

**Environmental Restoration Program
Final Remedial Action Report**

**242nd Combat Communications Squadron
Spokane Air National Guard Station
Washington Air National Guard
Spokane, Washington**

June 2006



**Air National Guard
Andrews AFB, Maryland**

Environmental Restoration Program Final Remedial Action Report

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Spokane, Washington**

June 2006

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LIST OF ACRONYMS/ABBREVIATIONS

ACRONYM/ ABBREVIATION	DEFINITION
ANG	Air National Guard
ANGS	Air National Guard Station
ASTM	American Society for Testing and Materials
Bgs	Below ground surface
CCSQ	Combat Communications Squadron
ERM	ERM-West, Inc.
ERP	Environmental Restoration Program
FS	Feasibility Study
IDW	Investigation-derived waste
ISCO	In situ chemical oxidation
MTCA	Model Toxics Control Act
PH	Acidity/alkalinity
PQL	Practical quantitation limit
PSG	Project screening goal
QA/QC	Quality assurance/quality control
RA	Remedial action
RAO	Remedial action objective
RI	Remedial Investigation
ROD	Record of Decision
TCE	Trichloroethene
µg/l	Micrograms per liter
USEPA	United States Environmental Protection Agency
VOC	Volatile organic compound
WAC	Washington Administrative Code
ZVI	Zero-valent iron

EXECUTIVE SUMMARY

This report describes the remedial action (RA) conducted by the Air National Guard in 2004 and 2005 at the 242nd Combat Communications Squadron, Spokane Air National Guard Station in Spokane, Washington. The RA utilized in situ chemical oxidation to reduce concentrations of the volatile organic compounds carbon tetrachloride, chloroform, trichloroethene, and total xylenes in groundwater that exceeded Washington State regulatory standards. Concentrations of the primary contaminant, carbon tetrachloride, detected in groundwater prior to the RA ranged from 1.9 to 59.9 micrograms per liter ($\mu\text{g/l}$). The groundwater cleanup goal for carbon tetrachloride at the site is 1 $\mu\text{g/l}$ based on requirements in the Model Toxics Control Act Cleanup Regulation, Washington Administrative Code Chapter 173-360, the regulation under which the RA was performed.

The in situ chemical oxidation program consisted of two rounds of amended sodium persulfate injections in October and November 2004 and in May 2005. During the first round, approximately 130 pounds of sodium persulfate in aqueous solution and 130 pounds of zero-valent iron (ZVI) as a slurry were injected into each of 77 direct-push injection points distributed across the groundwater plume. During round two, performed in May 2005, approximately 140 pounds of sodium persulfate and 140 pounds of calcium hydroxide in aqueous solution were injected into each of 50 direct-push injection points distributed across the groundwater plume. Groundwater monitoring was performed before, during, and after the amended sodium persulfate injections; collected samples were analyzed for volatile organic compounds and dissolved Priority Pollutant Metals.

Post-treatment monitoring performed between January 2005 and July 2005 indicates that chloroform, trichloroethene, and total xylene concentrations in groundwater were reduced to levels compliant with target cleanup goals. Although the mass of carbon tetrachloride in groundwater was reduced by the RA, concentrations remained greater than the cleanup goal of 1 $\mu\text{g/l}$ in monitoring wells MW-2, MW-3, MW-4, MW-16, MW-18, and MW-19 during the most recent groundwater monitoring event in July 2005. The concentrations of carbon tetrachloride detected in those wells in July 2005 ranged from 1.04 $\mu\text{g/l}$ (MW-4) to 6.39 $\mu\text{g/l}$ (MW-19).

During the course of the RA fieldwork, dissolved arsenic was detected above the project screening goal of 5 $\mu\text{g/l}$ for groundwater samples

collected from MW-5 during each of the four quarterly sampling events and are exhibiting an increasing trend. Based on similar dissolved arsenic detections in groundwater samples collected during the RI, the source of this arsenic is suspected to be naturally occurring arsenic in site soils. Dissolved mercury was also detected slightly above the project screening goal of 2 µg/l in MW-2 (2.44 µg/l) during the April 2005 groundwater sampling event. Historically, dissolved mercury has not been detected in the monitoring wells and sampling efforts to date have indicated no evidence of mercury releases. Dissolved mercury was not detected at any of the site wells during the previous or subsequent sampling event. The dissolved mercury detection is considered an anomaly and, in ERM-West, Inc.'s opinion, should not affect regulatory compliance considerations if it remains absent in future sampling events.

SECTION 1.0

INTRODUCTION

ERM-West, Inc. (ERM) has prepared this Remedial Action (RA) Report to provide results of the RA being performed at the 242nd Combat Communications Squadron (CCSQ), Spokane Air National Guard Station (Spokane ANGS) in Spokane, Washington ([Figure 1-1](#)). The RA elements described in this report were conducted between October 2004 and July 2005 and consisted of in situ chemical oxidation (ISCO) to address concentrations of the volatile organic compounds (VOCs) carbon tetrachloride, chloroform, trichloroethene (TCE), and total xylenes in groundwater that exceeded applicable regulatory standards.

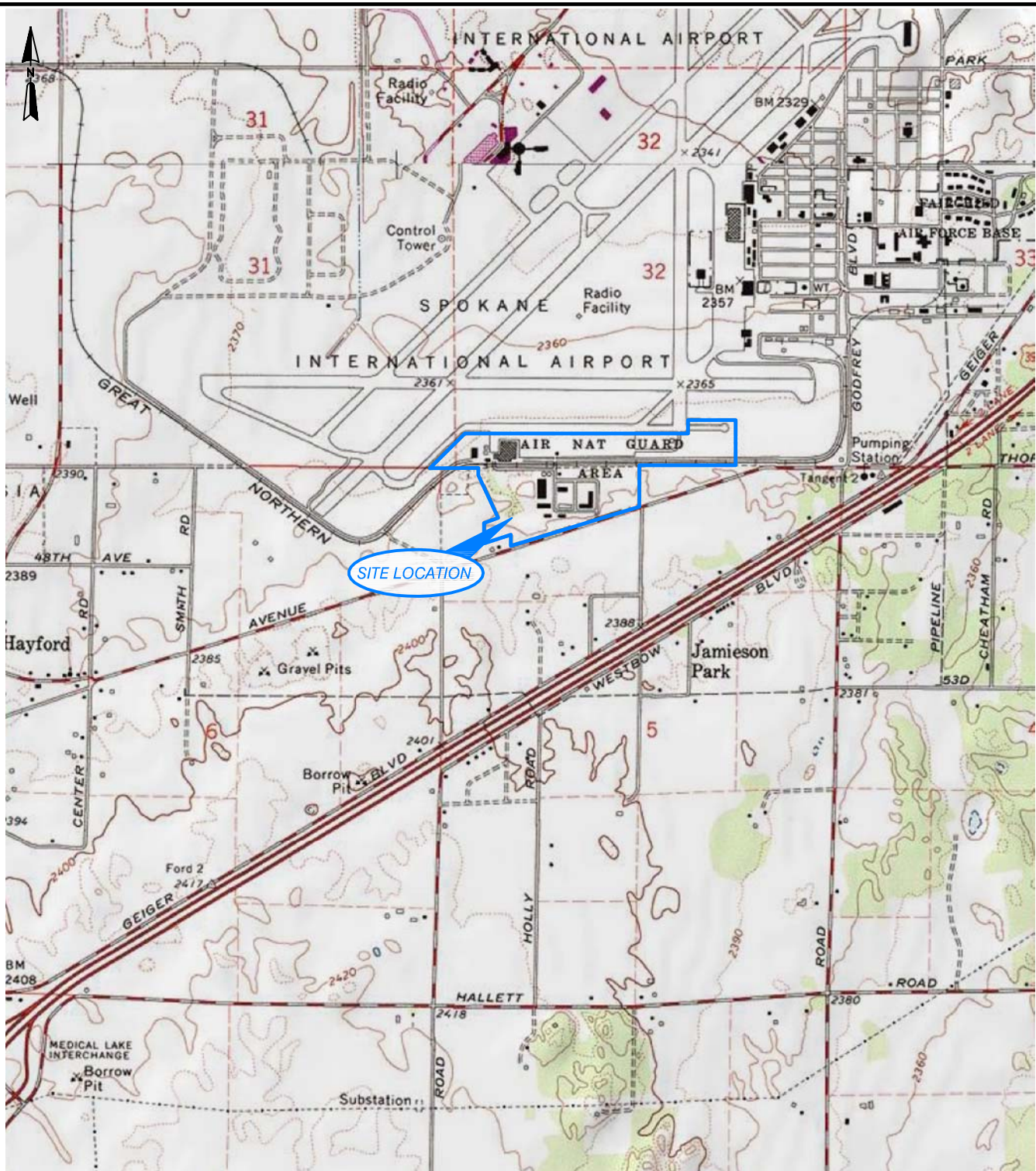
This report was prepared as part of the Air National Guard's (ANG's) Environmental Restoration Program (ERP) under Contract DAHA90-01-0005, Delivery Order 0016, between ERM, and the National Guard Bureau, Departments of the Army and the Air Force. The ANG ERP Branch provided technical and project management oversight of this work on behalf of the ANG.

1.1 Site Location

The Spokane ANGS is located at the Spokane International Airport in Spokane, Washington ([Figure 1-1](#)). The Station occupies approximately 79 acres within the Spokane International Airport, approximately 4 miles west of downtown Spokane, Washington, and serves as the headquarters of the Washington ANG 242nd CCSQ. The 242nd CCSQ provides mobile communications equipment and support for airports and airfields. A site plan is included on [Figure 1-2](#).

1.2 Chronology of Events and Previous Reports

Carbon tetrachloride was detected above project screening goals (PSGs) in shallow groundwater during the 1998-99 Groundwater Monitoring Program (ERM 1999a, 1999b, 1999c and 2000). PSGs for target



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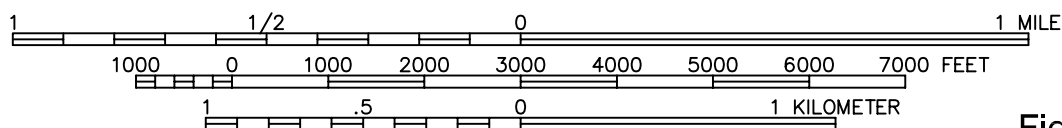


Figure 1-1
 Location Map of
 Spokane Air National Guard Station
 242nd CCSQ, Spokane ANG
 Spokane, Washington

References:
 U.S.G.S. 7.5 Minute Series (Topographic Four Lakes
 and Airway Heights, Washington, Quadrangle)
 Dated: 1973; Airways Heights Photorevised 1986

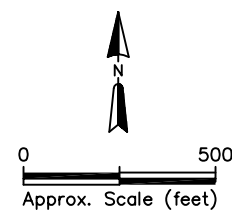
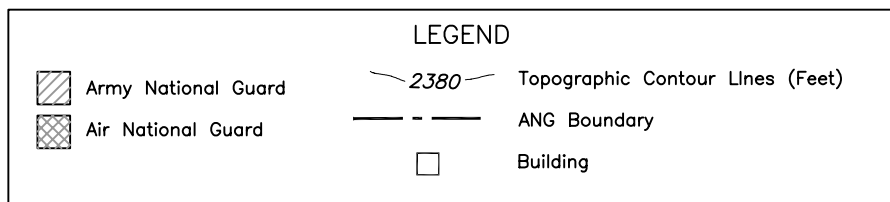
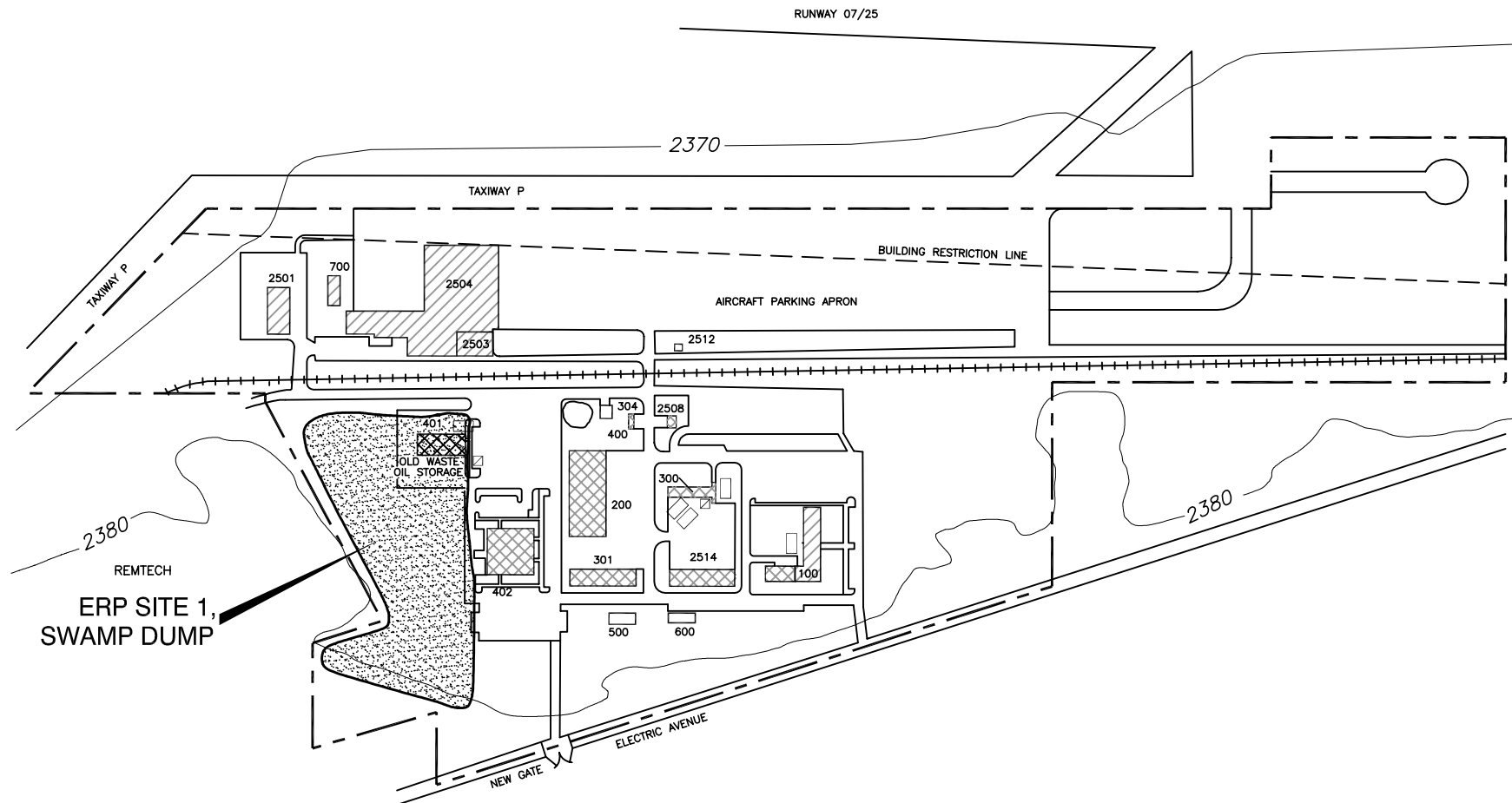


Figure 1-2
*Site Plan for Spokane ANG
 242nd CCSQ, Spokane ANG
 Spokane, Washington*

contaminants were developed based on the most reasonable, conservative cleanup standards under the Washington Model Toxics Control Act (MTCA) Regulation, Chapter 173-340 Washington Administrative Code (WAC). Based on the results of the Groundwater Monitoring Program, ERM completed a Phase II remedial investigation (RI) in September 2000 through August 2001 to evaluate the nature and extent of the carbon tetrachloride detected in groundwater at well MW-4 (ERM 2002). During the Phase II RI, chloroform, TCE, and xylenes were also detected in groundwater at concentrations greater than their respective PSGs in the area of groundwater affected by carbon tetrachloride. Analytical results for confirmation groundwater samples collected during the 1998-99 Groundwater Monitoring Program and the Phase II RI are summarized in [Table 1-1](#). Select screening-level and confirmation groundwater results from the Phase II RI are presented on [Figures 1-3 and 1-4](#).

A feasibility study (FS) was subsequently conducted to evaluate remedial alternatives for addressing the VOC-contaminated groundwater (ERM 2003a), providing the basis for this RA. The FS and remedy selection process for the Spokane ANG's are summarized in the Proposed Plan (ERM 2003b). The Record of Decision (ROD) (ERM 2004a) summarizes site conditions and potential health risks, describes previous investigations, and documents the ANG's Selected Remedy. The RA Work Plan (ERM 2004b) describes the previous investigations, site characteristics, remedial action objectives (RAOs), the results of the *Bench-Scale Treatability Study Report* (ERM 2004c), and the selected remedy, ISCO using amended sodium persulfate solution.

The following is a list of the studies that have been conducted as part of the ERP at the Spokane ANG's:

- Preliminary Assessment (ANG 1993);
- Preliminary Assessment/Site Inspection (Operational Technologies Corporation 1995);
- Phase I RI at ERP Site 1 – Swamp Dump (ERM 1998);
- Groundwater Monitoring Program (ERM 1999a, 1999b, 1999c, and 2000);
- Phase II RI (ERM 2002);
- FS (ERM 2003a);

TABLE 1-1

*Summary of VOCs Detected in Groundwater
1998-99 Groundwater Monitoring Program and Phase II RI
242nd CCSQ, Spokane ANG, Spokane, Washington*

Location	Date	Volatile Organic Compounds ¹										
		Acetone	sec-Butylbenzene	Carbon Disulfide	cis-1,2-Dichloroethene	Carbon Tetrachloride	Chlorobenzene	Ethylbenzene	Chloroform	TCE	1,3,5-Trimethylbenzene	Total Xylenes
MW-2	11/7/2000	ND	ND	ND	ND	2.69	ND	ND	ND	ND	ND	ND
	2/7/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/3/2001	ND	ND	ND	ND	12.7	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	19.1	1.32	ND	ND	ND	ND	ND
MW-3	11/7/2000	ND	1.96	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/7/2001	ND	2.37	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/3/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	1.4	ND	ND	1.9	2.04	ND	ND	ND	ND	ND
MW-4	11/18/1998	ND	ND	ND	ND	11.3	ND	ND	ND	ND	ND	ND
	2/17/1999	ND	ND	ND	ND	26.1	ND	ND	0.534	0.619	ND	ND
	5/20/1999	ND	ND	ND	ND	59.9	ND	ND	3.04	2.08	ND	ND
	8/18/1999	ND	ND	ND	ND	28.0	ND	ND	1.47	0.804	ND	ND
	11/8/2000	ND	ND	ND	ND	7.7	ND	ND	ND	ND	ND	ND
	2/6/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	59.0	ND	ND	2.84	1.99	ND	ND
	8/2/2001	ND	ND	ND	ND	24.6	3.90	ND	1.34	ND	ND	ND
MW-5	11/7/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/3/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	2.31	ND	ND	4.3	ND	ND	1.27	7.06
	11/7/2000	ND	ND	ND	1.18	ND	ND	ND	ND	ND	ND	ND
MW-6	2/7/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/3/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	2.85	ND	ND	ND	ND	ND
	1/21/1997	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-10	11/17/1998	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/17/1998	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/17/1999	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/8/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/6/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	2.14	ND	ND	ND	ND	ND
	11/8/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-12	2/6/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/8/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-13	2/6/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	1.50	ND	ND	ND	ND	ND
	11/9/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-14	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/8/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-15	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/8/2000	27.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/6/2001	282	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-16	8/2/2001	ND	ND	ND	ND	ND	1.73	ND	ND	ND	ND	ND
	11/8/2000	519	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/6/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-17	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/19/1998	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/16/1999	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/20/1999	ND	ND	0.621	ND	ND	ND	ND	ND	ND	ND	ND
SM-001PZ (Background Well)	8/17/1999	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	11/7/2000	14.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/6/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
RI Project Screening Goal		800	NA	800	70	0.337	100	30	7.17	5	NA	20

Notes:

All concentrations in micrograms per liter.

Shaded cells indicate a detection above the associated RI project screening goal.

¹By United States Environmental Protection Agency Method 8260.

ANGS = Air National Guard Station

CCSQ = Combat Communications Squadron

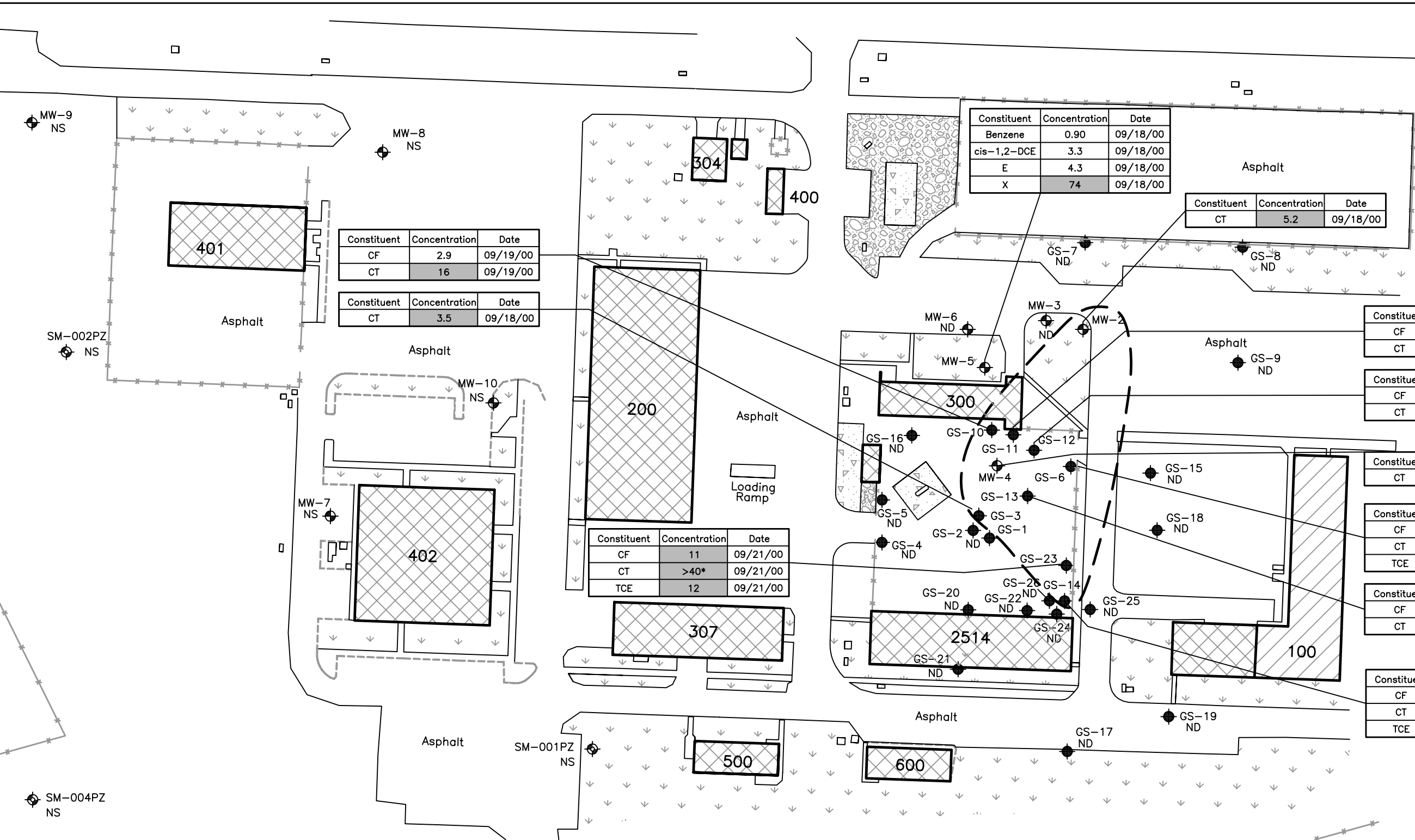
VOC = Volatile Organic Compound

NA = Not analyzed or none available

ND = Not detected above laboratory method reporting limit

RI = Remedial Investigation

TCE = Trichloroethene



LEGEND

	Monitoring Well	CF	Chloroform	500	Building Number
	PA/SI Monitoring Well (Piezometer)	CT	Carbon tetrachloride		Air National Guard Building
	Direct-Push Groundwater Sample	cis-1,2-DCE	cis-1,2-Dichloroethene		Army National Guard Building
	Fence	E	Ethylbenzene		Concrete
	Inferred Extent of Carbon Tetrachloride Concentrations Greater Than PSG (0.337 µg/l) in Groundwater	TCE	Trichloroethene		Gravel
	All concentrations in micrograms per liter (µg/l). Shaded values exceed PSGs.	X	Total Xylenes		Grass
		ND	Not Detected		
		NS	Not Sampled		
		*	Estimated, Concentration Greater Than Instrument Calibration Range		

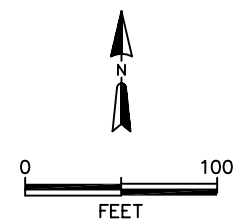


Figure 1-3
VOCs Detected in Phase II RI
Groundwater Screening Samples
242nd CCSQ, Spokane ANG
Spokane, Washington
ERM 11/05

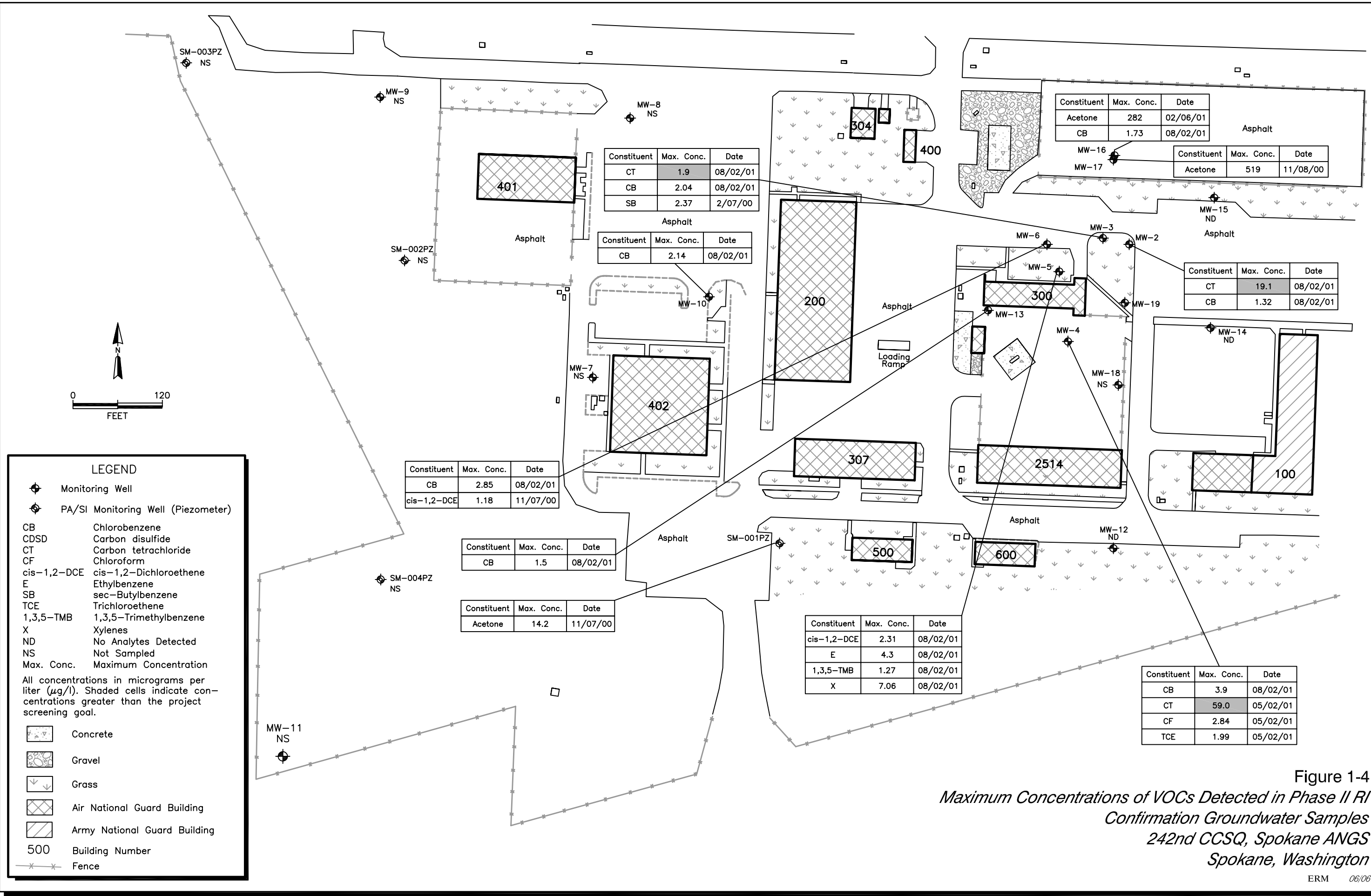


Figure 1-4
Maximum Concentrations of VOCs Detected in Phase II RI
Confirmation Groundwater Samples
242nd CCSQ, Spokane ANG
Spokane, Washington

- ROD (ERM 2004a); and
- Bench-Scale Treatability Study (ERM 2004c).

The findings of these studies are summarized in the RA Work Plan (ERM 2004b).

1.3 Remedial Action Objectives

The objective of the RA is to implement a remedial technology effective at reducing concentrations of the target VOCs in site groundwater to concentrations that no longer pose a risk to human health and the environment. The results of the baseline risk assessment indicated that, due to the presence of dissolved VOCs at concentrations above applicable MTCA cleanup standards, groundwater at the Spokane ANGS presented an unacceptable potential future risk to human health under the reasonable maximum exposure assumptions of MTCA (i.e., site groundwater used as drinking water). In this case, the risks are considered to be hypothetical risks, because groundwater is not currently used as a drinking water source and are not likely to be used as a future drinking water source. To mitigate potential future health risks and ensure protection of groundwater resources, site-specific RAOs were presented in the FS (ERM 2003a). These RAOs served as the performance objectives for the response action.

The RAOs for the Spokane ANGS are as follows:

- Prevent off-site migration of groundwater containing VOC concentrations above the respective MTCA Method A and B Cleanup Levels; and
- Prevent the ingestion of groundwater containing VOC concentrations above the respective MTCA Method A and B Cleanup Levels.

The RA described in this report utilized active ISCO using amended sodium persulfate to reduce the dissolved mass of carbon tetrachloride, chloroform, TCE, and xylenes identified in shallow groundwater at the site. The RAOs listed above are expected to be met through a reduction of VOC concentrations to below MTCA Method A Cleanup Levels of 5 and 20 micrograms per liter ($\mu\text{g/l}$) for TCE and xylenes, respectively, below the MTCA Method B Cancer Formula Value of $7.17 \mu\text{g/l}$ for chloroform,

and below the practical quantitation limit (PQL) of 1 µg/l for carbon tetrachloride. The MTCA Method B Cancer Formula Value for carbon tetrachloride is 0.337 µg/l, which is less than the PQL. MTCA indicates that for contaminants where the appropriate MTCA Method B cleanup value is less than the PQL, the PQL shall be used as the applicable regulatory cleanup goal (Chapter 173-340-705[6] WAC).

1.4 Report Structure

This report is organized into five sections and seven appendices. The contents of the sections are as follows:

- [Section 1.0](#) provides general introductory information.
- [Section 2.0](#) describes the RA field activities.
- [Section 3.0](#) provides a summary of the analytical results.
- [Section 4.0](#) presents the conclusions.
- [Section 5.0](#) lists references.

The following appendices are included in this report:

- [Appendix A](#) contains boring well completion logs.
- [Appendix B](#) contains the RA field program photographs.
- [Appendix C](#) contains summary of amended sodium persulfate injection quantities.
- [Appendix D](#) contains groundwater and acidity/alkalinity (pH) data collected during the May 2005 injection event.
- [Appendix E](#) contains the location and elevations survey reports.
- [Appendix F](#) contains analytical laboratory reports.
- [Appendix G](#) contains ERM's Quality Assurance/Quality Control (QA/QC) Validation Report for the RA analytical data.

SECTION 2.0

FIELD ACTIVITIES

The field activities performed between October 2004 and July 2005 are summarized in [Table 2-1](#) and included the following tasks:

- Installation of two monitoring wells, MW-18 and MW-19, at the locations shown on [Figure 2-1](#);
- Collection of a baseline (October 2004) round of groundwater samples from 12 monitoring wells (MW2 through MW-6, MW-12 through MW-16, MW-18, and MW-19) in the vicinity of the treatment area to characterize existing (pre-treatment) conditions;
- Performance of two rounds of direct-push injection (October to November 2004 and May 2005) of amended sodium persulfate; and
- Performance of three quarterly groundwater monitoring events (January 2005, April 2005, and July 2005) at the 12 monitoring wells sampled during the baseline event.

Field activities were performed in accordance with procedures detailed in the RA Work Plan (ERM 2004b). Deviations from the work plan are noted in [Section 2.8](#).

2.1 Underground Utility Clearance and Permits

Cascade Drilling, Inc. submitted a Notice of Intent to Construct a Groundwater Monitoring Well (start card) to the Washington State Department of Ecology prior to installing groundwater monitoring wells MW-18 and MW-19. Additionally, the injection of amended sodium persulfate into the subsurface required registration of the direct-push injection borings as Class 5X26 Aquifer Remediation Wells (United States Environmental Protection Agency [USEPA] designation). ERM registered the injection wells with the Underground Injection Control Coordinator of the Washington State Department of Ecology's Water Quality Program

TABLE 2-1

*Field Program Summary
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington*

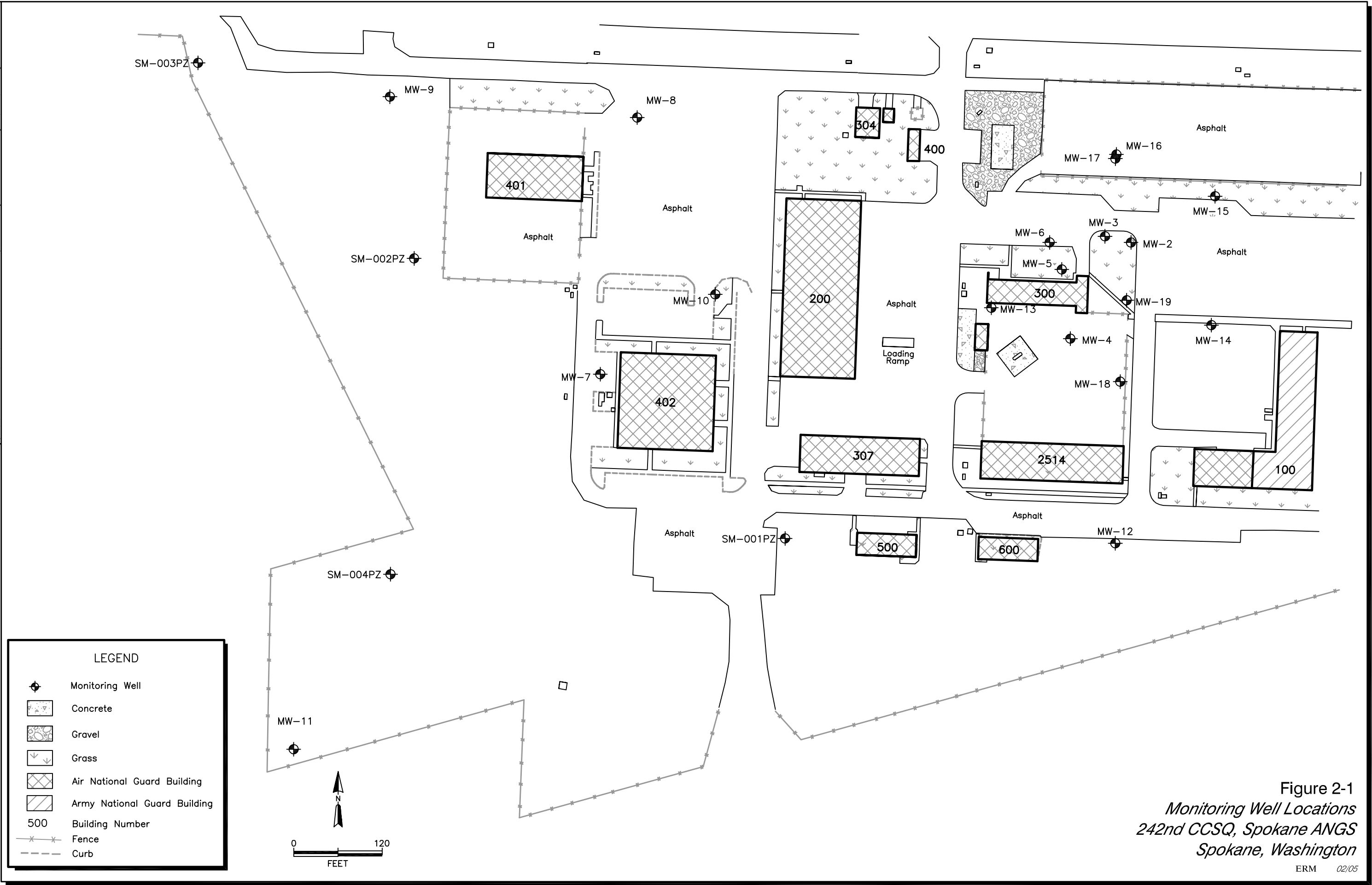
Activity	Number and Type of Sample Locations	Number of Primary Samples
Monitoring Well Installation	2 new wells within the treatment area near Building 300	None collected during well installation
Amended Sodium Persulfate Injections	October/November 2004 event, 77 direct-push borings, approximately 130 pounds sodium persulfate + 130 pounds ZVI injected into each direct-push boring	None collected
	May 2005 event, 50 direct-push borings, approximately 140 pounds sodium persulfate + 140 pounds calcium hydroxide injected into each boring	None collected
Groundwater Monitoring Program	12 monitoring wells/ 1 baseline event, 3 quarterly progress sampling events	48 groundwater samples

Notes:

ANGS = Air National Guard Station

CCSQ = Combat Communications Squadron

ZVI = Zero-valent iron



prior to the first round of injections. No other public permit or notification requirements were required for the field activities presented in this report.

Underground utilities in the vicinity of the treatment area were located by ANG personnel prior to drilling, and drilling did not proceed until specifically authorized by cognizant ANG personnel.

2.2 Groundwater Monitoring Well Installation

Two groundwater monitoring wells (MW-18 and MW-19) were installed within the groundwater treatment area prior to the first round of amended sodium persulfate injections. The wells were installed to provide additional monitoring points to evaluate the progress and effectiveness of the RA. The monitoring well locations are shown on [Figure 2-1](#).

2.2.1 Drilling and Borehole Logging

Cascade Drilling, Inc., of Woodinville, Washington, installed monitoring wells MW-18 and MW-19 on 12 October 2004 using a hollow-stem auger drill rig. Soil samples were collected every 2.5 feet for lithologic logging. An ERM geologist was present to log soils, monitor drilling operations, record observations, monitor and record well installation procedures, and prepare borehole logs and well construction diagrams. Soils were classified using the Unified Soil Classification System and described according to the American Society for Testing and Materials (ASTM) Standard D2488-69, "Description of Soils (Visual Manual Procedure)". Boring logs and well construction details are provided in [Appendix A](#).

2.2.2 Well Construction

Monitoring wells MW-18 and MW-19 were completed to approximately 16 feet below ground surface (bgs) as described in the RA Work Plan. Well construction details are provided in [Table 2-2](#) and are included in the boring logs ([Appendix A](#)).

FINAL

TABLE 2-2

*Monitoring Well Construction Summary
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington*

Location	Measuring Point Elevation (feet amsl)	Total Borehole Depth (feet bgs)	Depth of Casing (feet btoc)	Casing Diameter/ Material	Wellhead Completion	Screen Slot Size (inches)	Screened Interval (feet bgs)
SM-001PZ (Background)	2378.22	23.0	22.0	2-inch PVC	Aboveground	0.010	7.0 - 22.0
SM-002PZ	2378.87	18.0	18.0	2-inch PVC	Aboveground	0.010	7.0 - 17.0
SM-003PZ	2372.43	18.0	17.5	2-inch PVC	Aboveground	0.010	7.0 - 17.0
SM-004PZ	2376.34	21.0	21.0	2-inch PVC	Aboveground	0.010	5.0 - 20.0
MW-2	2377.07	19.0	19.0	2-inch PVC	Flush	0.010	7.0 - 17.0
MW-3	2376.73	18.5	18.5	2-inch PVC	Flush	0.010	7.0 - 17.0
MW-4	2377.06	18.0	17.9	2-inch PVC	Flush	0.010	7.0 - 17.0
MW-5	2377.36	18.5	18.5	2-inch PVC	Flush	0.010	7.0 - 17.0
MW-6	2376.37	18.0	18.0	2-inch PVC	Flush	0.010	7.0 - 17.0
MW-7	2376.28	16.5	16.5	2-inch PVC	Flush	0.010	5.0 - 15.0
MW-8	2372.97	18.5	18.5	2-inch PVC	Flush	0.010	7.0 - 17.0
MW-9	2371.98	18.5	18.5	2-inch PVC	Flush	0.010	7.0 - 17.0
MW-10	2377.07	17.5	17.5	2-inch PVC	Flush	0.010	7.0 - 17.0
MW-11 (Background)	2390.21	59.5	59.5	2-inch PVC	Aboveground	0.010	49.0 - 59.0
MW-12	2376.60	21.0	21.0	2-inch PVC	Flush	0.010	10.0 - 20.0
MW-13	2377.14	21.0	21.0	2-inch PVC	Flush	0.010	10.0 - 20.0
MW-14	2378.54	21.0	20.0	2-inch PVC	Flush	0.010	9.0 - 19.0
MW-15	2376.48	21.0	22.0	2-inch PVC	Flush	0.010	11.0 - 21.0
MW-16	2374.97	21.0	21.0	2-inch PVC	Flush	0.010	10.0 - 20.0
MW-17	2375.18	41.3	41.3	2-inch PVC	Flush	0.010	30.5 - 40.5
MW-18	2378.00	16.50	16.0	2-inch PVC	Flush	0.010	6.0 - 16.0
MW-19	2377.46	16.50	16.0	2-inch PVC	Flush	0.010	6.0 - 16.0

Notes:

amsl = Above mean sea level

ANGS = Air National Guard Station

bgs = Below ground surface

btoc = Below top of casing

CCSQ = Combat Communications Squadron

PVC = Polyvinyl chloride

2.2.3 Well Development

The monitoring wells MW-18 and MW-19 were developed on 13 October 2004 by first surging the screened section with a polyethylene bailer and then by purging groundwater from the well using a submersible pump until temperature, pH, turbidity, and specific conductance stabilized to within ± 10 percent between readings.

2.3 Amended Sodium Persulfate Injection

This section describes in situ oxidation using amended sodium persulfate as the remedial technology for treatment of the contaminants in groundwater at the Spokane ANGWS.

2.3.1 Amended Sodium Persulfate Technology

In situ chemical treatment of groundwater contaminants involves the injection of reagents that chemically degrade contaminants to less toxic or nontoxic byproducts within the contaminated aquifer. As described in the FS (ERM 2003a) and the ROD (ERM 2004a), in situ oxidation using sodium persulfate was determined to be the preferred remedial technology for treatment of the contaminants in groundwater at the Spokane ANGWS. The chemistry of persulfate oxidation of carbon tetrachloride requires amendment with other reagents to achieve oxidation of the target compound. The amendments chosen for this RA were based on results of the *Bench-Scale Treatability Study Report* (ERM 2004c) conducted in March 2004. Zero-valent iron (ZVI) was used as an amendment during the first injection round, and calcium hydroxide was used during the second round. ZVI-amended persulfate has been successful at promoting oxidation of contaminants recalcitrant to oxidation by persulfate alone, including carbon tetrachloride, by initially dechlorinating the carbon tetrachloride to an unsaturated condition that is more susceptible to persulfate oxidation. The use of calcium hydroxide increases the pH to a range where sodium persulfate will effectively oxidize carbon tetrachloride.

