	93.44	4.39	89.05	4.57	336	ND<513	245	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.26	ND<1.00	ND<1.00	ND<1.00	0.96	SA
	3/30/2010	93.44	4.09	89.35	0.30	216	235	477	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.58	ND<1.00	ND<1.00	ND<1.00	1.48	SA
	6/30/2010	93.44	6.31	87.13	-2.22	291	215	749	1.26	ND<1.00	1.70	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	9/28/2010	93.44	5.71	87.73	0.60	257	ND<193	338	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.01	ND<1.00	ND<1.00	ND<1.00	---	SA
	12/30/2010	93.44	3.91	89.53	1.80	154	ND<195	245	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	3/30/2011	93.44	4.21	89.23	-0.30	Not Sampled																---
MW-4	6/5/2007	94.10	7.16	86.94	---	2,060	3,500	7,370	326	5.97	216	336.2	239	ND<1.00	ND<1.00	55	34.4	6.92	66.2	55.6	14	SA
	3/30/2008	94.10	4.29	89.81	2.87	2,050	ND<489	15,900	985	8.93	397	343.0	386	ND<1.00	ND<1.00	43.4	92.2	11.3	261	150	2.5	SA
	9/28/2008	94.10	7.69	86.41	-3.40	2,070	665	14,000	979	9.74	743	167.8	332	ND<1.00	ND<1.00	88.3	125	ND<1.00	460	766	0.34	SA
	3/26/2009	94.10	4.54	89.56	3.15	1,700	893	8,010	480	4.49	356	91.4	125	ND<1.00	ND<1.00	23.7	87.6	1.80	185	119	0.82	SA
	6/30/2009	94.10	7.65	86.45	-3.11	1,460	310	---	682	7.28	769	248.2	594	ND<1.00	ND<1.00	76.7	133	2.62	438	347	1.4	SA
	9/29/2009	94.10	12.75	81.35	-5.10	2,780	805	13,300	925	7.07	889	30.00	30.4	ND<1.00	ND<1.00	34.3	115	7.16	395	540	1.5	SA
	12/26/2009	94.10	4.36	89.74	8.39	2,730	1,020	21,100	397	4.84	435	361.2	451	ND<1.00	ND<1.00	25.5	114	1.43	245	509	ND<0.10	SA
	3/30/2010	94.10	4.55	89.55	-0.19	1,094	532	12,200	594	5.31	634	330.9	530	ND<1.00	ND<1.00	60.4	128	ND<1.00	515	274	1.8	SA
	6/30/2010	94.10	6.49	87.61	-1.94	2,350	585	11,600	705	5.27	419	396.2	115	ND<1.00	ND<1.00	35.6	117	2.17	368	136	---	SA
	9/28/2010	94.10	7.12	86.98	-0.63	1,410	244	18,100	470	7.34	776	432.2	65.0	ND<1.00	ND<1.00	665	153	2.80	554	756	2.4	SA
	12/30/2010	94.10	3.82	90.28	3.30	1,760	365	10,200	449	4.26	395	127.9	142	ND<1.00	ND<1.00	17.7	117	1.64	372	160	1.8	SA
	3/30/2011	94.10	4.35	89.75	-0.53	3,190	687	11,500	588	4.43	162	108.3	116	ND<1.00	ND<1.00	20.8	133	3.29	151	134	---	SA
Risk-Based Concentrations [5]																						
- Volatilization to Outdoor Air (Occupational)						>S	NE	>S	14,000	>S	41,000	>S	>S	960	9,500	6,800	>S	1,000,000	NE	16,000	NV	
- Vapor Intrusion Into Buildings (Occupational)						>S	NE	>S	2,800	>S	7,400	>S	>S	690	3,800	41,000	>S	590,000	NE	10,000	NV	
- Groundwater in an Excavation (Construction and Excavation Worker)						>S	NE	13,000	1,700	210,000	4,400	23,000	1,700	28	630	1,400	>S	62,000	NE	500	>S	

ABBREVIATIONS:
B: Benzene
T: Toluene
E: Ethylbenzene
X: Total Xylenes
MTBE: Methyl tertiary-butyl ether
ND: Not detected at or above the indicated laboratory reporting limit
NE: Not established by DEQ
>S: The groundwater RBC exceeds the solubility limit.
NV: This chemical is considered "nonvolatile" for purposes of the exposure calculations