2.3.2 ISCO Injection Methods

Two rounds of amended sodium persulfate injection were completed in October-November 2004 and May 2005 at 77 and 50 injection locations, respectively. The injections performed during each of the two injection programs were spaced approximately 20 feet apart across the treatment area with adjustments made for utilities and other obstructions encountered. The spacing of the injection borings were based on the anticipated area of influence of each injection derived from the estimated hydraulic conductivity of the site aquifer, and the observed distribution of the contaminant plume. The injection boring locations are shown on [Figures 2-2 and 2-3](#). Photographs of key elements of the injection program are included in [Appendix B](#).

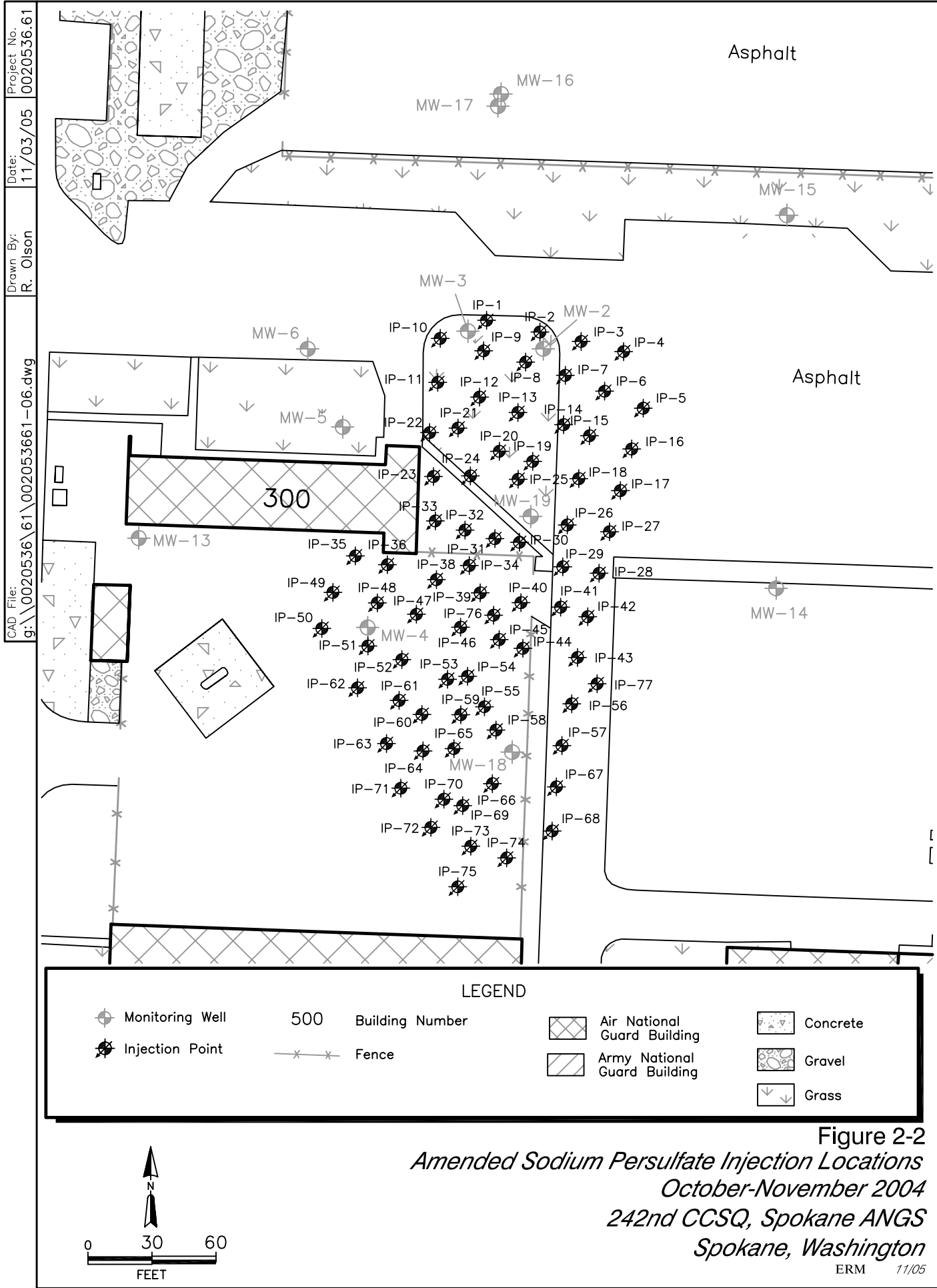
Borings completed during both injection rounds were advanced using a direct-push rig to refusal, which was typically at depths ranging from 10 to 15 feet bgs. The borings were completed to depth using hollow rods fitted with an expandable drive tip. The borehole was prepared for injection by retracting the drive rod approximately 1 foot, thus releasing the expendable tip and opening the bottom of the rod to the formation. The top of the drive rod was connected to the injection pump via high-pressure tubing/hose and a coupler.

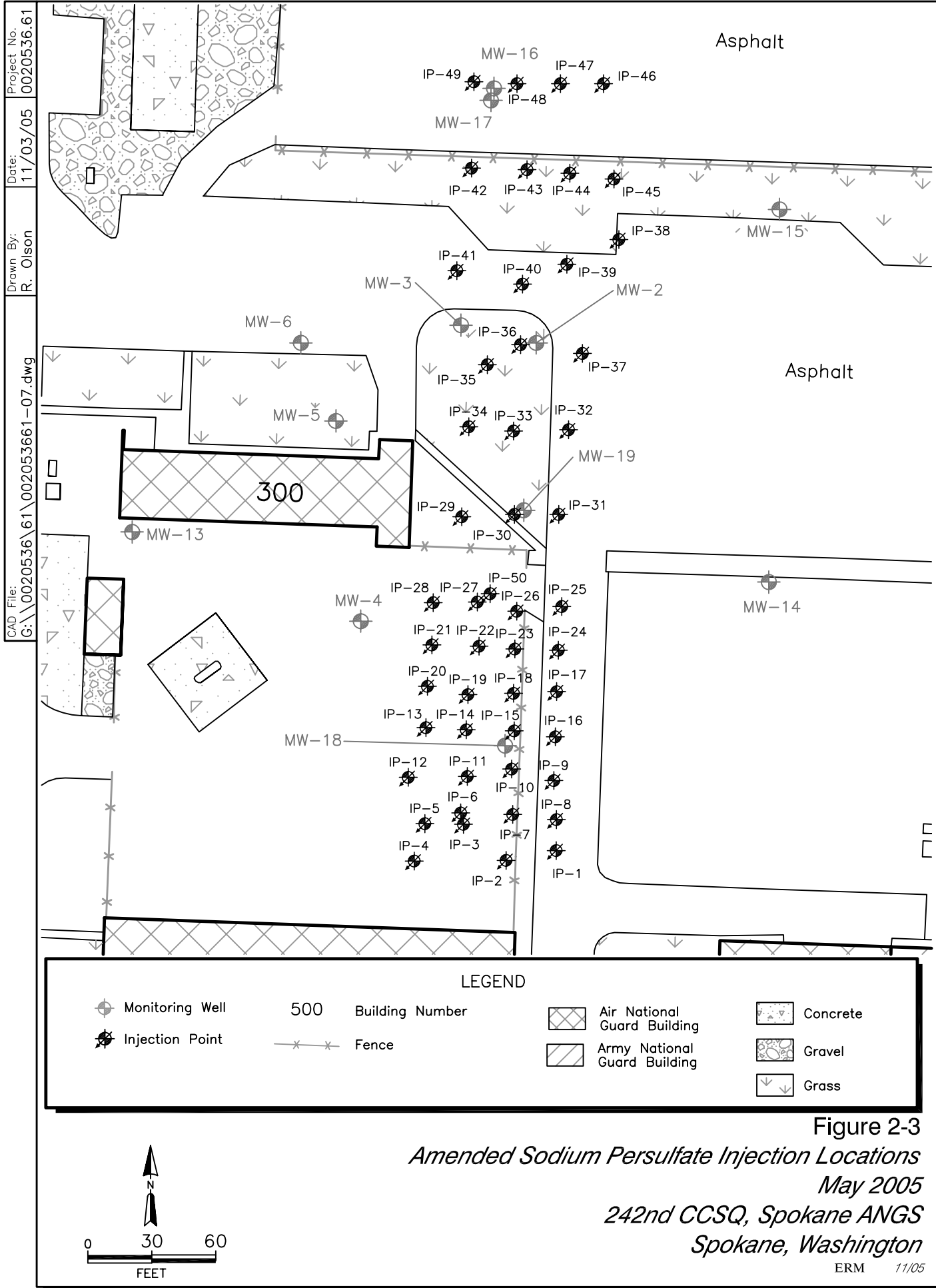
The typical injection rate achieved at each boring was approximately 3 to 5 gallons per minute. However, at some locations, the subsurface soils did not readily accept the fluids at the planned injection rate due to limited permeability of the aquifer materials. When this condition was initially encountered, injection was suspended for 10 to 15 minutes and then restarted. If slow injection rates persisted, the material was injected into a shallower interval or the total volume of injectate was decreased for that point.

Following completion of injection activities, the injection borings were abandoned by filling the boreholes with a cement/bentonite grout from the bottom of the boring to approximately 6 inches below the surface. The borings were then sealed at the surface with 6 inches of Portland cement concrete.

2.3.3 Injection Round One

The first injection round was conducted between 18 October and 12 November 2004 using sodium persulfate solution amended with ZVI. At each of the 77 injection borings, approximately 130 pounds of sodium





persulfate mixed with 300 gallons of tap water (a solution of approximately 5 percent by weight) was injected alternately with a fine granular slurry consisting of 130 pounds of ZVI powder mixed with approximately 250 gallons of tap water. Beginning at the bottom 1 foot of each boring, sodium persulfate solution and ZVI slurry were typically injected through the drive rod at alternating 1-foot intervals. Injection was completed in alternating intervals from the total depth of each boring up to approximately 6 feet bgs. Injection boring locations are shown on [Figure 2-2](#). An injection process diagram is included on [Figure 2-4](#). A summary of volumes of material injected at each boring is included in [Appendix C](#).

2.3.4 Injection Round Two

The second injection round was conducted between 2 and 18 May 2005 using an alkaline solution of sodium persulfate to treat carbon tetrachloride. The solution of sodium persulfate was amended with calcium hydroxide to increase the pH of sodium persulfate to approximately 11 to increase the sodium persulfate's reactivity with carbon tetrachloride. A sodium persulfate solution ranging from 5.4 to 5.6 percent by weight (140 to 150 pounds of persulfate to 300 gallons of tap water) was mixed with 140 pounds of calcium hydroxide and injected into each of the 50 injection points. The calcium hydroxide was mixed directly with the sodium persulfate solution and injected through the drive rod at the same time. Injection was completed in 1- to 2-foot intervals from the total depth of each boring up to approximately 6 feet bgs. Injection boring locations are shown on [Figure 2-3](#). An injection process diagram is included on [Figure 2-4](#). A summary of volumes of material injected at each boring is included in [Appendix C](#).

2.4 Groundwater Monitoring

Four quarterly groundwater monitoring events were performed during the RA:

- The first (baseline) monitoring event was performed between 12 and 14 October 2004, prior to the first injection round;

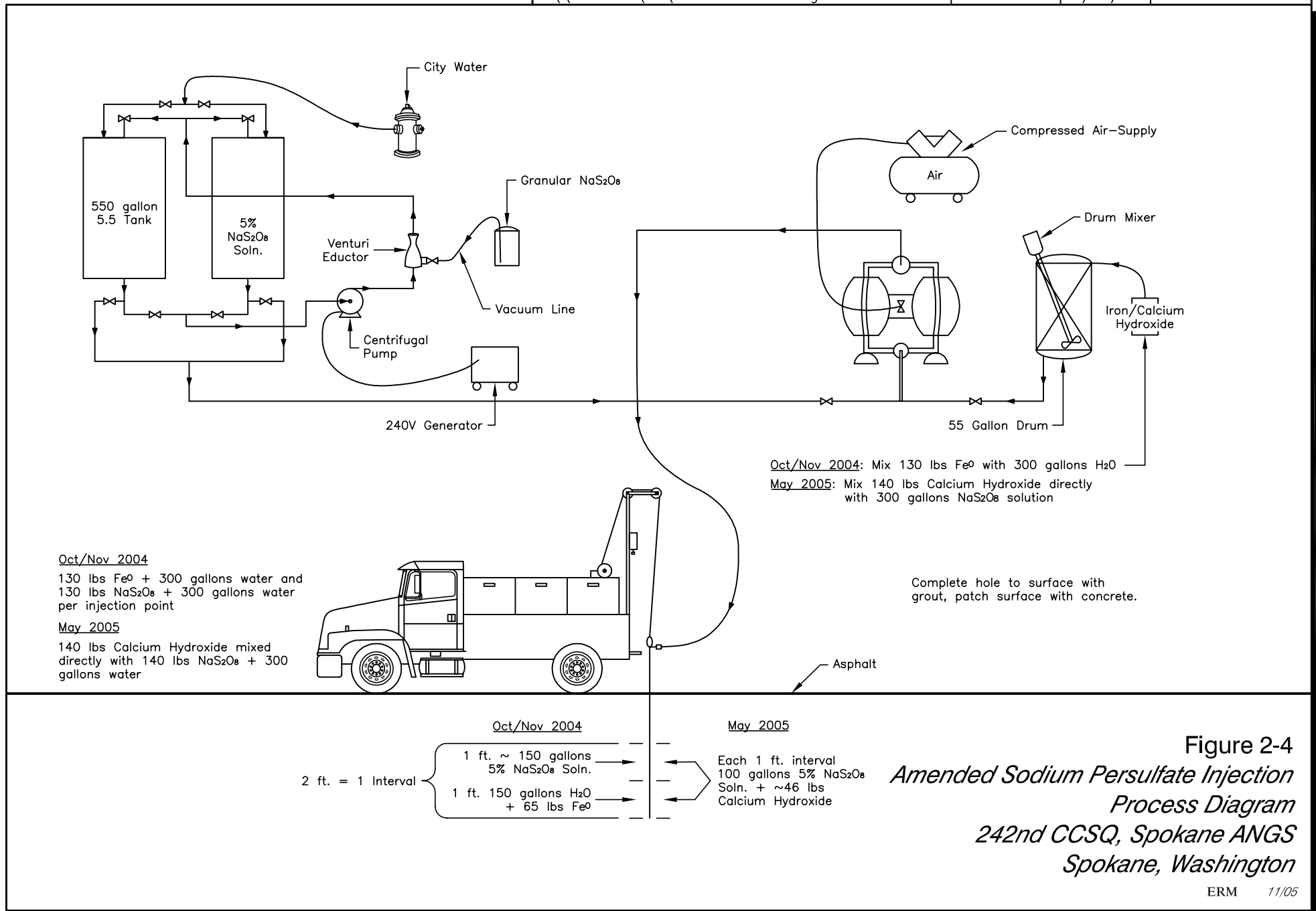


Figure 2-4
*Amended Sodium Persulfate Injection
Process Diagram
242nd CCSQ, Spokane ANG
Spokane, Washington*

- The second and third monitoring events were performed between 19 and 21 January 2005 and between 19 and 21 April 2005, respectively, between the first and second injection rounds; and
- The fourth monitoring event was performed on 19 and 20 July 2005 after the second injection round.

Additionally, pH and groundwater elevations were monitored in select monitoring wells during the May 2005 injection event.

2.4.1 Groundwater Sampling Procedures

Prior to beginning sampling activities, static water levels were measured at each of the monitoring wells at the Spokane ANGS. The water level in each well (depth to water from top of casing) was measured to within ± 0.01 feet using an electronic water level indicator.

During each sampling round, groundwater samples were collected from wells MW-2 through MW-6, MW-12 through MW-16, MW-18, and MW-19 (Figure 2-1). The groundwater monitoring wells were sampled using low-flow purging and sampling methods. A 2-inch stainless steel submersible pump was used to purge each monitoring well at a rate of less than 1 liter per minute. The temperature, pH, specific conductivity, dissolved oxygen content, reduction/oxidation potential, and turbidity of the purge water were monitored during purging using an in-line flow cell and portable water quality meter. Purging continued until the temperature, pH, and specific conductance stabilized to within ± 10 percent of the previous reading.

After each monitoring well was purged, groundwater samples were collected using the 2-inch submersible pump. Samples for VOC analysis were collected in 40-milliliter glass vials preserved with hydrochloric acid. Samples for dissolved metals analysis were filtered in the field prior to sample preservation using disposable 0.45-micron filters and were collected in 500-milliliter polyethylene bottles preserved with nitric acid.

Immediately after each groundwater sample was collected, it was labeled and placed in a cooler containing ice. Chain-of-Custody procedures were followed during the sample preparation and delivery to the laboratory.

2.4.2 Analytical Methods

Groundwater samples and associated field quality control samples were analyzed by North Creek Analytical Laboratories in Bothell, Washington. Samples were analyzed for VOCs using USEPA Method 8260B and dissolved Priority Pollutant Metals using USEPA Methods 6020 and 7470A. A summary of the samples submitted for laboratory analysis is shown in [Table 2-3](#). Quantitation limits and the QA/QC procedures used in the sampling and analysis process are discussed in the Quality Assurance Project Plan (ERM 1995).

2.4.3 Additional Monitoring

During the May 2005 amended sodium persulfate injections, groundwater pH and elevations were measured in monitoring wells MW-2 through MW-6 and MW-12 through MW-19. The pH was measured using a YSI Model 556 down hole water quality meter and groundwater elevations were measured using either a downhole pressure transducer (wells MW-2, MW-3, MW-4, MW-12, MW-16, MW-18, and MW-19) or an electronic water level indicator (wells MW-5, MW-6, MW-13, MW-14, MW-15, and MW-17). The pH readings and groundwater elevations were collected to evaluate groundwater response during the injection effort. Data from this monitoring program are presented in [Appendix D](#).

2.5 Equipment Decontamination

Downhole drilling equipment (e.g., augers) used during well installation was steam cleaned or pressure washed with hot water prior to use at each boring location. Decontaminated drilling equipment and unused materials were removed from the site at the completion of drilling activities.

Reusable sampling equipment (e.g., split-spoon soil sampler, bladder pump exterior) was decontaminated before and after each sample was collected. The decontamination procedure consisted of the following:

- A scrub-brush wash in a solution of Alconox detergent and tap water;
- A tap water rinse;
- An isopropanol rinse; and

FINAL

TABLE 2-3

Remedial Action Field Testing and Laboratory Analysis Summary
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington

Site	Matrix/Source	Sampling Method	Field Parameters	Lab Parameters	USEPA or WDOE Method	Original Samples	QA/QC Samples					Matrix Total
							Trip Blank	Rinsate Blank	Field Blank	Field Duplicate	MS/MSD	
Building 300 Area	Groundwater/ 12 Monitoring Wells	Submersible Pump	Temperature, Specific Conductance, pH, Turbidity	VOCs	5030/8260	48	5	5	4	5	4	71
				Dissolved Metals	6010B/6020/7000 Series	48	0	5	4	5	4	66

Notes:

ANGS = Air National Guard Station

CCSQ = Combat Communications Squadron

MS/MSD = Matrix spike/matrix spike duplicate

pH = Acidity/alkalinity

QA/QC = Quality assurance/quality control

USEPA = United States Environmental Protection Agency

VOC = Volatile organic compound

WDOE = Washington State Department of Ecology

- A final rinse with ASTM Type II reagent-grade water.

The groundwater pump interior was decontaminated by partially filling the pump with the detergent solution and shaking vigorously for 30 seconds. The detergent wash was followed by a rinse with ASTM Type II water, which was poured through the pump.

2.6 Surveying

USKH, Inc., surveyed the locations and elevations of monitoring wells MW-18 and MW-19 and the locations of the October-November 2004 and May 2005 injection locations. The well locations and elevations were calibrated to the horizontal and vertical data established during previous phases of work at the Spokane ANGS. The survey results are accurate to ± 0.01 foot vertically and ± 0.1 foot horizontally. The survey reports are provided in [Appendix E](#).

2.7 Investigation-Derived Waste Management

Drill cuttings, purge water, and decontamination water generated during drilling and sampling activities were contained in segregated 55-gallon drums. The investigation-derived waste (IDW) drums were clearly marked with a description of the contents and the accumulation date. Purge water and decontamination water association with monitoring wells MW-2, MW-3, MW-4, MW-5, MW-16, MW-18, and MW-19 were containerized in drums separate from waste water from other wells because contaminants potentially present in water from these wells required disposal as dangerous waste. A drum inventory was recorded in the field notebook and includes the drum identifier, source of contents, types of contents, and date of accumulation. These drums were stored on site pending disposal.

ERM designated the contents of each IDW drum as Washington dangerous waste or non-dangerous waste in accordance with Washington State Dangerous Waste Regulations, Chapter 173-303 WAC. An inventory and disposal recommendations for drummed IDW was prepared by ERM and presented to the ANG after each monitoring event was completed. The IDW inventories include information for disposal and reporting of

dangerous wastes (e.g., waste name and number, hazard class, quantity, etc.) as applicable.

2.8 Deviations from the Work Plan

Deviations from the RA Work Plan were required due to conditions encountered during the execution of the RA Work Plan:

- During the January 2005 quarterly groundwater monitoring event, monitoring well MW-12 could not be located under a thick layer of snow and ice. No monitoring or sampling was completed at this location in January 2005.
- During the May 2005 injection round, calcium hydroxide was used in place of the originally-specified potassium hydroxide to amend sodium persulfate because it was determined that calcium hydroxide would provide more sustainable pH adjustment based on aquifer geochemistry and regulatory limits on the allowable pH of injectate.

There were no other deviations from the work plan during the RA.

SECTION 3.0

RESULTS

This section presents the results of the RA at the Spokane ANGS.

3.1 Groundwater Level Data Results

Static water levels in the site monitoring wells were measured and recorded before groundwater samples were collected during each groundwater monitoring event. Groundwater levels in each site well were measured on 12 October 2004, 20 January 2005, 20 April 2005, and 19 July 2005. Depth measurements were converted to groundwater elevations by subtracting the measured depth to water in each well from the known elevation of the wellhead (top of casing). Groundwater elevations are summarized in [Table 3-1](#). Potentiometric surface maps showing inferred groundwater flow conditions for each of the monitoring events are included on [Figures 3-1 through 3-4](#).

Depth to groundwater ranged from approximately 4 to 29 feet bgs during the 2004-2005 monitoring events. The inferred direction of groundwater flow during each of the monitoring events was generally to the north at an average gradient ranging from 0.012 to 0.017. These groundwater flow conditions are generally consistent with previous measurements completed during previous groundwater monitoring at the Spokane ANGS (ERM 1998, 1999a, 1999b, 1999c, 2000, and 2002).

Note that the groundwater elevations at wells MW-11 and MW-17 were not used to evaluate the potentiometric surface because the top of the well screens of these wells are approximately 30 and 10 feet, respectively, below the bottom of the screened intervals of nearby site monitoring wells. The water level data from the wells represent conditions within fine-grained sediments underlying the sandy shallow water-bearing zone intersected by the screens in the remaining site monitoring wells.

TABLE 3-1

*Groundwater Elevation Data Summary
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington*

Location	Well Casing Elevation (feet amsl)	Date	Depth to Water (feet below well casing)	Water Level Elevation (feet amsl)
MW-2	2,377.07	10/12/04	9.25	2,367.82
		01/20/05	9.67	2,367.40
		04/20/05	9.35	2,367.72
		07/19/05	8.49	2,368.58
MW-3	2,376.73	10/12/04	9.69	2,367.04
		01/20/05	9.94	2,366.79
		04/20/05	9.71	2,367.02
		07/19/05	9.05	2,367.68
MW-4	2,377.06	10/12/04	8.46	2,368.60
		01/20/05	8.68	2,368.38
		04/20/05	8.67	2,368.39
		07/19/05	7.73	2,369.33
MW-5	2,377.36	10/12/04	9.39	2,367.97
		01/20/05	9.89	2,367.47
		04/20/05	9.65	2,367.71
		07/19/05	8.69	2,368.67
MW-6	2,376.37	10/12/04	9.38	2,366.99
		01/20/05	9.62	2,366.75
		04/20/05	9.52	2,366.85
		07/19/05	8.82	2,367.55
MW-7	2,376.28	10/12/04	5.94	2,370.34
		01/20/05	5.18	2,371.10
		04/20/05	6.37	2,369.91
		07/19/05	5.64	2,370.64
MW-8	2,372.97	10/12/04	10.84	2,362.13
		01/20/05	10.70	2,362.27
		04/20/05	10.70	2,362.27
		07/19/05	10.74	2,362.23
MW-9	2,371.98	10/12/04	9.72	2,362.26
		01/20/05	8.73	2,363.25
		04/20/05	8.95	2,363.03
		07/19/05	9.57	2,362.41
MW-10	2,377.07	10/12/04	8.82	2,368.25
		01/20/05	9.79	2,367.28
		04/20/05	9.48	2,367.59
		07/19/05	8.57	2,368.50
MW-11	2,390.21	10/12/04	28.39	2,361.82
		01/20/05	28.62	2,361.59
		04/20/05	28.45	2,361.76
		07/19/05	29.41	2,360.80
MW-12	2,376.60	10/12/04	6.28	2,370.32
		01/20/05	--	--
		04/20/05	6.45	2,370.15
		07/19/05	5.59	2,371.01
MW-13	2,377.14	10/12/04	9.11	2,368.03
		01/20/05	9.53	2,367.61
		04/20/05	9.33	2,367.81
		07/19/05	8.53	2,368.61

TABLE 3-1

*Groundwater Elevation Data Summary
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington*

Location	Well Casing Elevation (feet amsl)	Date	Depth to Water (feet below well casing)	Water Level Elevation (feet amsl)
MW-14	2,378.54	10/12/04	9.91	2,368.63
		01/20/05	10.32	2,368.22
		04/20/05	10.08	2,368.46
		07/19/05	8.71	2,369.83
MW-15	2,376.48	10/12/04	10.60	2,365.88
		01/20/05	10.84	2,365.64
		04/20/05	10.40	2,366.08
		07/19/05	9.84	2,366.64
MW-16	2,374.97	10/12/04	9.35	2,365.62
		01/20/05	9.54	2,365.43
		04/20/05	9.42	2,365.55
		07/19/05	8.70	2,366.27
MW-17	2,375.18	10/12/04	13.35	2,361.83
		01/20/05	13.17	2,362.01
		04/20/05	13.32	2,361.86
		07/19/05	13.71	2,361.47
MW-18	2,377.68	10/12/04	8.74	2,368.94
		01/20/05	9.24	2,368.44
		04/20/05	8.90	2,368.78
		07/19/05	7.95	2,369.73
MW-19	2,377.22	10/12/04	8.89	2,368.33
		01/20/05	9.10	2,368.12
		04/20/05	8.98	2,368.24
		07/19/05	8.03	2,369.19
SM-001PZ	2,378.22	10/12/04	8.20	2,370.02
		01/20/05	8.16	2,370.06
		04/20/05	8.35	2,369.87
		07/19/05	7.78	2,370.44
SM-002PZ	2,378.87	10/12/04	12.61	2,366.26
		01/20/05	10.92	2,367.95
		04/20/05	11.02	2,367.85
		07/19/05	12.71	2,366.16
SM-003PZ	2,372.43	10/12/04	11.31	2,361.12
		01/20/05	10.15	2,362.28
		04/20/05	10.29	2,362.14
		07/19/05	10.83	2,361.60
SM-004PZ	2,376.34	10/12/04	6.57	2,369.77
		01/20/05	4.18	2,372.16
		04/20/05	4.76	2,371.58
		07/19/05	6.84	2,369.50

Notes:

amsl = Above mean sea level

ANGS = Air National Guard Station

CCSQ = Combat Communications Squadron

-- = No measurement available; well inaccessible

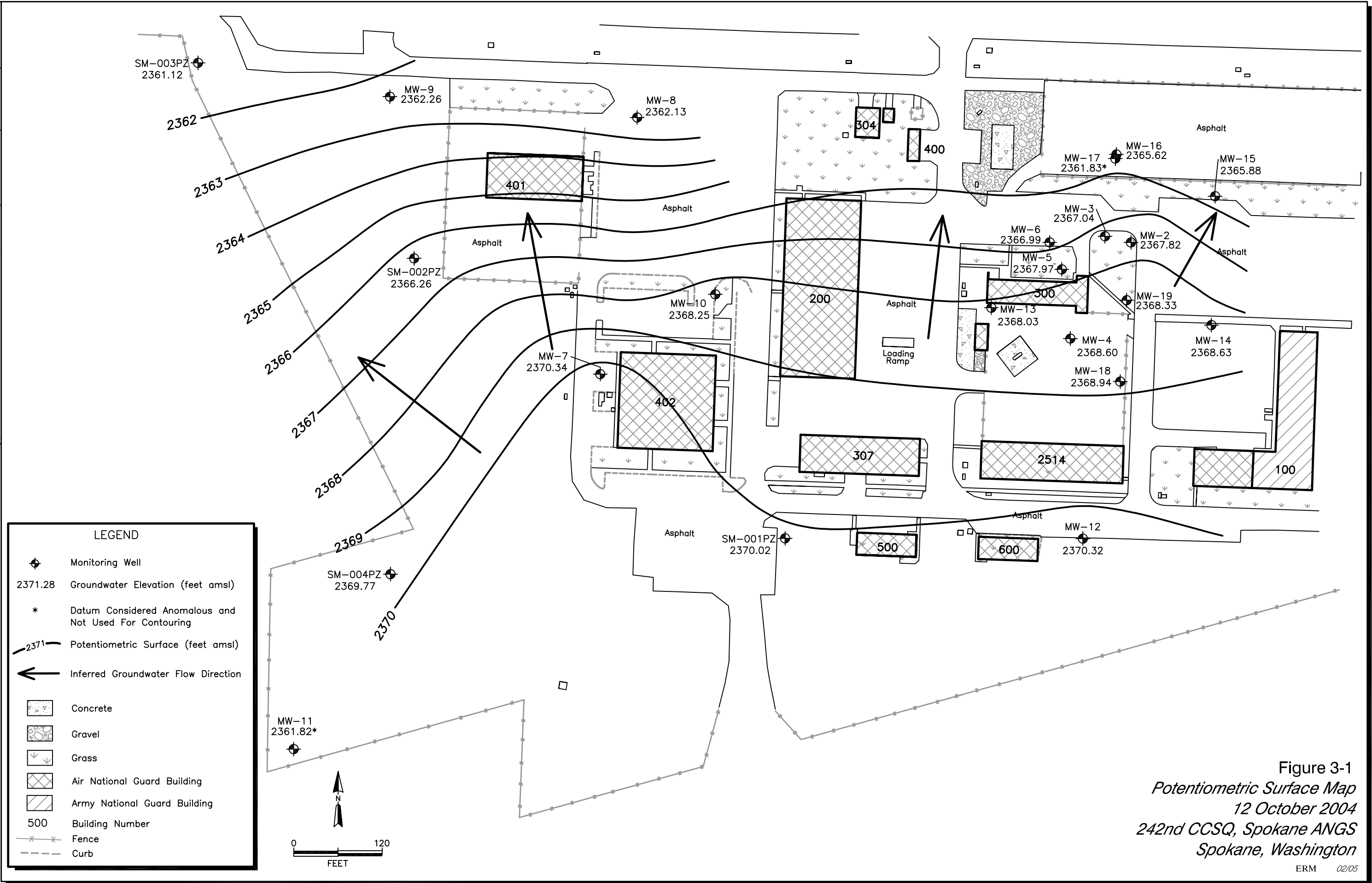


Figure 3-1
 Potentiometric Surface Map
 12 October 2004
 242nd CCSQ, Spokane ANG
 Spokane, Washington

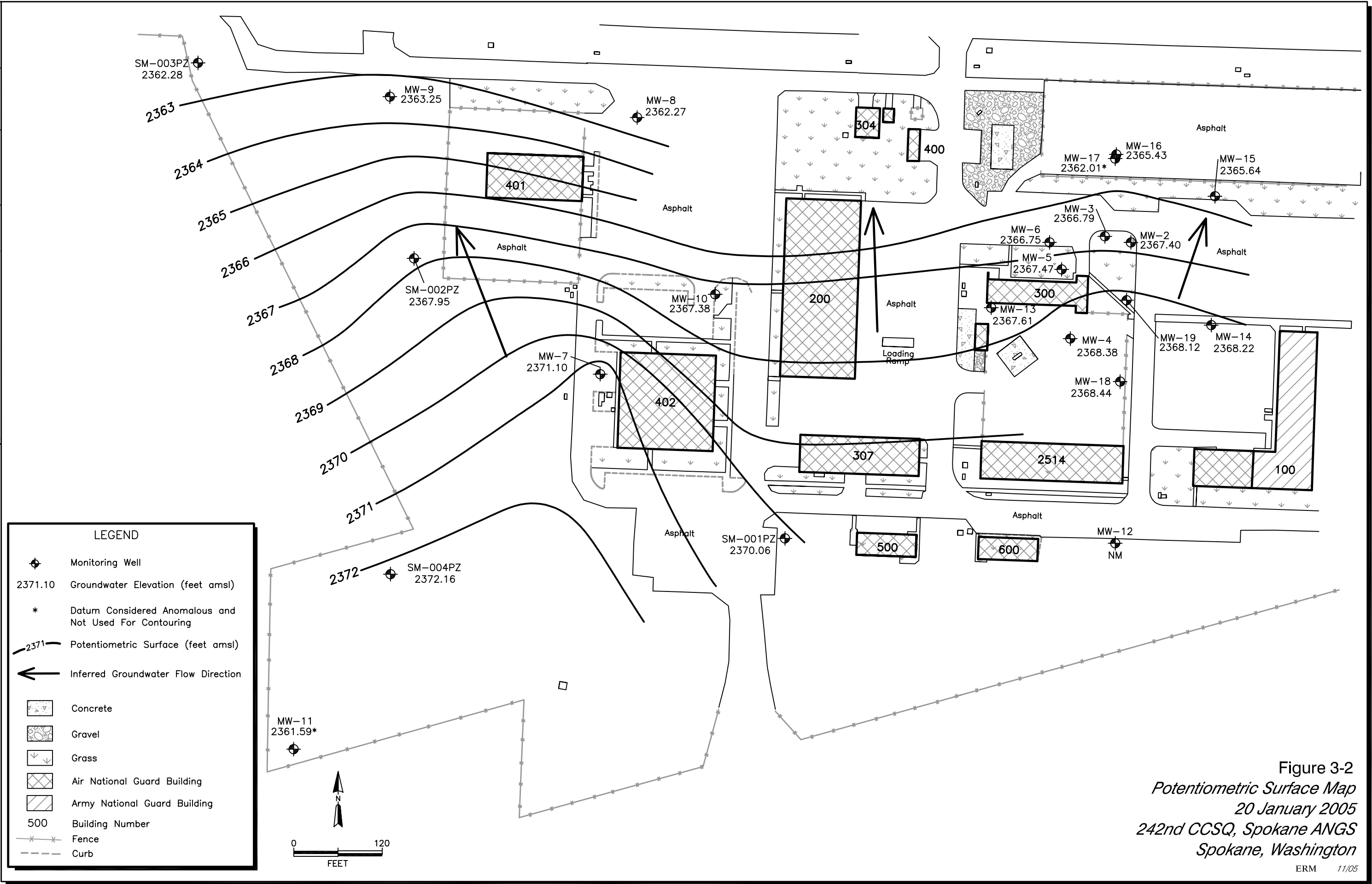


Figure 3-2
 Potentiometric Surface Map
 20 January 2005
 242nd CCSQ, Spokane ANG
 Spokane, Washington

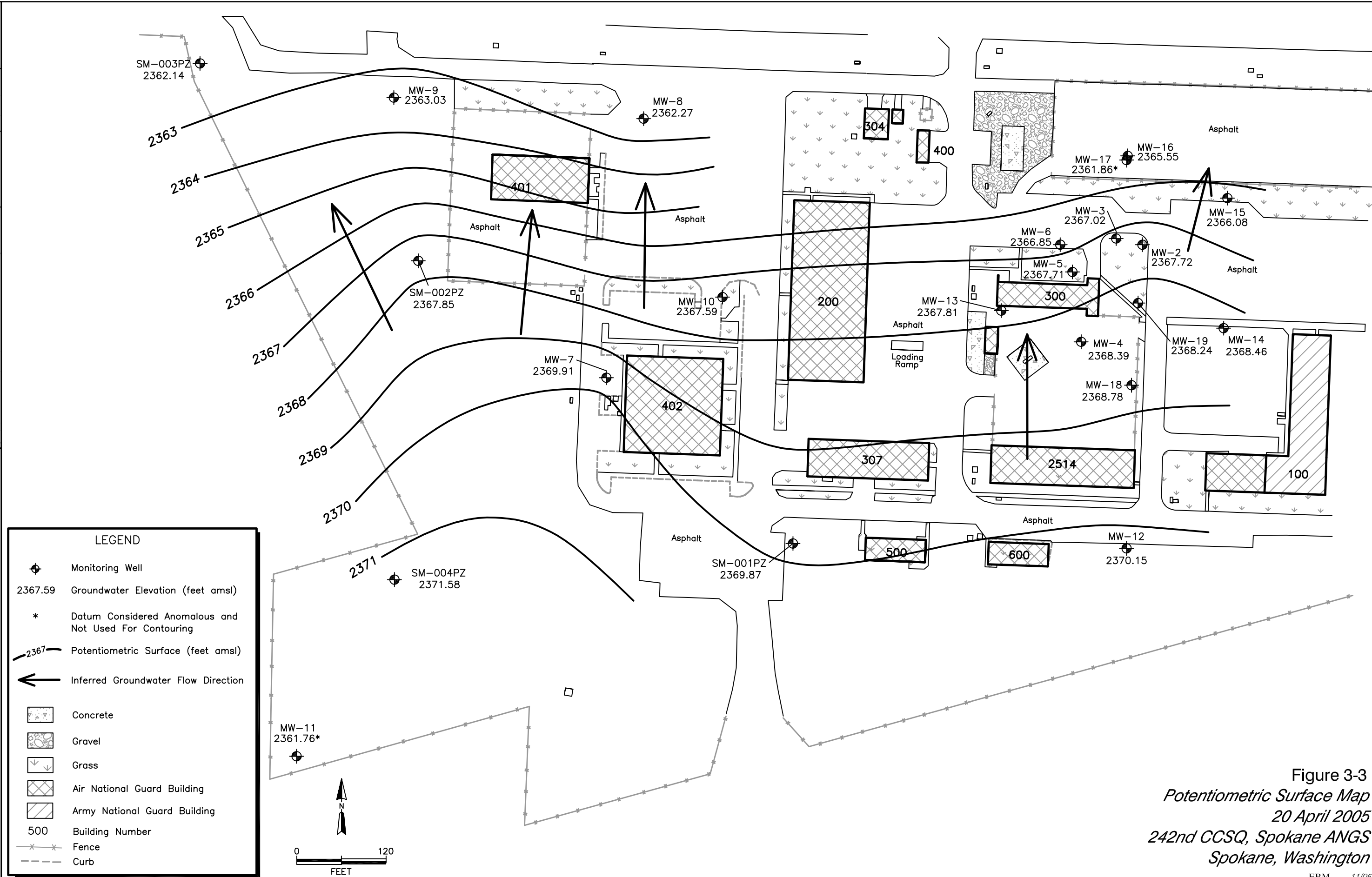
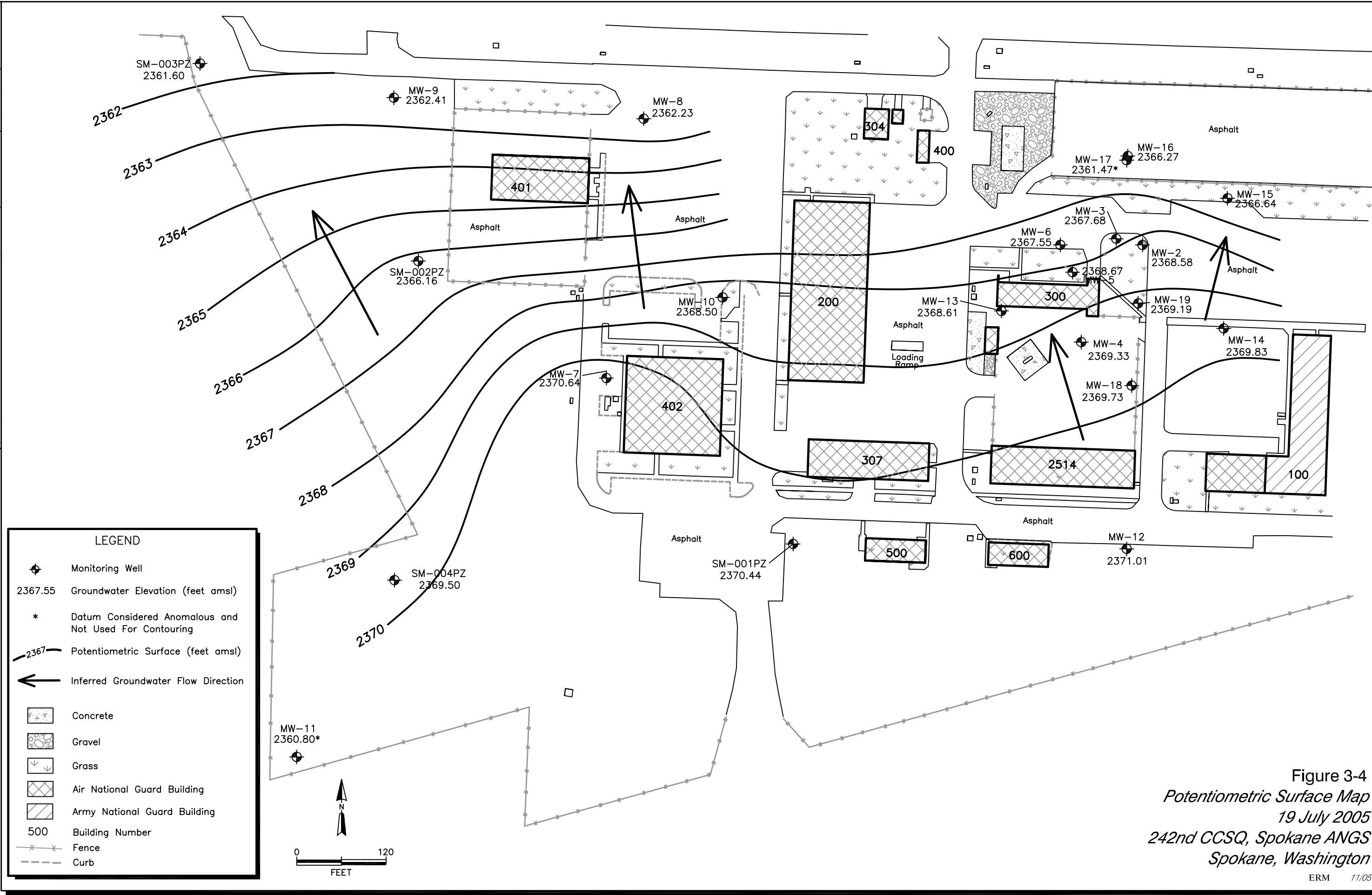


Figure 3-3
 Potentiometric Surface Map
 20 April 2005
 242nd CCSQ, Spokane ANG
 Spokane, Washington



LEGEND

Monitoring Well

2367.55

Groundwater Elevation (feet amsl)

*

Datum Considered Anomalous and Not Used For Contouring

2367

Potentiometric Surface (feet amsl)

←

Inferred Groundwater Flow Direction

Concrete

Gravel

Grass

Air National Guard Building

Army National Guard Building

500

Building Number

Fence

Curb

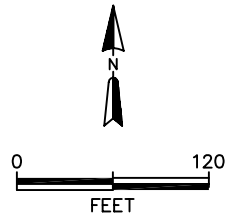


Figure 3-4
 Potentiometric Surface Map
 19 July 2005
 242nd CCSQ, Spokane ANG
 Spokane, Washington
 ERM 11/05

3.2 Additional Monitoring

During the May 2005 amended sodium persulfate injections, groundwater pH and elevations were measured in monitoring wells MW-2 through MW-6 and MW-12 through MW-19. The results of the additional monitoring are described in the following sections.

3.2.1 Groundwater Level Data

Groundwater level data were collected using pressure transducers at select wells in the vicinity of Building 300 during the RA injection program completed in May 2005. The water level data were collected using pressure transducers at wells MW-2, MW-3, MW-4, MW12, MW16, MW-18, and MW19, and data were collected using a hand-held electronic water level indicator at wells MW-5, MW-6, MW-13, MW-14, MW-15, and MW-17. The groundwater level data were collected along with pH data to evaluate local groundwater effects related to the injection program. The water level data from the May 2005 program are included in [Appendix D](#).

The result of the May 2005 groundwater level measurements indicate that injection program temporarily increased water level elevations at some wells adjacent to injection points by as much as 0.2 feet, but that water levels re-equilibrated to near pre-injection levels within approximately 12 hours. Water levels across the site increased approximately 0.5 foot during the injection program. This increase was noted in wells within and outside the injection area, which indicates that the increase was primarily due to aquifer response to infiltration of precipitation. Other than short-term local effects, the May 2005 injection program did not appear to have a significant effect on water levels within the aquifer.

Water level data from the pressure transducer in well MW-12 were rejected because the data indicate that the transducer was malfunctioning during some or all of the measurement period.

3.2.2 Field pH Results

Several pH measurements of groundwater in wells MW-2 through MW-6, and MW-12 through MW-19 were completed during the May 2005 injection event using a downhole pH meter. The pH measured in the wells ranged from 5.74 to 7.88; however, none of the pH variations

recorded at any of the wells indicated that the pH of groundwater at the monitoring wells was significantly affected by the injection program completed at the site. The groundwater pH data from the May 2005 program are included in [Appendix D](#).

3.3 Analytical Results

The VOC and dissolved metals results for the groundwater samples collected during quarterly monitoring events in October 2004, and January, April, and July 2005 are summarized in [Tables 3-2 and 3-3](#), respectively. PSGs developed from chemical-specific applicable or relevant and appropriate requirements during the Phase II RI are also shown in [Tables 3-2 and 3-3](#) for comparison. The analytical results for the field blank quality control samples collected during the 2004-2005 monitoring events are summarized in [Table 3-4](#). Laboratory data reports, including Chain-of-Custody records, are included in [Appendix F](#). ERM's QA/QC validation of the analytical data is included in [Appendix G](#).

3.3.1 Volatile Organic Compounds

The VOCs acetone, bromoform, sec-butylbenzene, 1,2-dichlorobenzene, cis-1,2-dichloroethene, carbon disulfide, carbon tetrachloride, ethylbenzene, isopropylbenzene, naphthalene, n-propylbenzene, toluene, TCE, total trimethylbenzenes, and total xylenes were detected in one or more groundwater samples collected during the RA ([Table 3-2](#)). Of these compounds, only carbon tetrachloride and total xylenes were detected at concentrations greater than the respective cleanup goals in 20 samples and 1 sample, respectively.

During the RA, carbon tetrachloride was detected at concentrations greater than the cleanup goal of 1 µg/l in one or more groundwater samples collected from wells MW-2, MW-3, MW-4, MW-16, MW-18, and MW-19. The distribution of carbon tetrachloride concentrations detected in groundwater samples during each of the four RA monitoring events is illustrated on [Figures 3-5 through 3-8](#).

Of the six wells in which carbon tetrachloride was detected during the RA, carbon tetrachloride decreased in five wells and increased in one well over the course of the RA monitoring program. Carbon tetrachloride

TABLE 3-2
Volatile Organic Compounds Detected in Groundwater Samples
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington

Location	Date	Volatile Organic Compounds ¹																
		Acetone	Bromoform	sec- Butylbenzene	Chloroform	1,2-Dichlorobenzene	cis-1,2-Dichloroethene	Carbon Disulfide	Carbon Tetrachloride	Chlorobenzene	Ethylbenzene	Isopropylbenzene	Naphthalene	n-Propylbenzene	Toluene	TCE	Total Trimethylbenzene ²	Total Xylenes ³
MW-2	11/7/2000	ND	ND	ND	ND	ND	ND	ND	2.69	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/7/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/3/2001	ND	ND	ND	ND	ND	ND	ND	12.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	ND	ND	19.1	1.32	ND	ND	ND	ND	ND	ND	ND	ND
	10/14/2004	ND	ND	ND	ND	ND	ND	ND	5.71	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/21/2005	ND	ND	ND	ND	ND	ND	ND	9.89	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/21/2005	ND	ND	1.96	ND	ND	ND	ND	9.73	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/20/2005	ND	ND	1.96	ND	ND	ND	ND	5.38	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-3	11/7/2000	ND	ND	1.96	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/7/2001	ND	ND	2.37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/3/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	1.4	ND	ND	ND	ND	1.9	2.04	ND	ND	ND	ND	ND	ND	ND	ND
	10/14/2004	ND	ND	ND	ND	ND	ND	ND	4.89	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	1.4	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/20/2005	ND	ND	ND	ND	ND	ND	1.04	1.52	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-4	11/18/1998	ND	ND	ND	ND	ND	ND	ND	11.3	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/17/1999	ND	ND	ND	0.534	ND	ND	ND	26.1	ND	ND	ND	ND	ND	ND	0.619	ND	ND
	5/20/1999	ND	ND	ND	3.04	ND	ND	ND	59.9	ND	ND	ND	ND	ND	ND	2.08	ND	ND
	8/18/1999	ND	ND	ND	1.47	ND	ND	ND	28.0	ND	ND	ND	ND	ND	ND	0.804	ND	ND
	11/8/2000	ND	ND	ND	ND	ND	ND	ND	7.7	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/6/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	2.84	ND	ND	ND	59.0	ND	ND	ND	ND	ND	ND	1.99	ND	ND
	8/2/2001	ND	ND	ND	1.34	ND	ND	ND	24.6	3.90	ND	ND	ND	ND	ND	ND	ND	ND
	10/14/2004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/21/2005	ND ⁴	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/20/2005	ND ⁴	1.82	ND	ND	ND	ND	ND	1.04 ⁶	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-5	11/7/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/3/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	2.31	ND	ND	ND	4.3	ND	ND	ND	ND	ND	1.27	7.06
	10/14/2004	ND	ND	1.22	ND	1.64	1.24	ND	ND	ND	48.7	5.21	7.79	5.36	21.8	ND	34.4	145
	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-6	11/7/2000	ND	ND	ND	ND	ND	1.18	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/7/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/3/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	2.85	ND	ND	ND	ND	ND	ND	ND	ND
	10/14/2004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/19/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-12	11/8/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/6/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/13/2004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-13	11/8/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/6/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	1.50	ND	ND	ND	ND	ND	ND	ND	ND
	10/14/2004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-14	11/9/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/13/2004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-15	11/8/2000	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/13/2004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-16	11/8/2000	27.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	2/6/2001	282	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	8/2/2001	ND	ND	ND	ND	ND	ND	ND	ND	1.73	ND	ND	ND	ND	ND	ND	ND	ND
	10/14/2004	ND	ND	ND	ND	ND	ND	ND	7.85	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/20/2005	ND	ND	ND	ND	ND	ND	ND	6.50	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/21/2005	ND	ND	ND	ND	ND	ND	ND	3.70	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/20/2005	ND	ND	ND	ND	ND	ND	ND	5.33	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-18	10/13/2004	ND	ND	ND	ND	ND	ND	ND	26.9	ND	ND	ND	ND	ND	ND	1.12	ND	ND
	1/21/2005	ND ⁴	2.82	ND	ND	ND	ND	ND	28.8	ND	ND	ND	ND	ND	ND	1.16	ND	ND
	4/21/2005	ND	ND	ND	ND ⁵	ND	ND	ND	54.7	ND	ND	ND	ND	ND	ND	4.56	ND	ND
	7/20/2005	ND ⁴	1.53	ND	ND	ND	ND	ND	1.23	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-19	10/13/2004	ND	ND	ND	ND	ND	ND	ND	10.9	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/21/2005	ND	ND	ND	ND	ND	ND	ND	1.36	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/21/2005	ND	ND	ND	ND	ND	ND	ND	7.73	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/20/2005	ND	ND	ND	ND	ND	ND	ND	6.39	ND	ND	ND	ND	ND	ND	ND	ND	ND
Project Screening Goal		800	5.54	NA	7.17	720	70	800	0.337	100	700	NA	20	NA	1,000	5	NA	20

Notes:

Concentrations in micrograms per liter.

Shaded cells indicate a detection above the associated project screening goal.

¹By USEPA Method 8260.

²Total of 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene.

³Total of o-xylene, m-xylene, and p-xylene.

⁴A positive detection was reported by the laboratory for this constituent in the sample indicated. The sample result was qualified as not detected based on the USEPA designation of acetone as a common laboratory contaminant (USEPA Contract Laboratory Program "10x" and "5x" rules).

⁵A positive detection was reported by the laboratory for this constituent in the sample indicated. The sample result was qualified as not detected based on a detection of the constituent in an associated quality control blank (

TABLE 3-3

*Dissolved Metals Detected in Groundwater Samples
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington*

Location	Date	Dissolved Metals ¹									
		Arsenic	Beryllium	Cadmium	Chromium	Copper	Mercury	Nickel	Selenium	Thallium	Zinc
MW-2	10/14/2004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/21/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/21/2005	ND	ND	ND	2.37	ND	2.44	1.03	ND	ND	ND
	7/20/2005	ND	ND	ND	3.69	ND	ND	ND ²	ND	ND	ND
MW-3	10/14/2004	ND	ND	ND	ND	ND	ND	3.45	ND	ND	11.7
	1/20/2005	ND	ND	ND	ND	ND	ND	9.8	ND	ND	279
	4/20/2005	ND	ND	ND	ND	ND	ND	13.2	1.01	ND	17.8
	7/20/2005	ND	ND	ND	1.86	ND	ND	ND ²	1.71	ND	ND ²
MW-4	11/18/1998	ND	ND	ND	ND	1.18	ND	ND	ND	ND	ND
	2/17/1999	ND	ND	ND	1.86	ND	ND	ND	ND	ND	82.8
	5/20/1999	ND	ND	ND	1.4	ND	ND	ND	ND	ND	60
	8/18/1999	ND	ND	ND	ND	ND	ND	1.33	ND	ND	97.6
	10/14/2004	1.02	ND	ND	ND	ND	ND	1.03	ND	ND	ND
	1/21/2005	1.12	ND	1	3.86	2.12	ND	1.31	1.13	ND	74.1
	4/20/2005	ND	ND	ND	1.78	1.35	0.551	18.3	ND	ND	24.3
	7/20/2005	ND	1.05	ND	1.66	ND ²	0.291	28.4	1.40	ND	ND ²
	10/14/2004	5.67	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-5	1/20/2005	6.58	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	7.76	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/20/2005	15.9	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/14/2004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-6	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/19/2005	ND	ND	ND	1.03	ND	ND	ND	ND	ND	ND
	10/13/2004	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-12	4/20/2005	ND	ND	ND	ND	ND	ND	1.28	ND	ND	16.7
	7/20/2005	ND	ND	ND	ND	ND	ND	ND ²	ND	1.42	ND ²
	10/14/2004	ND	ND	ND	1.24	ND	ND	ND	ND	ND	ND
MW-13	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/13/2004	ND	ND	ND	ND	1.13	ND	ND	ND	ND	ND
MW-14	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/13/2004	ND	ND	ND	ND	ND	ND	1.29	ND	ND	ND
MW-15	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/20/2005	ND	ND	ND	ND	ND	ND	1.11	ND	ND	ND
	7/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/14/2004	ND	ND	ND	ND	ND	ND	1.03	ND	ND	ND
MW-16	1/20/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	95.7
	4/21/2005	ND	ND	ND	ND	ND	ND	1.32	ND	ND	12.7
	7/20/2005	ND	ND	ND	1.49	ND	ND	ND	ND	ND	ND
	10/13/2004	1.06	ND	ND	ND	ND	ND	ND	ND	ND	ND
MW-18	1/21/2005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	4/21/2005	ND	ND	ND	3.26	1.77	ND	2.5	1.26	ND	ND
	7/20/2005	ND ²	ND	ND	9.90	ND	ND	ND ²	1.75	ND	ND ²
	10/13/2004	ND	ND	ND	ND	ND	ND	1.45	ND	ND	ND
MW-19	1/21/2005	ND	ND	ND	ND	3.27	ND	1.42	ND	ND	ND
	4/21/2005	ND	ND	ND	1.48	1.65	ND	4.39	1	ND	ND
	7/20/2005	ND	ND	ND	3.40	ND ²	ND	ND ²	1.2	ND	ND
Project Screening Goal		5	4	5	100	592	2	100	50	2	5,000

Notes:

Concentrations in micrograms per liter.

Shaded cells indicate a detection above the associated project screening goal.

Historical sample results included where available.

¹By United States Environmental Protection Agency Method 6020 or 7470A.²Metal detected in sample but qualified as not detected due to a detection in an associated blank sample. The metal was detected in the sample at a concentration less than the cleanup level.

ANGS = Air National Guard Station

CCSQ = Combat Communications Squadron

ND = Not detected above laboratory method reporting limit

TABLE 3-4

*Analytical Results for Field Quality Control Blank Samples
2004-2005 Quarterly Groundwater Sampling Events
242nd CCSQ, Spokane ANG, Spokane, Washington*

Type	Date	Sample Number	Volatile Organic Compounds ¹	Dissolved Metals ²				
			Chloroform	Arsenic	Copper	Nickel	Lead	Zinc
October 2004								
Trip Blank (14 October 2004)	10/14/2004	TB-101404-1	ND	NA	NA	NA	NA	NA
Field Blank (Tap Water)	10/13/2004	MW-18-04-1FT	31.0	ND	ND	ND	ND	ND
Field Blank (ASTM Type II Water)	10/13/2004	MW-18-04-1FA	30.9	ND	ND	ND	ND	ND
Rinsate Blank	10/13/2004	MW-19-04-1R	22.7	ND	ND	ND	ND	ND
January 2005								
Trip Blank (20 January 2005)	1/20/2005	TB012005-1	ND	NA	NA	NA	NA	NA
Rinsate Blank	1/21/2005	MW-4-05-1R	48.9	ND	ND	ND	ND	ND
April 2005								
Trip Blank (21 April 2005)	4/21/2005	TB042105-1	ND	NA	NA	NA	NA	NA
Trip Blank (21 April 2005)	4/21/2005	TB042105-2	ND	NA	NA	NA	NA	NA
Rinsate Blank	4/21/2005	MW-19-05-R	26.4	ND	ND	ND	ND	ND
Rinsate Blank	4/21/2005	MW-16-05-R	29.8	ND	ND	ND	ND	ND
July 2005								
Trip Blank (19 July 2005)	7/19/2005	TB071905-1	ND	NA	NA	NA	NA	NA
Field Blank (Tap Water)	7/19/2005	MW-16-05-3FT	ND	1.07	2.91	5.61	15.5	346
Field Blank (ASTM Type II Water)	7/19/2005	MW-16-05-3FA	ND	ND	ND	ND	ND	ND
Rinsate Blank	7/20/2005	MW-19-05-3R	ND	ND	ND	ND	ND	ND

Notes:

Concentrations reported in micrograms per liter.

Shaded cells contain detected analyte concentrations; only detected constituents are shown.

¹By United States Environmental Protection Agency Method 8260.

²By United States Environmental Protection Agency Method 6020 or 7470A.

ANGS = Air National Guard Station

ASTM = American Society for Testing and Materials

CCSQ = Combat Communications Squadron

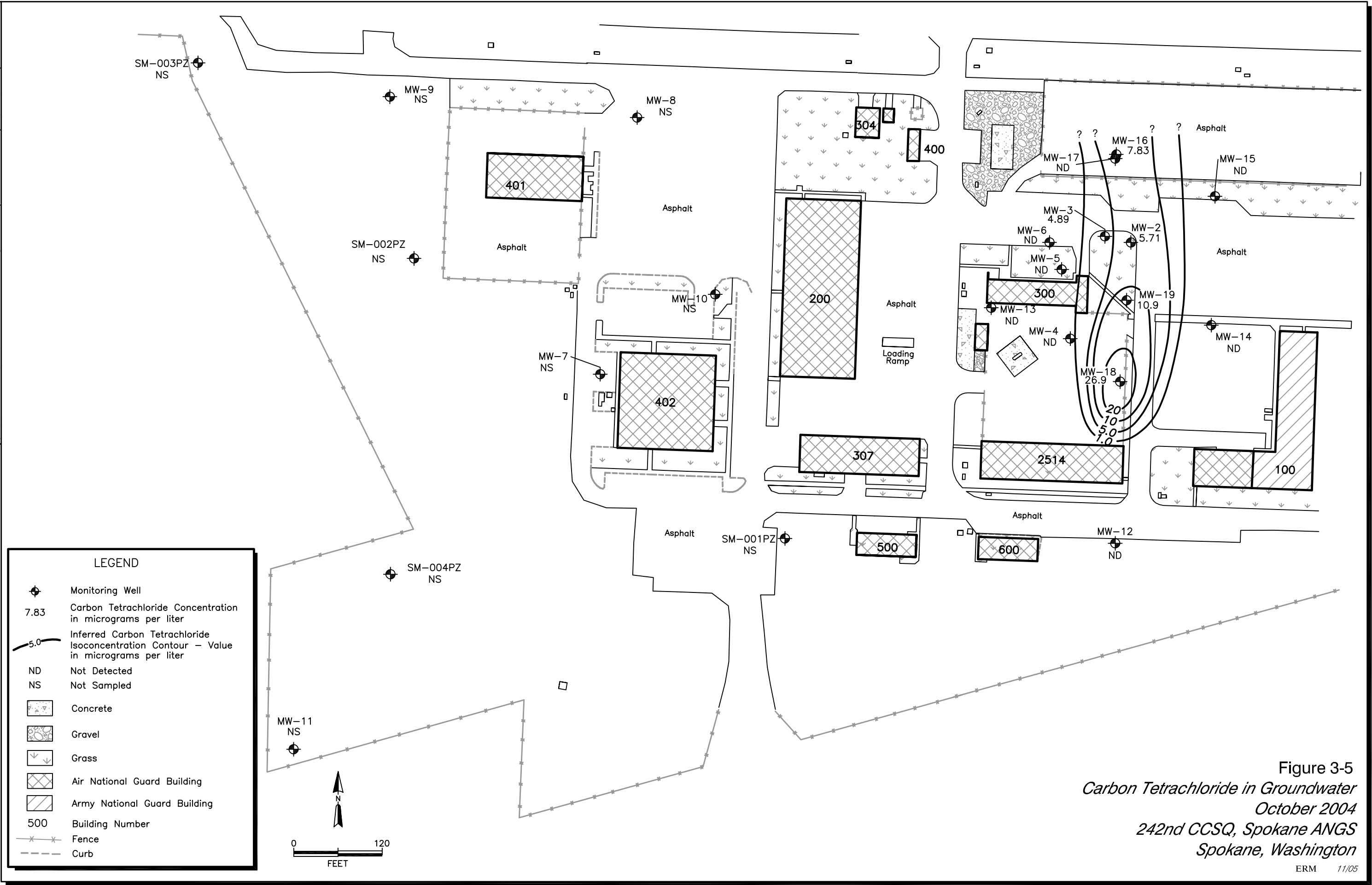
FA = Field blank using ASTM water

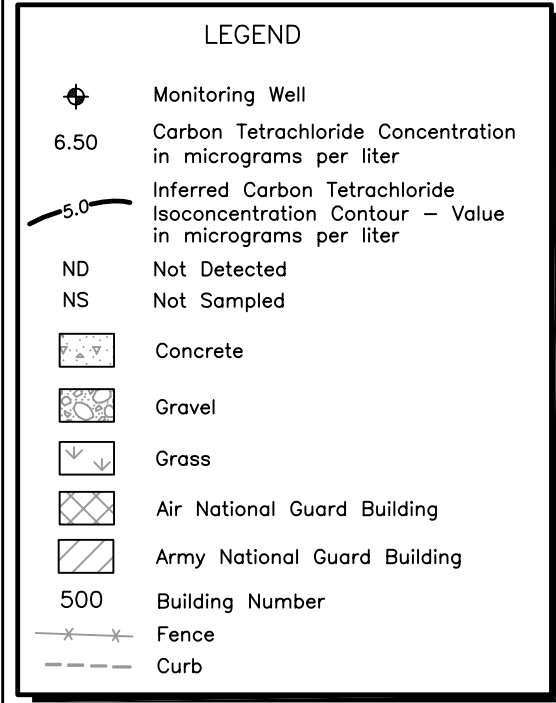
FT = Field blank using tap water

NA = Not analyzed

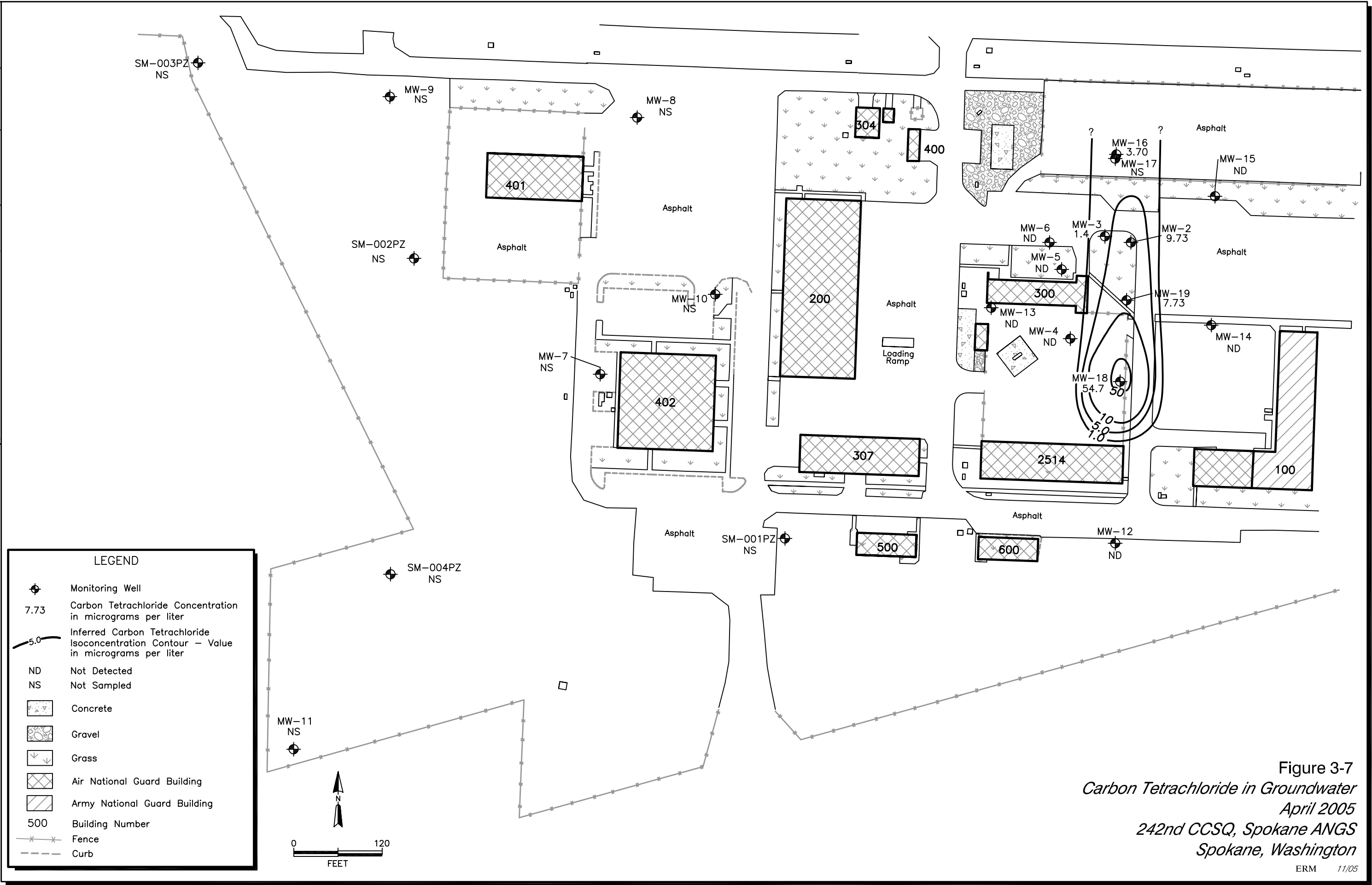
ND = Not detected above laboratory practical quantitation limit.

R = Rinsate





ERM 11/05



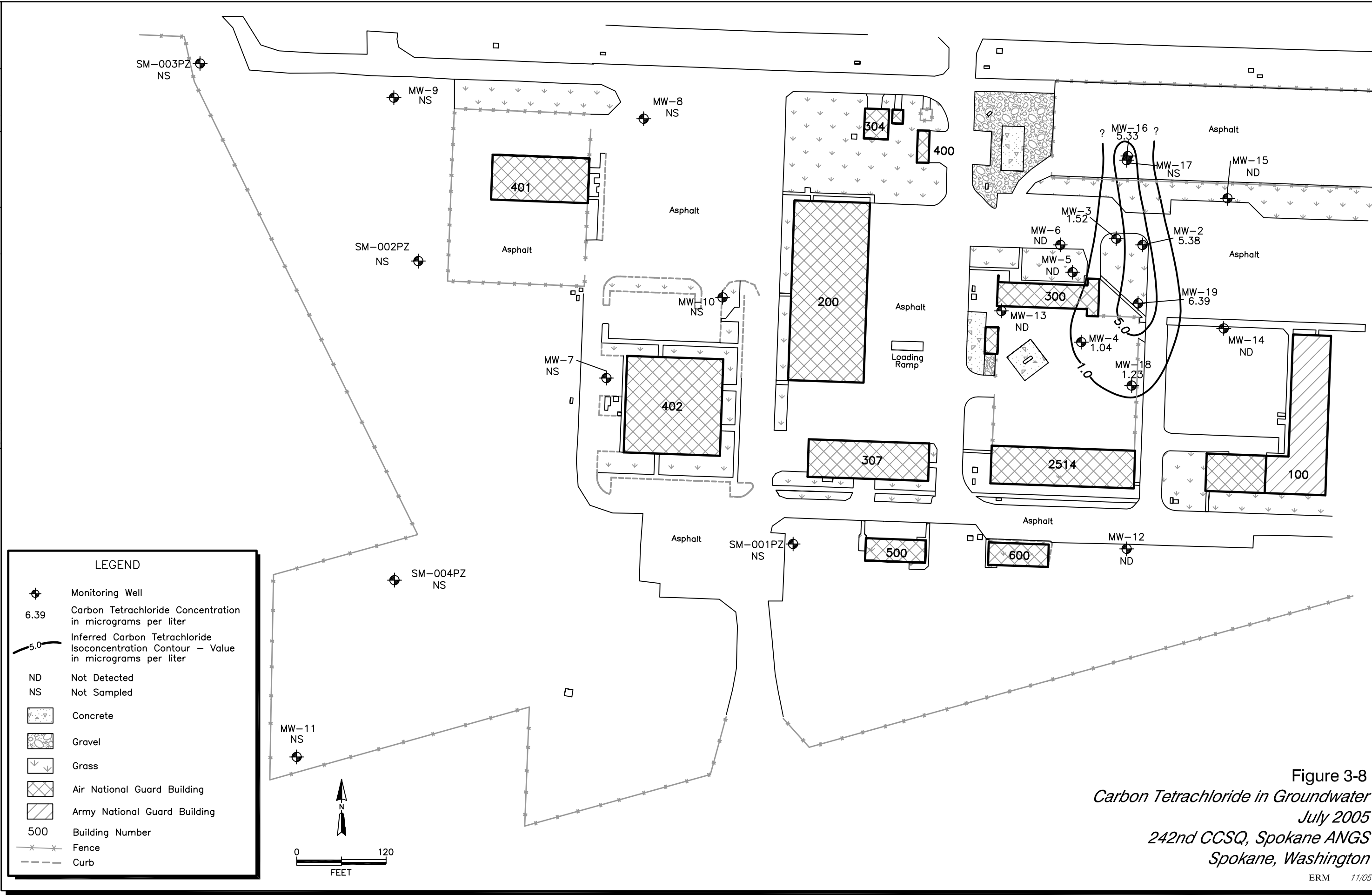


Figure 3-8
 Carbon Tetrachloride in Groundwater
 July 2005
 242nd CCSQ, Spokane ANG
 Spokane, Washington

concentration decreases ranged from approximately 6 percent at well MW-2 to over 95 percent at well MW-18, based on a comparison of the results of post-treatment samples collected in July 2005 and the baseline samples collected in October 2004. The increase in carbon tetrachloride concentration observed at MW-4 was from not detected in October 2004 to 1.04 µg/l in July 2005.

Total xylenes were detected at a concentration of 145 µg/l in the October 2004 groundwater sample from well MW-5. Total xylenes were not detected in subsequent groundwater samples collected from the well. TCE, although detected at concentrations greater than the cleanup goal in groundwater samples collected during previous investigations, was not detected at concentrations above the cleanup goals in the baseline or post-treatment samples collected during the RA. TCE was detected at concentrations ranging from 1.12 to 4.56 µg/l in three of four samples collected from well MW-18 during the RA, but was not detected in the most recent (July 2005) sample collected from the well. Chloroform was not detected in RA groundwater samples.

3.3.2 Dissolved Priority Pollutant Metals

A summary of metals detected in the groundwater samples is included in [Table 3-3](#). Dissolved arsenic, beryllium, cadmium, chromium, copper, mercury, nickel, selenium, thallium, and zinc were detected in one or more groundwater samples collected from the monitoring wells. Arsenic and mercury were detected at concentrations greater than PSGs developed during the RI. Dissolved arsenic was detected at a concentration greater than the PSG of 5 µg/l in each of the four RA groundwater samples collected from well MW-5. Mercury was detected at a concentration of 2.44 µg/l in one groundwater sample collected from well MW-2, which is greater than the PSG of 2 µg/l. Mercury was not detected in previous and subsequent groundwater samples collected from this well. No other metals were detected at concentrations greater than the PSGs in the remaining RA groundwater samples.

3.3.3 Quality Assurance/Quality Control Samples

Field blank and equipment rinsate blank samples were analyzed for the same parameters as the associated project samples. The analytical results for the QA/QC blank samples are summarized in [Table 3-4](#).

Chloroform was detected in field blank and/or equipment rinsate blank samples collected during the October 2004, January 2005, and April 2005 sampling events. Chloroform was detected in only one groundwater sample collected during the RA, the sample from well MW-18 collected during the April 2005 sampling event. The chloroform result for this groundwater sample was qualified as not detected due to the chloroform detections in an associated blank.

Dissolved arsenic, copper, nickel, lead, and zinc were detected in the tap water field blank that was collected during the July 2005 sampling event. Detections of these dissolved metals in the associated samples were qualified as not detected if the concentrations detected were less than 5 times the blank detection value. No original sample results greater than applicable regulatory levels were qualified. No other metals were detected in the blank samples.

3.4 Discussion of Remedial Action Progress Results

The RA groundwater VOC results indicate that the initial injection of sodium persulfate and ZVI was effective at reducing the concentrations of total xylenes. In addition, concentrations of carbon tetrachloride exhibited a decrease across the site. Due to the lack of long-term groundwater quality data from within the VOC plume, ERM notes that it is possible that this apparent reduction may have been due to normal seasonal fluctuations in the contaminant concentrations; however, it is ERM's opinion that limited remediation of carbon tetrachloride may have been afforded by the ZVI before the ZVI was consumed by reaction with sodium persulfate. ERM speculates that the limitations of the ZVI/sodium persulfate injection program are attributable to the difficulty of attaining effective dispersion of particulate ZVI within the aquifer. The effect of the sodium persulfate/ZVI injections on chloroform and TCE concentrations are not clear due to the relatively low concentrations and limited aerial distribution of these compounds detected during groundwater monitoring completed prior to the RA.

Groundwater quality data indicate that the sodium persulfate/calcium hydroxide injection program has effectively reduced concentrations of carbon tetrachloride at the site. Although data from only one monitoring round after the May 2005 injection program is available, the abrupt decrease of carbon tetrachloride concentration at well MW-18, as well as the elimination of TCE from groundwater at the well, appears to be related to the injection event. Additional monitoring data at this location

is required to confirm the remedial effectiveness at this well and across the remainder of the groundwater plume.

Prior to RA implementation, the carbon tetrachloride in groundwater was present as a long, narrow plume approximately 150 feet wide and 450 feet long. Affected groundwater extended from the top of the water table at approximately 12 feet bgs to the indurated silt that bounds the bottom of the water-bearing zone at approximately 24 feet bgs. Based on a comparison between the baseline groundwater quality data collected in October 2004 and the most recent post-treatment data (July 2005), the dimensions of the plume were reduced to approximately 140 feet wide by 350 feet long, with a corresponding dissolved carbon tetrachloride mass reduction of approximately 78 percent by volume.

The lack of observed pH increase at wells within the treatment area during the May 2005 injection program indicates that the calcium hydroxide solution is not effectively dispersing within the aquifer. Also, the pH buffering capacity of the calcium hydroxide may be hindered due to the relatively low solubility of the compound in water. This may limit the effective sodium persulfate-carbon tetrachloride reaction to limited radii around each injection point where residual calcium hydroxide solids allow sustained pH elevation to values conducive to effective carbon tetrachloride dehalogenization. The residual calcium hydroxide should, however, provide ongoing pH adjustment through the expected reactivity life of the sodium persulfate, allowing effective degradation of carbon tetrachloride to continue over a period of several months after the May 2005 injection event.

SECTION 4.0

CONCLUSIONS

Groundwater samples collected to date at the Spokane ANGCS indicate that the target cleanup goals have been met for the VOCs chloroform, TCE, and total xylenes (Table 3-2). Carbon tetrachloride concentrations generally decreased across the site; however, results indicate that concentrations still exceed the cleanup goal of 1 µg/l in monitoring wells MW-2, MW-3, MW-4, MW-16, MW-18, and MW-19. Groundwater quality data indicate that the RA has been successful at reduction of up to 95 percent of carbon tetrachloride concentrations measured in site monitoring wells. Additional reductions in carbon tetrachloride concentrations are anticipated as the sodium persulfate and calcium hydroxide may have remained reactive at the site for several weeks or months after the July 2005 monitoring event.

Dissolved arsenic was detected above the PSG of 5 µg/l in groundwater samples collected from MW-5 during each of the four quarterly sampling events (Table 3-3). The source of this arsenic is suspected to be naturally-occurring arsenic in site soils based on data developed during previous site investigations (ERM 2002). Dissolved mercury was detected slightly above the PSG of 2 µg/l in the sample collected in April 2005 from well MW-2 (2.44 µg/l). Because the detected concentration is relatively low, and since dissolved mercury was not detected at any of the site wells during previous or subsequent sampling events, the detection is considered anomalous and does not constitute regulatory noncompliance. No other dissolved metals were detected above their respective PSGs during the four quarterly sampling events.

SECTION 5.0

REFERENCES

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APPENDIX A



BORING AND WELL COMPLETION LOGS

**ERM**

ERM
915 118th Avenue S.E.
Suite 130
Bellevue, WA 98005
(425) 462-8591

BOREHOLE LOG

Site Id: MW-18

Page 1 of 1

Project Number: 0020536.40

Project Name: Spokane Air National Guard

Location: Spokane, Washington

Contractor: Cascade Drilling

Drilling Method: Hollow Stem Auger

Logged By: A. Musselman

Date(s): 10/12/04

X Coordinate: NA

Y Coordinate: NA

Measuring Point: NA

Total Depth: 16.50'

Completed Depth: 16.00'

Borehole Dia.: 18.00in

Initial Water Level: 8.74'

Blank Casing:

type: Sch 40 PVC

dia: 2.00in

fm: 0.25'

to: 6.00'

Screens:

type: Slotted

size: 0.010in

dia: 2.00in

fm: 6.00'

to: 16.00'

Annular Fill:

type: Bentonite Cement

fm: 2.00'

to: 3.50'

type: Bentonite Pellets

fm: 3.50'

to: 4.00'

type: #10/20 Pacific Rim

fm: 4.00'

to: 16.50'

Depth (ft)	Graphic Log	USCS Code	Well Construction	Sample Recovery	Blow Count	PID (ppm)	Soil Description and Observations
5		SM/ML SP			8 12 14		Asphalt, 2.0" thick. SILTY SAND/SANDY SILT (SM/ML): brown, fine to medium grained sand, trace gravel, layers of dark brown sandy silt, subrounded to rounded, medium dense, moist.
10		SP SM/GM			4 4 4		SAND (SP): brown, fine to medium grained, slightly silty, medium dense, moist. Grading to loose.
15		SP SP			23 50 50		SILTY SAND/SANDY GRAVEL (SM/GM): brown, fine to medium grained sand, fine to coarse gravel, basalt cobbles (>2.0' diameter), subrounded to subangular, pockets of sandy silt, very dense, wet.
15		SP SP			23 50-6		SAND (SP): brown, fine to medium grained sand, trace silt, very dense, wet.
15		SP SP			17 22 22		Total Depth - 16.5' bgs

APPENDIX B



FIELD PROGRAM PHOTOGRAPHS



Photograph: 1	Sodium persulfate in powder form, ready for mixing.	
Spokane ANG5	ERM	242 nd CCSQ Spokane, WA



Photograph: 2	Sodium persulfate mixing tanks (tank capacity = 550 gallons each).	
Spokane ANG5	ERM	242 nd CCSQ Spokane, WA



Photograph: 3 *Injection pump, receives sodium persulfate solution from the mixing tanks and injects into drive rods at each injection boring.*

Spokane ANG

ERM

242nd CCSQ
Spokane, WA



Photograph: 4 *Adding powdered zero valent iron to water in a 55-gallon drum in preparation for injection (round one).*

Spokane ANG

ERM

242nd CCSQ
Spokane, WA



Photograph: 5	<i>Vigorously mixing the zero valent iron with water to form a slurry prior to injection (round one).</i>
Spokane ANG5	<div style="display: flex; justify-content: space-between; align-items: center;"> <div data-bbox="677 898 1029 976">ERM</div> <div data-bbox="1029 898 1409 976">242nd CCSQ Spokane, WA</div> </div>



Photograph: 6	<i>Adding powdered calcium hydroxide directly to sodium persulfate solution in a 55-gallon drum in preparation for injection (round two).</i>
Spokane ANG5	<div style="display: flex; justify-content: space-between; align-items: center;"> <div data-bbox="677 1852 1029 1932">ERM</div> <div data-bbox="1029 1852 1409 1932">242nd CCSQ Spokane, WA</div> </div>



Photograph: 7	<i>Injection hose connected to the drive rods at injection point IP-52 (round one).</i>	
<i>Spokane ANG</i>	<i>ERM</i>	<i>242nd CCSQ Spokane, WA</i>

APPENDIX C



INJECTION PROGRAM SUMMARY

TABLE C-1
Round One Injection Summary
242nd CCSQ, Spokane ANG, Spokane, Washington

Injection Point	Date	Interval (ft bgs)	Material	Injectate Amount (gal)	Injectate Amount (lbs) ^a
1	10/29/2004	9.0-9.5	ZVI	125	65.0
		9.0-9.5	Sodium Persulfate	150	65.0
		8.0-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
2	10/29/2004	9.5-11.0	ZVI	125	65.0
		9.5-11.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
3	10/19/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	44.5	19.3
		10.0-12.0	ZVI	125	65.0
		10.0-12.0	Sodium Persulfate	104	45.1
4	10/28/2004	9.0-11.0	ZVI	125	65.0
	10/29/2004	9.0-11.0	Sodium Persulfate	150	65.0
5	10/28/2004	8.0-9.0	Sodium Persulfate	150	65.0
		8.0-9.0	ZVI	125	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
6	11/1/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
7	11/1/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
8	10/29/2004	9.0-9.5	ZVI	125	65.0
		9.0-9.5	Sodium Persulfate	150	65.0
		8.0-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
9	10/29/2004	9.0-9.5	ZVI	125	65.0
		9.0-9.5	Sodium Persulfate	150	65.0
		8.0-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
10	10/29/2004	9.0-9.5	ZVI	125	65.0
		9.0-9.5	Sodium Persulfate	150	65.0
		8.0-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
11	11/2/2004	9.5-10.0	ZVI	125	65.0
		9.5-10.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
12	11/2/2004	9.0-10.5	ZVI	125	65.0
		9.0-10.5	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
13	11/2/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
14	11/2/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
15	11/1/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
16	10/28/2004	9.5-11.0	ZVI	125	65.0
		9.5-11.0	Sodium Persulfate	150	65.0
		8.0-9.5	ZVI	125	65.0
		8.0-9.5	Sodium Persulfate	150	65.0
17	10/28/2004	9.0-11.0	ZVI	125	65.0
		9.0-11.0	Sodium Persulfate	150	65.0
		8.0-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
18	11/3/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
19	11/3/2004	9.5-10.0	ZVI	125	65.0
		9.5-10.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
20	11/2/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-10.5	ZVI	125	65.0
		10.0-10.5	Sodium Persulfate	150	65.0
21	11/12/2004	9.0-10.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
		10.0	ZVI	125	65.0
		10.0	Sodium Persulfate	150	65.0
22	11/2/2004	9.5-10.0	ZVI	125	65.0
		9.5-10.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
23	11/3/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.5	ZVI	125	65.0
		10.0-11.5	Sodium Persulfate	150	65.0

TABLE C-1
Round One Injection Summary
242nd CCSQ, Spokane ANG, Spokane, Washington

Injection Point	Date	Interval (ft bgs)	Material	Injectate Amount (gal)	Injectate Amount (lbs) ^a
24	11/3/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-10.5	ZVI	125	65.0
		10.0-10.5	Sodium Persulfate	150	65.0
25	11/12/2004	9.0-10.0	ZVI	125	65.0
	11/4/2004	8.0-9.0	Sodium Persulfate	150	65.0
		10.5-11.0	ZVI	125	65.0
	11/12/2004	10.0	ZVI	125	65.0
26	11/4/2004	10.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
27	10/28/2004	10.0-11.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
28	10/27/2004	10.0-11.0	Sodium Persulfate	150	65.0
		9.0-11.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
29	11/4/2004	8.0-10.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
30	11/11/2004	8.0-11.0	Sodium Persulfate	150	65.0
	11/12/2004	8.0-11.0	ZVI	125	65.0
		8.0-11.0	Sodium Persulfate	150	65.0
		8.0-11.0	ZVI	125	65.0
31	11/11/2004	9.0-10.0	Sodium Persulfate	150	65.0
		10.5-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
		9.0-10.0	ZVI	125	65.0
32	11/11/2004	8.0-9.0	Sodium Persulfate	150	65.0
		10.5-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
		9.0-10.0	ZVI	125	65.0
33	11/11/2004	9.0-10.0	Sodium Persulfate	150	65.0
		11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
		9.5-11.0	ZVI	125	65.0
34	11/11/2004	9.5-11.0	Sodium Persulfate	150	65.0
		9.0-10.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
35	10/25/2004	8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
		9.0-10.0	ZVI	125	65.0
36	10/21/2004	9.0-10.0	Sodium Persulfate	75	32.5
		8.0-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	75	32.5
		10.0-12.0	ZVI	125	65.0
		10.0-12.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
37	11/3/2004	8.0-10.0	Sodium Persulfate	150	65.0
		10.5-11.0	ZVI	125	65.0
		10.5-11.0	Sodium Persulfate	150	65.0
		9.0-11.0	ZVI	125	65.0
38	11/5/2004	9.0-11.0	Sodium Persulfate	150	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
		9.5-10.0	ZVI	125	65.0
39	11/5/2004	9.5-10.0	Sodium Persulfate	150	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
40	11/5/2004	8.0-10.0	Sodium Persulfate	300	130.0
		10.0-11.0	ZVI	125	65.0
		8.0-10.0	ZVI	125	65.0
41	11/4/2004	8.0-10.0	Sodium Persulfate	300	130.0
		10.0-11.0	ZVI	125	65.0
		8.0-10.0	ZVI	125	65.0
42	10/27/2004	8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
43	10/27/2004	8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
44	11/8/2004	8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.5	ZVI	125	65.0
		10.0-11.5	Sodium Persulfate	150	65.0
		9.0-10.0	ZVI	125	65.0
45	11/9/2004	8.0-9.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
		9.0-11.0	ZVI	125	65.0
46	11/9/2004	9.0-11.0	Sodium Persulfate	150	65.0
		8.5-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
		9.0-11.0	ZVI	125	65.0

TABLE C-1
Round One Injection Summary
242nd CCSQ, Spokane ANG, Spokane, Washington

Injection Point	Date	Interval (ft bgs)	Material	Injectate Amount (gal)	Injectate Amount (lbs) ^a
47	11/9/2004	9.0-11.0	ZVI	125	65.0
		9.0-11.0	Sodium Persulfate	150	65.0
		8.5-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
48	11/5/2004	9.0-10.0	ZVI	125	65.0
		9.0-10.0	Sodium Persulfate	150	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
49	10/21/2004	9.0-11.0	ZVI	125	65.0
		9.0-11.0	Sodium Persulfate	150	65.0
		8.0-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
50	10/25/2004	9.5-11.5	ZVI	125	65.0
		9.5-11.5	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
51	11/5/2004	9.0-11.0	ZVI	125	65.0
		9.0-11.0	Sodium Persulfate	150	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
52	11/9/2004	9.0-11.0	ZVI	125	65.0
		9.0-11.0	Sodium Persulfate	150	65.0
		8.5-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
53	10/20/2004	14.0-15.0	ZVI	125	65.0
		12.0-14.0	ZVI	125	65.0
		12.0-14.0	Sodium Persulfate	100	43.3
	10/21/2004	10.0-12.0	ZVI	125	65.0
		10.0-12.0	Sodium Persulfate	200	86.7
54	11/10/2004	9.5-11.0	ZVI	125	65.0
		9.5-11.0	Sodium Persulfate	150	65.0
	11/11/2004	9.0-10.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
55	11/9/2004	9.0-11.0	ZVI	125	65.0
		9.0-11.0	Sodium Persulfate	150	65.0
		8.5-9.0	ZVI	125	65.0
	11/10/2004	8.0-9.0	Sodium Persulfate	150	65.0
56	10/27/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
57	10/27/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
58	11/10/2004	9.0-11.0	ZVI	125	65.0
		9.0-11.0	Sodium Persulfate	150	65.0
		8.5-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
59	11/10/2004	9.5-11.0	ZVI	125	65.0
		9.5-11.0	Sodium Persulfate	150	65.0
		9.0-10.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
60	11/11/2004	9.0-10.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
		10.5-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
61	11/8/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.5	ZVI	125	65.0
		10.0-11.5	Sodium Persulfate	150	65.0
62	10/25/2004	8.0-10.5	ZVI	125	65.0
		8.0-10.5	Sodium Persulfate	300	130.0
63	10/25/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
64	11/8/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
65	11/10/2004	9.0-11.0	ZVI	125	65.0
		9.0-11.0	Sodium Persulfate	150	65.0
		8.5-9.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
66	11/10/2004	9.0-10.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
		11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
67	10/26/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
68	10/26/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
69	11/10/2004	9.0-10.0	ZVI	125	65.0
		8.0-9.0	Sodium Persulfate	150	65.0
		11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0

TABLE C-1

Round One Injection Summary
242nd CCSQ, Spokane ANG, Spokane, Washington

Injection Point	Date	Interval (ft bgs)	Material	Injectate Amount (gal)	Injectate Amount (lbs) ^a
70	11/8/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.5	ZVI	125	65.0
		10.0-11.5	Sodium Persulfate	150	65.0
71	10/26/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
72	10/26/2004	8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
		10.0-11.0	ZVI	125	65.0
		10.0-11.0	Sodium Persulfate	150	65.0
73	11/8/2004	9.5-11.0	ZVI	125	65.0
		9.5-11.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	40	17.3
74	10/26/2004	9.5-11.0	ZVI	125	65.0
		9.5-11.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
75	10/26/2004	9.5-11.0	ZVI	125	65.0
		9.5-11.0	Sodium Persulfate	150	65.0
		8.0-10.0	ZVI	125	65.0
		8.0-10.0	Sodium Persulfate	150	65.0
76	11/12/2004	8.0-11.0	ZVI	125	65.0
		8.0-11.0	Sodium Persulfate	150	65.0
77	11/12/2004	8.0-11.0	ZVI	125	65.0
		8.0-11.0	Sodium Persulfate	150	65.0
Total Injected (lbs)		ZVI			9,907
Total Injected (lbs)		Sodium Persulfate			9,766
Total Injected (gal)		27,715			

Notes:

ANGS = Air National Guard Station
CCSQ = Combat Communications Squadron
ft bgs= feet below ground surface
gal = gallons
lbs = pounds
ZVI = Zero Valent Iron

^a Mass of sodium persulfate injected (lbs) = (130 lbs sodium persulfate per 300 gallons of water) *Volume of sodium persulfate injected (gallons)
Persulfate was mixed with water and injected as a 5% solution.