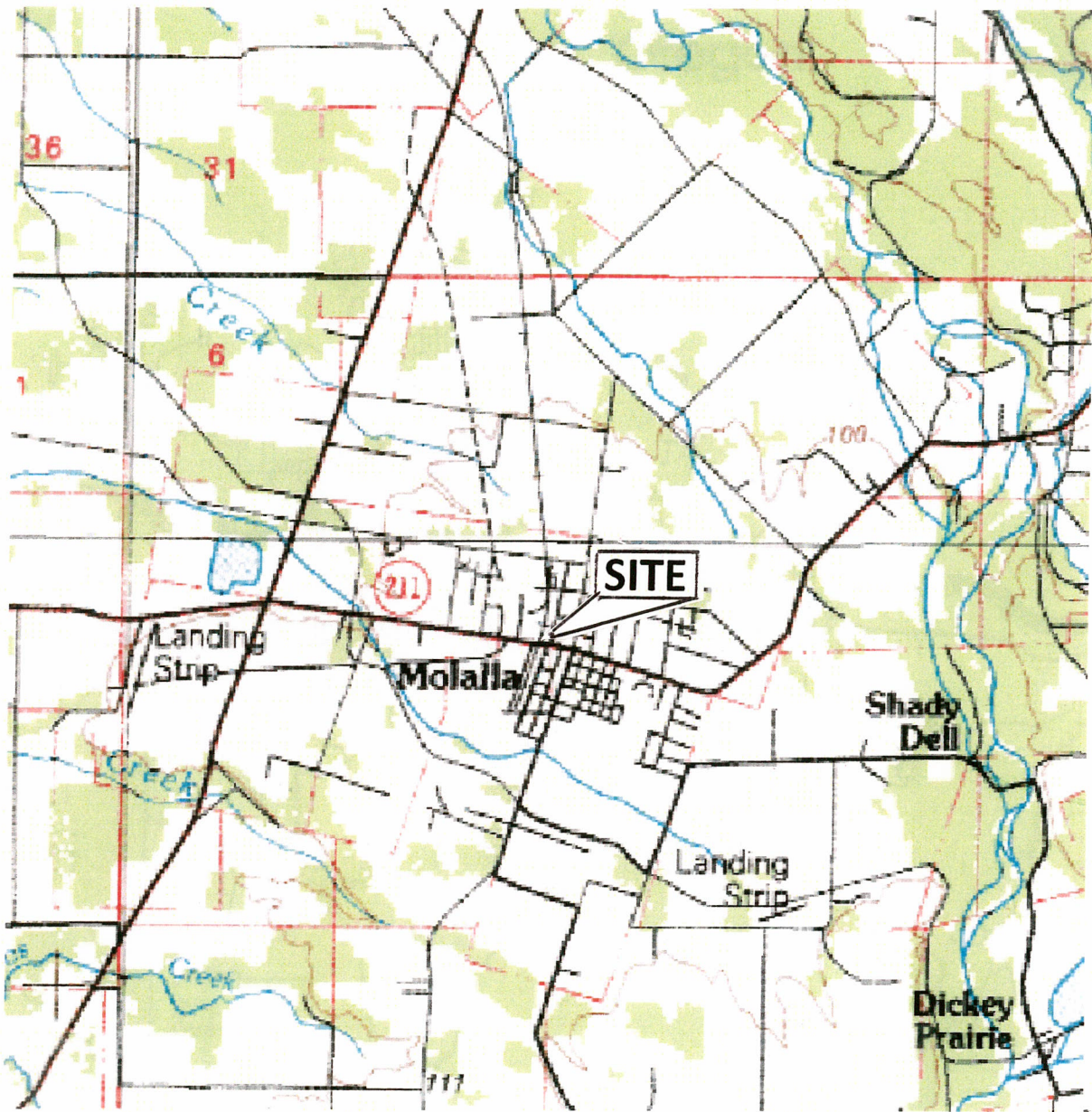
Results are in micrograms per liter (µg/L)
(1) Northwest Method NWTPH-Dx
(2) Northwest Method NWTPH-Gx
(3) EPA Method 8021B Or 8260B
(4) EPA Method 6011
(5) Oregon Department of Environmental Quality (DEQ) Generic Risk Based Concentrations (RBCs)
SA Specialty Analytical
BOLD Exceeds the RBC

TABLE 2
Groundwater Analytical Results (PAHs)
305 West Main Street
Former Molalla Kwik Gas
Molalla, Oregon
ECN Project No. 05-106

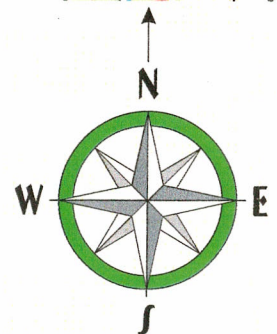
Sample Identification		Polynuclear Aromatic Hydrocarbons (µg/L) [1]	Sample Date	Acenaphthene	Acenaphthylene	Anthracene	Benz(a)anthracene	Benz(a)pyrene	Benz(b)fluoranthene	Benz(g,h,i)perylene	Benz(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	LAB
				ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	2.81	ND<0.0503	ND<0.0503
MW-1				6/5/2007	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	SA
MW-2				6/5/2007	ND<0.0495	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	0.211	ND<0.0479	ND<0.0479	SA
MW-3				6/5/2007	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	0.734	ND<0.0477	ND<0.0477	SA
MW-3				6/30/2009	0.0572	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	0.480	ND<0.0480	ND<0.0480	SA
MW-4				6/5/2007	0.115	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	83.4	0.0630	ND<0.0525	SA
MW-4				3/30/2008	0.231	ND<0.0483	ND<0.0483	ND<0.0483	ND<0.0483	ND<0.0483	ND<0.0483	ND<0.0483	ND<0.0483	ND<0.0483	ND<0.0483	ND<0.0483	0.482	ND<0.0482	0.415	SA
MW-4				9/28/2008	0.203	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	0.138	ND<0.0429	0.0984	SA
MW-4				6/30/2009	0.191	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	0.229	ND<0.0478	0.143	SA
MW-4				9/29/2009	0.172	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	0.210	ND<0.0477	0.0953	SA
MW-4				12/26/2009	0.282	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	0.316	ND<0.0500	0.209	SA
MW-4				6/30/2010	0.165	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	0.223	ND<0.0486	0.0973	SA
MW-4				9/28/2010	0.265	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	0.402	ND<0.0491	0.275	SA
MW-4				12/30/2010	0.215	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	ND<0.0489	0.244	ND<0.0489	0.166	SA
MW-4				3/30/2011	0.202	ND<0.0481	0.067	ND<0.0481	ND<0.0481	ND<0.0481	ND<0.0481	ND<0.0481	ND<0.0481	ND<0.0481	ND<0.0481	ND<0.0481	0.308	ND<0.0481	0.269	SA
Risk-Based Concentrations [2]				>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	>S	>S	NE	NE	>S
				- Occ. Volatilization to Outdoor Air	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	NE	>S
				- Occ. Vapor Intrusion into buildings	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	NE	>S
				- Groundwater in an Excavation	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	NE	>S
				- Construction and Excavation Worker	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	>S	NE	NE	>S
				ND not detected at or above the indicated laboratory reporting limit	[1]	DEQ Method 8270SIM														
				SA Specialty Analytical	[2]	Oregon Department of Environmental Quality (DEQ) Generic Risk Based Concentrations (RBCs)														
				µg/L Micrograms per Liter	NE	A Risk-Based Concentration has not been determined for this constituent														
				>S	NV	This chemical is considered "nonvolatile" for purposes of the exposure calculation														
				>S	NV	This groundwater RBC exceeds the solubility limit. Groundwater concentrations in excess of S indicate that														



FIGURES



Reference: USGS Topographic Map
Oregon City, OR



ECN

ENVIRONMENTAL
COMPLIANCE
NORTHWEST

(503) 372-9760

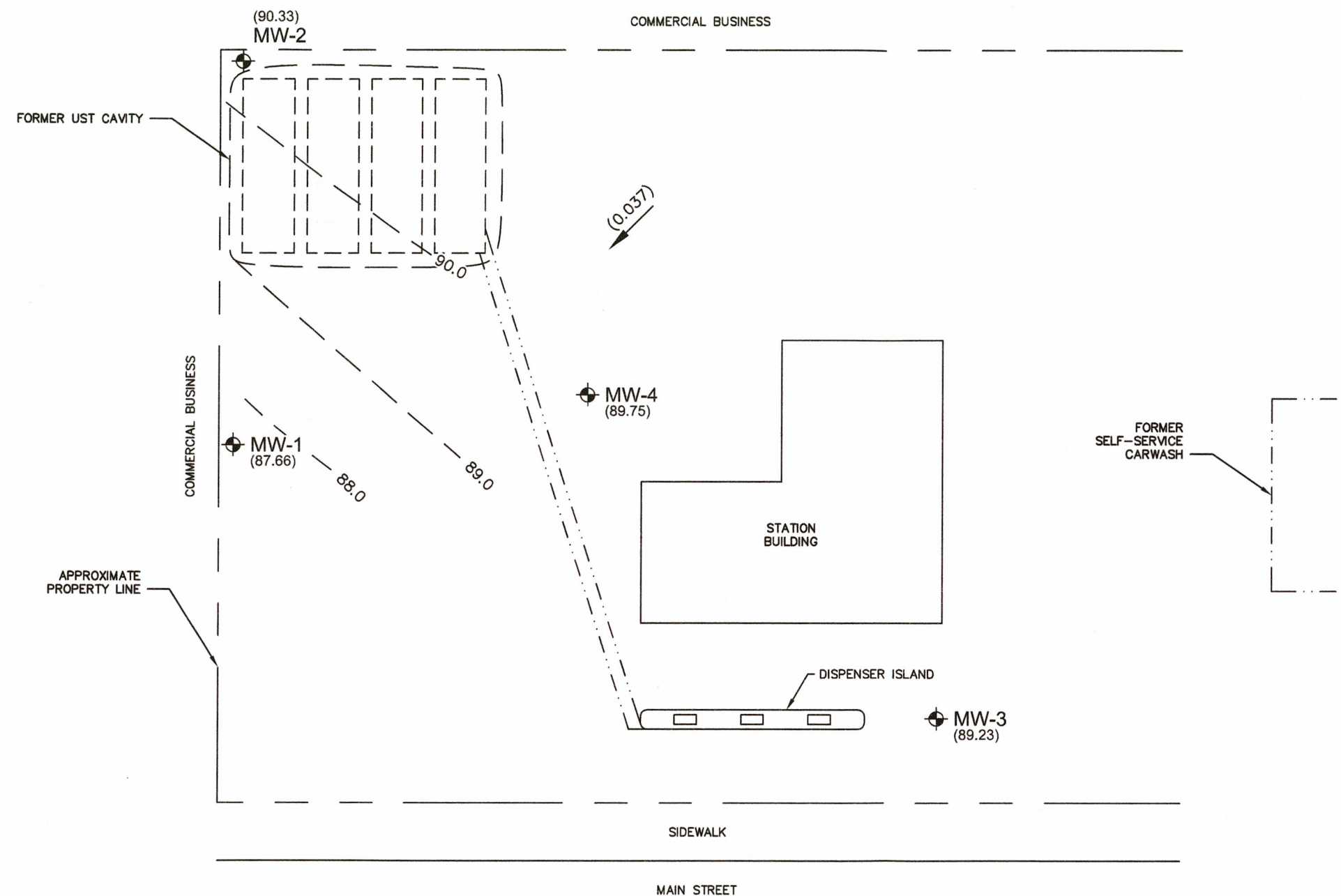
VICINITY MAP

Former Kwik Gas Station

305 West Main Street, Molalla, Oregon

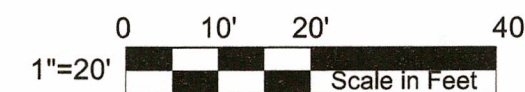
Project No. 05-106

FIGURE 1



LEGEND

- UST Underground Storage Tank
- [] Former Underground Storage Tank
- - - Former Underground Product Piping Trench
- ⊕ Monitoring Well
- (87.66) Groundwater Elevation (Relative to an arbitrary benchmark)
- - 88.0 Groundwater Elevation Contour
- (0.037) Approximate Groundwater Flow Direction and Gradient in Feet per Foot