TABLE C-2

Round Two Injection Summary
242nd CCSQ, Spokane ANG, Spokane, Washington

Injection Point	Date	Interval (ft bgs)	Calcium Hydroxide (lbs)	Sodium Persulfate Injected (lbs) ^a	Sodium Persulfate Injected (gal)
1	05/06/05	7-14	70	70	150
2	05/11/05	7.5-14	140	135	300
3	05/10/05	8-14	15	14	30
	05/17/05	7.5-14	140	145	300
4	05/17/05	12.5-14	140	109	225
		9-14		36	75
5	05/05/05	11-14	140	47	100
		9.5-11		70	150
		8-9.5		23	50
6	05/12/05	11.5-14	70	77	170
	05/17/05	11.5-14	70	12	25
		10.5-14		61	125
7	05/16/05	11-14	140	135	300
8	05/06/05	9-12	210	210	450
9	05/06/05	11.5-14	140	47	100
		10-11.5		47	100
		8-10		47	100
10	05/12/05	13-14	140	135	300
11	05/10/05	12.5-14	140	68	150
		12-14		61	135
		10-12		7	15
12	05/17/05	11.5-14	140	97	200
		10.5-11.5		48	100
13	05/05/05	9-14	140	70	150
		8-9		70	150
14	05/16/05	10.5-14	140	113	250
		9.5-10.5		23	50
15	05/16/05	12-14	140	135	300
16	05/06/05	11.5-14	140	70	150
		10-11.5		47	100
		8-10		23	50
17	05/05/05	9.5-14	140	70	150
		8-9.5		70	150
18	05/12/05	9.5-14	140	23	50
	05/16/05	10-14		124	275
		9-10		11	25
19	05/12/05	9.5-14	140	135	300
	05/10/05	10-14	140	135	300
21	05/05/05	9.5-14	140	105	225
		7.5-9.5		35	75
22	05/12/05	10-14	140	68	150
		9-10		68	150
23	05/12/05	9-14	140	135	300
24	05/06/05	10.5-14	140	70	150
		8.5-10.5		70	150
25	05/05/05	10-13	140	47	100
		9-10		47	100
		8-9		47	100
26	05/12/05	11.5-14	140	68	150
		10-11.5		45	100
		9-10		23	50
27	05/16/05	10.5-14	140	135	300
28	05/05/05	10-14	140	70	150
		9-10		47	100
		8-9		23	50
29	05/13/05	14-15	210	68	150
		12-14		68	150
		10-12		45	100
		9-10		23	50
30	05/10/05	9.5-13	70	68	150
31	05/06/05	10.5-14	140	47	100
		9.5-10.5		47	100
		8.5-9.5		47	100
32	05/10/05	9-13	140	68	150
		8-9		68	150
33	05/10/05	10-13	150	144	320
34	05/13/05	14-15	140	45	100
		11-14		45	100
		8.5-11		45	100
35	05/13/05	11-13	70	68	150
	05/16/05	7.5-14	70	73	150
36	05/10/05	7.5-13	130	126	280
37	05/09/05	7.5-14	140	82	175
	05/10/05	8.5-13		56	125
38	05/11/05	12-14	140	90	200
		10-12.5		45	100
39	05/11/05	11.5-14	140	68	150
		10-11.5		45	100
		8.5-10		23	50
40	05/17/05	9-14*	20	26	50
41	05/11/05	8-10	140	135	300
42	05/13/05	7.5-13	140	135	300
43	05/13/05	10-14	140	135	300
44	05/11/05	11.5-14	140	45	100
		10-11.5		45	100
		8.5-10		45	100
45	05/11/05	13.5-14	140	45	100
		11.5-13.5		45	100
		9.5-11.5		45	100

TABLE C-2

Round Two Injection Summary
242nd CCSQ, Spokane ANG, Spokane, Washington

Injection Point	Date	Interval (ft bgs)	Calcium Hydroxide (lbs)	Sodium Persulfate Injected (lbs) ^a	Sodium Persulfate Injected (gal)
46	05/09/05	10.5-14	140	70	150
		8.5-10.5		70	150
47	05/09/05	11-14	140	47	100
		10-11		47	100
		8.5-10		47	100
48	05/09/05	6.5-14	140	140	300
49	05/09/05	6-14	140	140	300
50	05/17/05	10-14	120	10	20
		9.5-14		26	50
		8.5-10*		93	180
Total Injected (lbs)			6,895	6,812	
Total Volume Injected (gal)					14,800

Notes:

ANGS = Air National Guard Station
CCSQ = Combat Communications Squadron
ft bgs = feet below ground surface
gal = gallons
lbs = pounds

^a Mass of sodium persulfate injected (lbs) = (140 lbs sodium persulfate per 300 gallons of water) *Volume of sodium persulfate injected (gallons)
Persulfate was mixed with water and injected as a 5% solution.

APPENDIX D

***GROUNDWATER LEVEL AND PH DATA
COLLECTED DURING MAY 2005 INJECTIONS***

TABLE D-1

May 2005 pH Measurements
242nd CCSQ, Spokane ANG, Spokane, Washington

Well Identifier	Date	Time	pH Reading
MW-2	5/3/05	1612	6.22
	5/6/05	0907	6.33
	5/9/05	1353	6.30
	5/11/05	1600	6.24
	5/13/05	1559	6.26
	5/16/05	0938	6.23
	5/18/05	1043	6.30
MW-3	5/3/05	1521	6.43
	5/6/05	1116	6.46
	5/9/05	1425	6.29
	5/11/05	1620	6.20
	5/13/05	1603	6.25
	5/16/05	1040	6.28
MW-4	5/18/05	1108	6.30
	5/3/05	1504	5.74
	5/5/05	1604	5.74
	5/6/05	0830	5.94
	5/9/05	1315	5.77
	5/12/05	1512	6.11
	5/16/05	0900	5.96
MW-5	5/18/05	1132	6.07
	5/3/05	1532	6.65
	5/6/05	1123	6.66
	5/9/05	1420	6.63
	5/12/05	1540	6.82
	5/16/05	1035	6.52
MW-6	5/18/05	1100	6.70
	5/3/05	1527	6.79
	5/6/05	1128	6.80
	5/9/05	1414	6.85
	5/12/05	1535	7.00
MW-12	5/16/05	1029	6.99
	5/3/05	1558	6.81
	5/6/05	1049	6.73
	5/9/05	1326	6.68
	5/16/05	0919	6.90
MW-13	5/18/05	1025	6.73
	5/3/05	1510	6.90
	5/6/05	0842	6.89
	5/9/05	1320	6.77
	5/12/05	1526	7.04
MW-14	5/16/05	0906	6.41
	5/3/05	1603	6.45
	5/6/05	1038	6.45
	5/9/05	1333	6.45
	5/16/05	0932	6.45
MW-15	5/18/05	1030	6.51
	5/3/05	1608	6.33
	5/6/05	0913	6.37
	5/9/05	1339	6.37
	5/16/05	0926	6.51
MW-16	5/18/05	1036	6.46
	5/3/05	1553	6.32
	5/6/05	1158	6.32
	5/9/05	1457	6.28
	5/16/05	1047	6.41
MW-17	5/18/05	1121	6.25
	5/3/05	1545	7.88
	5/6/05	1153	7.82
MW-18	5/9/05	1452	7.56
	5/3/05	1456	6.44
	5/5/05	1600	6.17
	5/6/05	0825	6.44
	5/9/05	1311	6.46
MW-19	5/12/05	1505	6.58
	5/18/05	1017	6.32
	5/3/05	1617	6.08
	5/5/05	1609	6.11
	5/6/05	0848	6.11
	5/9/05	1407	6.12
	5/11/05	1612	6.23
	5/13/05	1554	6.10
	5/16/05	0944	6.18
	5/18/05	1052	6.34

Notes:
ANGS -= Air National Guard Station
CCSQ = Combat Communications Squadron
pH = acidity/alkalinity
YSI 556 (INW serial #1765) calibration checked daily prior to collection of readings.

TABLE D-2

*May 2005 Groundwater Elevation Measurements
242nd CCSQ, Spokane ANG, Spokane, Washington*

Well Identifier	Date	Time	Measured DTW (ft)	Well Casing Elevation (ft amsl)	Groundwater Level Elevation (ft amsl)
MW-2	5/3/05	0816	9.47	2377.07	2367.60
	5/18/05	1040	9.04	2377.07	2368.03
MW-3	5/3/05	0834	9.84	2376.73	2366.89
	5/18/05	1105	9.49	2376.73	2367.24
MW-4	5/3/05	0750	8.76	2377.06	2368.30
	5/18/05	1128	8.29	2377.06	2368.77
MW-5	5/6/05	1120	9.65	2377.36	2367.71
	5/9/05	1417	9.55	2377.36	2367.81
	5/16/05	1032	9.34	2377.36	2368.02
	5/18/05	1057	9.22	2377.36	2368.14
MW-6	5/6/05	1126	9.60	2376.37	2366.77
	5/9/05	1412	9.54	2376.37	2366.83
	5/16/05	1026	9.27	2376.37	2367.10
MW-12	5/3/05	0800	9.55	2376.60	2367.05
	5/18/05	1021	8.11	2376.60	2368.49
MW-13	5/6/05	0840	9.34	2377.14	2367.80
	5/9/05	1317	9.26	2377.14	2367.88
	5/16/05	0903	9.08	2377.14	2368.06
MW-14	5/6/05	0916	9.91	2378.54	2368.63
	5/9/05	1330	9.88	2378.54	2368.66
	5/16/05	0930	9.72	2378.54	2368.82
	5/18/05	1028	9.64	2378.54	2368.90
MW-15	5/6/05	0910	10.45	2376.48	2366.03
	5/9/05	1336	10.43	2376.48	2366.05
	5/16/05	0923	10.30	2376.48	2366.18
	5/18/05	1033	10.25	2376.48	2366.23
MW-16	5/3/05	0825	9.35	2374.97	2365.62
	5/18/05	1118	8.99	2374.97	2365.98
MW-17	5/6/05	1150	13.47	2375.18	2361.71
	5/9/05	1449	13.43	2375.18	2361.75
MW-18	5/3/05	0737	9.03	2377.68	2368.65
	5/18/05	1009	8.47	2377.68	2369.21
MW-19	5/3/05	0811	9.11	2377.22	2368.11
	5/18/05	1047	8.62	2377.22	2368.60

Notes:

ANGS = Air National Guard Station

CCSQ = Combat Communications Squadron

DTW = Depth to water

ft = feet

ft amsl = feet above mean sea level

APPENDIX E



LOCATION AND ELEVATION SURVEY DATA



INJECTION POINT LOCATIONS

FOR

ERM, INC.

**SPOKANE ANGS SITE
SPOKANE, WASHINGTON**

AS OBSERVED ON MAY 18, 2005

**REFERENCE JOB NO. USKH 654004 and 96092
Updated May 23, 2005**

SURVEY NARRATIVE & SUMMARY
SPOKANE ANG'S SITE
SPOKANE, WASHINGTON

In February 1997, USKH, Inc (formerly Wyatt Engineering Inc.), performed a field survey and developed a list of horizontal coordinates and elevations for monitoring wells, soil borings and ground samples located on the Spokane ANG'S site near the intersection of Electric Avenue and Flint Road. The basis for the horizontal coordinates were assumed. The elevations listed in this report were based on NGS Station "Tangent 2" with an NGVD 29 Datum elevation of 2381.16 feet (The NAVD 88 Elevation for Tangent 2 = 2385.00' was not used.)

On October 20, 2000, additional monitoring well were observed and a topographic site map was developed. The new coordinates were established using a Set 500 Sokkia Total Station Theodolite and a SDR 33 Data Collector. All control points were derived from a closed loop based on previous work by Wyatt Engineering, Inc., thereby providing a check on our measurements. Horizontal control points on site were checked and confirmed with reference to the previous control work. All data was gathered electronically with the data collector and then transferred electronically into the computer for processing. Coordinate processing was accomplished using SDR Map and Link, Land Development and Auto CAD, Version 14.0.

On November 15, 2004, additional bore hole locations were marked by ERM personnel and located by USKH, Inc. Coordinates were established using Trimble 5700 Total Station Theodolite and a TSCE data collector.

On December 16, 2004, additional monitoring well locations were located by USKH, Inc. Coordinates were established using Trimble 5700 Total Station Theodolite and a TSCE data collector.

On May 18 and 23, 2005, Injection point locations were located by USKH, Inc. Coordinates were established using Sokkia Total Station Theodolite and a TSC1 data collector. This additional work is shown below and is based on previous control work done by this office.

INJECTION POINT COORDINATES AND ELEVATIONS

Code	Northing	Easting	Elevation	Point No.
IP-1	5342.4	5528.7	2378.4	1301
IP-2	5337.8	5505.2	2378.0	1302
IP-3	5326.0	5483.9	2377.6	1303
IP-4	5337.5	5462.1	2377.5	1304
IP-5	5355.0	5467.1	2377.4	1305
IP-6	5354.7	5485.2	2377.6	1306
IP-7	5359.3	5508.3	2378.1	1307
IP-8	5356.9	5528.8	2378.4	1308
IP-9	5375.2	5527.6	2378.4	1309
IP-10	5380.6	5507.8	2378.0	1310
IP-11	5377.1	5487.0	2377.7	1311
IP-12	5376.7	5459.3	2377.2	1312
IP-13	5400.0	5467.6	2377.3	1313
IP-14	5399.0	5486.5	2377.7	1314
IP-15	5398.5	5509.0	2378.0	1315
IP-16	5395.7	5528.3	2378.3	1316
IP-17	5416.9	5528.9	2378.3	1317
IP-18	5416.1	5508.7	2377.9	1318
IP-19	5415.5	5487.3	2377.6	1319
IP-20	5419.4	5468.3	2377.2	1320
IP-21	5438.8	5470.4	2377.4	1321
IP-22	5438.2	5492.5	2377.6	1322
IP-23	5436.9	5509.3	2377.8	1323
IP-24	5436.3	5529.7	2378.1	1324
IP-25	5456.8	5531.3	2378.0	1325
IP-26	5454.6	5510.2	2377.8	1326
IP-27	5458.9	5491.7	2377.5	1327
IP-28	5458.6	5471.0	2377.4	1328
IP-29	5498.9	5484.4	2377.7	1329
IP-30	5500.0	5509.1	2377.4	1330
IP-31	5500.0	5529.9	2377.6	1331
IP-32	5539.7	5534.5	2377.4	1332
IP-33	5539.1	5508.7	2377.5	1333
IP-34	5541.1	5487.7	2377.7	1334
IP-35	5570.2	5496.4	2377.2	1335
IP-36	5579.6	5512.0	2377.3	1336
IP-37	5575.5	5541.0	2377.3	1337
IP-38	5628.9	5558.1	2376.9	1338

IP-39	5617.3	5533.7	2376.9	1339
IP-40	5608.0	5512.9	2376.9	1340
IP-41	5614.3	5482.1	2376.8	1341
IP-42	5662.4	5489.0	2375.5	1342
IP-43	5661.7	5515.0	2376.0	1343
IP-44	5660.0	5535.1	2376.1	1344
IP-45	5657.3	5555.8	2376.5	1345
IP-46	5702.0	5550.9	2375.7	1346
IP-47	5702.0	5530.7	2375.6	1347
IP-48	5702.0	5510.3	2375.4	1348
IP-49	5702.9	5490.1	2375.2	1349
IP-50	5462.8	5497.7	2377.6	1350

I:\654004 ERM\Submittals\5-18-05\654004-xyz-phs3.wpd

BORE HOLE LOCATIONS

FOR

ERM, INC.

**SPOKANE ANG'S SITE
SPOKANE, WASHINGTON**

**AS OBSERVED ON NOVEMBER 15, 2004
REFERENCE JOB NO. USKH 654004 and 96092**

SURVEY NARRATIVE & SUMMARY
SPOKANE ANG'S SITE
SPOKANE, WASHINGTON

In February 1997, USKH, Inc (formerly Wyatt Engineering Inc.), performed a field survey and developed a list of horizontal coordinates and elevations for monitoring wells, soil borings and ground samples located on the Spokane ANG'S site near the intersection of Electric Avenue and Flint Road. The basis for the horizontal coordinates were assumed. The elevations listed in this report were based on NGS Station "Tangent 2" with an NGVD 29 Datum elevation of 2381.16 feet (The NAVD 88 Elevation for Tangent 2 = 2385.00' was not used.)

On October 20, 2000, additional monitoring well were observed and a topographic site map was developed. The new coordinates were established using a Set 500 Sokkia Total Station Theodolite and a SDR 33 Data Collector. All control points were derived from a closed loop based on previous work by Wyatt Engineering, Inc., thereby providing a check on our measurements. Horizontal control points on site were checked and confirmed with reference to the previous control work. All data was gathered electronically with the data collector and then transferred electronically into the computer for processing. Coordinate processing was accomplished using SDR Map and Link, Land Development and Auto CAD, Version 14.0.

On November 15, 2004, additional bore hole locations were marked by ERM personnel and located by USKH, Inc. Coordinates were established using Trimble 5700 Total Station Theodolite and a TSCE data collector. This additional work is shown below and is based on previous control work done by this office. Please note that BH 37 was not established and therefor not located.

BORE HOLE COORDINATES AND ELEVATIONS

Code	Northing	Easting	Elevation	Point
				No.
BH 1	5593.79	5492.86	2376.4	1101
BH 2	5588.35	5517.82	2376.7	1102
BH 3	5583.90	5537.15	2377.1	1103
BH 4	5579.19	5557.03	2377.1	1104
BH 5	5552.66	5566.22	2377.3	1105
BH 6	5560.60	5548.15	2377.3	1106
BH 7	5568.08	5529.70	2377.1	1107
BH 8	5574.21	5511.09	2377.3	1108
BH 9	5579.50	5491.40	2377.1	1109
BH 10	5585.32	5471.08	2376.8	1110
BH 11	5564.72	5469.94	2377.2	1111
BH 12	5557.83	5489.49	2377.3	1112
BH 13	5550.64	5507.49	2377.4	1113
BH 14	5544.94	5528.90	2377.1	1114
BH 15	5539.74	5541.07	2377.4	1115
BH 16	5533.58	5560.81	2377.4	1116
BH 17	5514.07	5555.51	2377.6	1117
BH 18	5519.64	5536.05	2377.5	1118
BH 19	5527.71	5514.38	2377.3	1119
BH 20	5532.49	5498.78	2377.5	1120
BH 21	5543.39	5479.45	2377.7	1121
BH 22	5541.21	5466.11	2377.4	1122
BH 23	5520.67	5467.91	2377.7	1123
BH 24	5520.95	5485.21	2377.5	1124
BH 25	5519.40	5507.59	2377.5	1125
BH 26	5497.99	5530.63	2377.5	1126
BH 27	5494.81	5550.44	2377.8	1127
BH 28	5475.33	5545.52	2377.9	1128
BH 29	5478.34	5528.48	2377.7	1129
BH 30	5489.83	5508.26	2377.5	1130
BH 31	5491.59	5496.70	2377.6	1131
BH 32	5495.57	5482.73	2377.6	1132
BH 33	5499.86	5468.78	2377.9	1133
BH 34	5478.95	5484.75	2377.6	1134
BH 35	5483.48	5431.37	2377.6	1135
BH 36	5479.35	5446.37	2377.6	1136
BH 38	5472.35	5469.30	2377.5	1138
BH 39	5466.16	5489.85	2377.5	1139
BH 40	5461.56	5508.91	2377.7	1140

BH 41	5459.49	5527.54	2377.8	1141
BH 42	5455.01	5540.18	2378.1	1142
BH 43	5435.92	5535.44	2378.2	1143
BH 44	5440.16	5509.79	2377.8	1144
BH 45	5444.25	5498.72	2377.6	1145
BH 46	5450.08	5480.61	2377.5	1146
BH 47	5456.13	5459.95	2377.4	1147
BH 48	5461.45	5441.59	2377.4	1148
BH 49	5466.36	5420.84	2377.4	1149
BH 50	5449.47	5415.62	2377.2	1150
BH 51	5441.29	5437.20	2377.2	1151
BH 52	5434.91	5453.11	2377.2	1152
BH 53	5425.71	5474.57	2377.5	1153
BH 54	5427.11	5483.92	2377.6	1154
BH 55	5412.83	5491.79	2377.6	1155
BH 56	5414.21	5532.73	2378.3	1156
BH 57	5394.64	5528.14	2378.3	1157
BH 58	5401.89	5497.23	2377.8	1158
BH 59	5409.10	5480.75	2377.6	1159
BH 60	5409.23	5462.54	2377.2	1160
BH 61	5415.75	5451.86	2377.1	1161
BH 62	5421.69	5432.36	2377.1	1162
BH 63	5395.58	5445.90	2377.0	1163
BH 64	5392.14	5462.99	2377.3	1164
BH 65	5393.23	5477.52	2377.5	1165
BH 66	5376.77	5495.57	2377.8	1166
BH 67	5375.27	5525.49	2378.3	1167
BH 68	5354.64	5523.53	2378.2	1168
BH 69	5366.54	5481.59	2377.5	1169
BH 70	5369.52	5472.84	2377.4	1170
BH 71	5374.65	5452.61	2377.1	1171
BH 72	5356.32	5466.75	2377.3	1172
BH 73	5347.48	5485.38	2377.5	1173
BH 74	5341.97	5502.18	2377.8	1174
BH 75	5328.47	5479.28	2377.5	1175
BH 76	5455.72	5496.13	2377.5	1176
BH 77	5423.62	5544.64	2378.2	1177

MONITORING WELL LOCATIONS

FOR

ERM, INC.

**SPOKANE ANGS SITE
SPOKANE, WASHINGTON**

AS OBSERVED ON DECEMBER 16, 2004
REFERENCE JOB NO. USKH 654004 and 96092

SURVEY NARRATIVE & SUMMARY SPOKANE ANG'S SITE SPOKANE, WASHINGTON

In February 1997, USKH, Inc (formerly Wyatt Engineering Inc.), performed a field survey and developed a list of horizontal coordinates and elevations for monitoring wells, soil borings and ground samples located on the Spokane ANG'S site near the intersection of Electric Avenue and Flint Road. The basis for the horizontal coordinates were assumed. The elevations listed in this report were based on NGS Station "Tangent 2" with an NGVD 29 Datum elevation of 2381.16 feet (The NAVD 88 Elevation for Tangent 2 = 2385.00' was not used.)

On October 20, 2000, additional monitoring well were observed and a topographic site map was developed. The new coordinates were established using a Set 500 Sokkia Total Station Theodolite and a SDR 33 Data Collector. All control points were derived from a closed loop based on previous work by Wyatt Engineering, Inc., thereby providing a check on our measurements. Horizontal control points on site were checked and confirmed with reference to the previous control work. All data was gathered electronically with the data collector and then transferred electronically into the computer for processing. Coordinate processing was accomplished using SDR Map and Link, Land Development and Auto CAD, Version 14.0.

On November 15, 2004, additional bore hole locations were marked by ERM personnel and located by USKH, Inc. Coordinates were established using Trimble 5700 Total Station Theodolite and a TSCE data collector.

On December 16, 2004, additional monitoring well locations were located by USKH, Inc. Coordinates were established using Trimble 5700 Total Station Theodolite and a TSCE data collector. This additional work is shown below and is based on previous control work done by this office.

Vertical elevations for the monitoring wells were then established using a Zeiss spirit level. All observations were checked in the field to assure accuracy. The PVC elevations were measured to a notch in the PVC pipe inside the well casing. The rim elevations were measured on the north side of the well casing rim. The monitoring well elevations were reported to the nearest 0.01 foot.

MONITORING WELL COORDINATES AND ELEVATIONS

Code	Northing	Easting	Elevation Rim	Elevation PVC	Point No.
MW-18	5391.59	5504.79	2378.00	2377.68	1202
MW-19	5501.96	5513.50	2377.46	2377.22	1201

I:\654004 ERM\Submittals\654004-xyz-phs2.wpd

APPENDIX F



ANALYTICAL LABORATORY REPORTS



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane East 11115 Montgomery, Suite B, Spokane, WA 99206-4776
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541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

01 November 2004

Mike Arnold
ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005
RE: Spokane ANGS

Enclosed are the results of analyses for samples received by the laboratory on 10/15/04 08:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robert Greer
Project Manager

CASE NARRATIVE for B4J0693

Client: ERM-Bellevue
Project Manager: Mike Arnold
Project Name: Spokane ANG
Project Number: 20536.5

1.0 DESCRIPTION OF CASE

Thirteen water samples and one trip blank were submitted for the analysis of:

- Dissolved Metals by EPA 6000/7000 Series Methods
- Volatile Organic Compounds by EPA Method 8260B

2.0 COMMENTS ON SAMPLE RECEIPT

The samples were received on October 15, 2004 and logged on October 20, 2004 at a temperature of 4.3°C.

3.0 PREPARATION AND ANALYSIS

Dissolved Metals by EPA 6000/7000 Series Methods

No anomalies were associated with the sample preparation and analysis. All criteria for acceptable QC measurements were met.

Volatile Organic Compounds by EPA Method 8260B

No additional anomalies, discrepancies, or issues were associated with sample preparation, analysis and quality control other than those already qualified in the data and described in the Notes and Definitions page at the end of this report.

Robert Greer
Project Manager
North Creek Analytical

Environmental Resources
Management

CHAIN OF CUSTODY RECORD

B470693

NO. 0453

915-118th Avenue S.E. Suite 130 • Bellevue, WA 98005 • (425) 462-8591 • FAX (425) 455-3573

Page 1 of 2

20536.50 Spokane ANG'S

ARM *[Signature]*

NCA, Bothell, WA

YOC'S (5030/8260)
Dissolved Metals
(60108, 6000, 7000, 8000, 9000)

* MW-18-04-1FA	10-13-04	1020	X	PTM H2O	—	Y	1.500ml 3x40ml	4	X	X	X							-01
* MW-18-04-1FT	10-13-04	1025	X	Tap H2O	—	Y		4	X	X	X							-02
MW-18-04-1	10-13-04	1055	X	Bladder	—	Y		4	X	X	X							-03
MW-19-04-1	10-13-04	1330	X	Bladder	—	Y		4	X	X	X							-04
* MN-19-04-1R	10-13-04	1340	X	Rinsale	—	Y		4	X	X	X							-05
MN-12-04-1	10-13-04	1430	X	Bladder	—	Y		4	X	X	X							-06
MW-14-04-1	10-13-04	1525	X	Bladder	—	Y		4	X	X	X							-07
MW-15-04-1	10-13-04	1605	X	Bladder	—	Y		4	X	X	X							-08
MW-13-04-1	10-14-04	0150	X	Bladder	—	Y		4	X	X	X							-09
MW-16-04-1	10-14-04	0840	X	Bladder	—	Y	↓	4	X	X	X							-10

[Signature] 10/15/04 0815 *[Signature]* 10/15/04 0815

*MW-18-04-1FA + MW-18-04-1FT need to be filtered in the LAB *
*MW-19-04-1R needs to be filtered in the LAB.
All other dissolved metals have been field filtered

SEND REPORT TO:

Mike Arnold

- ☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED
☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

WHITE - LABORATORY COPY

CANARY - FIELD COPY

PINK - DATABASE MANAGER

GOLD - PROJECT FILE

CHAIN OF CUSTODY RECORD

B4T0693

NO. 0454

Page 2 of 2

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20536.50	Spokane ANGUS
----------	---------------

ARM

NCA, Bothell, WA

VOCs (5030/8260)
Dissolved metals (4010 B, 6020, 7000 series)

MN-6-04-	10-14-04	0915	X	Bladder	-	Y	1x500 ml 3x40 ml	4	X	X	X	-11
MN-5-04-	10-14-04	1000	X	Bladder	-	Y	1	4	X	X	X	-12
MN-3-04-	10-14-04	1045	X	Bladder	-	Y	1	4	X	X	X	-13
JB101404-	10-14-04	-	X	LAB	-	Y	1x40 ml	1	X	X		-14

Dissolved metals have been field filtered.

4.3°
w/o

SEND REPORT TO:

MIKE ARNOUD

☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED
☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

WHITE - LABORATORY COPY

CANARY - FIELD COPY

PINK - DATABASE MANAGER

GOLD - PROJECT FILE



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
425.420.9200 fax 425.420.9210
Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
509.924.9200 fax 509.924.9290
Portland 9405 SW Nimbus Avenue, Beaverton, OR 97008-7132
503.906.9200 fax 503.906.9210
Bend 20332 Empire Avenue, Suite F-1, Bend, OR 97701-5711
541.383.9310 fax 541.382.7588
Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-18-04-1FA	B4J0693-01	Water	10/13/04 10:20	10/15/04 08:15
MW-18-04-1FT	B4J0693-02	Water	10/13/04 10:25	10/15/04 08:15
MW-18-04-1	B4J0693-03	Water	10/13/04 10:55	10/15/04 08:15
MW-19-04-1	B4J0693-04	Water	10/13/04 13:30	10/15/04 08:15
MW-19-04-1R	B4J0693-05	Water	10/13/04 13:40	10/15/04 08:15
MW-12-04-1	B4J0693-06	Water	10/13/04 14:30	10/15/04 08:15
MW-14-04-1	B4J0693-07	Water	10/13/04 15:25	10/15/04 08:15
MW-15-04-1	B4J0693-08	Water	10/13/04 16:05	10/15/04 08:15
MW-13-04-1	B4J0693-09	Water	10/14/04 07:50	10/15/04 08:15
MW-16-04-1	B4J0693-10	Water	10/14/04 08:40	10/15/04 08:15
MW-6-04-1	B4J0693-11	Water	10/14/04 09:15	10/15/04 08:15
MW-5-04-1	B4J0693-12	Water	10/14/04 10:00	10/15/04 08:15
MW-3-04-1	B4J0693-13	Water	10/14/04 10:45	10/15/04 08:15
TB101404-1	B4J0693-14	Water	10/14/04 12:00	10/15/04 08:15

North Creek Analytical - Bothell

Robert Greer, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



Seattle 11720 North Creek Pkwy N, Suite 400, Bothell, WA 98011-8244
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Spokane 11922 E. 1st Avenue, Spokane Valley, WA 99206-5302
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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-18-04-1FA (B4J0693-01) Water Sampled: 10/13/04 10:20 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/26/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-18-04-1FT (B4J0693-02) Water Sampled: 10/13/04 10:25 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/26/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-18-04-1 (B4J0693-03) Water Sampled: 10/13/04 10:55 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	0.00106	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/28/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-19-04-1 (B4J0693-04) Water Sampled: 10/13/04 13:30 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	0.00145	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/28/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-19-04-1R (B4J0693-05) Water Sampled: 10/13/04 13:40 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/28/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-12-04-1 (B4J0693-06) Water Sampled: 10/13/04 14:30 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/28/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-14-04-1 (B4J0693-07) Water Sampled: 10/13/04 15:25 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	0.00113	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/28/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-15-04-1 (B4J0693-08) Water Sampled: 10/13/04 16:05 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	0.00129	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/28/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-13-04-1 (B4J0693-09) Water Sampled: 10/14/04 07:50 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00124	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/28/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-16-04-1 (B4J0693-10) Water Sampled: 10/14/04 08:40 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	0.00103	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/28/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-6-04-1 (B4J0693-11) Water Sampled: 10/14/04 09:15 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/26/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-5-04-1 (B4J0693-12) Water Sampled: 10/14/04 10:00 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	0.00567	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/26/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3-04-1 (B4J0693-13) Water Sampled: 10/14/04 10:45 Received: 10/15/04 08:15									
Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	0.00345	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/26/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	0.0117	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-18-04-1FA (B4J0693-01) Water Sampled: 10/13/04 10:20 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	30.9	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-18-04-1FA (B4J0693-01) Water Sampled: 10/13/04 10:20 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	102 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	94.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-18-04-1FT (B4J0693-02) Water Sampled: 10/13/04 10:25 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	31.0	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-18-04-1FT (B4J0693-02) Water Sampled: 10/13/04 10:25 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	102 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	91.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	102 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-18-04-1 (B4J0693-03) Water Sampled: 10/13/04 10:55 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	26.9	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-18-04-1 (B4J0693-03) Water Sampled: 10/13/04 10:55 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	1.12	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	103 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	96.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	102 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-19-04-1 (B4J0693-04) Water Sampled: 10/13/04 13:30 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	10.9	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-19-04-1 (B4J0693-04) Water Sampled: 10/13/04 13:30 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	104 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	95.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	99.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-19-04-1R (B4J0693-05) Water Sampled: 10/13/04 13:40 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	22.7	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-19-04-1R (B4J0693-05) Water Sampled: 10/13/04 13:40 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	104 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	94.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-12-04-1 (B4J0693-06) Water Sampled: 10/13/04 14:30 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-12-04-1 (B4J0693-06) Water Sampled: 10/13/04 14:30 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	100 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	93.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	99.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-14-04-1 (B4J0693-07) Water Sampled: 10/13/04 15:25 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-14-04-1 (B4J0693-07) Water Sampled: 10/13/04 15:25 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J27030	10/26/04	10/26/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	104 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	93.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	103 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANGS
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-15-04-1 (B4J0693-08) Water Sampled: 10/13/04 16:05 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J27052	10/27/04	10/27/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANGS
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15-04-1 (B4J0693-08) Water Sampled: 10/13/04 16:05 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J27052	10/27/04	10/27/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	100 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	"	
Surrogate: 4-BFB	101 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-13-04-1 (B4J0693-09) Water Sampled: 10/14/04 07:50 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-04-1 (B4J0693-09) Water Sampled: 10/14/04 07:50 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	102 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	97.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	99.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-16-04-1 (B4J0693-10) Water Sampled: 10/14/04 08:40 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	7.83	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-04-1 (B4J0693-10) Water Sampled: 10/14/04 08:40 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	101 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	98.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-6-04-1 (B4J0693-11) Water Sampled: 10/14/04 09:15 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6-04-1 (B4J0693-11) Water Sampled: 10/14/04 09:15 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	103 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	96.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	99.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-5-04-1 (B4J0693-12) Water Sampled: 10/14/04 10:00 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	1.22	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	1.64	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	1.24	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5-04-1 (B4J0693-12) Water Sampled: 10/14/04 10:00 Received: 10/15/04 08:15									
Ethylbenzene	48.7	1.00	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	5.21	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	7.79	1.00	"	"	"	"	"	"	
n-Propylbenzene	5.36	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	21.8	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	27.9	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	6.48	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	75.5	1.00	"	"	"	"	"	"	E
m,p-Xylene	69.8	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	103 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	99.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	102 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5-04-1 (B4J0693-12RE1) Water Sampled: 10/14/04 10:00 Received: 10/15/04 08:15									
Acetone	ND	80.0	ug/l	4	4J28019	10/28/04	10/28/04	EPA 8260B	
Benzene	ND	4.00	"	"	"	"	"	"	
Bromobenzene	ND	4.00	"	"	"	"	"	"	
Bromochloromethane	ND	4.00	"	"	"	"	"	"	
Bromodichloromethane	ND	4.00	"	"	"	"	"	"	
Bromoform	ND	4.00	"	"	"	"	"	"	
Bromomethane	ND	8.00	"	"	"	"	"	"	
2-Butanone	ND	40.0	"	"	"	"	"	"	
n-Butylbenzene	ND	4.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	4.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	4.00	"	"	"	"	"	"	
Carbon disulfide	ND	4.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	4.00	"	"	"	"	"	"	
Chlorobenzene	ND	4.00	"	"	"	"	"	"	
Chloroethane	ND	4.00	"	"	"	"	"	"	
Chloroform	ND	4.00	"	"	"	"	"	"	
Chloromethane	ND	20.0	"	"	"	"	"	"	
2-Chlorotoluene	ND	4.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	4.00	"	"	"	"	"	"	
Dibromochloromethane	ND	4.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	20.0	"	"	"	"	"	"	
1,2-Dibromoethane	ND	4.00	"	"	"	"	"	"	
Dibromomethane	ND	4.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	4.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	4.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	4.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	4.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	4.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	4.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	4.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	4.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	4.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	4.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5-04-1 (B4J0693-12RE1) Water Sampled: 10/14/04 10:00 Received: 10/15/04 08:15									
Ethylbenzene	41.2	4.00	ug/l	4	4J28019	10/28/04	10/28/04	EPA 8260B	
Hexachlorobutadiene	ND	4.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	8.00	"	"	"	"	"	"	
2-Hexanone	ND	40.0	"	"	"	"	"	"	
Isopropylbenzene	ND	4.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	4.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	40.0	"	"	"	"	"	"	
Methylene chloride	ND	20.0	"	"	"	"	"	"	
Naphthalene	7.16	4.00	"	"	"	"	"	"	
n-Propylbenzene	ND	4.00	"	"	"	"	"	"	
Styrene	ND	4.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	4.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	4.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	4.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	4.00	"	"	"	"	"	"	
Tetrachloroethene	ND	4.00	"	"	"	"	"	"	
Toluene	18.5	4.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	4.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	4.00	"	"	"	"	"	"	
Trichloroethene	ND	4.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	4.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	4.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	19.8	4.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	4.80	4.00	"	"	"	"	"	"	
Vinyl chloride	ND	4.00	"	"	"	"	"	"	
o-Xylene	66.0	4.00	"	"	"	"	"	"	
m,p-Xylene	58.2	8.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	102 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	99.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	108 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-3-04-1 (B4J0693-13) Water Sampled: 10/14/04 10:45 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J28019	10/28/04	10/28/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	4.89	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3-04-1 (B4J0693-13) Water Sampled: 10/14/04 10:45 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J28019	10/28/04	10/28/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	100 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"	
Surrogate: 4-BFB	112 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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TB101404-1 (B4J0693-14) Water Sampled: 10/14/04 12:00 Received: 10/15/04 08:15

Acetone	ND	20.0	ug/l	1	4J28013	10/27/04	10/27/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB101404-1 (B4J0693-14) Water Sampled: 10/14/04 12:00 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J28013	10/27/04	10/27/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	103 %	70-130				"	"	"	
Surrogate: Toluene-d8	96.5 %	70-130				"	"	"	
Surrogate: 4-BFB	99.5 %	70-130				"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J21006: Prepared 10/21/04 Using EPA 3005A

Blank (4J21006-BLK1)

Silver	ND	0.00100	mg/l
Arsenic	ND	0.00100	"
Beryllium	ND	0.00100	"
Cadmium	ND	0.00100	"
Chromium	ND	0.00100	"
Copper	ND	0.00100	"
Nickel	ND	0.00100	"
Lead	ND	0.00100	"
Antimony	ND	0.00300	"
Selenium	ND	0.00100	"
Thallium	ND	0.00100	"
Zinc	ND	0.0100	"