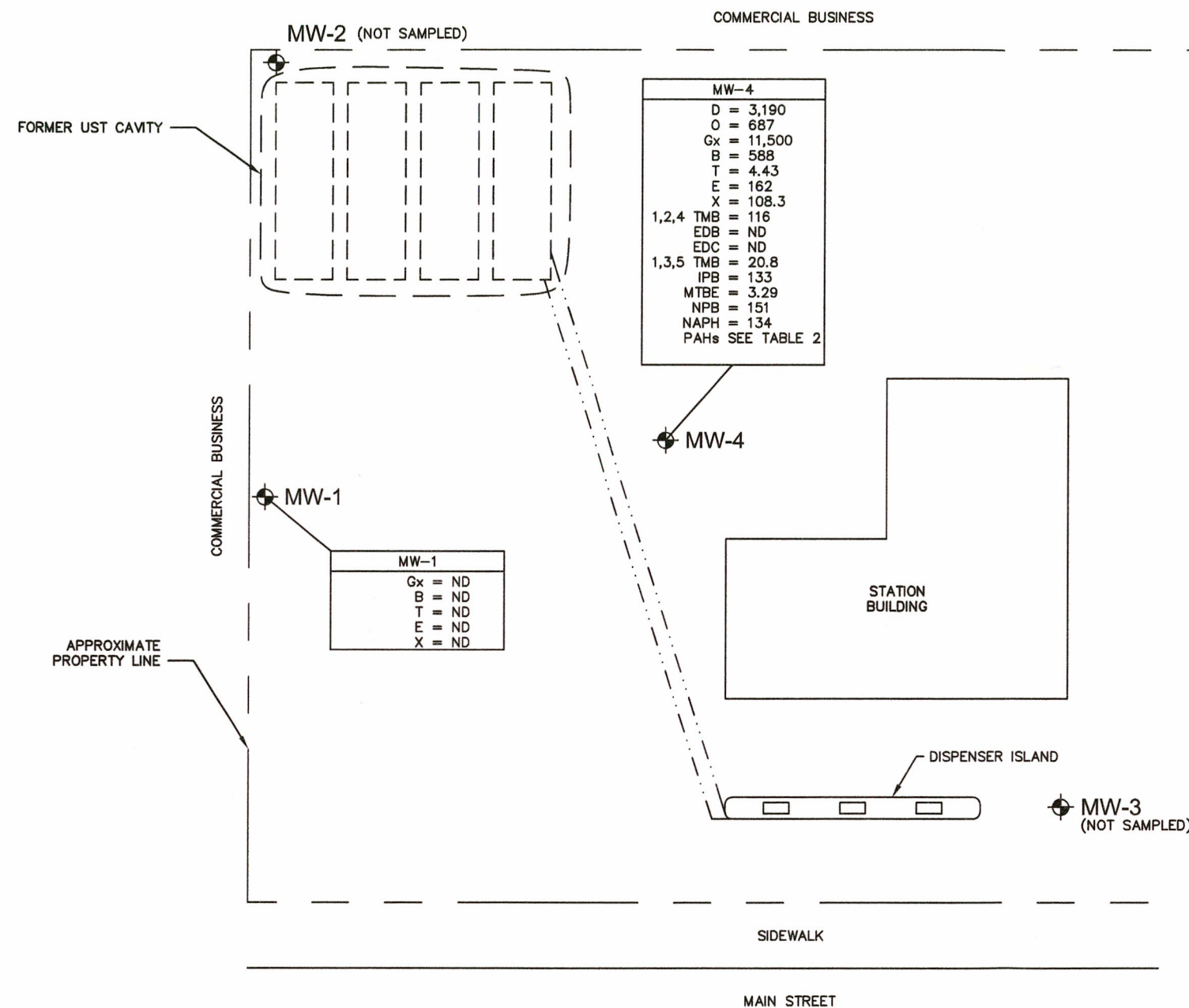
ECN ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.
(503) 372-9760

GROUNDWATER CONTOUR MAP
1ST QUARTER 2011

FORMER KWIK GAS
305 WEST MAIN STREET
MOLALLA, OREGON

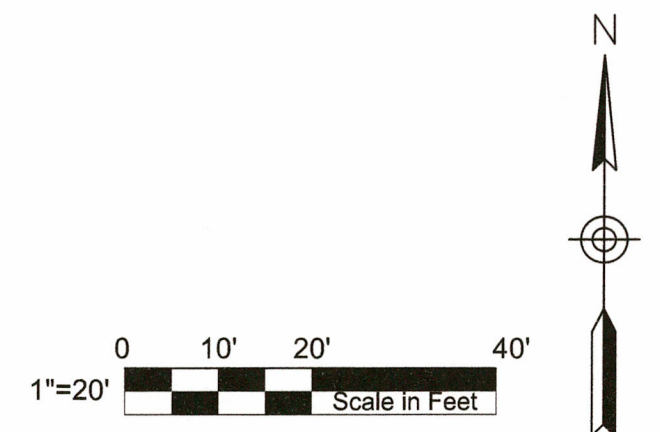
Project No. 05-106

FIGURE 2



LEGEND

UST	Underground Storage Tank
	Former Underground Storage Tank
	Former Underground Product Piping Trench
	Monitoring Well
Dx	Diesel-Range Hydrocarbons
D	Diesel
O	Lube Oil
Gx	Gasoline-Range Hydrocarbons
B	Benzene
T	Toulene
E	Ethylbenzene
X	Total Xylenes
TMB	Trimethylbenzene
EDB	Ethylene Dibromide
EDC	Ethylene Dichloride
IPB	Isopropylbenzene
MTBE	Methyl-Tertiary Butyl Ether
NPB	N-Propylbenzene
NAPH	Naphthalene
PAHs	Polynuclear Aromatic Hydrocarbons
Results are in micrograms per liter (µg/L)	



ECN ENVIRONMENTAL
COMPLIANCE
NORTHWEST, INC.
(503) 372-9760

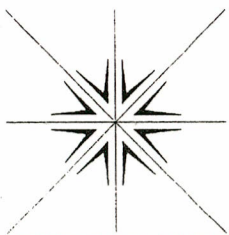
GROUNDWATER ANALYTICAL RESULTS
1ST QUARTER 2011

FORMER KWIK GAS
305 WEST MAIN STREET
MOLALLA, OREGON

Project No. 05-106

FIGURE 3

APPENDIX A



Specialty Analytical

11711 SE Capps Road
Clackamas, OR 97015
(503) 607-1331
Fax (503) 607-1336

April 11, 2011

John Day
Environmental Compliance Northwest, Inc.
P.O. Box 230163
Portland, OR 97281
TEL: (503) 372-9760
FAX: (503) 213-9980

RE: Powell-Molalla / 05-106

Dear John Day:

Order No.: 1104030

Specialty Analytical received 2 samples on 4/4/2011 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,


Cindy Hillyard
Project Manager


Technical Review

Specialty Analytical

Date: 11-Apr-11

CLIENT: Environmental Compliance Northwest, Inc.

Client Sample ID: MW-1

Lab Order: 1104030

Collection Date: 3/30/2011 5:00:00 PM

Project: Powell-Molalla / 05-106

Lab ID: 1104030-01

Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
BTEX - RBC		SW8021B				Analyst: jrp
Benzene	ND	0.300		µg/L	1	4/5/2011
Toluene	ND	0.500		µg/L	1	4/5/2011
Ethylbenzene	ND	0.500		µg/L	1	4/5/2011
Xylenes, Total	ND	1.50		µg/L	1	4/5/2011
Surr: 4-Bromofluorobenzene	116	74.8-126		%REC	1	4/5/2011
NWTPH-GX		NWTPH-GX				Analyst: jrp
Gasoline	ND	100		µg/L	1	4/5/2011
Surr: 4-Bromofluorobenzene	95.9	50-150		%REC	1	4/5/2011

Specialty Analytical

Date: 11-Apr-11

CLIENT: Environmental Compliance Northwest, Inc.
Lab Order: 1104030
Project: Powell-Molalla / 05-106
Lab ID: 1104030-02

Client Sample ID: MW-4
Collection Date: 3/30/2011 6:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX						
Diesel	3.19	0.0763	A1	mg/L	1	4/5/2011
Lube Oil	0.687	0.191	A2	mg/L	1	4/5/2011
Surr: o-Terphenyl	171	50-150	S,MI	%REC	1	4/5/2011
NWTPH-GX						
Gasoline	11500	1000		µg/L	10	4/5/2011
Surr: 4-Bromofluorobenzene	119	50-150		%REC	10	4/5/2011
LOW LEVEL PAH BY GC/MS						
8270SIM						
Acenaphthene	0.202	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Acenaphthylene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Anthracene	0.0673	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Benz(a)anthracene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Benzo(a)pyrene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Benzo(b)fluoranthene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Benzo(g,h,i)perylene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Benzo(k)fluoranthene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Chrysene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Dibenz(a,h)anthracene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Fluoranthene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Fluorene	0.308	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Naphthalene	49.9	0.240		µg/L	5	4/5/2011 5:21:00 PM
Phenanthrene	0.269	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Pyrene	ND	0.0481		µg/L	1	4/5/2011 3:10:00 PM
Surr: 2-Fluorobiphenyl	72.2	18.6-106		%REC	1	4/5/2011 3:10:00 PM
Surr: Nitrobenzene-d5	54.8	17-130		%REC	1	4/5/2011 3:10:00 PM
Surr: p-Terphenyl-d14	60.4	39.6-131		%REC	1	4/5/2011 3:10:00 PM
VOLATILE ORGANICS BY GC/MS						
SW8260B						
1,2,4-Trimethylbenzene	116	1.00		µg/L	1	4/8/2011 1:43:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	4/8/2011 1:43:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	4/8/2011 1:43:00 PM
1,3,5-Trimethylbenzene	20.8	1.00		µg/L	1	4/8/2011 1:43:00 PM
Benzene	588	1.50		µg/L	5	4/8/2011 9:11:00 AM
Ethylbenzene	162	5.00		µg/L	5	4/8/2011 9:11:00 AM
Isopropylbenzene	133	1.00		µg/L	1	4/8/2011 1:43:00 PM
m,p-Xylene	82.7	2.00		µg/L	1	4/8/2011 1:43:00 PM
Methyl tert-butyl ether	3.29	1.00		µg/L	1	4/8/2011 1:43:00 PM
n-Propylbenzene	151	5.00		µg/L	5	4/8/2011 9:11:00 AM
Naphthalene	134	1.00		µg/L	1	4/8/2011 1:43:00 PM
o-Xylene	21.1	1.00		µg/L	1	4/8/2011 1:43:00 PM

Specialty Analytical**Date:** 11-Apr-11**CLIENT:** Environmental Compliance Northwest, Inc.**Client Sample ID:** MW-4**Lab Order:** 1104030**Collection Date:** 3/30/2011 6:00:00 PM**Project:** Powell-Molalla / 05-106**Lab ID:** 1104030-02**Matrix:** GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		SW8260B				Analyst: kmn
Toluene	4.43	1.00		µg/L	1	4/8/2011 1:43:00 PM
Surr: 1,2-Dichloroethane-d4	97.2	72.2-129		%REC	1	4/8/2011 1:43:00 PM
Surr: 4-Bromofluorobenzene	107	73.5-125		%REC	1	4/8/2011 1:43:00 PM
Surr: Dibromofluoromethane	102	58.8-148		%REC	1	4/8/2011 1:43:00 PM
Surr: Toluene-d8	92.4	79.8-137		%REC	1	4/8/2011 1:43:00 PM

Specialty Analytical

Date: 11-Apr-11

CLIENT: Environmental Compliance Northwest, Inc.
 Work Order: 1104030
 Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: MB-28138	SampType: MBLK	TestCode: 8260_W	Units: µg/L	Prep Date: 4/7/2011	Run ID: 5973J_110407A						
Client ID: ZZZZZ	Batch ID: 28138	TestNo: SW8260B		Analysis Date: 4/7/2011	SeqNo: 740709						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
Benzene	ND	0.300									
Ethylbenzene	0.13	1.00									J
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									
n-Propylbenzene	ND	1.00									
Naphthalene	1.02	1.00									
o-Xylene	ND	1.00									
Toluene	ND	1.00									
Surr: 1,2-Dichloroethane-d4	101.3	0	100	0	101	72.2	129	0	0		
Surr: 4-Bromofluorobenzene	106.7	0	100	0	107	73.5	125	0	0		
Surr: Dibromofluoromethane	110	0	100	0	110	58.8	148	0	0		
Surr: Toluene-d8	102.3	0	100	0	102	79.8	137	0	0		

Sample ID: LCS-28138	SampType: LCS	TestCode: 8260_W	Units: µg/L	Prep Date: 4/7/2011	Run ID: 5973J_110407A						
Client ID: ZZZZZ	Batch ID: 28138	TestNo: SW8260B		Analysis Date: 4/7/2011	SeqNo: 740708						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	43.55	0.300	40	0	109	77.9	125	0	0		
Toluene	38.18	1.00	40	0	95.4	74.6	119	0	0		

Sample ID: 1104032-04AMS	SampType: MS	TestCode: 8260_W	Units: µg/L	Prep Date: 4/7/2011	Run ID: 5973J_110407A						
Client ID: ZZZZZ	Batch ID: 28138	TestNo: SW8260B		Analysis Date: 4/7/2011	SeqNo: 740706						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers: ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.