LCS (4J21006-BS1)

Silver	0.198	0.00100	mg/l	0.200	99.0	80-120
Arsenic	0.202	0.00100	"	0.200	101	80-120
Beryllium	0.199	0.00100	"	0.200	99.5	80-120
Cadmium	0.199	0.00100	"	0.200	99.5	80-120
Chromium	0.203	0.00100	"	0.200	102	80-120
Copper	0.202	0.00100	"	0.200	101	80-120
Nickel	0.204	0.00100	"	0.200	102	80-120
Lead	0.200	0.00100	"	0.200	100	80-120
Antimony	0.0469	0.00300	"	0.0500	93.8	80-120
Selenium	0.206	0.00100	"	0.200	103	80-120
Thallium	0.200	0.00100	"	0.200	100	80-120
Zinc	0.207	0.0100	"	0.200	104	80-120

LCS Dup (4J21006-BSD1)

Silver	0.195	0.00100	mg/l	0.200	97.5	80-120	1.53	20
Arsenic	0.200	0.00100	"	0.200	100	80-120	0.995	20
Beryllium	0.196	0.00100	"	0.200	98.0	80-120	1.52	20
Cadmium	0.196	0.00100	"	0.200	98.0	80-120	1.52	20
Chromium	0.199	0.00100	"	0.200	99.5	80-120	1.99	20
Copper	0.199	0.00100	"	0.200	99.5	80-120	1.50	20
Nickel	0.199	0.00100	"	0.200	99.5	80-120	2.48	20

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J21006: Prepared 10/21/04 Using EPA 3005A

LCS Dup (4J21006-BSD1)

Lead	0.198	0.00100	mg/l	0.200		99.0	80-120	1.01	20	
Antimony	0.0483	0.00300	"	0.0500		96.6	80-120	2.94	20	
Selenium	0.204	0.00100	"	0.200		102	80-120	0.976	20	
Thallium	0.197	0.00100	"	0.200		98.5	80-120	1.51	20	
Zinc	0.210	0.0100	"	0.200		105	80-120	1.44	20	

Matrix Spike (4J21006-MS1)

Source: B4J0690-01

Silver	0.0916	0.00100	mg/l	0.100	0.000190	91.4	43-124			
Arsenic	0.110	0.00100	"	0.100	0.000560	109	70-138			
Beryllium	0.101	0.00100	"	0.100	ND	101	80-125			
Cadmium	0.0993	0.00100	"	0.100	ND	99.3	80-125			
Chromium	0.101	0.00100	"	0.100	0.000690	100	76-125			
Copper	0.0998	0.00100	"	0.101	0.000540	98.3	71-125			
Nickel	0.0983	0.00100	"	0.0995	0.000620	98.2	73-125			
Lead	0.100	0.00100	"	0.0995	ND	101	78-125			
Antimony	0.0382	0.00300	"	0.0500	ND	76.4	63-126			
Selenium	0.108	0.00100	"	0.100	0.000390	108	61-156			
Thallium	0.101	0.00100	"	0.100	ND	101	78-125			
Zinc	0.106	0.0100	"	0.0995	0.00291	104	70-127			

Matrix Spike Dup (4J21006-MSD1)

Source: B4J0690-01

Silver	0.0917	0.00100	mg/l	0.100	0.000190	91.5	43-124	0.109	50	
Arsenic	0.110	0.00100	"	0.100	0.000560	109	70-138	0.00	20	
Beryllium	0.100	0.00100	"	0.100	ND	100	80-125	0.995	20	
Cadmium	0.0984	0.00100	"	0.100	ND	98.4	80-125	0.910	20	
Chromium	0.101	0.00100	"	0.100	0.000690	100	76-125	0.00	20	
Copper	0.100	0.00100	"	0.101	0.000540	98.5	71-125	0.200	20	
Nickel	0.0984	0.00100	"	0.0995	0.000620	98.3	73-125	0.102	20	
Lead	0.100	0.00100	"	0.0995	ND	101	78-125	0.00	20	
Antimony	0.0407	0.00300	"	0.0500	ND	81.4	63-126	6.34	20	
Selenium	0.107	0.00100	"	0.100	0.000390	107	61-156	0.930	20	
Thallium	0.101	0.00100	"	0.100	ND	101	78-125	0.00	20	
Zinc	0.106	0.0100	"	0.0995	0.00291	104	70-127	0.00	20	

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J21038: Prepared 10/21/04 Using EPA 7470A

Blank (4J21038-BLK1)

Mercury	ND	0.000200	mg/l						
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LCS (4J21038-BS1)

Mercury	0.00503	0.000200	mg/l	0.00500	101	80-120			
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LCS Dup (4J21038-BSD1)

Mercury	0.00505	0.000200	mg/l	0.00500	101	80-120	0.397	20	
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Matrix Spike (4J21038-MS1)

Source: B4J0690-01

Mercury	0.00489	0.000200	mg/l	0.00500	0.0000678	96.4	70-130		
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Matrix Spike Dup (4J21038-MSD1)

Source: B4J0690-01

Mercury	0.00492	0.000200	mg/l	0.00500	0.0000678	97.0	70-130	0.612	20
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North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J27030: Prepared 10/26/04 Using EPA 5030B

Blank (4J27030-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	1.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J27030: Prepared 10/26/04 Using EPA 5030B

Blank (4J27030-BLK1)

1,1-Dichloropropene	ND	1.00	ug/l						
cis-1,3-Dichloropropene	ND	1.00	"						
trans-1,3-Dichloropropene	ND	1.00	"						
Ethylbenzene	ND	1.00	"						
Hexachlorobutadiene	ND	1.00	"						
Methyl tert-butyl ether	ND	2.00	"						
2-Hexanone	ND	10.0	"						
Isopropylbenzene	ND	1.00	"						
p-Isopropyltoluene	ND	1.00	"						
4-Methyl-2-pentanone	ND	10.0	"						
Methylene chloride	ND	5.00	"						
Naphthalene	ND	1.00	"						
n-Propylbenzene	ND	1.00	"						
Styrene	ND	1.00	"						
1,2,3-Trichlorobenzene	ND	1.00	"						
1,2,4-Trichlorobenzene	ND	1.00	"						
1,1,1,2-Tetrachloroethane	ND	1.00	"						
1,1,2,2-Tetrachloroethane	ND	1.00	"						
Tetrachloroethene	ND	1.00	"						
Toluene	ND	1.00	"						
1,1,1-Trichloroethane	ND	1.00	"						
1,1,2-Trichloroethane	ND	1.00	"						
Trichloroethene	ND	1.00	"						
Trichlorofluoromethane	ND	1.00	"						
1,2,3-Trichloropropane	ND	1.00	"						
1,2,4-Trimethylbenzene	ND	1.00	"						
1,3,5-Trimethylbenzene	ND	1.00	"						
Vinyl chloride	ND	1.00	"						
o-Xylene	ND	1.00	"						
m,p-Xylene	ND	2.00	"						
Surrogate: 1,2-DCA-d4	19.9		"	20.0		99.5	70-130		
Surrogate: Toluene-d8	19.0		"	20.0		95.0	70-130		
Surrogate: 4-BFB	20.1		"	20.0		100	70-130		

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J27030: Prepared 10/26/04 Using EPA 5030B

LCS (4J27030-BS1)

Benzene	16.9	1.00	ug/l	20.0		84.5	80-120		
Chlorobenzene	19.3	1.00	"	20.0		96.5	77-120		
1,1-Dichloroethene	18.6	1.00	"	20.0		93.0	80-120		
Methyl tert-butyl ether	18.1	2.00	"	20.0		90.5	80-120		
Toluene	18.1	1.00	"	20.0		90.5	80-120		
Trichloroethene	18.6	1.00	"	20.0		93.0	80-120		
Surrogate: 1,2-DCA-d4	20.3		"	20.0		102	70-130		
Surrogate: Toluene-d8	18.7		"	20.0		93.5	70-130		
Surrogate: 4-BFB	20.0		"	20.0		100	70-130		

LCS Dup (4J27030-BSD1)

Benzene	16.5	1.00	ug/l	20.0		82.5	80-120	2.40	20
Chlorobenzene	18.2	1.00	"	20.0		91.0	77-120	5.87	20
1,1-Dichloroethene	17.8	1.00	"	20.0		89.0	80-120	4.40	20
Methyl tert-butyl ether	18.5	2.00	"	20.0		92.5	80-120	2.19	20
Toluene	17.4	1.00	"	20.0		87.0	80-120	3.94	20
Trichloroethene	18.2	1.00	"	20.0		91.0	80-120	2.17	20
Surrogate: 1,2-DCA-d4	20.2		"	20.0		101	70-130		
Surrogate: Toluene-d8	18.4		"	20.0		92.0	70-130		
Surrogate: 4-BFB	20.1		"	20.0		100	70-130		

Batch 4J27052: Prepared 10/27/04 Using EPA 5030B

Blank (4J27052-BLK1)

Acetone	ND	20.0	ug/l						
Benzene	ND	1.00	"						
Bromobenzene	ND	1.00	"						
Bromochloromethane	ND	1.00	"						
Bromodichloromethane	ND	1.00	"						
Bromoform	ND	1.00	"						
Bromomethane	ND	2.00	"						
2-Butanone	ND	10.0	"						
n-Butylbenzene	ND	1.00	"						
sec-Butylbenzene	ND	1.00	"						
tert-Butylbenzene	ND	1.00	"						
Carbon disulfide	ND	1.00	"						

North Creek Analytical - Bothell

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J27052: Prepared 10/27/04 Using EPA 5030B

Blank (4J27052-BLK1)

Carbon tetrachloride	ND	1.00	ug/l
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"
1,1-Dichloropropene	ND	1.00	"
cis-1,3-Dichloropropene	ND	1.00	"
trans-1,3-Dichloropropene	ND	1.00	"
Ethylbenzene	ND	1.00	"
Hexachlorobutadiene	ND	1.00	"
Methyl tert-butyl ether	ND	2.00	"
2-Hexanone	ND	10.0	"
Isopropylbenzene	ND	1.00	"
p-Isopropyltoluene	ND	1.00	"
4-Methyl-2-pentanone	ND	10.0	"
Methylene chloride	ND	5.00	"
Naphthalene	ND	1.00	"

North Creek Analytical - Bothell

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J27052: Prepared 10/27/04 Using EPA 5030B

Blank (4J27052-BLK1)

n-Propylbenzene	ND	1.00	ug/l							
Styrene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surrogate: 1,2-DCA-d4	20.6		"	20.0		103	70-130			
Surrogate: Toluene-d8	20.3		"	20.0		102	70-130			
Surrogate: 4-BFB	19.7		"	20.0		98.5	70-130			

LCS (4J27052-BS1)

Benzene	18.9	1.00	ug/l	20.0		94.5	80-120			
Chlorobenzene	18.9	1.00	"	20.0		94.5	77-120			
1,1-Dichloroethene	20.7	1.00	"	20.0		104	80-120			
Methyl tert-butyl ether	19.1	2.00	"	20.0		95.5	80-120			
Toluene	19.6	1.00	"	20.0		98.0	80-120			
Trichloroethene	19.3	1.00	"	20.0		96.5	80-120			
Surrogate: 1,2-DCA-d4	19.9		"	20.0		99.5	70-130			
Surrogate: Toluene-d8	19.7		"	20.0		98.5	70-130			
Surrogate: 4-BFB	20.3		"	20.0		102	70-130			

North Creek Analytical - Bothell

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J27052: Prepared 10/27/04 Using EPA 5030B

LCS Dup (4J27052-BSD1)

Benzene	18.3	1.00	ug/l	20.0		91.5	80-120	3.23	20
Chlorobenzene	19.0	1.00	"	20.0		95.0	77-120	0.528	20
1,1-Dichloroethene	19.5	1.00	"	20.0		97.5	80-120	5.97	20
Methyl tert-butyl ether	18.8	2.00	"	20.0		94.0	80-120	1.58	20
Toluene	19.4	1.00	"	20.0		97.0	80-120	1.03	20
Trichloroethene	18.3	1.00	"	20.0		91.5	80-120	5.32	20
Surrogate: 1,2-DCA-d4	19.9		"	20.0		99.5	70-130		
Surrogate: Toluene-d8	20.3		"	20.0		102	70-130		
Surrogate: 4-BFB	20.0		"	20.0		100	70-130		

Batch 4J28013: Prepared 10/27/04 Using EPA 5030B

Blank (4J28013-BLK1)

Acetone	ND	20.0	ug/l						
Benzene	ND	1.00	"						
Bromobenzene	ND	1.00	"						
Bromochloromethane	ND	1.00	"						
Bromodichloromethane	ND	1.00	"						
Bromoform	ND	1.00	"						
Bromomethane	ND	2.00	"						
2-Butanone	ND	10.0	"						
n-Butylbenzene	ND	1.00	"						
sec-Butylbenzene	ND	1.00	"						
tert-Butylbenzene	ND	1.00	"						
Carbon disulfide	ND	1.00	"						
Carbon tetrachloride	ND	1.00	"						
Chlorobenzene	ND	1.00	"						
Chloroethane	ND	1.00	"						
Chloroform	ND	1.00	"						
Chloromethane	ND	5.00	"						
2-Chlorotoluene	ND	1.00	"						
4-Chlorotoluene	ND	1.00	"						
Dibromochloromethane	ND	1.00	"						
1,2-Dibromo-3-chloropropane	ND	5.00	"						
1,2-Dibromoethane	ND	1.00	"						
Dibromomethane	ND	1.00	"						

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J28013: Prepared 10/27/04 Using EPA 5030B

Blank (4J28013-BLK1)

1,2-Dichlorobenzene	ND	1.00	ug/l
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"
1,1-Dichloropropene	ND	1.00	"
cis-1,3-Dichloropropene	ND	1.00	"
trans-1,3-Dichloropropene	ND	1.00	"
Ethylbenzene	ND	1.00	"
Hexachlorobutadiene	ND	1.00	"
Methyl tert-butyl ether	ND	2.00	"
2-Hexanone	ND	10.0	"
Isopropylbenzene	ND	1.00	"
p-Isopropyltoluene	ND	1.00	"
4-Methyl-2-pentanone	ND	10.0	"
Methylene chloride	ND	5.00	"
Naphthalene	ND	1.00	"
n-Propylbenzene	ND	1.00	"
Styrene	ND	1.00	"
1,2,3-Trichlorobenzene	ND	1.00	"
1,2,4-Trichlorobenzene	ND	1.00	"
1,1,1,2-Tetrachloroethane	ND	1.00	"
1,1,2,2-Tetrachloroethane	ND	1.00	"
Tetrachloroethene	ND	1.00	"
Toluene	ND	1.00	"
1,1,1-Trichloroethane	ND	1.00	"
1,1,2-Trichloroethane	ND	1.00	"
Trichloroethene	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J28013: Prepared 10/27/04 Using EPA 5030B

Blank (4J28013-BLK1)

Trichlorofluoromethane	ND	1.00	ug/l						
1,2,3-Trichloropropane	ND	1.00	"						
1,2,4-Trimethylbenzene	ND	1.00	"						
1,3,5-Trimethylbenzene	ND	1.00	"						
Vinyl chloride	ND	1.00	"						
o-Xylene	ND	1.00	"						
m,p-Xylene	ND	2.00	"						
Surrogate: 1,2-DCA-d4	21.4		"	20.0		107	70-130		
Surrogate: Toluene-d8	19.7		"	20.0		98.5	70-130		
Surrogate: 4-BFB	20.1		"	20.0		100	70-130		

LCS (4J28013-BS1)

Benzene	19.4	1.00	ug/l	20.0		97.0	80-120		
Chlorobenzene	19.1	1.00	"	20.0		95.5	77-120		
1,1-Dichloroethene	19.5	1.00	"	20.0		97.5	80-120		
Methyl tert-butyl ether	21.3	2.00	"	20.0		106	80-120		
Toluene	19.7	1.00	"	20.0		98.5	80-120		
Trichloroethene	21.8	1.00	"	20.0		109	80-120		
Surrogate: 1,2-DCA-d4	19.3		"	20.0		96.5	70-130		
Surrogate: Toluene-d8	19.9		"	20.0		99.5	70-130		
Surrogate: 4-BFB	20.0		"	20.0		100	70-130		

LCS Dup (4J28013-BSD1)

Benzene	18.5	1.00	ug/l	20.0		92.5	80-120	4.75	20
Chlorobenzene	18.2	1.00	"	20.0		91.0	77-120	4.83	20
1,1-Dichloroethene	18.7	1.00	"	20.0		93.5	80-120	4.19	20
Methyl tert-butyl ether	21.4	2.00	"	20.0		107	80-120	0.468	20
Toluene	18.5	1.00	"	20.0		92.5	80-120	6.28	20
Trichloroethene	20.1	1.00	"	20.0		100	80-120	8.11	20
Surrogate: 1,2-DCA-d4	20.3		"	20.0		102	70-130		
Surrogate: Toluene-d8	19.6		"	20.0		98.0	70-130		
Surrogate: 4-BFB	20.2		"	20.0		101	70-130		

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J28013: Prepared 10/27/04 Using EPA 5030B

Matrix Spike (4J28013-MS1)

Source: B4J0690-01

Benzene	20.2	1.00	ug/l	20.0	ND	101	63-148		
Chlorobenzene	19.6	1.00	"	20.0	ND	98.0	80-128		
1,1-Dichloroethene	19.8	1.00	"	20.0	ND	99.0	59-158		
Methyl tert-butyl ether	20.5	2.00	"	20.0	ND	102	60-140		
Toluene	20.6	1.00	"	20.0	ND	103	72-127		
Trichloroethene	22.2	1.00	"	20.0	ND	111	80-126		
Surrogate: 1,2-DCA-d4	19.6		"	20.0		98.0	70-130		
Surrogate: Toluene-d8	19.5		"	20.0		97.5	70-130		
Surrogate: 4-BFB	20.5		"	20.0		102	70-130		

Matrix Spike Dup (4J28013-MSD1)

Source: B4J0690-01

A-01

Benzene	19.2	1.00	ug/l	20.0	ND	96.0	63-148	5.08	20
Chlorobenzene	19.1	1.00	"	20.0	ND	95.5	80-128	2.58	20
1,1-Dichloroethene	19.5	1.00	"	20.0	ND	97.5	59-158	1.53	30
Methyl tert-butyl ether	21.2	2.00	"	20.0	ND	106	60-140	3.36	30
Toluene	19.6	1.00	"	20.0	ND	98.0	72-127	4.98	20
Trichloroethene	20.8	1.00	"	20.0	ND	104	80-126	6.51	20
Surrogate: 1,2-DCA-d4	19.7		"	20.0		98.5	70-130		
Surrogate: Toluene-d8	19.5		"	20.0		97.5	70-130		
Surrogate: 4-BFB	20.0		"	20.0		100	70-130		

Batch 4J28019: Prepared 10/28/04 Using EPA 5030B

Blank (4J28019-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	1.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J28019: Prepared 10/28/04 Using EPA 5030B

Blank (4J28019-BLK1)

Carbon tetrachloride	ND	1.00	ug/l
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"
1,1-Dichloropropene	ND	1.00	"
cis-1,3-Dichloropropene	ND	1.00	"
trans-1,3-Dichloropropene	ND	1.00	"
Ethylbenzene	ND	1.00	"
Hexachlorobutadiene	ND	1.00	"
Methyl tert-butyl ether	ND	2.00	"
2-Hexanone	ND	10.0	"
Isopropylbenzene	ND	1.00	"
p-Isopropyltoluene	ND	1.00	"
4-Methyl-2-pentanone	ND	10.0	"
Methylene chloride	ND	2.00	"
Naphthalene	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
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Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J28019: Prepared 10/28/04 Using EPA 5030B

Blank (4J28019-BLK1)

n-Propylbenzene	ND	1.00	ug/l							
Styrene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surrogate: 1,2-DCA-d4	20.6		"	20.0		103	70-130			
Surrogate: Toluene-d8	19.8		"	20.0		99.0	70-130			
Surrogate: 4-BFB	20.2		"	20.0		101	70-130			

LCS (4J28019-BS1)

Benzene	19.2	1.00	ug/l	20.0		96.0	80-120			
Chlorobenzene	18.7	1.00	"	20.0		93.5	77-120			
1,1-Dichloroethene	19.3	1.00	"	20.0		96.5	80-120			
Methyl tert-butyl ether	21.7	2.00	"	20.0		108	80-120			
Toluene	19.0	1.00	"	20.0		95.0	80-120			
Trichloroethene	20.4	1.00	"	20.0		102	80-120			
Surrogate: 1,2-DCA-d4	19.7		"	20.0		98.5	70-130			
Surrogate: Toluene-d8	19.3		"	20.0		96.5	70-130			
Surrogate: 4-BFB	20.9		"	20.0		104	70-130			

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J28019: Prepared 10/28/04 Using EPA 5030B

LCS Dup (4J28019-BSD1)

Benzene	18.3	1.00	ug/l	20.0		91.5	80-120	4.80	20	
Chlorobenzene	18.2	1.00	"	20.0		91.0	77-120	2.71	20	
1,1-Dichloroethene	19.2	1.00	"	20.0		96.0	80-120	0.519	20	
Methyl tert-butyl ether	20.9	2.00	"	20.0		104	80-120	3.76	20	
Toluene	18.6	1.00	"	20.0		93.0	80-120	2.13	20	
Trichloroethene	19.7	1.00	"	20.0		98.5	80-120	3.49	20	
Surrogate: 1,2-DCA-d4	19.5		"	20.0		97.5	70-130			
Surrogate: Toluene-d8	19.2		"	20.0		96.0	70-130			
Surrogate: 4-BFB	20.3		"	20.0		102	70-130			

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 09:58

Notes and Definitions

A-01 MSD was analyzed 21 minutes outside of 12hr QC window.
E Estimated value. The reported value exceeds the calibration range of the analysis.
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

North Creek Analytical - Bothell

Robert Greer, Project Manager

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01 November 2004

Mike Arnold
ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005
RE: Spokane ANGS

Enclosed are the results of analyses for samples received by the laboratory on 10/15/04 08:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robert Greer
Project Manager

CASE NARRATIVE for B4J0690

Client: ERM-Bellevue
Project Manager: Mike Arnold
Project Name: Spokane ANG
Project Number: 20536.5

1.0 DESCRIPTION OF CASE

Three water samples were submitted for the analysis of:

- Dissolved Metals by EPA 6000/7000 Series Methods
- Volatile Organic Compounds by EPA Method 8260B

2.0 COMMENTS ON SAMPLE RECEIPT

The samples were received on October 15, 2004 and logged on October 20, 2004 at a temperature of 4.3°C.

3.0 PREPARATION AND ANALYSIS

Dissolved Metals by EPA 6000/7000 Series Methods

No anomalies were associated with the sample preparation and analysis. All criteria for acceptable QC measurements were met.

Volatile Organic Compounds by EPA Method 8260B

No additional anomalies, discrepancies, or issues were associated with sample preparation, analysis and quality control other than those already qualified in the data and described in the Notes and Definitions page at the end of this report.

Robert Greer
Project Manager
North Creek Analytical

CHAIN OF CUSTODY RECORD

915-118th Avenue S.E. Suite 130 • Bellevue, WA 98005 • (425) 462-8591 • FAX (425) 455-3573

Page 1 of 1

20536.50

Spokane, ANGUS

ARM

NCA, Bothell, WA

VOCs
(5030, 8960)
Dissolved metals
(6010B, 6020, 7000 series)

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10/15/04

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Dissolved metals have been field filtered.

SEND REPORT TO:

Mike Arnold

☐ BOTTLE INTACT ☐ CUSTODY SEALS ☐ CHILLED
☐ PRESERVED ☐ SEALS INTACT ☐ SEE REMARKS

WHITE - LABORATORY COPY

CANARY - FIELD COPY

PINK - DATABASE MANAGER

GOLD - PROJECT FILE



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2-04-1	B4J0690-01	Water	10/14/04 11:20	10/15/04 08:15
MW-4-04-1	B4J0690-02	Water	10/14/04 12:05	10/15/04 08:15
MW-4-04-1D	B4J0690-03	Water	10/14/04 12:05	10/15/04 08:15

North Creek Analytical - Bothell

Robert Greer, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-2-04-1 (B4J0690-01) Water Sampled: 10/14/04 11:20 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/26/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-4-04-1 (B4J0690-02) Water Sampled: 10/14/04 12:05 Received: 10/15/04 08:15

Silver	ND	0.00100	mg/l	1	4J21006	10/21/04	10/22/04	EPA 6020	
Arsenic	0.00102	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21006	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/26/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-04-1D (B4J0690-03) Water Sampled: 10/14/04 12:05 Received: 10/15/04 08:15									
Silver	ND	0.00100	mg/l	1	4J21008	10/21/04	10/22/04	EPA 6020	
Arsenic	0.00108	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	4J21038	10/21/04	10/26/04	EPA 7470A	
Nickel	ND	0.00100	"	"	4J21008	10/21/04	10/22/04	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	10/25/04	"	
Selenium	ND	0.00100	"	"	"	"	10/22/04	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-2-04-1 (B4J0690-01) Water Sampled: 10/14/04 11:20 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	5.71	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2-04-1 (B4J0690-01) Water Sampled: 10/14/04 11:20 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	108 %	70-130				"	"	"	
Surrogate: Toluene-d8	98.0 %	70-130				"	"	"	
Surrogate: 4-BFB	99.5 %	70-130				"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-4-04-1 (B4J0690-02) Water Sampled: 10/14/04 12:05 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-04-1 (B4J0690-02) Water Sampled: 10/14/04 12:05 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	99.0 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	95.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-4-04-1D (B4J0690-03) Water Sampled: 10/14/04 12:05 Received: 10/15/04 08:15									
Acetone	ND	20.0	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-04-1D (B4J0690-03) Water Sampled: 10/14/04 12:05 Received: 10/15/04 08:15									
Ethylbenzene	ND	1.00	ug/l	1	4J28013	10/27/04	10/28/04	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	99.5 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	97.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	99.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J21006: Prepared 10/21/04 Using EPA 3005A

Blank (4J21006-BLK1)

Silver	ND	0.00100	mg/l
Arsenic	ND	0.00100	"
Beryllium	ND	0.00100	"
Cadmium	ND	0.00100	"
Chromium	ND	0.00100	"
Copper	ND	0.00100	"
Nickel	ND	0.00100	"
Lead	ND	0.00100	"
Antimony	ND	0.00300	"
Selenium	ND	0.00100	"
Thallium	ND	0.00100	"
Zinc	ND	0.0100	"

LCS (4J21006-BS1)

Silver	0.198	0.00100	mg/l	0.200	99.0	80-120
Arsenic	0.202	0.00100	"	0.200	101	80-120
Beryllium	0.199	0.00100	"	0.200	99.5	80-120
Cadmium	0.199	0.00100	"	0.200	99.5	80-120
Chromium	0.203	0.00100	"	0.200	102	80-120
Copper	0.202	0.00100	"	0.200	101	80-120
Nickel	0.204	0.00100	"	0.200	102	80-120
Lead	0.200	0.00100	"	0.200	100	80-120
Antimony	0.0469	0.00300	"	0.0500	93.8	80-120
Selenium	0.206	0.00100	"	0.200	103	80-120
Thallium	0.200	0.00100	"	0.200	100	80-120
Zinc	0.207	0.0100	"	0.200	104	80-120

LCS Dup (4J21006-BSD1)

Silver	0.195	0.00100	mg/l	0.200	97.5	80-120	1.53	20
Arsenic	0.200	0.00100	"	0.200	100	80-120	0.995	20
Beryllium	0.196	0.00100	"	0.200	98.0	80-120	1.52	20
Cadmium	0.196	0.00100	"	0.200	98.0	80-120	1.52	20
Chromium	0.199	0.00100	"	0.200	99.5	80-120	1.99	20
Copper	0.199	0.00100	"	0.200	99.5	80-120	1.50	20
Nickel	0.199	0.00100	"	0.200	99.5	80-120	2.48	20

North Creek Analytical - Bothell

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J21006: Prepared 10/21/04 Using EPA 3005A

LCS Dup (4J21006-BSD1)

Lead	0.198	0.00100	mg/l	0.200		99.0	80-120	1.01	20	
Antimony	0.0483	0.00300	"	0.0500		96.6	80-120	2.94	20	
Selenium	0.204	0.00100	"	0.200		102	80-120	0.976	20	
Thallium	0.197	0.00100	"	0.200		98.5	80-120	1.51	20	
Zinc	0.210	0.0100	"	0.200		105	80-120	1.44	20	

Matrix Spike (4J21006-MS1)

Source: B4J0690-01

Silver	0.0916	0.00100	mg/l	0.100	0.000190	91.4	43-124			
Arsenic	0.110	0.00100	"	0.100	0.000560	109	70-138			
Beryllium	0.101	0.00100	"	0.100	ND	101	80-125			
Cadmium	0.0993	0.00100	"	0.100	ND	99.3	80-125			
Chromium	0.101	0.00100	"	0.100	0.000690	100	76-125			
Copper	0.0998	0.00100	"	0.101	0.000540	98.3	71-125			
Nickel	0.0983	0.00100	"	0.0995	0.000620	98.2	73-125			
Lead	0.100	0.00100	"	0.0995	ND	101	78-125			
Antimony	0.0382	0.00300	"	0.0500	ND	76.4	63-126			
Selenium	0.108	0.00100	"	0.100	0.000390	108	61-156			
Thallium	0.101	0.00100	"	0.100	ND	101	78-125			
Zinc	0.106	0.0100	"	0.0995	0.00291	104	70-127			

Matrix Spike Dup (4J21006-MSD1)

Source: B4J0690-01

Silver	0.0917	0.00100	mg/l	0.100	0.000190	91.5	43-124	0.109	50	
Arsenic	0.110	0.00100	"	0.100	0.000560	109	70-138	0.00	20	
Beryllium	0.100	0.00100	"	0.100	ND	100	80-125	0.995	20	
Cadmium	0.0984	0.00100	"	0.100	ND	98.4	80-125	0.910	20	
Chromium	0.101	0.00100	"	0.100	0.000690	100	76-125	0.00	20	
Copper	0.100	0.00100	"	0.101	0.000540	98.5	71-125	0.200	20	
Nickel	0.0984	0.00100	"	0.0995	0.000620	98.3	73-125	0.102	20	
Lead	0.100	0.00100	"	0.0995	ND	101	78-125	0.00	20	
Antimony	0.0407	0.00300	"	0.0500	ND	81.4	63-126	6.34	20	
Selenium	0.107	0.00100	"	0.100	0.000390	107	61-156	0.930	20	
Thallium	0.101	0.00100	"	0.100	ND	101	78-125	0.00	20	
Zinc	0.106	0.0100	"	0.0995	0.00291	104	70-127	0.00	20	

North Creek Analytical - Bothell

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J21008: Prepared 10/21/04 Using EPA 3005A

Blank (4J21008-BLK1)

Silver	ND	0.00100	mg/l
Arsenic	ND	0.00100	"
Beryllium	ND	0.00100	"
Cadmium	ND	0.00100	"
Chromium	ND	0.00100	"
Copper	ND	0.00100	"
Nickel	ND	0.00100	"
Lead	ND	0.00100	"
Antimony	ND	0.00300	"
Selenium	ND	0.00100	"
Thallium	ND	0.00100	"
Zinc	ND	0.0100	"

LCS (4J21008-BS1)

Silver	0.200	0.00100	mg/l	0.200	100	80-120
Arsenic	0.200	0.00100	"	0.200	100	80-120
Beryllium	0.199	0.00100	"	0.200	99.5	80-120
Cadmium	0.198	0.00100	"	0.200	99.0	80-120
Chromium	0.200	0.00100	"	0.200	100	80-120
Copper	0.201	0.00100	"	0.200	100	80-120
Nickel	0.201	0.00100	"	0.200	100	80-120
Lead	0.200	0.00100	"	0.200	100	80-120
Antimony	0.0494	0.00300	"	0.0500	98.8	80-120
Selenium	0.198	0.00100	"	0.200	99.0	80-120
Thallium	0.198	0.00100	"	0.200	99.0	80-120
Zinc	0.205	0.0100	"	0.200	102	80-120

LCS Dup (4J21008-BSD1)

Silver	0.190	0.00100	mg/l	0.200	95.0	80-120	5.13	20
Arsenic	0.204	0.00100	"	0.200	102	80-120	1.98	20
Beryllium	0.200	0.00100	"	0.200	100	80-120	0.501	20
Cadmium	0.200	0.00100	"	0.200	100	80-120	1.01	20
Chromium	0.203	0.00100	"	0.200	102	80-120	1.49	20
Copper	0.203	0.00100	"	0.200	102	80-120	0.990	20
Nickel	0.202	0.00100	"	0.200	101	80-120	0.496	20
Lead	0.201	0.00100	"	0.200	100	80-120	0.499	20

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J21008: Prepared 10/21/04 Using EPA 3005A

LCS Dup (4J21008-BSD1)

Antimony	0.0491	0.00300	mg/l	0.0500		98.2	80-120	0.609	20	
Selenium	0.206	0.00100	"	0.200		103	80-120	3.96	20	
Thallium	0.200	0.00100	"	0.200		100	80-120	1.01	20	
Zinc	0.206	0.0100	"	0.200		103	80-120	0.487	20	

Matrix Spike (4J21008-MS1)

Source: B4J0690-03

Silver	0.0982	0.00100	mg/l	0.100	0.000410	97.8	43-124			
Arsenic	0.120	0.00100	"	0.100	0.00108	119	70-138			
Beryllium	0.110	0.00100	"	0.100	ND	110	80-125			
Cadmium	0.109	0.00100	"	0.100	ND	109	80-125			
Chromium	0.111	0.00100	"	0.100	0.000490	111	76-125			
Copper	0.110	0.00100	"	0.101	0.000550	108	71-125			
Nickel	0.107	0.00100	"	0.0995	0.000520	107	73-125			
Lead	0.108	0.00100	"	0.0995	ND	109	78-125			
Antimony	0.0409	0.00300	"	0.0500	0.00156	78.7	63-126			
Selenium	0.118	0.00100	"	0.100	0.000620	117	61-156			
Thallium	0.108	0.00100	"	0.100	ND	108	78-125			
Zinc	0.116	0.0100	"	0.0995	0.00393	113	70-127			

Matrix Spike Dup (4J21008-MSD1)

Source: B4J0690-03

Silver	0.0964	0.00100	mg/l	0.100	0.000410	96.0	43-124	1.85	50	
Arsenic	0.117	0.00100	"	0.100	0.00108	116	70-138	2.53	20	
Beryllium	0.108	0.00100	"	0.100	ND	108	80-125	1.83	20	
Cadmium	0.105	0.00100	"	0.100	ND	105	80-125	3.74	20	
Chromium	0.108	0.00100	"	0.100	0.000490	108	76-125	2.74	20	
Copper	0.106	0.00100	"	0.101	0.000550	104	71-125	3.70	20	
Nickel	0.104	0.00100	"	0.0995	0.000520	104	73-125	2.84	20	
Lead	0.106	0.00100	"	0.0995	ND	107	78-125	1.87	20	
Antimony	0.0426	0.00300	"	0.0500	0.00156	82.1	63-126	4.07	20	
Selenium	0.115	0.00100	"	0.100	0.000620	114	61-156	2.58	20	
Thallium	0.105	0.00100	"	0.100	ND	105	78-125	2.82	20	
Zinc	0.113	0.0100	"	0.0995	0.00393	110	70-127	2.62	20	

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J21038: Prepared 10/21/04 Using EPA 7470A

Blank (4J21038-BLK1)

Mercury	ND	0.000200	mg/l						
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LCS (4J21038-BS1)

Mercury	0.00503	0.000200	mg/l	0.00500	101	80-120			
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LCS Dup (4J21038-BSD1)

Mercury	0.00505	0.000200	mg/l	0.00500	101	80-120	0.397	20	
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Matrix Spike (4J21038-MS1)

Source: B4J0690-01

Mercury	0.00489	0.000200	mg/l	0.00500	0.0000678	96.4	70-130		
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Matrix Spike Dup (4J21038-MSD1)

Source: B4J0690-01

Mercury	0.00492	0.000200	mg/l	0.00500	0.0000678	97.0	70-130	0.612	20
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915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J28013: Prepared 10/27/04 Using EPA 5030B

Blank (4J28013-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	1.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J28013: Prepared 10/27/04 Using EPA 5030B

Blank (4J28013-BLK1)

1,1-Dichloropropene	ND	1.00	ug/l							
cis-1,3-Dichloropropene	ND	1.00	"							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	1.00	"							
Methyl tert-butyl ether	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	1.00	"							
p-Isopropyltoluene	ND	1.00	"							
4-Methyl-2-pentanone	ND	10.0	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	1.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surrogate: 1,2-DCA-d4	21.4		"	20.0		107	70-130			
Surrogate: Toluene-d8	19.7		"	20.0		98.5	70-130			
Surrogate: 4-BFB	20.1		"	20.0		100	70-130			

North Creek Analytical - Bothell

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J28013: Prepared 10/27/04 Using EPA 5030B

LCS (4J28013-BS1)

Benzene	19.4	1.00	ug/l	20.0		97.0	80-120		
Chlorobenzene	19.1	1.00	"	20.0		95.5	77-120		
1,1-Dichloroethene	19.5	1.00	"	20.0		97.5	80-120		
Methyl tert-butyl ether	21.3	2.00	"	20.0		106	80-120		
Toluene	19.7	1.00	"	20.0		98.5	80-120		
Trichloroethene	21.8	1.00	"	20.0		109	80-120		
Surrogate: 1,2-DCA-d4	19.3		"	20.0		96.5	70-130		
Surrogate: Toluene-d8	19.9		"	20.0		99.5	70-130		
Surrogate: 4-BFB	20.0		"	20.0		100	70-130		

LCS Dup (4J28013-BS1)

Benzene	18.5	1.00	ug/l	20.0		92.5	80-120	4.75	20
Chlorobenzene	18.2	1.00	"	20.0		91.0	77-120	4.83	20
1,1-Dichloroethene	18.7	1.00	"	20.0		93.5	80-120	4.19	20
Methyl tert-butyl ether	21.4	2.00	"	20.0		107	80-120	0.468	20
Toluene	18.5	1.00	"	20.0		92.5	80-120	6.28	20
Trichloroethene	20.1	1.00	"	20.0		100	80-120	8.11	20
Surrogate: 1,2-DCA-d4	20.3		"	20.0		102	70-130		
Surrogate: Toluene-d8	19.6		"	20.0		98.0	70-130		
Surrogate: 4-BFB	20.2		"	20.0		101	70-130		

Matrix Spike (4J28013-MS1)

Source: B4J0690-01

Benzene	20.2	1.00	ug/l	20.0	ND	101	63-148		
Chlorobenzene	19.6	1.00	"	20.0	ND	98.0	80-128		
1,1-Dichloroethene	19.8	1.00	"	20.0	ND	99.0	59-158		
Methyl tert-butyl ether	20.5	2.00	"	20.0	ND	102	60-140		
Toluene	20.6	1.00	"	20.0	ND	103	72-127		
Trichloroethene	22.2	1.00	"	20.0	ND	111	80-126		
Surrogate: 1,2-DCA-d4	19.6		"	20.0		98.0	70-130		
Surrogate: Toluene-d8	19.5		"	20.0		97.5	70-130		
Surrogate: 4-BFB	20.5		"	20.0		102	70-130		

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 4J28013: Prepared 10/27/04 Using EPA 5030B

Matrix Spike Dup (4J28013-MSD1)

Source: B4J0690-01

A-01

Benzene	19.2	1.00	ug/l	20.0	ND	96.0	63-148	5.08	20
Chlorobenzene	19.1	1.00	"	20.0	ND	95.5	80-128	2.58	20
1,1-Dichloroethene	19.5	1.00	"	20.0	ND	97.5	59-158	1.53	30
Methyl tert-butyl ether	21.2	2.00	"	20.0	ND	106	60-140	3.36	30
Toluene	19.6	1.00	"	20.0	ND	98.0	72-127	4.98	20
Trichloroethene	20.8	1.00	"	20.0	ND	104	80-126	6.51	20
Surrogate: 1,2-DCA-d4	19.7		"	20.0		98.5	70-130		
Surrogate: Toluene-d8	19.5		"	20.0		97.5	70-130		
Surrogate: 4-BFB	20.0		"	20.0		100	70-130		

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
11/01/04 11:22

Notes and Definitions

A-01 MSD was analyzed 21 minutes outside of 12hr QC window.
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

North Creek Analytical - Bothell

Robert Greer, Project Manager

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08 February 2005

Mike Arnold
ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005
RE: Spokane ANG5

Enclosed are the results of analyses for samples received by the laboratory on 01/22/05 12:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robert Greer
Project Manager

CASE NARRATIVE for B5A0562

Client: ERM - Bellevue
Project Manager: Mike Arnold
Project Name: Spokane ANG
Project Number: 20536.50

1.0 DESCRIPTION OF CASE

Eleven water samples and one trip blank were received for analysis of the following: Dissolved Metals by EPA 6000/7000 Series Methods and Volatile Organic Compounds by EPA Method 8260B.

2.0 COMMENTS ON SAMPLE RECEIPT

Samples were received on January 22, 2005 and logged in on January 25, 2005. Sample temperature at time of receipt was 6.0 ° C.

3.0 PREPARATIONS AND ANALYSIS

Dissolved Metals by EPA 6000/7000 Series Methods

No anomalies were associated with the sample preparation and analysis. All criteria for acceptable QC measurements were met.

Volatile Organic Compounds by EPA Method 8260B

No additional anomalies, discrepancies, or issues were associated with sample preparation, analysis and quality control other than those already qualified in the data and described in the Notes and Definitions page at the end of this report.

Robert Greer
Project Manager
North Creek Analytical

915 - 118th Ave. S — E., Suite 130 • Bellevue, WA • 98005 • (425) 462-8591 • FAX (425) 455-3573

PROJECT #		PROJECT NAME		MATRIX		REQUESTED PARAMETERS													
SAMPLER: (PRINT NAME)		(SIGNATURE)																	
2053650		SPOKANE ANGUS																	
ZACH CLEMENTS																			
RECEIVING LABORATORY																			
NCA-Bothell																			
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME											
MW-13-05-1	20/05	920		X	Bladder pump	Y	Y	3 x 40ml 1 x 250ml	4	X	X	X							
MW-14-05-1		1125							4	X	X	X							-01
MW-15-05-1		1210							4	X	X	X							-02
MW-5-05-1		1315							4	X	X	X							-03
MW-6-05-1		1355							4	X	X	X							-04
MW-16-05-1		1435							4	X	X	X							-05
MW-16-05-1D		1440							4	X	X	X							-06
MW-3-05-1		1545							4	X	X	X							-07
MW-4-05-1P	21/05	800							4	X	X	X							-08
MW-2-05-1		840							4	X	X	X							-09
RELINQUISHED BY (SIGNATURE)			DATE	TIME	RECEIVED BY			DATE	TIME	FIELD REMARKS									
			1/27/05	1210	Demi Haeckel			1/27/05	12:10	Level II data packet for these samples 6.0 W/O									
RELINQUISHED BY (SIGNATURE)			DATE	TIME	RECEIVED BY			DATE	TIME										
RELINQUISHED BY (SIGNATURE)			DATE	TIME	RECEIVED BY			DATE	TIME										
REMARKS ON SAMPLE RECEIPT					ERM REMARKS					SEND REPORT TO: MIKE ARNOLD (ERM)									
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED <input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS																			

CHAIN OF CUSTODY RECORD

B5A0562

NO

1052

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Page 2 of 3

PROJECT NAME		MATRIX		REQUESTED PARAMETERS															
SPOKANE ANGUS																			
(SIGNATURE)																			
RECEIVING LABORATORY																			
DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESSURIZED	ICE (Y/N)	SAMPLING VOLUME												
2/1/05	935		X	Bladder Pump	Y	Y	40mL	4	X	X	X								
2/1/05	800		X	LAB PREP	Y	Y	40mL	2	X	X	X								
ZAC																			
(SIGNATURE)		DATE	TIME	RECEIVED BY				DATE	TIME	FIELD REMARKS									
(SIGNATURE)		2/2/05	1210	Dee Wittard				1-27-05	12:10	Level II data packet for these samples W.O W/O									
(SIGNATURE)		DATE	TIME	RECEIVED BY				DATE	TIME										
(SIGNATURE)		DATE	TIME	RECEIVED BY				DATE	TIME										
MARKS ON SAMPLE RECEIPT																			
ERM REMARKS																			
SEND REPORT TO:																			
MIKE ARNOLD (ERM)																			



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-13-05-1	B5A0562-01	Water	01/20/05 09:20	01/22/05 12:10
MW-14-05-1	B5A0562-02	Water	01/20/05 11:25	01/22/05 12:10
MW-15-05-1	B5A0562-03	Water	01/20/05 12:10	01/22/05 12:10
MW-5-05-1	B5A0562-04	Water	01/20/05 13:15	01/22/05 12:10
MW-6-05-1	B5A0562-05	Water	01/20/05 13:55	01/22/05 12:10
MW-16-05-1	B5A0562-06	Water	01/20/05 14:35	01/22/05 12:10
MW-16-05-1D	B5A0562-07	Water	01/20/05 14:40	01/22/05 12:10
MW-3-05-1	B5A0562-08	Water	01/20/05 15:45	01/22/05 12:10
MW-4-05-1R	B5A0562-09	Water	01/21/05 08:00	01/22/05 12:10
MW-2-05-1	B5A0562-10	Water	01/21/05 08:40	01/22/05 12:10
MW-19-05-1	B5A0562-11	Water	01/21/05 09:35	01/22/05 12:10
TB012005-1	B5A0562-12	Water	01/20/05 08:00	01/22/05 12:10

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-05-1 (B5A0562-01) Water Sampled: 01/20/05 09:20 Received: 01/22/05 12:10									
Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	ND	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-14-05-1 (B5A0562-02) Water Sampled: 01/20/05 11:25 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	ND	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-15-05-1 (B5A0562-03) Water Sampled: 01/20/05 12:10 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	ND	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-5-05-1 (B5A0562-04) Water Sampled: 01/20/05 13:15 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	0.00658	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	ND	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-6-05-1 (B5A0562-05) Water Sampled: 01/20/05 13:55 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	ND	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-16-05-1 (B5A0562-06) Water Sampled: 01/20/05 14:35 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	ND	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	0.0957	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-16-05-1D (B5A0562-07) Water Sampled: 01/20/05 14:40 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	ND	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	0.0966	0.0100	"	"	"	"	"	"	

MW-3-05-1 (B5A0562-08) Water Sampled: 01/20/05 15:45 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	0.00980	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	0.279	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-4-05-1R (B5A0562-09) Water Sampled: 01/21/05 08:00 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	ND	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-2-05-1 (B5A0562-10) Water Sampled: 01/21/05 08:40 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	ND	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-19-05-1 (B5A0562-11) Water Sampled: 01/21/05 09:35 Received: 01/22/05 12:10									
Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	0.00327	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25052	01/25/05	01/26/05	EPA 7470A	
Nickel	0.00142	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-13-05-1 (B5A0562-01) Water Sampled: 01/20/05 09:20 Received: 01/22/05 12:10										
Acetone	ND	20.0	ug/l	1	5A31049	01/28/05	01/28/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"		
Bromobenzene	ND	1.00	"	"	"	"	"	"		
Bromochloromethane	ND	1.00	"	"	"	"	"	"		
Bromodichloromethane	ND	1.00	"	"	"	"	"	"		
Bromoform	ND	1.00	"	"	"	"	"	"		
Bromomethane	ND	2.00	"	"	"	"	"	"		
2-Butanone	ND	10.0	"	"	"	"	"	"		
n-Butylbenzene	ND	1.00	"	"	"	"	"	"		
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"		
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"		
Carbon disulfide	ND	1.00	"	"	"	"	"	"		
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"		
Chlorobenzene	ND	1.00	"	"	"	"	"	"		
Chloroethane	ND	1.00	"	"	"	"	"	"		
Chloroform	ND	1.00	"	"	"	"	"	"		
Chloromethane	ND	5.00	"	"	"	"	"	"		
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
Dibromochloromethane	ND	1.00	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"		
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"		
Dibromomethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"		
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-05-1 (B5A0562-01) Water Sampled: 01/20/05 09:20 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A31049	01/28/05	01/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	108 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	99.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	102 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-14-05-1 (B5A0562-02) Water Sampled: 01/20/05 11:25 Received: 01/22/05 12:10										
Acetone	ND	20.0	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"		
Bromobenzene	ND	1.00	"	"	"	"	"	"		
Bromochloromethane	ND	1.00	"	"	"	"	"	"		
Bromodichloromethane	ND	1.00	"	"	"	"	"	"		
Bromoform	ND	1.00	"	"	"	"	"	"		
Bromomethane	ND	2.00	"	"	"	"	"	"		
2-Butanone	ND	10.0	"	"	"	"	"	"		
n-Butylbenzene	ND	1.00	"	"	"	"	"	"		
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"		
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"		
Carbon disulfide	ND	1.00	"	"	"	"	"	"		
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"		
Chlorobenzene	ND	1.00	"	"	"	"	"	"		
Chloroethane	ND	1.00	"	"	"	"	"	"		
Chloroform	ND	1.00	"	"	"	"	"	"		
Chloromethane	ND	5.00	"	"	"	"	"	"		
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
Dibromochloromethane	ND	1.00	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"		
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"		
Dibromomethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"		
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-14-05-1 (B5A0562-02) Water Sampled: 01/20/05 11:25 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	100 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-15-05-1 (B5A0562-03) Water Sampled: 01/20/05 12:10 Received: 01/22/05 12:10									
Acetone	ND	20.0	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15-05-1 (B5A0562-03) Water Sampled: 01/20/05 12:10 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	108 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	99.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	97.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANGS
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-5-05-1 (B5A0562-04) Water Sampled: 01/20/05 13:15 Received: 01/22/05 12:10										
Acetone	ND	20.0	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"		
Bromobenzene	ND	1.00	"	"	"	"	"	"		
Bromochloromethane	ND	1.00	"	"	"	"	"	"		
Bromodichloromethane	ND	1.00	"	"	"	"	"	"		
Bromoform	ND	1.00	"	"	"	"	"	"		
Bromomethane	ND	2.00	"	"	"	"	"	"		
2-Butanone	ND	10.0	"	"	"	"	"	"		
n-Butylbenzene	ND	1.00	"	"	"	"	"	"		
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"		
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"		
Carbon disulfide	ND	1.00	"	"	"	"	"	"		
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"		
Chlorobenzene	ND	1.00	"	"	"	"	"	"		
Chloroethane	ND	1.00	"	"	"	"	"	"		
Chloroform	ND	1.00	"	"	"	"	"	"		
Chloromethane	ND	5.00	"	"	"	"	"	"		
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
Dibromochloromethane	ND	1.00	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"		
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"		
Dibromomethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"		
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5-05-1 (B5A0562-04) Water Sampled: 01/20/05 13:15 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	106 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	98.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	103 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANGS
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-6-05-1 (B5A0562-05) Water Sampled: 01/20/05 13:55 Received: 01/22/05 12:10									
Acetone	ND	20.0	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6-05-1 (B5A0562-05) Water Sampled: 01/20/05 13:55 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	107 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	99.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	98.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-16-05-1 (B5A0562-06) Water Sampled: 01/20/05 14:35 Received: 01/22/05 12:10									
Acetone	ND	20.0	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	6.50	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-05-1 (B5A0562-06) Water Sampled: 01/20/05 14:35 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	108 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	98.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-16-05-1D (B5A0562-07) Water Sampled: 01/20/05 14:40 Received: 01/22/05 12:10									
Acetone	ND	20.0	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	6.30	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-05-1D (B5A0562-07) Water Sampled: 01/20/05 14:40 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	104 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	98.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	104 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-3-05-1 (B5A0562-08) Water Sampled: 01/20/05 15:45 Received: 01/22/05 12:10										
Acetone	ND	20.0	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3-05-1 (B5A0562-08) Water Sampled: 01/20/05 15:45 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	107 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANGS
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-05-1R (B5A0562-09) Water Sampled: 01/21/05 08:00 Received: 01/22/05 12:10									
Acetone	ND	20.0	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	48.9	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-05-1R (B5A0562-09) Water Sampled: 01/21/05 08:00 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A28074	01/27/05	01/27/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	108 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	98.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	101 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-2-05-1 (B5A0562-10) Water Sampled: 01/21/05 08:40 Received: 01/22/05 12:10									
Acetone	ND	20.0	ug/l	1	5A31049	01/28/05	01/28/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	9.89	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2-05-1 (B5A0562-10) Water Sampled: 01/21/05 08:40 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A31049	01/28/05	01/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	108 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	97.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	102 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-19-05-1 (B5A0562-11) Water Sampled: 01/21/05 09:35 Received: 01/22/05 12:10									
Acetone	ND	20.0	ug/l	1	5A31049	01/28/05	01/28/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	1.36	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-19-05-1 (B5A0562-11) Water Sampled: 01/21/05 09:35 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A31049	01/28/05	01/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	107 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	98.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	102 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
TB012005-1 (B5A0562-12) Water Sampled: 01/20/05 08:00 Received: 01/22/05 12:10									
Acetone	ND	20.0	ug/l	1	5A27069	01/26/05	01/27/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB012005-1 (B5A0562-12) Water Sampled: 01/20/05 08:00 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A27069	01/26/05	01/27/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	107 %	70-130				"	"	"	"
Surrogate: Toluene-d8	98.5 %	70-130				"	"	"	"
Surrogate: 4-BFB	103 %	70-130				"	"	"	"

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A25052: Prepared 01/25/05 Using EPA 7470A Diss

Blank (5A25052-BLK1)

Mercury	ND	0.000200	mg/l						
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LCS (5A25052-BS1)

Mercury	0.00438	0.000200	mg/l	0.00500		87.6	80-120		
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LCS Dup (5A25052-BSD1)

Mercury	0.00458	0.000200	mg/l	0.00500		91.6	80-120	4.46	20
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Matrix Spike (5A25052-MS1)

Source: B5A0562-01

Mercury	0.00413	0.000200	mg/l	0.00500	ND	82.6	70-130		
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Matrix Spike Dup (5A25052-MSD1)

Source: B5A0562-01

Mercury	0.00443	0.000200	mg/l	0.00500	ND	88.6	70-130	7.01	20
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Batch 5A25054: Prepared 01/25/05 Using EPA 3005A

Blank (5A25054-BLK1)

Silver	ND	0.00100	mg/l						
Arsenic	ND	0.00100	"						
Beryllium	ND	0.00100	"						
Cadmium	ND	0.00100	"						
Chromium	ND	0.00100	"						
Copper	ND	0.00100	"						
Nickel	ND	0.00100	"						
Lead	ND	0.00100	"						
Antimony	ND	0.00300	"						
Selenium	ND	0.00100	"						
Thallium	ND	0.00100	"						
Zinc	ND	0.0100	"						

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A25054: Prepared 01/25/05 Using EPA 3005A

LCS (5A25054-BS1)

Silver	0.197	0.00100	mg/l	0.200		98.5	80-120		
Arsenic	0.200	0.00100	"	0.200		100	80-120		
Beryllium	0.198	0.00100	"	0.200		99.0	80-120		
Cadmium	0.196	0.00100	"	0.200		98.0	80-120		
Chromium	0.203	0.00100	"	0.200		102	80-120		
Copper	0.195	0.00100	"	0.200		97.5	80-120		
Nickel	0.198	0.00100	"	0.200		99.0	80-120		
Lead	0.196	0.00100	"	0.200		98.0	80-120		
Antimony	0.0498	0.00300	"	0.0500		99.6	80-120		
Selenium	0.203	0.00100	"	0.200		102	80-120		
Thallium	0.195	0.00100	"	0.200		97.5	80-120		
Zinc	0.193	0.0100	"	0.200		96.5	80-120		

LCS Dup (5A25054-BS1)

Silver	0.194	0.00100	mg/l	0.200		97.0	80-120	1.53	20
Arsenic	0.197	0.00100	"	0.200		98.5	80-120	1.51	20
Beryllium	0.195	0.00100	"	0.200		97.5	80-120	1.53	20
Cadmium	0.195	0.00100	"	0.200		97.5	80-120	0.512	20
Chromium	0.201	0.00100	"	0.200		100	80-120	0.990	20
Copper	0.191	0.00100	"	0.200		95.5	80-120	2.07	20
Nickel	0.195	0.00100	"	0.200		97.5	80-120	1.53	20
Lead	0.192	0.00100	"	0.200		96.0	80-120	2.06	20
Antimony	0.0492	0.00300	"	0.0500		98.4	80-120	1.21	20
Selenium	0.199	0.00100	"	0.200		99.5	80-120	1.99	20
Thallium	0.190	0.00100	"	0.200		95.0	80-120	2.60	20
Zinc	0.190	0.0100	"	0.200		95.0	80-120	1.57	20

Matrix Spike (5A25054-MS1)

Source: B5A0563-02

Silver	0.0803	0.00100	mg/l	0.100	0.000130	80.2	43-124		
Arsenic	0.103	0.00100	"	0.100	0.00112	102	70-138		
Beryllium	0.0954	0.00100	"	0.100	ND	95.4	80-125		
Cadmium	0.0930	0.00100	"	0.100	ND	93.0	80-125		
Chromium	0.0951	0.00100	"	0.100	0.00386	91.2	76-125		
Copper	0.0881	0.00100	"	0.101	0.00213	85.1	71-125		
Nickel	0.0884	0.00100	"	0.0995	0.00131	87.5	73-125		
Lead	0.0914	0.00100	"	0.0995	0.000300	91.6	78-125		

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A25054: Prepared 01/25/05 Using EPA 3005A

Matrix Spike (5A25054-MS1)

Source: B5A0563-02

Antimony	0.0486	0.00300	mg/l	0.0500	0.0000600	97.1	63-126		
Selenium	0.103	0.00100	"	0.100	0.00103	102	61-156		
Thallium	0.0924	0.00100	"	0.100	ND	92.4	78-125		
Zinc	0.0969	0.0100	"	0.0995	0.00504	92.3	70-127		

Matrix Spike Dup (5A25054-MSD1)

Source: B5A0563-02

Silver	0.0805	0.00100	mg/l	0.100	0.000130	80.4	43-124	0.249	50
Arsenic	0.104	0.00100	"	0.100	0.00112	103	70-138	0.966	20
Beryllium	0.0966	0.00100	"	0.100	ND	96.6	80-125	1.25	20
Cadmium	0.0938	0.00100	"	0.100	ND	93.8	80-125	0.857	20
Chromium	0.0968	0.00100	"	0.100	0.00386	92.9	76-125	1.77	20
Copper	0.0893	0.00100	"	0.101	0.00213	86.3	71-125	1.35	20
Nickel	0.0895	0.00100	"	0.0995	0.00131	88.6	73-125	1.24	20
Lead	0.0923	0.00100	"	0.0995	0.000300	92.5	78-125	0.980	20
Antimony	0.0489	0.00300	"	0.0500	0.0000600	97.7	63-126	0.615	20
Selenium	0.103	0.00100	"	0.100	0.00103	102	61-156	0.00	20
Thallium	0.0928	0.00100	"	0.100	ND	92.8	78-125	0.432	20
Zinc	0.0983	0.0100	"	0.0995	0.00504	93.7	70-127	1.43	20

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A27069: Prepared 01/26/05 Using EPA 5030B

Blank (5A27069-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	1.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A27069: Prepared 01/26/05 Using EPA 5030B

Blank (5A27069-BLK1)

1,1-Dichloropropene	ND	1.00	ug/l							
cis-1,3-Dichloropropene	ND	1.00	"							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	1.00	"							
Methyl tert-butyl ether	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	1.00	"							
p-Isopropyltoluene	ND	1.00	"							
4-Methyl-2-pentanone	ND	10.0	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	1.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surrogate: 1,2-DCA-d4	20.9		"	20.0		104	70-130			
Surrogate: Toluene-d8	20.0		"	20.0		100	70-130			
Surrogate: 4-BFB	20.1		"	20.0		100	70-130			

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A27069: Prepared 01/26/05 Using EPA 5030B

LCS (5A27069-BS1)

Benzene	19.6	1.00	ug/l	20.0		98.0	80-120		
Chlorobenzene	19.3	1.00	"	20.0		96.5	77-120		
1,1-Dichloroethene	19.8	1.00	"	20.0		99.0	80-120		
Methyl tert-butyl ether	19.7	2.00	"	20.0		98.5	80-120		
Toluene	19.1	1.00	"	20.0		95.5	80-120		
Trichloroethene	19.4	1.00	"	20.0		97.0	80-120		
Surrogate: 1,2-DCA-d4	19.9		"	20.0		99.5	70-130		
Surrogate: Toluene-d8	19.6		"	20.0		98.0	70-130		
Surrogate: 4-BFB	19.5		"	20.0		97.5	70-130		

LCS Dup (5A27069-BSD1)

Benzene	19.8	1.00	ug/l	20.0		99.0	80-120	1.02	20
Chlorobenzene	19.2	1.00	"	20.0		96.0	77-120	0.519	20
1,1-Dichloroethene	20.5	1.00	"	20.0		102	80-120	3.47	20
Methyl tert-butyl ether	20.2	2.00	"	20.0		101	80-120	2.51	20
Toluene	19.3	1.00	"	20.0		96.5	80-120	1.04	20
Trichloroethene	19.6	1.00	"	20.0		98.0	80-120	1.03	20
Surrogate: 1,2-DCA-d4	19.8		"	20.0		99.0	70-130		
Surrogate: Toluene-d8	19.7		"	20.0		98.5	70-130		
Surrogate: 4-BFB	19.9		"	20.0		99.5	70-130		

Batch 5A28074: Prepared 01/27/05 Using EPA 5030B

Blank (5A28074-BLK1)

Acetone	ND	20.0	ug/l						
Benzene	ND	1.00	"						
Bromobenzene	ND	1.00	"						
Bromochloromethane	ND	1.00	"						
Bromodichloromethane	ND	1.00	"						
Bromoform	ND	1.00	"						
Bromomethane	ND	2.00	"						
2-Butanone	ND	10.0	"						
n-Butylbenzene	ND	1.00	"						
sec-Butylbenzene	ND	1.00	"						
tert-Butylbenzene	ND	1.00	"						
Carbon disulfide	ND	1.00	"						

North Creek Analytical - Bothell

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A28074: Prepared 01/27/05 Using EPA 5030B

Blank (5A28074-BLK1)

Carbon tetrachloride	ND	1.00	ug/l
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"
1,1-Dichloropropene	ND	1.00	"
cis-1,3-Dichloropropene	ND	1.00	"
trans-1,3-Dichloropropene	ND	1.00	"
Ethylbenzene	ND	1.00	"
Hexachlorobutadiene	ND	1.00	"
Methyl tert-butyl ether	ND	2.00	"
2-Hexanone	ND	10.0	"
Isopropylbenzene	ND	1.00	"
p-Isopropyltoluene	ND	1.00	"
4-Methyl-2-pentanone	ND	10.0	"
Methylene chloride	ND	5.00	"
Naphthalene	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
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Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A28074: Prepared 01/27/05 Using EPA 5030B

Blank (5A28074-BLK1)

n-Propylbenzene	ND	1.00	ug/l						
Styrene	ND	1.00	"						
1,2,3-Trichlorobenzene	ND	1.00	"						
1,2,4-Trichlorobenzene	ND	1.00	"						
1,1,1,2-Tetrachloroethane	ND	1.00	"						
1,1,2,2-Tetrachloroethane	ND	1.00	"						
Tetrachloroethene	ND	1.00	"						
Toluene	ND	1.00	"						
1,1,1-Trichloroethane	ND	1.00	"						
1,1,2-Trichloroethane	ND	1.00	"						
Trichloroethene	ND	1.00	"						
Trichlorofluoromethane	ND	1.00	"						
1,2,3-Trichloropropane	ND	1.00	"						
1,2,4-Trimethylbenzene	ND	1.00	"						
1,3,5-Trimethylbenzene	ND	1.00	"						
Vinyl chloride	ND	1.00	"						
o-Xylene	ND	1.00	"						
m,p-Xylene	ND	2.00	"						
Surrogate: 1,2-DCA-d4	21.3		"	20.0		106	70-130		
Surrogate: Toluene-d8	19.2		"	20.0		96.0	70-130		
Surrogate: 4-BFB	20.9		"	20.0		104	70-130		

LCS (5A28074-BS1)

Benzene	20.1	1.00	ug/l	20.0		100	80-120		
Chlorobenzene	19.4	1.00	"	20.0		97.0	77-120		
1,1-Dichloroethene	20.7	1.00	"	20.0		104	80-120		
Methyl tert-butyl ether	21.7	2.00	"	20.0		108	80-120		
Toluene	18.9	1.00	"	20.0		94.5	80-120		
Trichloroethene	19.9	1.00	"	20.0		99.5	80-120		
Surrogate: 1,2-DCA-d4	21.6		"	20.0		108	70-130		
Surrogate: Toluene-d8	19.4		"	20.0		97.0	70-130		
Surrogate: 4-BFB	19.5		"	20.0		97.5	70-130		

North Creek Analytical - Bothell

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ERM-Bellevue
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Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A28074: Prepared 01/27/05 Using EPA 5030B

LCS Dup (5A28074-BSD1)

Benzene	21.6	1.00	ug/l	20.0		108	80-120	7.19	20
Chlorobenzene	21.2	1.00	"	20.0		106	77-120	8.87	20
1,1-Dichloroethene	22.2	1.00	"	20.0		111	80-120	6.99	20
Methyl tert-butyl ether	21.2	2.00	"	20.0		106	80-120	2.33	20
Toluene	21.1	1.00	"	20.0		106	80-120	11.0	20
Trichloroethene	21.6	1.00	"	20.0		108	80-120	8.19	20
Surrogate: 1,2-DCA-d4	20.8		"	20.0		104	70-130		
Surrogate: Toluene-d8	19.9		"	20.0		99.5	70-130		
Surrogate: 4-BFB	19.6		"	20.0		98.0	70-130		

Batch 5A31049: Prepared 01/28/05 Using EPA 5030B

Blank (5A31049-BLK1)

Acetone	ND	20.0	ug/l						
Benzene	ND	1.00	"						
Bromobenzene	ND	1.00	"						
Bromochloromethane	ND	1.00	"						
Bromodichloromethane	ND	1.00	"						
Bromoform	ND	1.00	"						
Bromomethane	ND	2.00	"						
2-Butanone	ND	10.0	"						
n-Butylbenzene	ND	1.00	"						
sec-Butylbenzene	ND	1.00	"						
tert-Butylbenzene	ND	1.00	"						
Carbon disulfide	ND	1.00	"						
Carbon tetrachloride	ND	1.00	"						
Chlorobenzene	ND	1.00	"						
Chloroethane	ND	1.00	"						
Chloroform	ND	1.00	"						
Chloromethane	ND	5.00	"						
2-Chlorotoluene	ND	1.00	"						
4-Chlorotoluene	ND	1.00	"						
Dibromochloromethane	ND	1.00	"						
1,2-Dibromo-3-chloropropane	ND	5.00	"						
1,2-Dibromoethane	ND	1.00	"						
Dibromomethane	ND	1.00	"						

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A31049: Prepared 01/28/05 Using EPA 5030B

Blank (5A31049-BLK1)

1,2-Dichlorobenzene	ND	1.00	ug/l
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"
1,1-Dichloropropene	ND	1.00	"
cis-1,3-Dichloropropene	ND	1.00	"
trans-1,3-Dichloropropene	ND	1.00	"
Ethylbenzene	ND	1.00	"
Hexachlorobutadiene	ND	1.00	"
Methyl tert-butyl ether	ND	2.00	"
2-Hexanone	ND	10.0	"
Isopropylbenzene	ND	1.00	"
p-Isopropyltoluene	ND	1.00	"
4-Methyl-2-pentanone	ND	10.0	"
Methylene chloride	ND	5.00	"
Naphthalene	ND	1.00	"
n-Propylbenzene	ND	1.00	"
Styrene	ND	1.00	"
1,2,3-Trichlorobenzene	ND	1.00	"
1,2,4-Trichlorobenzene	ND	1.00	"
1,1,1,2-Tetrachloroethane	ND	1.00	"
1,1,2,2-Tetrachloroethane	ND	1.00	"
Tetrachloroethene	ND	1.00	"
Toluene	ND	1.00	"
1,1,1-Trichloroethane	ND	1.00	"
1,1,2-Trichloroethane	ND	1.00	"
Trichloroethene	ND	1.00	"

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ERM-Bellevue
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Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A31049: Prepared 01/28/05 Using EPA 5030B

Blank (5A31049-BLK1)

Trichlorofluoromethane	ND	1.00	ug/l						
1,2,3-Trichloropropane	ND	1.00	"						
1,2,4-Trimethylbenzene	ND	1.00	"						
1,3,5-Trimethylbenzene	ND	1.00	"						
Vinyl chloride	ND	1.00	"						
o-Xylene	ND	1.00	"						
m,p-Xylene	ND	2.00	"						
Surrogate: 1,2-DCA-d4	21.9		"	20.0		110	70-130		
Surrogate: Toluene-d8	19.8		"	20.0		99.0	70-130		
Surrogate: 4-BFB	20.5		"	20.0		102	70-130		

LCS (5A31049-BS1)

Benzene	21.0	1.00	ug/l	20.0		105	80-120		
Chlorobenzene	20.6	1.00	"	20.0		103	77-120		
1,1-Dichloroethene	19.7	1.00	"	20.0		98.5	80-120		
Methyl tert-butyl ether	21.8	2.00	"	20.0		109	80-120		
Toluene	20.1	1.00	"	20.0		100	80-120		
Trichloroethene	20.6	1.00	"	20.0		103	80-120		
Surrogate: 1,2-DCA-d4	22.5		"	20.0		112	70-130		
Surrogate: Toluene-d8	19.2		"	20.0		96.0	70-130		
Surrogate: 4-BFB	19.9		"	20.0		99.5	70-130		

LCS Dup (5A31049-BSD1)

Benzene	19.6	1.00	ug/l	20.0		98.0	80-120	6.90	20
Chlorobenzene	19.4	1.00	"	20.0		97.0	77-120	6.00	20
1,1-Dichloroethene	19.7	1.00	"	20.0		98.5	80-120	0.00	20
Methyl tert-butyl ether	21.6	2.00	"	20.0		108	80-120	0.922	20
Toluene	19.0	1.00	"	20.0		95.0	80-120	5.63	20
Trichloroethene	19.0	1.00	"	20.0		95.0	80-120	8.08	20
Surrogate: 1,2-DCA-d4	21.5		"	20.0		108	70-130		
Surrogate: Toluene-d8	19.7		"	20.0		98.5	70-130		
Surrogate: 4-BFB	19.9		"	20.0		99.5	70-130		

North Creek Analytical - Bothell

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ERM-Bellevue
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Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A31049: Prepared 01/28/05 Using EPA 5030B

Matrix Spike (5A31049-MS1)

Source: B5A0563-02

Benzene	22.5	1.00	ug/l	20.0	ND	112	63-148		
Chlorobenzene	21.9	1.00	"	20.0	ND	110	80-128		
1,1-Dichloroethene	11.6	1.00	"	20.0	ND	58.0	59-158		Q-02
Methyl tert-butyl ether	22.7	2.00	"	20.0	ND	114	60-140		
Toluene	3.44	1.00	"	20.0	ND	17.2	72-127		Q-02
Trichloroethene	24.2	1.00	"	20.0	1.16	115	80-126		
Surrogate: 1,2-DCA-d4	22.1		"	20.0		110	70-130		
Surrogate: Toluene-d8	18.1		"	20.0		90.5	70-130		
Surrogate: 4-BFB	19.2		"	20.0		96.0	70-130		

Matrix Spike Dup (5A31049-MSD1)

Source: B5A0563-02

Benzene	22.5	1.00	ug/l	20.0	ND	112	63-148	0.00	20	
Chlorobenzene	21.1	1.00	"	20.0	ND	106	80-128	3.72	20	
1,1-Dichloroethene	10.2	1.00	"	20.0	ND	51.0	59-158	12.8	30	Q-02
Methyl tert-butyl ether	23.6	2.00	"	20.0	ND	118	60-140	3.89	30	
Toluene	2.26	1.00	"	20.0	ND	11.3	72-127	41.4	20	Q-02, Q-07
Trichloroethene	24.6	1.00	"	20.0	1.16	117	80-126	1.64	20	
Surrogate: 1,2-DCA-d4	23.0		"	20.0		115	70-130			
Surrogate: Toluene-d8	18.0		"	20.0		90.0	70-130			
Surrogate: 4-BFB	19.5		"	20.0		97.5	70-130			

North Creek Analytical - Bothell

Robert Greer, Project Manager

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/07/05 17:01

Notes and Definitions

Q-02 The spike recovery for this QC sample is outside of NCA established control limits due to sample matrix interference.

Q-07 The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

08 February 2005

Mike Arnold
ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005
RE: Spokane ANG5

Enclosed are the results of analyses for samples received by the laboratory on 01/22/05 12:10. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robert Greer
Project Manager

CASE NARRATIVE for B5A0563

Client: ERM - Bellevue
Project Manager: Mike Arnold
Project Name: Spokane ANGS
Project Number: 20536.50

1.0 DESCRIPTION OF CASE

Two water samples were received for analysis of the following: Dissolved Metals by EPA 6000/7000 Series Methods and Volatile Organic Compounds by EPA Method 8260B.

2.0 COMMENTS ON SAMPLE RECEIPT

Samples were received on January 22, 2005 and logged in on January 25, 2005. Sample temperature at time of receipt was 6.0 ° C.

3.0 PREPARATIONS AND ANALYSIS

Dissolved Metals by EPA 6000/7000 Series Methods

No anomalies were associated with the sample preparation and analysis. All criteria for acceptable QC measurements were met.

Volatile Organic Compounds by EPA Method 8260B

No additional anomalies, discrepancies, or issues were associated with sample preparation, analysis and quality control other than those already qualified in the data and described in the Notes and Definitions page at the end of this report.

Robert Greer
Project Manager
North Creek Analytical

Enviromental Resources Management

CHAIN OF CUSTODY RECORD

B-50^{cu}

B5A0563

NO: 1051

915 - 118th Ave. S.E., Suite 130 • Bellevue, WA • 98005 • (425) 462-8591 • FAX (425) 455-3573

Page 3 of 3

PROJECT #		PROJECT NAME		MATRIX		REQUESTED PARAMETERS													
20536.50		SPOKANE ANGUS																	
SAMPLER: (PRINT NAME)		(SIGNATURE)																	
ZACH CLEMENTS																			
RECEIVING LABORATORY																			
NCA-Botwell																			
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME											
MW-4-05-1	1/21/05	740		✓	Bladder Pump	Y	Y	40ml 250ml	12	X	X	X							-01
MW-18-05-1		1015		✓		Y	Y		12	X	X	X							-02
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE		TIME		FIELD REMARKS							
		1/22/05		1210		DewittHardsman		1-27-05		12:10		* NS/MSD 60 W/O							
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE		TIME		CUP-type data package requested for sample results for original samples from these wells.							
RELINQUISHED BY (SIGNATURE)		DATE		TIME		RECEIVED BY		DATE		TIME									
REMARKS ON SAMPLE RECEIPT										ERM REMARKS									
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED <input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS																			
SEND REPORT TO:										MIKE ARNOLD (ERM)									



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-4-05-1	B5A0563-01	Water	01/21/05 07:40	01/22/05 12:10
MW-18-05-1	B5A0563-02	Water	01/21/05 10:15	01/22/05 12:10

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	--------------------	-------	----------	-------	----------	----------	--------	-------

MW-4-05-1 (B5A0563-01) Water Sampled: 01/21/05 07:40 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	0.00100	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25050	01/25/05	01/26/05	EPA 7470A	
Nickel	ND	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	ND	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	0.0741	0.0100	"	"	"	"	"	"	

MW-18-05-1 (B5A0563-02) Water Sampled: 01/21/05 10:15 Received: 01/22/05 12:10

Silver	ND	0.00100	mg/l	1	5A25054	01/25/05	01/26/05	EPA 6020	
Arsenic	0.00112	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00386	0.00100	"	"	"	"	"	"	
Copper	0.00213	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5A25050	01/25/05	01/26/05	EPA 7470A	
Nickel	0.00131	0.00100	"	"	5A25054	01/25/05	01/26/05	EPA 6020	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	"	"	
Selenium	0.00103	0.00100	"	"	"	"	"	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-4-05-1 (B5A0563-01) Water Sampled: 01/21/05 07:40 Received: 01/22/05 12:10									
Acetone	20.7	20.0	ug/l	1	5A31049	01/28/05	01/28/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-05-1 (B5A0563-01) Water Sampled: 01/21/05 07:40 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A31049	01/28/05	01/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	112 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	97.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	102 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-18-05-1 (B5A0563-02) Water Sampled: 01/21/05 10:15 Received: 01/22/05 12:10									
Acetone	42.0	20.0	ug/l	1	5A31049	01/28/05	01/28/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	2.82	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	28.8	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-18-05-1 (B5A0563-02) Water Sampled: 01/21/05 10:15 Received: 01/22/05 12:10									
Ethylbenzene	ND	1.00	ug/l	1	5A31049	01/28/05	01/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	1.16	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	107 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	72.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	97.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A25050: Prepared 01/25/05 Using EPA 7470A Diss

Blank (5A25050-BLK1)

Mercury	ND	0.000200	mg/l						
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LCS (5A25050-BS1)

Mercury	0.00446	0.000200	mg/l	0.00500		89.2	80-120		
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LCS Dup (5A25050-BSD1)

Mercury	0.00484	0.000200	mg/l	0.00500		96.8	80-120	8.17	20
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Matrix Spike (5A25050-MS1)

Source: B5A0563-02

Mercury	0.00481	0.000200	mg/l	0.00500	0.0000849	94.5	70-130		
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Matrix Spike Dup (5A25050-MSD1)

Source: B5A0563-02

Mercury	0.00468	0.000200	mg/l	0.00500	0.0000849	91.9	70-130	2.74	20
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Batch 5A25054: Prepared 01/25/05 Using EPA 3005A

Blank (5A25054-BLK1)

Silver	ND	0.00100	mg/l						
Arsenic	ND	0.00100	"						
Beryllium	ND	0.00100	"						
Cadmium	ND	0.00100	"						
Chromium	ND	0.00100	"						
Copper	ND	0.00100	"						
Nickel	ND	0.00100	"						
Lead	ND	0.00100	"						
Antimony	ND	0.00300	"						
Selenium	ND	0.00100	"						
Thallium	ND	0.00100	"						
Zinc	ND	0.0100	"						

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A25054: Prepared 01/25/05 Using EPA 3005A

LCS (5A25054-BS1)

Silver	0.197	0.00100	mg/l	0.200		98.5	80-120		
Arsenic	0.200	0.00100	"	0.200		100	80-120		
Beryllium	0.198	0.00100	"	0.200		99.0	80-120		
Cadmium	0.196	0.00100	"	0.200		98.0	80-120		
Chromium	0.203	0.00100	"	0.200		102	80-120		
Copper	0.195	0.00100	"	0.200		97.5	80-120		
Nickel	0.198	0.00100	"	0.200		99.0	80-120		
Lead	0.196	0.00100	"	0.200		98.0	80-120		
Antimony	0.0498	0.00300	"	0.0500		99.6	80-120		
Selenium	0.203	0.00100	"	0.200		102	80-120		
Thallium	0.195	0.00100	"	0.200		97.5	80-120		
Zinc	0.193	0.0100	"	0.200		96.5	80-120		

LCS Dup (5A25054-BS1)

Silver	0.194	0.00100	mg/l	0.200		97.0	80-120	1.53	20
Arsenic	0.197	0.00100	"	0.200		98.5	80-120	1.51	20
Beryllium	0.195	0.00100	"	0.200		97.5	80-120	1.53	20
Cadmium	0.195	0.00100	"	0.200		97.5	80-120	0.512	20
Chromium	0.201	0.00100	"	0.200		100	80-120	0.990	20
Copper	0.191	0.00100	"	0.200		95.5	80-120	2.07	20
Nickel	0.195	0.00100	"	0.200		97.5	80-120	1.53	20
Lead	0.192	0.00100	"	0.200		96.0	80-120	2.06	20
Antimony	0.0492	0.00300	"	0.0500		98.4	80-120	1.21	20
Selenium	0.199	0.00100	"	0.200		99.5	80-120	1.99	20
Thallium	0.190	0.00100	"	0.200		95.0	80-120	2.60	20
Zinc	0.190	0.0100	"	0.200		95.0	80-120	1.57	20

Matrix Spike (5A25054-MS1)

Source: B5A0563-02

Silver	0.0803	0.00100	mg/l	0.100	0.000130	80.2	43-124		
Arsenic	0.103	0.00100	"	0.100	0.00112	102	70-138		
Beryllium	0.0954	0.00100	"	0.100	ND	95.4	80-125		
Cadmium	0.0930	0.00100	"	0.100	ND	93.0	80-125		
Chromium	0.0951	0.00100	"	0.100	0.00386	91.2	76-125		
Copper	0.0881	0.00100	"	0.101	0.00213	85.1	71-125		
Nickel	0.0884	0.00100	"	0.0995	0.00131	87.5	73-125		
Lead	0.0914	0.00100	"	0.0995	0.000300	91.6	78-125		

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A25054: Prepared 01/25/05 Using EPA 3005A

Matrix Spike (5A25054-MS1)

Source: B5A0563-02

Antimony	0.0486	0.00300	mg/l	0.0500	0.0000600	97.1	63-126		
Selenium	0.103	0.00100	"	0.100	0.00103	102	61-156		
Thallium	0.0924	0.00100	"	0.100	ND	92.4	78-125		
Zinc	0.0969	0.0100	"	0.0995	0.00504	92.3	70-127		

Matrix Spike Dup (5A25054-MSD1)

Source: B5A0563-02

Silver	0.0805	0.00100	mg/l	0.100	0.000130	80.4	43-124	0.249	50
Arsenic	0.104	0.00100	"	0.100	0.00112	103	70-138	0.966	20
Beryllium	0.0966	0.00100	"	0.100	ND	96.6	80-125	1.25	20
Cadmium	0.0938	0.00100	"	0.100	ND	93.8	80-125	0.857	20
Chromium	0.0968	0.00100	"	0.100	0.00386	92.9	76-125	1.77	20
Copper	0.0893	0.00100	"	0.101	0.00213	86.3	71-125	1.35	20
Nickel	0.0895	0.00100	"	0.0995	0.00131	88.6	73-125	1.24	20
Lead	0.0923	0.00100	"	0.0995	0.000300	92.5	78-125	0.980	20
Antimony	0.0489	0.00300	"	0.0500	0.0000600	97.7	63-126	0.615	20
Selenium	0.103	0.00100	"	0.100	0.00103	102	61-156	0.00	20
Thallium	0.0928	0.00100	"	0.100	ND	92.8	78-125	0.432	20
Zinc	0.0983	0.0100	"	0.0995	0.00504	93.7	70-127	1.43	20

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A31049: Prepared 01/28/05 Using EPA 5030B

Blank (5A31049-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	1.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 5A31049: Prepared 01/28/05 Using EPA 5030B

Blank (5A31049-BLK1)

1,1-Dichloropropene	ND	1.00	ug/l							
cis-1,3-Dichloropropene	ND	1.00	"							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	1.00	"							
Methyl tert-butyl ether	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	1.00	"							
p-Isopropyltoluene	ND	1.00	"							
4-Methyl-2-pentanone	ND	10.0	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	1.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surrogate: 1,2-DCA-d4	21.9		"	20.0		110	70-130			
Surrogate: Toluene-d8	19.8		"	20.0		99.0	70-130			
Surrogate: 4-BFB	20.5		"	20.0		102	70-130			

North Creek Analytical - Bothell

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Robert Greer, Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

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ERM-Bellevue
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Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A31049: Prepared 01/28/05 Using EPA 5030B

LCS (5A31049-BS1)

Benzene	21.0	1.00	ug/l	20.0		105	80-120			
Chlorobenzene	20.6	1.00	"	20.0		103	77-120			
1,1-Dichloroethene	19.7	1.00	"	20.0		98.5	80-120			
Methyl tert-butyl ether	21.8	2.00	"	20.0		109	80-120			
Toluene	20.1	1.00	"	20.0		100	80-120			
Trichloroethene	20.6	1.00	"	20.0		103	80-120			
Surrogate: 1,2-DCA-d4	22.5		"	20.0		112	70-130			
Surrogate: Toluene-d8	19.2		"	20.0		96.0	70-130			
Surrogate: 4-BFB	19.9		"	20.0		99.5	70-130			

LCS Dup (5A31049-BSD1)

Benzene	19.6	1.00	ug/l	20.0		98.0	80-120	6.90	20	
Chlorobenzene	19.4	1.00	"	20.0		97.0	77-120	6.00	20	
1,1-Dichloroethene	19.7	1.00	"	20.0		98.5	80-120	0.00	20	
Methyl tert-butyl ether	21.6	2.00	"	20.0		108	80-120	0.922	20	
Toluene	19.0	1.00	"	20.0		95.0	80-120	5.63	20	
Trichloroethene	19.0	1.00	"	20.0		95.0	80-120	8.08	20	
Surrogate: 1,2-DCA-d4	21.5		"	20.0		108	70-130			
Surrogate: Toluene-d8	19.7		"	20.0		98.5	70-130			
Surrogate: 4-BFB	19.9		"	20.0		99.5	70-130			

Matrix Spike (5A31049-MS1)

Source: B5A0563-02

Benzene	22.5	1.00	ug/l	20.0	ND	112	63-148			
Chlorobenzene	21.9	1.00	"	20.0	ND	110	80-128			
1,1-Dichloroethene	11.6	1.00	"	20.0	ND	58.0	59-158			Q-02
Methyl tert-butyl ether	22.7	2.00	"	20.0	ND	114	60-140			
Toluene	3.44	1.00	"	20.0	ND	17.2	72-127			Q-02
Trichloroethene	24.2	1.00	"	20.0	1.16	115	80-126			
Surrogate: 1,2-DCA-d4	22.1		"	20.0		110	70-130			
Surrogate: Toluene-d8	18.1		"	20.0		90.5	70-130			
Surrogate: 4-BFB	19.2		"	20.0		96.0	70-130			

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5A31049: Prepared 01/28/05 Using EPA 5030B

Matrix Spike Dup (5A31049-MSD1)

Source: B5A0563-02

Benzene	22.5	1.00	ug/l	20.0	ND	112	63-148	0.00	20	
Chlorobenzene	21.1	1.00	"	20.0	ND	106	80-128	3.72	20	
1,1-Dichloroethene	10.2	1.00	"	20.0	ND	51.0	59-158	12.8	30	Q-02
Methyl tert-butyl ether	23.6	2.00	"	20.0	ND	118	60-140	3.89	30	
Toluene	2.26	1.00	"	20.0	ND	11.3	72-127	41.4	20	Q-02, Q-07
Trichloroethene	24.6	1.00	"	20.0	1.16	117	80-126	1.64	20	
Surrogate: 1,2-DCA-d4	23.0		"	20.0		115	70-130			
Surrogate: Toluene-d8	18.0		"	20.0		90.0	70-130			
Surrogate: 4-BFB	19.5		"	20.0		97.5	70-130			

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
02/08/05 16:28

Notes and Definitions

Q-02 The spike recovery for this QC sample is outside of NCA established control limits due to sample matrix interference.