Work Order: 1104030

Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: 1104032-04AMS	SampType: MS	TestCode: 8260_W	Units: µg/L	Prep Date: 4/7/2011	Run ID: 5973J_110407A						
Client ID: ZZZZZ	Batch ID: 28138	TestNo: SW8260B		Analysis Date: 4/7/2011	SeqNo: 740706						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	49.23	0.300	40	4.64	111	71.5	118	0	0		
Toluene	42.25	1.00	40	0.36	105	79.6	121	0	0		

Sample ID: 1104032-04AMSD	SampType: MSD	TestCode: 8260_W	Units: µg/L	Prep Date: 4/7/2011	Run ID: 5973J_110407A						
Client ID: ZZZZZ	Batch ID: 28138	TestNo: SW8260B		Analysis Date: 4/7/2011	SeqNo: 740707						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	49.9	0.300	40	4.64	113	71.5	118	49.23	1.35	20	
Toluene	41.42	1.00	40	0.36	103	79.6	121	42.25	1.98	20	

Sample ID: CCV-28138	SampType: CCV	TestCode: 8260_W	Units: µg/L	Prep Date:	Run ID: 5973J_110407A						
Client ID: ZZZZZ	Batch ID: 28138	TestNo: SW8260B		Analysis Date: 4/7/2011	SeqNo: 740705						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ethylbenzene	35.68	1.00	40	0	89.2	80	120	0	0		
Toluene	34.14	1.00	40	0	85.4	80	120	0	0		

Sample ID: CCV-28138	SampType: CCV	TestCode: 8260_W	Units: µg/L	Prep Date:	Run ID: 5973J_110407A						
Client ID: ZZZZZ	Batch ID: 28138	TestNo: SW8260B		Analysis Date: 4/7/2011	SeqNo: 740720						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2,4-Trimethylbenzene	37.04	1.00	40	0	92.6	80	120	0	0		
Benzene	43.8	0.300	40	0	110	80	120	0	0		
Ethylbenzene	41.82	1.00	40	0	105	80	120	0	0		
m,p-Xylene	94.06	2.00	80	0	118	80	120	0	0		
n-Propylbenzene	38.18	1.00	40	0	95.4	80	120	0	0		
Naphthalene	34.08	1.00	40	0	85.2	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1104030
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: CCV-28138	SampType: CCV	TestCode: 8260_W	Units: µg/L	Prep Date:	Run ID: 5973J_110407A						
Client ID: ZZZZZ	Batch ID: 28138	TestNo: SW8260B		Analysis Date: 4/8/2011	SeqNo: 740979						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	43.93	1.00	40	0	110	80	120	0	0		
Toluene	42.23	1.00	40	0	106	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.

Work Order: 1104030

Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_W

Sample ID: MB-28125	SampType: MBLK	TestCode: BTEXRBC_W	Units: µg/L	Prep Date: 4/5/2011	Run ID: GC-I_110405B						
Client ID: ZZZZZ	Batch ID: 28125	TestNo: SW8021B		Analysis Date: 4/5/2011	SeqNo: 740243						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	ND	0.300									
Toluene	0.16	0.500									J
Ethylbenzene	0.45	0.500									J
Xylenes, Total	0.46	1.50									J
Surr: 4-Bromofluorobenzene	115	0	100	0	115	74.8	126	0	0		

Sample ID: LCS-28125	SampType: LCS	TestCode: BTEXRBC_W	Units: µg/L	Prep Date: 4/5/2011	Run ID: GC-I_110405B						
Client ID: ZZZZZ	Batch ID: 28125	TestNo: SW8021B		Analysis Date: 4/5/2011	SeqNo: 740242						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	51.18	0.300	50	0	102	75.8	113	0	0		
Toluene	53.65	0.500	50	0	107	77	116	0	0		
Ethylbenzene	53.9	0.500	50	0	108	76.6	118	0	0		
Xylenes, Total	163.3	1.50	150	0	109	76.7	118	0	0		

Sample ID: 1104023-01BMS	SampType: MS	TestCode: BTEXRBC_W	Units: µg/L	Prep Date: 4/5/2011	Run ID: GC-I_110405B						
Client ID: ZZZZZ	Batch ID: 28125	TestNo: SW8021B		Analysis Date: 4/5/2011	SeqNo: 740245						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	24.47	0.300	25	0.12	97.4	67.8	118	0	0		
Toluene	26.05	0.500	25	0.26	103	74.7	117	0	0		
Ethylbenzene	26.26	0.500	25	0.14	104	74.5	115	0	0		
Xylenes, Total	81.76	1.50	75	0.84	108	76.8	120	0	0		

Sample ID: 1104023-01BMSD	SampType: MSD	TestCode: BTEXRBC_W	Units: µg/L	Prep Date: 4/5/2011	Run ID: GC-I_110405B						
Client ID: ZZZZZ	Batch ID: 28125	TestNo: SW8021B		Analysis Date: 4/5/2011	SeqNo: 740246						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Benzene	24.6	0.300	25	0.12	97.9	67.8	118	24.47	0.530	20	
Toluene	26.05	0.500	25	0.26	103	74.7	117	26.05	0	20	
Ethylbenzene	26.28	0.500	25	0.14	105	74.5	115	26.26	0.0761	20	

Qualifiers: ND - Not Detected at the Reporting Limit

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R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1104030
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_W

Sample ID: 1104023-01BMSD	SampType: MSD	TestCode: BTEXRBC_W	Units: µg/L	Prep Date: 4/5/2011	Run ID: GC-I_110405B						
Client ID: ZZZZZ	Batch ID: 28125	TestNo: SW8021B		Analysis Date: 4/5/2011	SeqNo: 740246						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Xylenes, Total	81.76	1.50	75	0.84	108	76.8	120	81.76	0	20	