Q-07 The RPD value for this QC sample is above the established control limit. Review of associated QC indicates the high RPD does not represent an out-of-control condition for the batch.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

North Creek Analytical - Bothell

Robert Greer, Project Manager

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17 May 2005

Mike Arnold
ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005
RE: Spokane ANGS

Enclosed are the results of analyses for samples received by the laboratory on 04/22/05 08:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robert Greer
Project Manager

CASE NARRATIVE for B5D0705

Client: ERM-Bellevue
Project Manager: Mike Arnold
Project Name: Spokane ANG
Project Number: 20536.50

1.0 DESCRIPTION OF CASE

Thirteen water samples and two trip blanks were submitted for the analysis of:

- Dissolved Metals by EPA 6000/7000 Series Methods
- Volatile Organic Compounds by EPA Method 8260B

2.0 COMMENTS ON SAMPLE RECEIPT

The samples were received and logged on October 22, 2004 at a temperature of 4.9° C.

3.0 PREPARATION AND ANALYSIS

Dissolved Metals by EPA 6000/7000 Series Methods

No anomalies were associated with the sample preparation and analysis. All criteria for acceptable QC measurements were met.

Volatile Organic Compounds by EPA Method 8260B

No anomalies were associated with the sample preparation and analysis. All criteria for acceptable QC measurements were met.

Robert Greer
Project Manager
North Creek Analytical

Environmental Resources
Management

CHAIN OF CUSTODY RECORD

NO: 2005-019

915-118th Avenue S.E. Suite 130 • Bellevue, WA 98005 • (425) 462-8591 • FAX (425) 455-3573

Page 1 of 1

PROJECT #		PROJECT NAME		# OF CONTAINERS	MATRIX			REQUESTED PARAMETERS												
SAMPLER: (PRINT NAME)		(SIGNATURE)			SOIL	WATER	GAS													
RECEIVING LABORATORY																				
20536.50		Spokane ANG																		
ARM		[Signature]																		
NCA, Borell, WA																				
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME												
MW-12-05-2	4/20/05	1025		X	Bladder	HNO3 + HCl	Y	1 x 500mL 3 x 40mL	4		X		X	X						-01
MW-13-05-2		1110		X					4		X		X	X						-02
MW-14-05-2		1200		X					4		X		X	X						-03
MW-15-05-2		1250		X					4		X		X	X						-04
MW-16-05-2		1350		X					4		X		X	X						-05
MW-17-05-2		1425		X					4		X		X	X						-06
MW-18-05-2		1505		X					4		X		X	X						-07
MW-19-05-2		1505		X					4		X		X	X						-08
MW-20-05-2		1600		X					4		X		X	X						-09
MW-21-05-2	4/21/05	0815		X					4		X		X	X						-10
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	FIELD REMARKS												
[Signature]		4/21/05	0805	Colette Weaver		04/21/05	0805	* Metals are field filtered												
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME													
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME													
REMARKS ON SAMPLE RECEIPT		ERM REMARKS						SEND REPORT TO:												
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED <input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS								Mike Arnold												

WHITE - LABORATORY COPY

CANARY - FIELD COPY

PINK - DATABASE MANAGER

GOLD - PROJECT FILE

CHAIN OF CUSTODY RECORD

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Page

2

Q.

2

PROJECT #		PROJECT NAME							#	MATRIX			REQUESTED PARAMETERS																		
SAMPLER: (PRINT NAME)		(SIGNATURE)							OF	SCIL	WATER	GAS																			
RECEIVING LABORATORY									CONTAINERS																						
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME																							
MW-19-05-2R	11/21/05	0825		X	Rinside	HANNA	Y	1000ml	4		X	X	X									-11									
MW-16-05-2		1015		X	Bladder				4		X	X	X									-12									
MW-16-05-2R		1030		X	Rinside				4		X	X	X									-13									
TB-042105-1	11/21/05				Top Blank		Y	1000ml	1		X	X										-14									
TB-042105-2	11/21/05				Top Blank		Y	1000ml	1		X	X										-15									
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	FIELD REMARKS																							
		11/21/05	0805	Collette Weaver		11/22/05	0805	* Dissolved metals are field filtered *																							
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME																								
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME																								
REMARKS ON SAMPLE RECEIPT														ERM REMARKS								SEND REPORT TO:									
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED <input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS																						Mike Arnold									

WHITE - LABORATORY COPY

CANARY - FIELD COPY

PINK - DATABASE MANAGER

GOLD - PROJECT FILE



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-12-05-2	B5D0705-01	Water	04/20/05 10:25	04/22/05 08:05
MW-13-05-2	B5D0705-02	Water	04/20/05 11:10	04/22/05 08:05
MW-14-05-2	B5D0705-03	Water	04/20/05 12:00	04/22/05 08:05
MW-15-05-2	B5D0705-04	Water	04/20/05 12:50	04/22/05 08:05
MW-5-05-2	B5D0705-05	Water	04/20/05 13:50	04/22/05 08:05
MW-6-05-2	B5D0705-06	Water	04/20/05 14:25	04/22/05 08:05
MW-3-05-2	B5D0705-07	Water	04/20/05 15:05	04/22/05 08:05
MW-3-05-2D	B5D0705-08	Water	04/20/05 15:05	04/22/05 08:05
MW-4-05-2	B5D0705-09	Water	04/20/05 16:00	04/22/05 08:05
MW-19-05-2	B5D0705-10	Water	04/21/05 08:15	04/22/05 08:05
MW-19-05-2R	B5D0705-11	Water	04/21/05 08:25	04/22/05 08:05
MW-16-05-2	B5D0705-12	Water	04/21/05 10:15	04/22/05 08:05
MW-16-05-2R	B5D0705-13	Water	04/21/05 10:30	04/22/05 08:05
TB-042105-1	B5D0705-14	Water	04/21/05 12:00	04/22/05 08:05
TB-042105-2	B5D0705-15	Water	04/21/05 12:00	04/22/05 08:05

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-12-05-2 (B5D0705-01) Water Sampled: 04/20/05 10:25 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	0.00128	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	0.0167	0.0100	"	"	"	"	"	"	

MW-13-05-2 (B5D0705-02) Water Sampled: 04/20/05 11:10 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-14-05-2 (B5D0705-03) Water Sampled: 04/20/05 12:00 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-15-05-2 (B5D0705-04) Water Sampled: 04/20/05 12:50 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	0.00111	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-5-05-2 (B5D0705-05) Water Sampled: 04/20/05 13:50 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	0.00776	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-6-05-2 (B5D0705-06) Water Sampled: 04/20/05 14:25 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-3-05-2 (B5D0705-07) Water Sampled: 04/20/05 15:05 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	0.0132	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	0.00101	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	0.0178	0.0100	"	"	"	"	"	"	

MW-3-05-2D (B5D0705-08) Water Sampled: 04/20/05 15:05 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	0.00177	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	0.0134	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	0.0193	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-4-05-2 (B5D0705-09) Water Sampled: 04/20/05 16:00 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00178	0.00100	"	"	"	"	"	"	
Copper	0.00135	0.00100	"	"	"	"	"	"	
Mercury	0.000551	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	0.0183	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	0.0243	0.0100	"	"	"	"	"	"	

MW-19-05-2 (B5D0705-10) Water Sampled: 04/21/05 08:15 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00148	0.00100	"	"	"	"	"	"	
Copper	0.00165	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	0.00439	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	0.00100	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-19-05-2R (B5D0705-11) Water Sampled: 04/21/05 08:25 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-16-05-2 (B5D0705-12) Water Sampled: 04/21/05 10:15 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	0.00132	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/10/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	0.0127	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-05-2R (B5D0705-13) Water Sampled: 04/21/05 10:30 Received: 04/22/05 08:05									
Silver	ND	0.00100	mg/l	1	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5D27035	04/27/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/13/05	"	
Selenium	ND	0.00100	"	"	"	"	05/03/05	"	
Thallium	ND	0.00100	"	"	"	"	04/29/05	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-12-05-2 (B5D0705-01) Water Sampled: 04/20/05 10:25 Received: 04/22/05 08:05										
Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-12-05-2 (B5D0705-01) Water Sampled: 04/20/05 10:25 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	106 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	95.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	99.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-13-05-2 (B5D0705-02) Water Sampled: 04/20/05 11:10 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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Anchorage 2000 W International Airport Road, Suite A-10, Anchorage, AK 99502-1119
907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-05-2 (B5D0705-02) Water Sampled: 04/20/05 11:10 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	104 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	96.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	97.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-14-05-2 (B5D0705-03) Water **Sampled: 04/20/05 12:00** **Received: 04/22/05 08:05**

Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-14-05-2 (B5D0705-03) Water Sampled: 04/20/05 12:00 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	102 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	96.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	97.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-15-05-2 (B5D0705-04) Water Sampled: 04/20/05 12:50 Received: 04/22/05 08:05										
Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"		
Bromobenzene	ND	1.00	"	"	"	"	"	"		
Bromochloromethane	ND	1.00	"	"	"	"	"	"		
Bromodichloromethane	ND	1.00	"	"	"	"	"	"		
Bromoform	ND	1.00	"	"	"	"	"	"		
Bromomethane	ND	2.00	"	"	"	"	"	"		
2-Butanone	ND	10.0	"	"	"	"	"	"		
n-Butylbenzene	ND	1.00	"	"	"	"	"	"		
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"		
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"		
Carbon disulfide	ND	1.00	"	"	"	"	"	"		
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"		
Chlorobenzene	ND	1.00	"	"	"	"	"	"		
Chloroethane	ND	1.00	"	"	"	"	"	"		
Chloroform	ND	1.00	"	"	"	"	"	"		
Chloromethane	ND	5.00	"	"	"	"	"	"		
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
Dibromochloromethane	ND	1.00	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"		
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"		
Dibromomethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"		
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15-05-2 (B5D0705-04) Water Sampled: 04/20/05 12:50 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	106 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	95.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	96.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-5-05-2 (B5D0705-05) Water Sampled: 04/20/05 13:50 Received: 04/22/05 08:05										
Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"		
Bromobenzene	ND	1.00	"	"	"	"	"	"		
Bromochloromethane	ND	1.00	"	"	"	"	"	"		
Bromodichloromethane	ND	1.00	"	"	"	"	"	"		
Bromoform	ND	1.00	"	"	"	"	"	"		
Bromomethane	ND	2.00	"	"	"	"	"	"		
2-Butanone	ND	10.0	"	"	"	"	"	"		
n-Butylbenzene	ND	1.00	"	"	"	"	"	"		
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"		
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"		
Carbon disulfide	ND	1.00	"	"	"	"	"	"		
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"		
Chlorobenzene	ND	1.00	"	"	"	"	"	"		
Chloroethane	ND	1.00	"	"	"	"	"	"		
Chloroform	ND	1.00	"	"	"	"	"	"		
Chloromethane	ND	5.00	"	"	"	"	"	"		
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
Dibromochloromethane	ND	1.00	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"		
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"		
Dibromomethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"		
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5-05-2 (B5D0705-05) Water Sampled: 04/20/05 13:50 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	106 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	96.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	98.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-6-05-2 (B5D0705-06) Water Sampled: 04/20/05 14:25 Received: 04/22/05 08:05										
Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"		
Bromobenzene	ND	1.00	"	"	"	"	"	"		
Bromochloromethane	ND	1.00	"	"	"	"	"	"		
Bromodichloromethane	ND	1.00	"	"	"	"	"	"		
Bromoform	ND	1.00	"	"	"	"	"	"		
Bromomethane	ND	2.00	"	"	"	"	"	"		
2-Butanone	ND	10.0	"	"	"	"	"	"		
n-Butylbenzene	ND	1.00	"	"	"	"	"	"		
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"		
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"		
Carbon disulfide	ND	1.00	"	"	"	"	"	"		
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"		
Chlorobenzene	ND	1.00	"	"	"	"	"	"		
Chloroethane	ND	1.00	"	"	"	"	"	"		
Chloroform	ND	1.00	"	"	"	"	"	"		
Chloromethane	ND	5.00	"	"	"	"	"	"		
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
Dibromochloromethane	ND	1.00	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"		
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"		
Dibromomethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"		
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANGS
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6-05-2 (B5D0705-06) Water Sampled: 04/20/05 14:25 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	106 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	96.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	96.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-3-05-2 (B5D0705-07) Water Sampled: 04/20/05 15:05 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	1.40	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3-05-2 (B5D0705-07) Water Sampled: 04/20/05 15:05 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	107 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	95.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	97.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-3-05-2D (B5D0705-08) Water Sampled: 04/20/05 15:05 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	1.08	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3-05-2D (B5D0705-08) Water Sampled: 04/20/05 15:05 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	97.5 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANGS
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-4-05-2 (B5D0705-09) Water Sampled: 04/20/05 16:00 Received: 04/22/05 08:05										
Acetone	ND	20.0	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"		
Bromobenzene	ND	1.00	"	"	"	"	"	"		
Bromochloromethane	ND	1.00	"	"	"	"	"	"		
Bromodichloromethane	ND	1.00	"	"	"	"	"	"		
Bromoform	ND	1.00	"	"	"	"	"	"		
Bromomethane	ND	2.00	"	"	"	"	"	"		
2-Butanone	ND	10.0	"	"	"	"	"	"		
n-Butylbenzene	ND	1.00	"	"	"	"	"	"		
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"		
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"		
Carbon disulfide	ND	1.00	"	"	"	"	"	"		
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"		
Chlorobenzene	ND	1.00	"	"	"	"	"	"		
Chloroethane	ND	1.00	"	"	"	"	"	"		
Chloroform	ND	1.00	"	"	"	"	"	"		
Chloromethane	ND	5.00	"	"	"	"	"	"		
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"		
Dibromochloromethane	ND	1.00	"	"	"	"	"	"		
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"		
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"		
Dibromomethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"		
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"		
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"		
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"		
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"		
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"		
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"		

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-05-2 (B5D0705-09) Water Sampled: 04/20/05 16:00 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	99.0 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	79.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	99.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-19-05-2 (B5D0705-10) Water Sampled: 04/21/05 08:15 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	7.73	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-19-05-2 (B5D0705-10) Water Sampled: 04/21/05 08:15 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	99.5 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	96.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-19-05-2R (B5D0705-11) Water Sampled: 04/21/05 08:25 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	26.4	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-19-05-2R (B5D0705-11) Water Sampled: 04/21/05 08:25 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	100 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	99.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	103 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-16-05-2 (B5D0705-12) Water Sampled: 04/21/05 10:15 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	3.70	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-05-2 (B5D0705-12) Water Sampled: 04/21/05 10:15 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	99.0 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	98.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	104 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-16-05-2R (B5D0705-13) Water **Sampled: 04/21/05 10:30** **Received: 04/22/05 08:05**

Acetone	ND	20.0	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	29.8	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-05-2R (B5D0705-13) Water Sampled: 04/21/05 10:30 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26043	04/27/05	04/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	101 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	104 %	70-130			"	"	"	"	
Surrogate: 4-BFB	102 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
TB-042105-1 (B5D0705-14) Water Sampled: 04/21/05 12:00 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-042105-1 (B5D0705-14) Water Sampled: 04/21/05 12:00 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	104 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	97.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	98.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
TB-042105-2 (B5D0705-15) Water Sampled: 04/21/05 12:00 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D29037	04/28/05	04/28/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB-042105-2 (B5D0705-15) Water Sampled: 04/21/05 12:00 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D29037	04/28/05	04/28/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	93.0 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	106 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D25078: Prepared 04/25/05 Using EPA 7470A Diss

Blank (5D25078-BLK1)

Mercury	ND	0.000200	mg/l						
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LCS (5D25078-BS1)

Mercury	0.00497	0.000200	mg/l	0.00500		99.4	80-120		
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LCS Dup (5D25078-BSD1)

Mercury	0.00503	0.000200	mg/l	0.00500		101	80-120	1.20	20
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Matrix Spike (5D25078-MS1)

Source: B5D0569-02

Mercury	0.00482	0.000200	mg/l	0.00500	ND	96.4	70-130		
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Matrix Spike (5D25078-MS2)

Source: B5D0704-03

Mercury	0.00493	0.000200	mg/l	0.00500	0.000138	95.8	70-130		
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Matrix Spike Dup (5D25078-MSD1)

Source: B5D0569-02

Mercury	0.00479	0.000200	mg/l	0.00500	ND	95.8	70-130	0.624	20
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Matrix Spike Dup (5D25078-MSD2)

Source: B5D0704-03

Mercury	0.00478	0.000200	mg/l	0.00500	0.000138	92.8	70-130	3.09	20
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Batch 5D27035: Prepared 04/27/05 Using EPA 3005A

Blank (5D27035-BLK1)

Silver	ND	0.00100	mg/l						
Arsenic	ND	0.00100	"						
Beryllium	ND	0.00100	"						
Cadmium	ND	0.00100	"						
Chromium	ND	0.00100	"						
Copper	ND	0.00100	"						
Nickel	ND	0.00100	"						
Lead	ND	0.00100	"						
Antimony	ND	0.00300	"						
Selenium	ND	0.00100	"						
Thallium	ND	0.00100	"						
Zinc	ND	0.0100	"						

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D27035: Prepared 04/27/05 Using EPA 3005A

LCS (5D27035-BS1)

Silver	0.196	0.00100	mg/l	0.200		98.0	80-120		
Arsenic	0.199	0.00100	"	0.200		99.5	80-120		
Beryllium	0.190	0.00100	"	0.200		95.0	80-120		
Cadmium	0.197	0.00100	"	0.200		98.5	80-120		
Chromium	0.201	0.00100	"	0.200		100	80-120		
Copper	0.195	0.00100	"	0.200		97.5	80-120		
Nickel	0.198	0.00100	"	0.200		99.0	80-120		
Lead	0.198	0.00100	"	0.200		99.0	80-120		
Antimony	0.0564	0.00300	"	0.0500		113	80-120		
Selenium	0.205	0.00100	"	0.200		102	80-120		
Thallium	0.197	0.00100	"	0.200		98.5	80-120		
Zinc	0.195	0.0100	"	0.200		97.5	80-120		

LCS Dup (5D27035-BS1)

Silver	0.193	0.00100	mg/l	0.200		96.5	80-120	1.54	20
Arsenic	0.197	0.00100	"	0.200		98.5	80-120	1.01	20
Beryllium	0.188	0.00100	"	0.200		94.0	80-120	1.06	20
Cadmium	0.196	0.00100	"	0.200		98.0	80-120	0.509	20
Chromium	0.198	0.00100	"	0.200		99.0	80-120	1.50	20
Copper	0.193	0.00100	"	0.200		96.5	80-120	1.03	20
Nickel	0.196	0.00100	"	0.200		98.0	80-120	1.02	20
Lead	0.197	0.00100	"	0.200		98.5	80-120	0.506	20
Antimony	0.0584	0.00300	"	0.0500		117	80-120	3.48	20
Selenium	0.206	0.00100	"	0.200		103	80-120	0.487	20
Thallium	0.195	0.00100	"	0.200		97.5	80-120	1.02	20
Zinc	0.195	0.0100	"	0.200		97.5	80-120	0.00	20

Matrix Spike (5D27035-MS1)

Source: B5D0705-01

Silver	0.0768	0.00100	mg/l	0.100	0.000500	76.3	43-124		
Arsenic	0.101	0.00100	"	0.100	0.000640	100	70-138		
Beryllium	0.0918	0.00100	"	0.100	ND	91.8	80-125		
Cadmium	0.0919	0.00100	"	0.100	ND	91.9	80-125		
Chromium	0.0911	0.00100	"	0.100	0.000210	90.9	76-125		
Copper	0.0887	0.00100	"	0.101	0.000700	87.1	71-125		
Nickel	0.0884	0.00100	"	0.0995	0.00128	87.6	73-125		
Lead	0.0897	0.00100	"	0.0995	0.000210	89.9	78-125		

North Creek Analytical - Bothell

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D27035: Prepared 04/27/05 Using EPA 3005A

Matrix Spike (5D27035-MS1)

Source: B5D0705-01

Antimony	0.0452	0.00300	mg/l	0.0500	0.000780	88.8	63-126		
Selenium	0.105	0.00100	"	0.100	0.000830	104	61-156		
Thallium	0.0901	0.00100	"	0.100	0.0000800	90.0	78-125		
Zinc	0.110	0.0100	"	0.0995	0.0167	93.8	70-127		

Matrix Spike (5D27035-MS2)

Source: B5D0717-07

Silver	0.0735	0.00100	mg/l	0.100	ND	73.5	43-124		
Arsenic	0.119	0.00100	"	0.100	0.0188	100	70-138		
Beryllium	0.0936	0.00100	"	0.100	ND	93.6	80-125		
Cadmium	0.0931	0.00100	"	0.100	ND	93.1	80-125		
Chromium	0.0909	0.00100	"	0.100	0.000570	90.3	76-125		
Copper	0.0874	0.00100	"	0.101	0.000140	86.4	71-125		
Nickel	0.123	0.00100	"	0.0995	0.0364	87.0	73-125		
Lead	0.0903	0.00100	"	0.0995	ND	90.8	78-125		
Antimony	0.0439	0.00300	"	0.0500	0.000220	87.4	63-126		
Selenium	0.106	0.00100	"	0.100	0.000380	106	61-156		
Thallium	0.0909	0.00100	"	0.100	ND	90.9	78-125		
Zinc	0.0943	0.0100	"	0.0995	0.00121	93.6	70-127		

Matrix Spike Dup (5D27035-MSD1)

Source: B5D0705-01

Silver	0.0784	0.00100	mg/l	0.100	0.000500	77.9	43-124	2.06	50
Arsenic	0.102	0.00100	"	0.100	0.000640	101	70-138	0.985	20
Beryllium	0.0930	0.00100	"	0.100	ND	93.0	80-125	1.30	20
Cadmium	0.0929	0.00100	"	0.100	ND	92.9	80-125	1.08	20
Chromium	0.0923	0.00100	"	0.100	0.000210	92.1	76-125	1.31	20
Copper	0.0895	0.00100	"	0.101	0.000700	87.9	71-125	0.898	20
Nickel	0.0896	0.00100	"	0.0995	0.00128	88.8	73-125	1.35	20
Lead	0.0898	0.00100	"	0.0995	0.000210	90.0	78-125	0.111	20
Antimony	0.0434	0.00300	"	0.0500	0.000780	85.2	63-126	4.06	20
Selenium	0.105	0.00100	"	0.100	0.000830	104	61-156	0.00	20
Thallium	0.0906	0.00100	"	0.100	0.0000800	90.5	78-125	0.553	20
Zinc	0.111	0.0100	"	0.0995	0.0167	94.8	70-127	0.905	20

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D27035: Prepared 04/27/05 Using EPA 3005A

Matrix Spike Dup (5D27035-MSD2)

Source: B5D0717-07

Silver	0.0747	0.00100	mg/l	0.100	ND	74.7	43-124	1.62	50	
Arsenic	0.120	0.00100	"	0.100	0.0188	101	70-138	0.837	20	
Beryllium	0.0937	0.00100	"	0.100	ND	93.7	80-125	0.107	20	
Cadmium	0.0934	0.00100	"	0.100	ND	93.4	80-125	0.322	20	
Chromium	0.0916	0.00100	"	0.100	0.000570	91.0	76-125	0.767	20	
Copper	0.0876	0.00100	"	0.101	0.000140	86.6	71-125	0.229	20	
Nickel	0.124	0.00100	"	0.0995	0.0364	88.0	73-125	0.810	20	
Lead	0.0903	0.00100	"	0.0995	ND	90.8	78-125	0.00	20	
Antimony	0.0429	0.00300	"	0.0500	0.000220	85.4	63-126	2.30	20	
Selenium	0.101	0.00100	"	0.100	0.000380	101	61-156	4.83	20	
Thallium	0.0909	0.00100	"	0.100	ND	90.9	78-125	0.00	20	
Zinc	0.0947	0.0100	"	0.0995	0.00121	94.0	70-127	0.423	20	

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26043: Prepared 04/27/05 Using EPA 5030B

Blank (5D26043-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	1.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26043: Prepared 04/27/05 Using EPA 5030B

Blank (5D26043-BLK1)

1,1-Dichloropropene	ND	1.00	ug/l							
cis-1,3-Dichloropropene	ND	1.00	"							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	1.00	"							
Methyl tert-butyl ether	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	1.00	"							
p-Isopropyltoluene	ND	1.00	"							
4-Methyl-2-pentanone	ND	10.0	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	1.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surrogate: 1,2-DCA-d4	20.1		"	20.0		100	70-130			
Surrogate: Toluene-d8	20.2		"	20.0		101	70-130			
Surrogate: 4-BFB	20.3		"	20.0		102	70-130			

North Creek Analytical - Bothell

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Robert Greer, Project Manager

North Creek Analytical, Inc.
Environmental Laboratory Network

Page 44 of 53



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26043: Prepared 04/27/05 Using EPA 5030B

LCS (5D26043-BS1)

Benzene	18.8	1.00	ug/l	20.0		94.0	80-120		
Chlorobenzene	19.8	1.00	"	20.0		99.0	77-120		
1,1-Dichloroethene	19.8	1.00	"	20.0		99.0	80-120		
Methyl tert-butyl ether	19.8	2.00	"	20.0		99.0	80-120		
Toluene	20.9	1.00	"	20.0		104	80-120		
Trichloroethene	19.6	1.00	"	20.0		98.0	80-120		
Surrogate: 1,2-DCA-d4	19.6		"	20.0		98.0	70-130		
Surrogate: Toluene-d8	20.4		"	20.0		102	70-130		
Surrogate: 4-BFB	20.3		"	20.0		102	70-130		

LCS Dup (5D26043-BSD1)

Benzene	17.9	1.00	ug/l	20.0		89.5	80-120	4.90	20
Chlorobenzene	19.0	1.00	"	20.0		95.0	77-120	4.12	20
1,1-Dichloroethene	18.5	1.00	"	20.0		92.5	80-120	6.79	20
Methyl tert-butyl ether	19.3	2.00	"	20.0		96.5	80-120	2.56	20
Toluene	19.0	1.00	"	20.0		95.0	80-120	9.52	20
Trichloroethene	18.9	1.00	"	20.0		94.5	80-120	3.64	20
Surrogate: 1,2-DCA-d4	19.5		"	20.0		97.5	70-130		
Surrogate: Toluene-d8	19.7		"	20.0		98.5	70-130		
Surrogate: 4-BFB	20.0		"	20.0		100	70-130		

Batch 5D26073: Prepared 04/26/05 Using EPA 5030B

Blank (5D26073-BLK1)

Acetone	ND	20.0	ug/l						
Benzene	ND	1.00	"						
Bromobenzene	ND	1.00	"						
Bromochloromethane	ND	1.00	"						
Bromodichloromethane	ND	1.00	"						
Bromoform	ND	1.00	"						
Bromomethane	ND	2.00	"						
2-Butanone	ND	10.0	"						
n-Butylbenzene	ND	1.00	"						
sec-Butylbenzene	ND	1.00	"						
tert-Butylbenzene	ND	1.00	"						
Carbon disulfide	ND	1.00	"						

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
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Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26073: Prepared 04/26/05 Using EPA 5030B

Blank (5D26073-BLK1)

Carbon tetrachloride	ND	1.00	ug/l
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"
1,1-Dichloropropene	ND	1.00	"
cis-1,3-Dichloropropene	ND	1.00	"
trans-1,3-Dichloropropene	ND	1.00	"
Ethylbenzene	ND	1.00	"
Hexachlorobutadiene	ND	1.00	"
Methyl tert-butyl ether	ND	2.00	"
2-Hexanone	ND	10.0	"
Isopropylbenzene	ND	1.00	"
p-Isopropyltoluene	ND	1.00	"
4-Methyl-2-pentanone	ND	10.0	"
Methylene chloride	ND	5.00	"
Naphthalene	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26073: Prepared 04/26/05 Using EPA 5030B

Blank (5D26073-BLK1)

n-Propylbenzene	ND	1.00	ug/l						
Styrene	ND	1.00	"						
1,2,3-Trichlorobenzene	ND	1.00	"						
1,2,4-Trichlorobenzene	ND	1.00	"						
1,1,1,2-Tetrachloroethane	ND	1.00	"						
1,1,2,2-Tetrachloroethane	ND	1.00	"						
Tetrachloroethene	ND	1.00	"						
Toluene	ND	1.00	"						
1,1,1-Trichloroethane	ND	1.00	"						
1,1,2-Trichloroethane	ND	1.00	"						
Trichloroethene	ND	1.00	"						
Trichlorofluoromethane	ND	1.00	"						
1,2,3-Trichloropropane	ND	1.00	"						
1,2,4-Trimethylbenzene	ND	1.00	"						
1,3,5-Trimethylbenzene	ND	1.00	"						
Vinyl chloride	ND	1.00	"						
o-Xylene	ND	1.00	"						
m,p-Xylene	ND	2.00	"						
Surrogate: 1,2-DCA-d4	20.2		"	20.0		101	70-130		
Surrogate: Toluene-d8	19.3		"	20.0		96.5	70-130		
Surrogate: 4-BFB	19.6		"	20.0		98.0	70-130		

LCS (5D26073-BS1)

Benzene	21.5	1.00	ug/l	20.0		108	80-120		
Chlorobenzene	20.0	1.00	"	20.0		100	77-120		
1,1-Dichloroethene	23.1	1.00	"	20.0		116	80-120		
Methyl tert-butyl ether	22.6	2.00	"	20.0		113	80-120		
Toluene	20.4	1.00	"	20.0		102	80-120		
Trichloroethene	22.6	1.00	"	20.0		113	80-120		
Surrogate: 1,2-DCA-d4	20.0		"	20.0		100	70-130		
Surrogate: Toluene-d8	18.8		"	20.0		94.0	70-130		
Surrogate: 4-BFB	20.0		"	20.0		100	70-130		

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26073: Prepared 04/26/05 Using EPA 5030B

LCS Dup (5D26073-BSD1)

Benzene	20.9	1.00	ug/l	20.0		104	80-120	2.83	20	
Chlorobenzene	19.8	1.00	"	20.0		99.0	77-120	1.01	20	
1,1-Dichloroethene	21.8	1.00	"	20.0		109	80-120	5.79	20	
Methyl tert-butyl ether	22.2	2.00	"	20.0		111	80-120	1.79	20	
Toluene	20.0	1.00	"	20.0		100	80-120	1.98	20	
Trichloroethene	21.9	1.00	"	20.0		110	80-120	3.15	20	
Surrogate: 1,2-DCA-d4	20.3		"	20.0		102	70-130			
Surrogate: Toluene-d8	19.1		"	20.0		95.5	70-130			
Surrogate: 4-BFB	20.2		"	20.0		101	70-130			

Matrix Spike (5D26073-MS1)

Source: B5D0704-03

Benzene	22.3	1.00	ug/l	20.0	ND	112	63-148			
Chlorobenzene	20.2	1.00	"	20.0	ND	101	80-128			
1,1-Dichloroethene	22.4	1.00	"	20.0	ND	112	59-158			
Methyl tert-butyl ether	22.4	2.00	"	20.0	ND	112	60-140			
Toluene	19.6	1.00	"	20.0	ND	98.0	72-127			
Trichloroethene	27.3	1.00	"	20.0	4.56	114	80-126			
Surrogate: 1,2-DCA-d4	19.5		"	20.0		97.5	70-130			
Surrogate: Toluene-d8	18.6		"	20.0		93.0	70-130			
Surrogate: 4-BFB	19.8		"	20.0		99.0	70-130			

Matrix Spike Dup (5D26073-MSD1)

Source: B5D0704-03

Benzene	21.2	1.00	ug/l	20.0	ND	106	63-148	5.06	20	
Chlorobenzene	20.1	1.00	"	20.0	ND	100	80-128	0.496	20	
1,1-Dichloroethene	22.0	1.00	"	20.0	ND	110	59-158	1.80	30	
Methyl tert-butyl ether	22.3	2.00	"	20.0	ND	112	60-140	0.447	30	
Toluene	19.0	1.00	"	20.0	ND	95.0	72-127	3.11	20	
Trichloroethene	26.2	1.00	"	20.0	4.56	108	80-126	4.11	20	
Surrogate: 1,2-DCA-d4	19.4		"	20.0		97.0	70-130			
Surrogate: Toluene-d8	18.9		"	20.0		94.5	70-130			
Surrogate: 4-BFB	20.1		"	20.0		100	70-130			

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D29037: Prepared 04/28/05 Using EPA 5030B

Blank (5D29037-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	1.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D29037: Prepared 04/28/05 Using EPA 5030B

Blank (5D29037-BLK1)

1,1-Dichloropropene	ND	1.00	ug/l						
cis-1,3-Dichloropropene	ND	1.00	"						
trans-1,3-Dichloropropene	ND	1.00	"						
Ethylbenzene	ND	1.00	"						
Hexachlorobutadiene	ND	1.00	"						
Methyl tert-butyl ether	ND	2.00	"						
2-Hexanone	ND	10.0	"						
Isopropylbenzene	ND	1.00	"						
p-Isopropyltoluene	ND	1.00	"						
4-Methyl-2-pentanone	ND	10.0	"						
Methylene chloride	ND	5.00	"						
Naphthalene	ND	1.00	"						
n-Propylbenzene	ND	1.00	"						
Styrene	ND	1.00	"						
1,2,3-Trichlorobenzene	ND	1.00	"						
1,2,4-Trichlorobenzene	ND	1.00	"						
1,1,1,2-Tetrachloroethane	ND	1.00	"						
1,1,2,2-Tetrachloroethane	ND	1.00	"						
Tetrachloroethene	ND	1.00	"						
Toluene	ND	1.00	"						
1,1,1-Trichloroethane	ND	1.00	"						
1,1,2-Trichloroethane	ND	1.00	"						
Trichloroethene	ND	1.00	"						
Trichlorofluoromethane	ND	1.00	"						
1,2,3-Trichloropropane	ND	1.00	"						
1,2,4-Trimethylbenzene	ND	1.00	"						
1,3,5-Trimethylbenzene	ND	1.00	"						
Vinyl chloride	ND	1.00	"						
o-Xylene	ND	1.00	"						
m,p-Xylene	ND	2.00	"						
Surrogate: 1,2-DCA-d4	18.3		"	20.0		91.5	70-130		
Surrogate: Toluene-d8	21.4		"	20.0		107	70-130		
Surrogate: 4-BFB	20.6		"	20.0		103	70-130		

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D29037: Prepared 04/28/05 Using EPA 5030B

LCS (5D29037-BS1)

Benzene	20.2	1.00	ug/l	20.0		101	80-120			
Chlorobenzene	20.2	1.00	"	20.0		101	77-120			
1,1-Dichloroethene	18.8	1.00	"	20.0		94.0	80-120			
Methyl tert-butyl ether	18.9	2.00	"	20.0		94.5	80-120			
Toluene	20.6	1.00	"	20.0		103	80-120			
Trichloroethene	20.3	1.00	"	20.0		102	80-120			
Surrogate: 1,2-DCA-d4	20.1		"	20.0		100	70-130			
Surrogate: Toluene-d8	20.9		"	20.0		104	70-130			
Surrogate: 4-BFB	21.2		"	20.0		106	70-130			

LCS Dup (5D29037-BSD1)

Benzene	22.0	1.00	ug/l	20.0		110	80-120	8.53	20	
Chlorobenzene	22.0	1.00	"	20.0		110	77-120	8.53	20	
1,1-Dichloroethene	22.6	1.00	"	20.0		113	80-120	18.4	20	
Methyl tert-butyl ether	20.5	2.00	"	20.0		102	80-120	8.12	20	
Toluene	22.4	1.00	"	20.0		112	80-120	8.37	20	
Trichloroethene	21.6	1.00	"	20.0		108	80-120	6.21	20	
Surrogate: 1,2-DCA-d4	20.5		"	20.0		102	70-130			
Surrogate: Toluene-d8	20.7		"	20.0		104	70-130			
Surrogate: 4-BFB	20.6		"	20.0		103	70-130			

Matrix Spike (5D29037-MS1)

Source: B5D0756-08

Benzene	25.1	1.00	ug/l	20.0	ND	126	63-148			
Chlorobenzene	22.6	1.00	"	20.0	ND	113	80-128			
1,1-Dichloroethene	19.6	1.00	"	20.0	ND	98.0	59-158			
Methyl tert-butyl ether	20.1	2.00	"	20.0	ND	100	60-140			
Toluene	23.8	1.00	"	20.0	ND	119	72-127			
Trichloroethene	25.2	1.00	"	20.0	ND	126	80-126			
Surrogate: 1,2-DCA-d4	19.3		"	20.0		96.5	70-130			
Surrogate: Toluene-d8	21.1		"	20.0		106	70-130			
Surrogate: 4-BFB	21.8		"	20.0		109	70-130			

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D29037: Prepared 04/28/05 Using EPA 5030B

Matrix Spike Dup (5D29037-MSD1)

Source: B5D0756-08

Benzene	23.7	1.00	ug/l	20.0	ND	118	63-148	5.74	20
Chlorobenzene	22.5	1.00	"	20.0	ND	112	80-128	0.443	20
1,1-Dichloroethene	19.9	1.00	"	20.0	ND	99.5	59-158	1.52	30
Methyl tert-butyl ether	19.5	2.00	"	20.0	ND	97.5	60-140	3.03	30
Toluene	23.4	1.00	"	20.0	ND	117	72-127	1.69	20
Trichloroethene	23.7	1.00	"	20.0	ND	118	80-126	6.13	20
Surrogate: 1,2-DCA-d4	18.4		"	20.0		92.0	70-130		
Surrogate: Toluene-d8	21.2		"	20.0		106	70-130		
Surrogate: 4-BFB	21.2		"	20.0		106	70-130		

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
05/17/05 13:25

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

North Creek Analytical - Bothell

Robert Greer, Project Manager

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27 May 2005

Mike Arnold
ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005
RE: Spokane ANG5

Enclosed are **amended** results of analyses for samples received by the laboratory on 04/22/05 08:05. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robert Greer
Project Manager

CHAIN OF CUSTODY RECORD

Page 1 of 1

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2.80 yd



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

ANALYTICAL REPORT FOR SAMPLES - Amended

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-2-05-2	B5D0704-01	Water	04/21/05 09:15	04/22/05 08:05
MW-2-05-2D	B5D0704-02	Water	04/21/05 09:15	04/22/05 08:05
MW-18-05-2	B5D0704-03	Water	04/21/05 11:05	04/22/05 08:05

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2-05-2 (B5D0704-01) Water Sampled: 04/21/05 09:15 Received: 04/22/05 08:05									
Silver	ND	0.00100	mg/l	1	5D26047	04/26/05	05/02/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	04/29/05	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00237	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	0.00244	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	0.00103	0.00100	"	"	5D26047	04/26/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/16/05	"	
Selenium	ND	0.00100	"	"	"	"	04/29/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

MW-2-05-2D (B5D0704-02) Water Sampled: 04/21/05 09:15 Received: 04/22/05 08:05

Silver	ND	0.00100	mg/l	1	5D26047	04/26/05	05/02/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	04/29/05	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00232	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	0.00244	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	0.00115	0.00100	"	"	5D26047	04/26/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/16/05	"	
Selenium	ND	0.00100	"	"	"	"	04/29/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-18-05-2 (B5D0704-03) Water Sampled: 04/21/05 11:05 Received: 04/22/05 08:05									
Silver	ND	0.00100	mg/l	1	5D26047	04/26/05	05/02/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	04/29/05	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00326	0.00100	"	"	"	"	"	"	
Copper	0.00177	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5D25078	04/25/05	04/26/05	EPA 7470A - Diss	
Nickel	0.00250	0.00100	"	"	5D26047	04/26/05	04/29/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	05/16/05	"	
Selenium	0.00126	0.00100	"	"	"	"	04/29/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANGS
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-2-05-2 (B5D0704-01) Water Sampled: 04/21/05 09:15 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	9.73	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2-05-2 (B5D0704-01) Water Sampled: 04/21/05 09:15 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	104 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	92.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	98.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-2-05-2D (B5D0704-02) Water Sampled: 04/21/05 09:15 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	10.2	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2-05-2D (B5D0704-02) Water Sampled: 04/21/05 09:15 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	104 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	93.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	98.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-18-05-2 (B5D0704-03) Water Sampled: 04/21/05 11:05 Received: 04/22/05 08:05									
Acetone	ND	20.0	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	54.7	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
Chloroform	1.98	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-18-05-2 (B5D0704-03) Water Sampled: 04/21/05 11:05 Received: 04/22/05 08:05									
Ethylbenzene	ND	1.00	ug/l	1	5D26073	04/26/05	04/26/05	EPA 8260B	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	4.56	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	102 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	93.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	96.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D25078: Prepared 04/25/05 Using EPA 7470A Diss

Blank (5D25078-BLK1)

Mercury	ND	0.000200	mg/l						
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LCS (5D25078-BS1)

Mercury	0.00497	0.000200	mg/l	0.00500		99.4	80-120		
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LCS Dup (5D25078-BSD1)

Mercury	0.00503	0.000200	mg/l	0.00500		101	80-120	1.20	20
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Matrix Spike (5D25078-MS1)

Source: B5D0569-02

Mercury	0.00482	0.000200	mg/l	0.00500	ND	96.4	70-130		
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Matrix Spike (5D25078-MS2)

Source: B5D0704-03

Mercury	0.00493	0.000200	mg/l	0.00500	0.000138	95.8	70-130		
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Matrix Spike Dup (5D25078-MSD1)

Source: B5D0569-02

Mercury	0.00479	0.000200	mg/l	0.00500	ND	95.8	70-130	0.624	20
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Matrix Spike Dup (5D25078-MSD2)

Source: B5D0704-03

Mercury	0.00478	0.000200	mg/l	0.00500	0.000138	92.8	70-130	3.09	20
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Batch 5D26047: Prepared 04/26/05 Using EPA 3005A

Blank (5D26047-BLK1)

Silver	ND	0.00100	mg/l						
Arsenic	ND	0.00100	"						
Beryllium	ND	0.00100	"						
Cadmium	ND	0.00100	"						
Chromium	ND	0.00100	"						
Copper	ND	0.00100	"						
Nickel	ND	0.00100	"						
Lead	ND	0.00100	"						
Antimony	ND	0.00300	"						
Selenium	ND	0.00100	"						
Thallium	ND	0.00100	"						
Zinc	ND	0.0100	"						

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26047: Prepared 04/26/05 Using EPA 3005A

LCS (5D26047-BS1)

Silver	0.196	0.00100	mg/l	0.200		98.0	80-120			
Arsenic	0.197	0.00100	"	0.200		98.5	80-120			
Beryllium	0.184	0.00100	"	0.200		92.0	80-120			
Cadmium	0.192	0.00100	"	0.200		96.0	80-120			
Chromium	0.198	0.00100	"	0.200		99.0	80-120			
Copper	0.193	0.00100	"	0.200		96.5	80-120			
Nickel	0.196	0.00100	"	0.200		98.0	80-120			
Lead	0.193	0.00100	"	0.200		96.5	80-120			
Antimony	0.0537	0.00300	"	0.0500		107	80-120			
Selenium	0.198	0.00100	"	0.200		99.0	80-120			
Thallium	0.191	0.00100	"	0.200		95.5	80-120			
Zinc	0.196	0.0100	"	0.200		98.0	80-120			

LCS Dup (5D26047-BS1)

Silver	0.192	0.00100	mg/l	0.200		96.0	80-120	2.06	20	
Arsenic	0.197	0.00100	"	0.200		98.5	80-120	0.00	20	
Beryllium	0.182	0.00100	"	0.200		91.0	80-120	1.09	20	
Cadmium	0.192	0.00100	"	0.200		96.0	80-120	0.00	20	
Chromium	0.196	0.00100	"	0.200		98.0	80-120	1.02	20	
Copper	0.192	0.00100	"	0.200		96.0	80-120	0.519	20	
Nickel	0.195	0.00100	"	0.200		97.5	80-120	0.512	20	
Lead	0.196	0.00100	"	0.200		98.0	80-120	1.54	20	
Antimony	0.0518	0.00300	"	0.0500		104	80-120	3.60	20	
Selenium	0.198	0.00100	"	0.200		99.0	80-120	0.00	20	
Thallium	0.193	0.00100	"	0.200		96.5	80-120	1.04	20	
Zinc	0.192	0.0100	"	0.200		96.0	80-120	2.06	20	