Sample ID: CCV	SampType: CCV	TestCode: BTEXRBC_W	Units: µg/L	Prep Date:	Run ID: GC-I_110405B						
Client ID: ZZZZZ	Batch ID: 28125	TestNo: SW8021B		Analysis Date: 4/5/2011	SeqNo: 740241						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	51.18	0.300	50	0	102	85	115	0	0		
Toluene	53.65	0.500	50	0	107	85	115	0	0		
Ethylbenzene	53.9	0.500	50	0	108	85	115	0	0		
Xylenes, Total	163.3	1.50	150	0	109	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1104030
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID: MB-28121	SampType: MBLK	TestCode: NWTPHDXLL	Units: mg/L	Prep Date: 4/5/2011	Run ID: GC-M_110405A						
Client ID: ZZZZZ	Batch ID: 28121	TestNo: NWTPH-Dx		Analysis Date: 4/5/2011	SeqNo: 740258						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	0.0800									
Lube Oil	ND	0.200									
Surr: o-Terphenyl	0.1911	0	0.2	0	95.5	50	150	0	0		

Sample ID: LCS-28121	SampType: LCS	TestCode: NWTPHDXLL	Units: mg/L	Prep Date: 4/5/2011	Run ID: GC-M_110405A						
Client ID: ZZZZZ	Batch ID: 28121	TestNo: NWTPH-Dx		Analysis Date: 4/5/2011	SeqNo: 740259						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	1.022	0.0800	1	0	102	60.7	121	0	0		
Lube Oil	0.9492	0.200	1	0	94.9	64	126	0	0		

Sample ID: LCSD-28121	SampType: LCSD	TestCode: NWTPHDXLL	Units: mg/L	Prep Date: 4/5/2011	Run ID: GC-M_110405A						
Client ID: ZZZZZ	Batch ID: 28121	TestNo: NWTPH-Dx		Analysis Date: 4/5/2011	SeqNo: 740260						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.9562	0.0800	1	0	95.6	60.7	121	1.022	6.70	20	
Lube Oil	0.9515	0.200	1	0	95.2	64	126	0.9492	0.244	20	

Sample ID: CCV	SampType: CCV	TestCode: NWTPHDXLL	Units: mg/L	Prep Date:	Run ID: GC-M_110405A						
Client ID: ZZZZZ	Batch ID: 28121	TestNo: NWTPH-Dx		Analysis Date: 4/5/2011	SeqNo: 740257						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	5.475	0.0800	6.095	0	89.8	85	115	0	0		
Lube Oil	2.869	0.200	3.002	0	95.6	85	115	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHDXLL	Units: mg/L	Prep Date:	Run ID: GC-M_110405A						
Client ID: ZZZZZ	Batch ID: 28121	TestNo: NWTPH-Dx		Analysis Date: 4/5/2011	SeqNo: 740273						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	8.147	0.0800	8.126	0	100	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1104030
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID: CCV	SampType: CCV	TestCode: NWTPHDXLL	Units: mg/L	Prep Date:				Run ID: GC-M_110405A			
Client ID: ZZZZZ	Batch ID: 28121	TestNo: NWTPH-Dx		Analysis Date: 4/5/2011				SeqNo: 740273			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	4.099	0.200	4.003	0	102	85	115	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1104030
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: MB-28124	SampType: MBLK	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 4/5/2011	Run ID: GC-S_110405A						
Client ID: ZZZZZ	Batch ID: 28124	TestNo: NWTPH-Gx		Analysis Date: 4/5/2011	SeqNo: 740207						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	25.79	100									J
Surr: 4-Bromofluorobenzene	121.2	0	100	0	121	50	150	0	0		

Sample ID: MB-28126	SampType: MBLK	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 4/5/2011	Run ID: GC-I_110405C						
Client ID: ZZZZZ	Batch ID: 28126	TestNo: NWTPH-Gx		Analysis Date: 4/5/2011	SeqNo: 740251						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	36.56	100									J
Surr: 4-Bromofluorobenzene	92.85	0	100	0	92.8	50	150	0	0		

Sample ID: LCS-28124	SampType: LCS	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 4/5/2011	Run ID: GC-S_110405A						
Client ID: ZZZZZ	Batch ID: 28124	TestNo: NWTPH-Gx		Analysis Date: 4/5/2011	SeqNo: 740206						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1866	100	2000	0	93.3	74.4	128	0	0		

Sample ID: LCS-28126	SampType: LCS	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 4/5/2011	Run ID: GC-I_110405C						
Client ID: ZZZZZ	Batch ID: 28126	TestNo: NWTPH-Gx		Analysis Date: 4/5/2011	SeqNo: 740250						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1680	100	2000	0	84	74.4	128	0	0		

Sample ID: 1104032-01ADUP	SampType: DUP	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 4/5/2011	Run ID: GC-S_110405A						
Client ID: ZZZZZ	Batch ID: 28124	TestNo: NWTPH-Gx		Analysis Date: 4/5/2011	SeqNo: 740209						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	244.9	100	0	0	0	0	0	270.9	10.1	20	

Qualifiers: ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1104030
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: 1104032-10ADUP	SampType: DUP	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 4/5/2011				Run ID: GC-S_110405A			
Client ID: ZZZZZ	Batch ID: 28124	TestNo: NWTPH-Gx		Analysis Date: 4/5/2011				SeqNo: 740216			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	ND	100	0	0	0	0	0	0	0	20	

Sample ID: 1104023-01BDUP	SampType: DUP	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 4/5/2011				Run ID: GC-I_110405C			
Client ID: ZZZZZ	Batch ID: 28126	TestNo: NWTPH-Gx		Analysis Date: 4/5/2011				SeqNo: 740253			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	54.87	100	0	0	0	0	0	66.03	0	20	J

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_	Units: µg/L	Prep Date:				Run ID: GC-S_110405A			
Client ID: ZZZZZ	Batch ID: 28124	TestNo: NWTPH-Gx		Analysis Date: 4/5/2011				SeqNo: 740221			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2855	100	3000	0	95.2	80	120	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_	Units: µg/L	Prep Date:				Run ID: GC-I_110405C			
Client ID: ZZZZZ	Batch ID: 28126	TestNo: NWTPH-Gx		Analysis Date: 4/5/2011				SeqNo: 740256			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2690	100	3000	0	89.7	80	120	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.

Work Order: 1104030

Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: MB-28123	SampType: MBLK	TestCode: PAHLL_W	Units: µg/L	Prep Date: 4/5/2011	Run ID: 5973G_110405B						
Client ID: ZZZZZ	Batch ID: 28123	TestNo: 8270SIM		Analysis Date: 4/5/2011	SeqNo: 740113						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	ND	0.0500									
Acenaphthylene	ND	0.0500									
Anthracene	ND	0.0500									
Benz(a)anthracene	0.02	0.0500									J
Benzo(a)pyrene	0.02	0.0500									J
Benzo(b)fluoranthene	0.04	0.0500									J
Benzo(g,h,i)perylene	0.03	0.0500									J
Benzo(k)fluoranthene	0.03	0.0500									J
Chrysene	ND	0.0500									
Dibenz(a,h)anthracene	0.02	0.0500									J
Fluoranthene	ND	0.0500									
Fluorene	ND	0.0500									
Indeno(1,2,3-cd)pyrene	0.02	0.0500									J
Naphthalene	0.03	0.0500									J
Phenanthrene	0.01	0.0500									J
Pyrene	0.01	0.0500									J
Surr: 2-Fluorobiphenyl	79.31	1.00	100	0	79.3	18.6	106	0	0		
Surr: Nitrobenzene-d5	69.72	1.00	100	0	69.7	17	130	0	0		
Surr: p-Terphenyl-d14	66.63	1.00	100	0	66.6	39.6	131	0	0		

Sample ID: LCS-28123	SampType: LCS	TestCode: PAHLL_W	Units: µg/L	Prep Date: 4/5/2011	Run ID: 5973G_110405B						
Client ID: ZZZZZ	Batch ID: 28123	TestNo: 8270SIM		Analysis Date: 4/5/2011	SeqNo: 740122						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3.02	0.0500	5	0	60.4	35.1	100	0	0		
Benzo(g,h,i)perylene	3.17	0.0500	5	0	63.4	20.8	120	0	0		
Chrysene	2.94	0.0500	5	0	58.8	39.1	119	0	0		
Naphthalene	2.69	0.0500	5	0	53.8	25.6	106	0	0		
Phenanthrene	3.08	0.0500	5	0	61.6	38.1	106	0	0		
Pyrene	3.16	0.0500	5	0	63.2	41.3	118	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

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R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.

Work Order: 1104030

Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: LCSD-28123	SampType: LCSD	TestCode: PAHLL_W	Units: µg/L	Prep Date: 4/5/2011	Run ID: 5973G_110405B						
Client ID: ZZZZZ	Batch ID: 28123	TestNo: 8270SIM		Analysis Date: 4/5/2011	SeqNo: 740123						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene	3.2	0.0500	5	0	64	35.1	100	3.02	5.79	20	
Benzo(g,h,i)perylene	3.21	0.0500	5	0	64.2	20.8	120	3.17	1.25	20	
Chrysene	3.03	0.0500	5	0	60.6	39.1	119	2.94	3.02	20	
Naphthalene	2.98	0.0500	5	0	59.6	25.6	106	2.69	10.2	20	
Phenanthrene	3.23	0.0500	5	0	64.6	38.1	106	3.08	4.75	20	
Pyrene	3.25	0.0500	5	0	65	41.3	118	3.16	2.81	20	

Sample ID: CCV-28123	SampType: CCV	TestCode: PAHLL_W	Units: µg/L	Prep Date:	Run ID: 5973G_110405B						
Client ID: ZZZZZ	Batch ID: 28123	TestNo: 8270SIM		Analysis Date: 4/5/2011	SeqNo: 740112						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Acenaphthene	0.96	0.0500	1	0	96	70	130	0	0		
Acenaphthylene	1.1	0.0500	1	0	110	70	130	0	0		
Anthracene	0.95	0.0500	1	0	95	70	130	0	0		
Benz(a)anthracene	0.86	0.0500	1	0	86	70	130	0	0		
Benzo(a)pyrene	0.84	0.0500	1	0	84	70	130	0	0		
Benzo(b)fluoranthene	0.81	0.0500	1	0	81	70	130	0	0		
Benzo(g,h,i)perylene	0.89	0.0500	1	0	89	70	130	0	0		
Benzo(k)fluoranthene	0.85	0.0500	1	0	85	70	130	0	0		
Chrysene	0.87	0.0500	1	0	87	70	130	0	0		
Dibenz(a,h)anthracene	0.73	0.0500	1	0	73	70	130	0	0		
Fluoranthene	0.89	0.0500	1	0	89	70	130	0	0		
Fluorene	1	0.0500	1	0	100	70	130	0	0		
Indeno(1,2,3-cd)pyrene	0.72	0.0500	1	0	72	70	130	0	0		
Naphthalene	0.96	0.0500	1	0	96	70	130	0	0		
Phenanthrene	1.02	0.0500	1	0	102	70	130	0	0		
Pyrene	0.94	0.0500	1	0	94	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1104030
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: CCV-28123	SampType: CCV	TestCode: PAHLL_W	Units: µg/L	Prep Date:	Run ID: 5973G_110405B						
Client ID: ZZZZZ	Batch ID: 28123	TestNo: 8270SIM		Analysis Date: 4/6/2011	SeqNo: 740318						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	0.93	0.0500	1	0	93	70	130	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

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.

Fax: 503-607-1336

Invoice To _____ P.O. No. _____

Rush Analyses Must Be Scheduled With The Lab In Advance

[illegible]

Pink-Customer Copy

APPENDIX B

Groundwater Elevations and TPH-Gx Concentrations vs Time
Former Kwik Gas, Molalla, OR
MW-4