Matrix Spike (5D26047-MS1)

Source: B5D0686-02

Silver	0.0737	0.00100	mg/l	0.100	0.00103	72.7	43-124			
Arsenic	0.110	0.00100	"	0.100	0.0104	99.6	70-138			
Beryllium	0.0934	0.00100	"	0.100	ND	93.4	80-125			
Cadmium	0.0917	0.00100	"	0.100	0.000780	90.9	80-125			
Chromium	0.0906	0.00100	"	0.100	0.000210	90.4	76-125			
Copper	0.0917	0.00100	"	0.101	0.00485	86.0	71-125			
Nickel	0.198	0.00100	"	0.0995	0.110	88.4	73-125			
Lead	0.0900	0.00100	"	0.0995	0.000300	90.2	78-125			

North Creek Analytical - Bothell

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26047: Prepared 04/26/05 Using EPA 3005A

Matrix Spike (5D26047-MS1)

Source: B5D0686-02

Antimony	0.0338	0.00300	mg/l	0.0500	0.00167	64.3	63-126			
Selenium	0.0984	0.00100	"	0.100	0.000630	97.8	61-156			
Thallium	0.0904	0.00100	"	0.100	0.000480	89.9	78-125			
Zinc	0.0955	0.0100	"	0.0995	0.00197	94.0	70-127			

Matrix Spike (5D26047-MS2)

Source: B5D0704-03

Silver	0.0847	0.00100	mg/l	0.100	ND	84.7	43-124			
Arsenic	0.103	0.00100	"	0.100	0.000600	102	70-138			
Beryllium	0.0953	0.00100	"	0.100	ND	95.3	80-125			
Cadmium	0.0934	0.00100	"	0.100	ND	93.4	80-125			
Chromium	0.0924	0.00100	"	0.100	0.00326	89.1	76-125			
Copper	0.0868	0.00100	"	0.101	0.00177	84.2	71-125			
Nickel	0.0883	0.00100	"	0.0995	0.00250	86.2	73-125			
Lead	0.0926	0.00100	"	0.0995	0.000150	92.9	78-125			
Antimony	0.0505	0.00300	"	0.0500	0.000180	101	63-126			
Selenium	0.103	0.00100	"	0.100	0.00126	102	61-156			
Thallium	0.0899	0.00100	"	0.100	ND	89.9	78-125			
Zinc	0.0950	0.0100	"	0.0995	0.00374	91.7	70-127			

Matrix Spike Dup (5D26047-MSD1)

Source: B5D0686-02

Silver	0.0755	0.00100	mg/l	0.100	0.00103	74.5	43-124	2.41	50	
Arsenic	0.112	0.00100	"	0.100	0.0104	102	70-138	1.80	20	
Beryllium	0.0942	0.00100	"	0.100	ND	94.2	80-125	0.853	20	
Cadmium	0.0940	0.00100	"	0.100	0.000780	93.2	80-125	2.48	20	
Chromium	0.0918	0.00100	"	0.100	0.000210	91.6	76-125	1.32	20	
Copper	0.0930	0.00100	"	0.101	0.00485	87.3	71-125	1.41	20	
Nickel	0.199	0.00100	"	0.0995	0.110	89.4	73-125	0.504	20	
Lead	0.0909	0.00100	"	0.0995	0.000300	91.1	78-125	0.995	20	
Antimony	0.0379	0.00300	"	0.0500	0.00167	72.5	63-126	11.4	20	
Selenium	0.0988	0.00100	"	0.100	0.000630	98.2	61-156	0.406	20	
Thallium	0.0914	0.00100	"	0.100	0.000480	90.9	78-125	1.10	20	
Zinc	0.0971	0.0100	"	0.0995	0.00197	95.6	70-127	1.66	20	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26047: Prepared 04/26/05 Using EPA 3005A

Matrix Spike Dup (5D26047-MSD2)

Source: B5D0704-03

Silver	0.0849	0.00100	mg/l	0.100	ND	84.9	43-124	0.236	50
Arsenic	0.102	0.00100	"	0.100	0.000600	101	70-138	0.976	20
Beryllium	0.0943	0.00100	"	0.100	ND	94.3	80-125	1.05	20
Cadmium	0.0930	0.00100	"	0.100	ND	93.0	80-125	0.429	20
Chromium	0.0912	0.00100	"	0.100	0.00326	87.9	76-125	1.31	20
Copper	0.0862	0.00100	"	0.101	0.00177	83.6	71-125	0.694	20
Nickel	0.0869	0.00100	"	0.0995	0.00250	84.8	73-125	1.60	20
Lead	0.0921	0.00100	"	0.0995	0.000150	92.4	78-125	0.541	20
Antimony	0.0511	0.00300	"	0.0500	0.000180	102	63-126	1.18	20
Selenium	0.102	0.00100	"	0.100	0.00126	101	61-156	0.976	20
Thallium	0.0895	0.00100	"	0.100	ND	89.5	78-125	0.446	20
Zinc	0.0952	0.0100	"	0.0995	0.00374	91.9	70-127	0.210	20

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Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26073: Prepared 04/26/05 Using EPA 5030B

Blank (5D26073-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	1.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"

North Creek Analytical - Bothell

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Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26073: Prepared 04/26/05 Using EPA 5030B

Blank (5D26073-BLK1)

1,1-Dichloropropene	ND	1.00	ug/l							
cis-1,3-Dichloropropene	ND	1.00	"							
trans-1,3-Dichloropropene	ND	1.00	"							
Ethylbenzene	ND	1.00	"							
Hexachlorobutadiene	ND	1.00	"							
Methyl tert-butyl ether	ND	2.00	"							
n-Hexane	ND	2.00	"							
2-Hexanone	ND	10.0	"							
Isopropylbenzene	ND	1.00	"							
p-Isopropyltoluene	ND	1.00	"							
4-Methyl-2-pentanone	ND	10.0	"							
Methylene chloride	ND	5.00	"							
Naphthalene	ND	1.00	"							
n-Propylbenzene	ND	1.00	"							
Styrene	ND	1.00	"							
1,2,3-Trichlorobenzene	ND	1.00	"							
1,2,4-Trichlorobenzene	ND	1.00	"							
1,1,1,2-Tetrachloroethane	ND	1.00	"							
1,1,2,2-Tetrachloroethane	ND	1.00	"							
Tetrachloroethene	ND	1.00	"							
Toluene	ND	1.00	"							
1,1,1-Trichloroethane	ND	1.00	"							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surrogate: 1,2-DCA-d4	20.2		"	20.0		101	70-130			
Surrogate: Toluene-d8	19.3		"	20.0		96.5	70-130			
Surrogate: 4-BFB	19.6		"	20.0		98.0	70-130			

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26073: Prepared 04/26/05 Using EPA 5030B

LCS (5D26073-BS1)

Benzene	21.5	1.00	ug/l	20.0		108	80-120			
Chlorobenzene	20.0	1.00	"	20.0		100	77-120			
1,1-Dichloroethene	23.1	1.00	"	20.0		116	80-120			
Methyl tert-butyl ether	22.6	2.00	"	20.0		113	80-120			
n-Hexane	23.6	2.00	"	20.0		118	80-120			
Toluene	20.4	1.00	"	20.0		102	80-120			
Trichloroethene	22.6	1.00	"	20.0		113	80-120			
Surrogate: 1,2-DCA-d4	20.0		"	20.0		100	70-130			
Surrogate: Toluene-d8	18.8		"	20.0		94.0	70-130			
Surrogate: 4-BFB	20.0		"	20.0		100	70-130			

LCS Dup (5D26073-BSD1)

Benzene	20.9	1.00	ug/l	20.0		104	80-120	2.83	20	
Chlorobenzene	19.8	1.00	"	20.0		99.0	77-120	1.01	20	
1,1-Dichloroethene	21.8	1.00	"	20.0		109	80-120	5.79	20	
Methyl tert-butyl ether	22.2	2.00	"	20.0		111	80-120	1.79	20	
n-Hexane	22.2	2.00	"	20.0		111	80-120	6.11	20	
Toluene	20.0	1.00	"	20.0		100	80-120	1.98	20	
Trichloroethene	21.9	1.00	"	20.0		110	80-120	3.15	20	
Surrogate: 1,2-DCA-d4	20.3		"	20.0		102	70-130			
Surrogate: Toluene-d8	19.1		"	20.0		95.5	70-130			
Surrogate: 4-BFB	20.2		"	20.0		101	70-130			

Matrix Spike (5D26073-MS1)

Source: B5D0704-03

Benzene	22.3	1.00	ug/l	20.0	ND	112	63-148			
Chlorobenzene	20.2	1.00	"	20.0	ND	101	80-128			
1,1-Dichloroethene	22.4	1.00	"	20.0	ND	112	59-158			
Methyl tert-butyl ether	22.4	2.00	"	20.0	ND	112	60-140			
n-Hexane	21.0	2.00	"	20.0	ND	105	60-140			
Toluene	19.6	1.00	"	20.0	ND	98.0	72-127			
Trichloroethene	27.3	1.00	"	20.0	4.56	114	80-126			
Surrogate: 1,2-DCA-d4	19.5		"	20.0		97.5	70-130			
Surrogate: Toluene-d8	18.6		"	20.0		93.0	70-130			
Surrogate: 4-BFB	19.8		"	20.0		99.0	70-130			

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5D26073: Prepared 04/26/05 Using EPA 5030B

Matrix Spike Dup (5D26073-MSD1)

Source: B5D0704-03

Benzene	21.2	1.00	ug/l	20.0	ND	106	63-148	5.06	20
Chlorobenzene	20.1	1.00	"	20.0	ND	100	80-128	0.496	20
1,1-Dichloroethene	22.0	1.00	"	20.0	ND	110	59-158	1.80	30
Methyl tert-butyl ether	22.3	2.00	"	20.0	ND	112	60-140	0.447	30
n-Hexane	20.5	2.00	"	20.0	ND	102	60-140	2.41	30
Toluene	19.0	1.00	"	20.0	ND	95.0	72-127	3.11	20
Trichloroethene	26.2	1.00	"	20.0	4.56	108	80-126	4.11	20
Surrogate: 1,2-DCA-d4	19.4		"	20.0		97.0	70-130		
Surrogate: Toluene-d8	18.9		"	20.0		94.5	70-130		
Surrogate: 4-BFB	20.1		"	20.0		100	70-130		

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Amended Report
Issued: 05/27/05 13:36

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

North Creek Analytical - Bothell

Robert Greer, Project Manager

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19 August 2005

Mike Arnold
ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005
RE: Spokane ANG5

Enclosed are the results of analyses for samples received by the laboratory on 07/22/05 13:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Robert Greer
Project Manager

CASE NARRATIVE for B5G0502

Client: ERM-Bellevue
Project Manager: Mike Arnold
Project Name: Spokane ANG
Project Number: 20536.50

1.0 DESCRIPTION OF CASE

Sixteen water samples and one trip blank were submitted for the analysis of:

- Dissolved Metals by EPA 6000/7000 Series Methods
- Volatile Organic Compounds by EPA Method 8260B

2.0 COMMENTS ON SAMPLE RECEIPT

The samples were received and logged on July 22, 2005 at a temperature of 4.0° C.

3.0 PREPARATION AND ANALYSIS

Dissolved Metals by EPA 6000/7000 Series Methods

No anomalies were associated with the sample preparation and analysis. All criteria for acceptable QC measurements were met.

Volatile Organic Compounds by EPA Method 8260B

No additional anomalies, discrepancies, or issues were associated with sample preparation, analysis and quality control other than those already qualified in the data and described in the Notes and Definitions page at the end of this report.

Robert Greer
Project Manager
North Creek Analytical

Environmental Resources
Management

CHAIN OF CUSTODY RECORD

NO:

Page 1 of 2

915-118th Avenue S.E. Suite 130 • Bellevue, WA 98005 • (425) 462-8591 • FAX (425) 455-3573

PROJECT #		PROJECT NAME		# OF CONTAINERS	MATRIX			REQUESTED PARAMETERS										
SAMPLER: (PRINT NAME)		(SIGNATURE)			SOIL	WATER	GAS											
20536.50		SOLINE AUG 4 th & Sampling																
EAC																		
RECEIVING LABORATORY																		
UCA-Bethell																		
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME										
MW-16-05-3	7/19/05	1455	X		peristaltic	various	Y	40ml x 5 500ml x 1	4	X	X	X						01
MW-16-05-3FT	↓	1400		X	top				4	X	X	X						02
MW-16-05-3FT	↓	1410		X	ASTM				4	X	X	X						03
MW-12-05-3	7/22/05	0850	X		Blind				4	X	X	X						04
MW-13-05-3		0955							4	X	X	X						05
MW-14-05-3		1025							4	X	X	X						06
MW-15-05-3		1110							4	X	X	X						07
MW-14-05-3		1150							4	X	X	X						08
MW-14-05-3D	↓	1155							4	X	X	X						09
MW-13-05-3	↓	1240							4	X	X	X						10
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME	FIELD REMARKS										
		7/22/05	1315	Colette Weaver		7/22/05	1315	* = Field Filtered										
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME											
RELINQUISHED BY (SIGNATURE)		DATE	TIME	RECEIVED BY		DATE	TIME											
REMARKS ON SAMPLE RECEIPT				ERM REMARKS				SEND REPORT TO:										
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED <input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS								Mike Arnold@erm.com										

WHITE - LABORATORY COPY

CANARY - FIELD COPY

PINK - DATABASE MANAGER

GOLD - PROJECT FILE

CHAIN OF CUSTODY RECORD

Page 2 of 2

PROJECT #		PROJECT NAME																		
SAMPLER: (PRINT NAME)		(SIGNATURE)																		
RECEIVING LABORATORY																				
SAMPLE I.D.	DATE	TIME	COMP	GRAB	SAMPLING METHOD	PRESERVATIVE	ICE (Y/N)	SAMPLING VOLUME	# OF CONTAINERS	MATRIX	REQUESTED PARAMETERS									
											VOC (Reg)	Diss IP Metals (Cer B)								
MW-19-05-3	7/20/05	1320	X		Bladder	Various	Y	3x4cmL 1 x 50cmL	4	X	X	X								
MW-19-05-3R		1330							4	X	X	X								
MW-16-05-3		1405							4	X	X	X								
MW-2-05-3		1450							4	X	X	X								
MW-18-05-3		1530							4	X	X	X								
MW-5-05-3	v	1615	v		v	v	v	v	4	X	X	X								
TBC-7-9-05-1	7/19/05	1330	v		LAR	HCL	Y	2x4cmL	2	X	X									
RELINQUISHED BY (SIGNATURE)					DATE	TIME	RECEIVED BY			DATE	TIME	FIELD REMARKS								
					7/22/05	1315	Colette Weaver			7/22/05	1315	★ = Field Filtered MW-18-05-3 = MS/MSD Δ = CUP-Type Deliverable								
RELINQUISHED BY (SIGNATURE)					DATE	TIME	RECEIVED BY			DATE	TIME									
RELINQUISHED BY (SIGNATURE)					DATE	TIME	RECEIVED BY			DATE	TIME									
REMARKS ON SAMPLE RECEIPT										ERM REMARKS										
<input type="checkbox"/> BOTTLE INTACT <input type="checkbox"/> CUSTODY SEALS <input type="checkbox"/> CHILLED																				
<input type="checkbox"/> PRESERVED <input type="checkbox"/> SEALS INTACT <input type="checkbox"/> SEE REMARKS																				
SEND REPORT TO: mike.arnold@erm.com																				



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW-6-05-3	B5G0502-01	Water	07/19/05 14:55	07/22/05 13:15
MW16-05-3FT	B5G0502-02	Water	07/19/05 14:00	07/22/05 13:15
MW-16-05-3FA	B5G0502-03	Water	07/19/05 14:10	07/22/05 13:15
MW-12-05-3	B5G0502-04	Water	07/20/05 08:50	07/22/05 13:15
MW-13-05-3	B5G0502-05	Water	07/20/05 09:35	07/22/05 13:15
MW-14-05-3	B5G0502-06	Water	07/20/05 10:25	07/22/05 13:15
MW-15-05-3	B5G0502-07	Water	07/20/05 11:10	07/22/05 13:15
MW-4-05-3	B5G0502-08	Water	07/20/05 11:50	07/22/05 13:15
MW-4-05-3D	B5G0502-09	Water	07/20/05 11:55	07/22/05 13:15
MW-3-05-3	B5G0502-10	Water	07/20/05 12:40	07/22/05 13:15
MW-19-05-3	B5G0502-11	Water	07/20/05 13:20	07/22/05 13:15
MW-19-05-3R	B5G0502-12	Water	07/20/05 13:30	07/22/05 13:15
MW-16-05-3	B5G0502-13	Water	07/20/05 14:05	07/22/05 13:15
MW-2-05-3	B5G0502-14	Water	07/20/05 14:50	07/22/05 13:15
MW-18-05-3	B5G0502-15	Water	07/20/05 15:30	07/22/05 13:15
MW-5-05-3	B5G0502-16	Water	07/20/05 16:15	07/22/05 13:15
TB071905-1	B5G0502-17	Water	07/19/05 13:30	07/22/05 13:15

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-6-05-3 (B5G0502-01) Water Sampled: 07/19/05 14:55 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	08/03/05	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00103	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	08/03/05	"	

MW16-05-3FT (B5G0502-02) Water Sampled: 07/19/05 14:00 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	0.00107	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	08/03/05	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	0.00291	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	0.00561	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	0.0155	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	0.346	0.0100	"	"	"	"	08/03/05	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-16-05-3FA (B5G0502-03) Water Sampled: 07/19/05 14:10 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	08/03/05	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	08/03/05	"	

MW-12-05-3 (B5G0502-04) Water Sampled: 07/20/05 08:50 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	08/03/05	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	0.00119	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	0.00142	0.00100	"	"	"	"	"	"	
Zinc	0.0205	0.0100	"	"	"	"	08/03/05	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-13-05-3 (B5G0502-05) Water **Sampled: 07/20/05 09:35** **Received: 07/22/05 13:15**

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	08/03/05	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	08/03/05	"	

MW-14-05-3 (B5G0502-06) Water **Sampled: 07/20/05 10:25** **Received: 07/22/05 13:15**

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	08/03/05	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	08/03/05	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-15-05-3 (B5G0502-07) Water Sampled: 07/20/05 11:10 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	08/03/05	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	08/03/05	"	

MW-4-05-3 (B5G0502-08) Water Sampled: 07/20/05 11:50 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	0.00105	0.00100	"	"	"	"	08/03/05	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00166	0.00100	"	"	"	"	"	"	
Copper	0.00404	0.00100	"	"	"	"	"	"	
Mercury	0.000291	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	0.0284	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	0.00140	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	0.0298	0.0100	"	"	"	"	08/03/05	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
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Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-4-05-3D (B5G0502-09) Water Sampled: 07/20/05 11:55 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	0.00113	0.00100	"	"	"	"	08/03/05	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	0.00178	0.00100	"	"	"	"	"	"	
Copper	0.00426	0.00100	"	"	"	"	"	"	
Mercury	0.000275	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	0.0300	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	0.00147	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	0.0395	0.0100	"	"	"	"	08/03/05	"	

MW-3-05-3 (B5G0502-10) Water Sampled: 07/20/05 12:40 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	08/03/05	"	
Cadmium	ND	0.00100	"	"	"	"	"	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	0.00186	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	0.0237	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	0.00171	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	0.0290	0.0100	"	"	"	"	08/03/05	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-19-05-3 (B5G0502-11) Water Sampled: 07/20/05 13:20 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	08/03/05	"	
Chromium	0.00340	0.00100	"	"	"	"	"	"	
Copper	0.00151	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	0.00334	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	0.00120	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	08/03/05	"	

MW-19-05-3R (B5G0502-12) Water Sampled: 07/20/05 13:30 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	08/03/05	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	08/03/05	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-16-05-3 (B5G0502-13) Water **Sampled: 07/20/05 14:05** **Received: 07/22/05 13:15**

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	08/03/05	"	
Chromium	0.00149	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	08/03/05	"	

MW-2-05-3 (B5G0502-14) Water **Sampled: 07/20/05 14:50** **Received: 07/22/05 13:15**

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	ND	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	08/03/05	"	
Chromium	0.00369	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Nickel	0.00197	0.00100	"	"	"	"	"	"	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	08/03/05	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-2-05-3 (B5G0502-14RE1) Water Sampled: 07/20/05 14:50 Received: 07/22/05 13:15

Mercury	0.00454	0.000200	mg/l	1	5G27079	07/26/05	07/28/05	EPA 7470A - Diss	
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MW-18-05-3 (B5G0502-15) Water Sampled: 07/20/05 15:30 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	0.00490	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	08/03/05	"	
Chromium	0.00990	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	0.00116	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	0.00175	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	0.0110	0.0100	"	"	"	"	08/03/05	"	

MW-5-05-3 (B5G0502-16) Water Sampled: 07/20/05 16:15 Received: 07/22/05 13:15

Silver	ND	0.00100	mg/l	1	5G25072	07/25/05	08/08/05	EPA 6020 - Diss	
Arsenic	0.0159	0.00100	"	"	"	"	"	"	
Beryllium	ND	0.00100	"	"	"	"	"	"	
Cadmium	ND	0.00100	"	"	"	"	08/03/05	"	
Chromium	ND	0.00100	"	"	"	"	"	"	
Copper	ND	0.00100	"	"	"	"	"	"	
Mercury	ND	0.000200	"	"	5G26044	07/26/05	07/26/05	EPA 7470A - Diss	
Nickel	ND	0.00100	"	"	5G25072	07/25/05	08/03/05	EPA 6020 - Diss	
Lead	ND	0.00100	"	"	"	"	"	"	
Antimony	ND	0.00300	"	"	"	"	08/03/05	"	
Selenium	ND	0.00100	"	"	"	"	08/08/05	"	
Thallium	ND	0.00100	"	"	"	"	"	"	
Zinc	ND	0.0100	"	"	"	"	08/03/05	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-6-05-3 (B5G0502-01) Water Sampled: 07/19/05 14:55 Received: 07/22/05 13:15

Acetone	ND	20.0	ug/l	1	5G26046	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-6-05-3 (B5G0502-01) Water Sampled: 07/19/05 14:55 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G26046	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	99.5 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	102 %	70-130			"	"	"	"	
Surrogate: 4-BFB	103 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW16-05-3FT (B5G0502-02) Water Sampled: 07/19/05 14:00 Received: 07/22/05 13:15									
Acetone	ND	20.0	ug/l	1	5G26046	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW16-05-3FT (B5G0502-02) Water Sampled: 07/19/05 14:00 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G26046	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	102 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"	
Surrogate: 4-BFB	102 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-16-05-3FA (B5G0502-03) Water Sampled: 07/19/05 14:10 Received: 07/22/05 13:15									
Acetone	ND	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-05-3FA (B5G0502-03) Water Sampled: 07/19/05 14:10 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	103 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"	
Surrogate: 4-BFB	99.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-12-05-3 (B5G0502-04) Water Sampled: 07/20/05 08:50 Received: 07/22/05 13:15									
Acetone	ND	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-12-05-3 (B5G0502-04) Water Sampled: 07/20/05 08:50 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	106 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"	
Surrogate: 4-BFB	98.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-13-05-3 (B5G0502-05) Water Sampled: 07/20/05 09:35 Received: 07/22/05 13:15									
Acetone	ND	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-13-05-3 (B5G0502-05) Water Sampled: 07/20/05 09:35 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	108 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	101 %	70-130			"	"	"	"	
Surrogate: 4-BFB	98.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-14-05-3 (B5G0502-06) Water Sampled: 07/20/05 10:25 Received: 07/22/05 13:15									
Acetone	ND	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-14-05-3 (B5G0502-06) Water Sampled: 07/20/05 10:25 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	110 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	102 %	70-130			"	"	"	"	
Surrogate: 4-BFB	98.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-15-05-3 (B5G0502-07) Water Sampled: 07/20/05 11:10 Received: 07/22/05 13:15										
Acetone	ND	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-15-05-3 (B5G0502-07) Water Sampled: 07/20/05 11:10 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	112 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"	
Surrogate: 4-BFB	101 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-4-05-3 (B5G0502-08) Water **Sampled: 07/20/05 11:50** **Received: 07/22/05 13:15**

Acetone	31.0	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	1.82	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANGS
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-05-3 (B5G0502-08) Water Sampled: 07/20/05 11:50 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	116 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	84.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	95.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-4-05-3D (B5G0502-09) Water Sampled: 07/20/05 11:55 Received: 07/22/05 13:15									
Acetone	30.0	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	1.77	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	1.04	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-4-05-3D (B5G0502-09) Water Sampled: 07/20/05 11:55 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	115 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	85.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	97.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-3-05-3 (B5G0502-10) Water Sampled: 07/20/05 12:40 Received: 07/22/05 13:15									
Acetone	ND	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	1.04	1.00	"	"	"	"	"	"	
Carbon tetrachloride	1.52	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-3-05-3 (B5G0502-10) Water Sampled: 07/20/05 12:40 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	114 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	99.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	98.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-19-05-3 (B5G0502-11) Water Sampled: 07/20/05 13:20 Received: 07/22/05 13:15									
Acetone	ND	20.0	ug/l	1	5G29051	07/27/05	07/27/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	6.39	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-19-05-3 (B5G0502-11) Water Sampled: 07/20/05 13:20 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G29051	07/27/05	07/27/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	106 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	94.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	97.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-19-05-3R (B5G0502-12) Water Sampled: 07/20/05 13:30 Received: 07/22/05 13:15									
Acetone	ND	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-19-05-3R (B5G0502-12) Water Sampled: 07/20/05 13:30 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	114 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"	
Surrogate: 4-BFB	99.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-16-05-3 (B5G0502-13) Water **Sampled: 07/20/05 14:05** **Received: 07/22/05 13:15**

Acetone	ND	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	5.33	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANGS
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-16-05-3 (B5G0502-13) Water Sampled: 07/20/05 14:05 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	118 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	97.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	96.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
MW-2-05-3 (B5G0502-14) Water Sampled: 07/20/05 14:50 Received: 07/22/05 13:15									
Acetone	ND	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	1.96	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	5.38	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-2-05-3 (B5G0502-14) Water Sampled: 07/20/05 14:50 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	118 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	76.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	95.5 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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907.563.9200 fax 907.563.9210

ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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MW-18-05-3 (B5G0502-15) Water **Sampled: 07/20/05 15:30** **Received: 07/22/05 13:15**

Acetone	26.2	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	1.53	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	1.23	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-18-05-3 (B5G0502-15) Water Sampled: 07/20/05 15:30 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	120 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	80.0 %	70-130			"	"	"	"	
Surrogate: 4-BFB	95.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting		Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit								
MW-5-05-3 (B5G0502-16) Water Sampled: 07/20/05 16:15 Received: 07/22/05 13:15										
Acetone	ND	20.0	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B		
Benzene	ND	1.00	"	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	"	

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5-05-3 (B5G0502-16) Water Sampled: 07/20/05 16:15 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G27044	07/26/05	07/26/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	117 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	95.5 %	70-130			"	"	"	"	
Surrogate: 4-BFB	100 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
		Limit							
TB071905-1 (B5G0502-17) Water Sampled: 07/19/05 13:30 Received: 07/22/05 13:15									
Acetone	ND	20.0	ug/l	1	5G29051	07/27/05	07/27/05	EPA 8260B	
Benzene	ND	1.00	"	"	"	"	"	"	
Bromobenzene	ND	1.00	"	"	"	"	"	"	
Bromochloromethane	ND	1.00	"	"	"	"	"	"	
Bromodichloromethane	ND	1.00	"	"	"	"	"	"	
Bromoform	ND	1.00	"	"	"	"	"	"	
Bromomethane	ND	2.00	"	"	"	"	"	"	
2-Butanone	ND	10.0	"	"	"	"	"	"	
n-Butylbenzene	ND	1.00	"	"	"	"	"	"	
sec-Butylbenzene	ND	1.00	"	"	"	"	"	"	
tert-Butylbenzene	ND	1.00	"	"	"	"	"	"	
Carbon disulfide	ND	1.00	"	"	"	"	"	"	
Carbon tetrachloride	ND	1.00	"	"	"	"	"	"	
Chlorobenzene	ND	1.00	"	"	"	"	"	"	
Chloroethane	ND	1.00	"	"	"	"	"	"	
1-Chlorohexane	ND	1.00	"	"	"	"	"	"	
Chloroform	ND	1.00	"	"	"	"	"	"	
Chloromethane	ND	5.00	"	"	"	"	"	"	
2-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
4-Chlorotoluene	ND	1.00	"	"	"	"	"	"	
Dibromochloromethane	ND	1.00	"	"	"	"	"	"	
1,2-Dibromo-3-chloropropane	ND	5.00	"	"	"	"	"	"	
1,2-Dibromoethane	ND	1.00	"	"	"	"	"	"	
Dibromomethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	1.00	"	"	"	"	"	"	
Dichlorodifluoromethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,2-Dichloroethane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloroethene	ND	1.00	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	1.00	"	"	"	"	"	"	
1,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,3-Dichloropropane	ND	1.00	"	"	"	"	"	"	
2,2-Dichloropropane	ND	1.00	"	"	"	"	"	"	
1,1-Dichloropropene	ND	1.00	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	1.00	"	"	"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
TB071905-1 (B5G0502-17) Water Sampled: 07/19/05 13:30 Received: 07/22/05 13:15									
trans-1,3-Dichloropropene	ND	1.00	ug/l	1	5G29051	07/27/05	07/27/05	EPA 8260B	
Ethylbenzene	ND	1.00	"	"	"	"	"	"	
Hexachlorobutadiene	ND	1.00	"	"	"	"	"	"	
Methyl tert-butyl ether	ND	2.00	"	"	"	"	"	"	
n-Hexane	ND	2.00	"	"	"	"	"	"	
2-Hexanone	ND	10.0	"	"	"	"	"	"	
Isopropylbenzene	ND	1.00	"	"	"	"	"	"	
p-Isopropyltoluene	ND	1.00	"	"	"	"	"	"	
4-Methyl-2-pentanone	ND	10.0	"	"	"	"	"	"	
Methylene chloride	ND	5.00	"	"	"	"	"	"	
Naphthalene	ND	1.00	"	"	"	"	"	"	
n-Propylbenzene	ND	1.00	"	"	"	"	"	"	
Styrene	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	1.00	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	1.00	"	"	"	"	"	"	
Tetrachloroethene	ND	1.00	"	"	"	"	"	"	
Toluene	ND	1.00	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	1.00	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	1.00	"	"	"	"	"	"	
Trichloroethene	ND	1.00	"	"	"	"	"	"	
Trichlorofluoromethane	ND	1.00	"	"	"	"	"	"	
1,2,3-Trichloropropane	ND	1.00	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	1.00	"	"	"	"	"	"	
Vinyl chloride	ND	1.00	"	"	"	"	"	"	
o-Xylene	ND	1.00	"	"	"	"	"	"	
m,p-Xylene	ND	2.00	"	"	"	"	"	"	
Surrogate: 1,2-DCA-d4	106 %	70-130			"	"	"	"	
Surrogate: Toluene-d8	100 %	70-130			"	"	"	"	
Surrogate: 4-BFB	99.0 %	70-130			"	"	"	"	

North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G25072: Prepared 07/25/05 Using EPA 3005A

Blank (5G25072-BLK1)

Silver	ND	0.00100	mg/l
Arsenic	ND	0.00100	"
Beryllium	ND	0.00100	"
Cadmium	ND	0.00100	"
Chromium	ND	0.00100	"
Copper	ND	0.00100	"
Nickel	ND	0.00100	"
Lead	ND	0.00100	"
Antimony	ND	0.00300	"
Selenium	ND	0.00100	"
Thallium	ND	0.00100	"
Zinc	ND	0.0100	"

LCS (5G25072-BS1)

Silver	0.206	0.00100	mg/l	0.200	103	80-120
Arsenic	0.210	0.00100	"	0.200	105	80-120
Beryllium	0.178	0.00100	"	0.200	89.0	80-120
Cadmium	0.184	0.00100	"	0.200	92.0	80-120
Chromium	0.186	0.00100	"	0.200	93.0	80-120
Copper	0.184	0.00100	"	0.200	92.0	80-120
Nickel	0.182	0.00100	"	0.200	91.0	80-120
Lead	0.180	0.00100	"	0.200	90.0	80-120
Antimony	0.0490	0.00300	"	0.0500	98.0	80-120
Selenium	0.208	0.00100	"	0.200	104	80-120
Thallium	0.207	0.00100	"	0.200	104	80-120
Zinc	0.188	0.0100	"	0.200	94.0	80-120

LCS Dup (5G25072-BSD1)

Silver	0.208	0.00100	mg/l	0.200	104	80-120	0.966	20
Arsenic	0.213	0.00100	"	0.200	106	80-120	1.42	20
Beryllium	0.182	0.00100	"	0.200	91.0	80-120	2.22	20
Cadmium	0.186	0.00100	"	0.200	93.0	80-120	1.08	20
Chromium	0.186	0.00100	"	0.200	93.0	80-120	0.00	20
Copper	0.185	0.00100	"	0.200	92.5	80-120	0.542	20
Nickel	0.182	0.00100	"	0.200	91.0	80-120	0.00	20

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G25072: Prepared 07/25/05 Using EPA 3005A

LCS Dup (5G25072-BSD1)

Lead	0.182	0.00100	mg/l	0.200		91.0	80-120	1.10	20	
Antimony	0.0494	0.00300	"	0.0500		98.8	80-120	0.813	20	
Selenium	0.213	0.00100	"	0.200		106	80-120	2.38	20	
Thallium	0.210	0.00100	"	0.200		105	80-120	1.44	20	
Zinc	0.190	0.0100	"	0.200		95.0	80-120	1.06	20	

Matrix Spike (5G25072-MS1)

Source: B5G0502-15

Beryllium	0.191	0.00100	mg/l	0.200	ND	95.5	80-125			
Cadmium	0.197	0.00100	"	0.200	ND	98.5	80-125			
Chromium	0.195	0.00100	"	0.200	0.00990	92.6	76-125			
Copper	0.183	0.00100	"	0.202	0.000700	90.2	71-125			
Nickel	0.180	0.00100	"	0.200	0.00116	89.4	73-125			
Lead	0.196	0.00100	"	0.200	ND	98.0	78-125			
Antimony	0.115	0.0150	"	0.100	0.000660	114	63-126			
Zinc	0.204	0.0100	"	0.200	0.0110	96.5	70-127			

Matrix Spike (5G25072-MS2)

Source: B5G0502-15

Silver	0.0904	0.00100	mg/l	0.100	0.000100	90.3	43-124			
Arsenic	0.108	0.00100	"	0.100	0.00490	103	70-138			
Selenium	0.0981	0.00100	"	0.100	0.00175	96.4	61-156			
Thallium	0.0865	0.00100	"	0.100	0.000300	86.2	78-125			

Matrix Spike Dup (5G25072-MSD1)

Source: B5G0502-15

Beryllium	0.195	0.00100	mg/l	0.200	ND	97.5	80-125	2.07	20	
Cadmium	0.197	0.00100	"	0.200	ND	98.5	80-125	0.00	20	
Chromium	0.196	0.00100	"	0.200	0.00990	93.0	76-125	0.512	20	
Copper	0.184	0.00100	"	0.202	0.000700	90.7	71-125	0.545	20	
Nickel	0.180	0.00100	"	0.200	0.00116	89.4	73-125	0.00	20	
Lead	0.196	0.00100	"	0.200	ND	98.0	78-125	0.00	20	
Antimony	0.119	0.0150	"	0.100	0.000660	118	63-126	3.42	20	
Zinc	0.204	0.0100	"	0.200	0.0110	96.5	70-127	0.00	20	

North Creek Analytical - Bothell

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Dissolved Metals by EPA 6000/7000 Series Methods - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G25072: Prepared 07/25/05 Using EPA 3005A

Matrix Spike Dup (5G25072-MSD2)

Source: B5G0502-15

Silver	0.0918	0.00100	mg/l	0.100	0.000100	91.7	43-124	1.54	50
Arsenic	0.109	0.00100	"	0.100	0.00490	104	70-138	0.922	20
Selenium	0.0996	0.00100	"	0.100	0.00175	97.8	61-156	1.52	20
Thallium	0.0906	0.00100	"	0.100	0.000300	90.3	78-125	4.63	20

Batch 5G27079: Prepared 07/27/05 Using EPA 7470A

Blank (5G27079-BLK1)

Mercury	ND	0.000200	mg/l						
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LCS (5G27079-BS1)

Mercury	0.00484	0.000200	mg/l	0.00500		96.8	80-120		
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LCS Dup (5G27079-BSD1)

Mercury	0.00490	0.000200	mg/l	0.00500		98.0	80-120	1.23	20
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Matrix Spike (5G27079-MS1)

Source: B5G0502-14RE1

Mercury	0.00941	0.000200	mg/l	0.00500	0.00454	97.4	70-130		
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Matrix Spike Dup (5G27079-MSD1)

Source: B5G0502-14RE1

Mercury	0.00922	0.000200	mg/l	0.00500	0.00454	93.6	70-130	2.04	20
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North Creek Analytical - Bothell

Robert Greer, Project Manager

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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G26046: Prepared 07/25/05 Using EPA 5030B

Blank (5G26046-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	1.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
1-Chlorohexane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G26046: Prepared 07/25/05 Using EPA 5030B

Blank (5G26046-BLK1)

2,2-Dichloropropane	ND	1.00	ug/l
1,1-Dichloropropene	ND	1.00	"
cis-1,3-Dichloropropene	ND	1.00	"
trans-1,3-Dichloropropene	ND	1.00	"
Ethylbenzene	ND	1.00	"
Hexachlorobutadiene	ND	1.00	"
Methyl tert-butyl ether	ND	2.00	"
n-Hexane	ND	2.00	"
2-Hexanone	ND	10.0	"
Isopropylbenzene	ND	1.00	"
p-Isopropyltoluene	ND	1.00	"
4-Methyl-2-pentanone	ND	10.0	"
Methylene chloride	ND	5.00	"
Naphthalene	ND	1.00	"
n-Propylbenzene	ND	1.00	"
Styrene	ND	1.00	"
1,2,3-Trichlorobenzene	ND	1.00	"
1,2,4-Trichlorobenzene	ND	1.00	"
1,1,1,2-Tetrachloroethane	ND	1.00	"
1,1,2,2-Tetrachloroethane	ND	1.00	"
Tetrachloroethene	ND	1.00	"
Toluene	ND	1.00	"
1,1,1-Trichloroethane	ND	1.00	"
1,1,2-Trichloroethane	ND	1.00	"
Trichloroethene	ND	1.00	"
Trichlorofluoromethane	ND	1.00	"
1,2,3-Trichloropropane	ND	1.00	"
1,2,4-Trimethylbenzene	ND	1.00	"
1,3,5-Trimethylbenzene	ND	1.00	"
Vinyl chloride	ND	1.00	"
o-Xylene	ND	1.00	"
m,p-Xylene	ND	2.00	"

Surrogate: 1,2-DCA-d4	19.5	"	20.0	97.5	70-130
Surrogate: Toluene-d8	19.9	"	20.0	99.5	70-130
Surrogate: 4-BFB	20.8	"	20.0	104	70-130

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G26046: Prepared 07/25/05 Using EPA 5030B

LCS (5G26046-BS1)

Benzene	19.2	1.00	ug/l	20.0		96.0	80-120			
Chlorobenzene	19.3	1.00	"	20.0		96.5	80-120			
1-Chlorohexane	18.5	1.00	"	20.0		92.5	70-125			
1,1-Dichloroethene	20.2	1.00	"	20.0		101	80-120			
Methyl tert-butyl ether	20.8	2.00	"	20.0		104	80-120			
Toluene	19.4	1.00	"	20.0		97.0	80-120			
Trichloroethene	19.4	1.00	"	20.0		97.0	80-120			
Surrogate: 1,2-DCA-d4	19.0		"	20.0		95.0	70-130			
Surrogate: Toluene-d8	19.8		"	20.0		99.0	70-130			
Surrogate: 4-BFB	20.5		"	20.0		102	70-130			

LCS Dup (5G26046-BS1)

Benzene	18.2	1.00	ug/l	20.0		91.0	80-120	5.35	20	
Chlorobenzene	18.3	1.00	"	20.0		91.5	80-120	5.32	20	
1-Chlorohexane	17.8	1.00	"	20.0		89.0	70-125	3.86	20	
1,1-Dichloroethene	18.5	1.00	"	20.0		92.5	80-120	8.79	20	
Methyl tert-butyl ether	20.3	2.00	"	20.0		102	80-120	2.43	20	
Toluene	18.7	1.00	"	20.0		93.5	80-120	3.67	20	
Trichloroethene	18.5	1.00	"	20.0		92.5	80-120	4.75	20	
Surrogate: 1,2-DCA-d4	19.4		"	20.0		97.0	70-130			
Surrogate: Toluene-d8	19.8		"	20.0		99.0	70-130			
Surrogate: 4-BFB	20.6		"	20.0		103	70-130			

Matrix Spike (5G26046-MS1)

Source: B5G0507-07

Benzene	21.3	1.00	ug/l	20.0	ND	106	76-137			
Chlorobenzene	20.9	1.00	"	20.0	ND	104	81-127			
1-Chlorohexane	18.6	1.00	"	20.0	ND	93.0	70-125			
1,1-Dichloroethene	25.9	1.00	"	20.0	2.26	118	74-148			
Methyl tert-butyl ether	22.3	2.00	"	20.0	ND	112	60-140			
Toluene	21.8	1.00	"	20.0	ND	109	79-131			
Trichloroethene	22.7	1.00	"	20.0	0.200	112	65-158			
Surrogate: 1,2-DCA-d4	20.1		"	20.0		100	70-130			
Surrogate: Toluene-d8	20.0		"	20.0		100	70-130			
Surrogate: 4-BFB	19.9		"	20.0		99.5	70-130			

North Creek Analytical - Bothell

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Robert Greer, Project Manager



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ERM-Bellevue
915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G26046: Prepared 07/25/05 Using EPA 5030B

Matrix Spike Dup (5G26046-MSD1)

Source: B5G0507-07

A-01

Benzene	20.8	1.00	ug/l	20.0	ND	104	76-137	2.38	20	
Chlorobenzene	20.8	1.00	"	20.0	ND	104	81-127	0.480	20	
1-Chlorohexane	17.4	1.00	"	20.0	ND	87.0	70-125	6.67	20	
1,1-Dichloroethene	24.3	1.00	"	20.0	2.26	110	74-148	6.37	30	
Methyl tert-butyl ether	21.7	2.00	"	20.0	ND	108	60-140	2.73	30	
Toluene	21.2	1.00	"	20.0	ND	106	79-131	2.79	20	
Trichloroethene	21.2	1.00	"	20.0	0.200	105	65-158	6.83	20	
Surrogate: 1,2-DCA-d4	19.5		"	20.0		97.5	70-130			
Surrogate: Toluene-d8	20.2		"	20.0		101	70-130			
Surrogate: 4-BFB	20.4		"	20.0		102	70-130			

Batch 5G27044: Prepared 07/26/05 Using EPA 5030B

Blank (5G27044-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"
n-Butylbenzene	ND	1.00	"
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
1-Chlorohexane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"

North Creek Analytical - Bothell

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915-118th Avenue S.E., Suite 130
Bellevue, WA 98005

Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G27044: Prepared 07/26/05 Using EPA 5030B

Blank (5G27044-BLK1)

1,2-Dibromoethane	ND	1.00	ug/l
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"
1,1-Dichloropropene	ND	1.00	"
cis-1,3-Dichloropropene	ND	1.00	"
trans-1,3-Dichloropropene	ND	1.00	"
Ethylbenzene	ND	1.00	"
Hexachlorobutadiene	ND	1.00	"
Methyl tert-butyl ether	ND	2.00	"
n-Hexane	ND	2.00	"
2-Hexanone	ND	10.0	"
Isopropylbenzene	ND	1.00	"
p-Isopropyltoluene	ND	1.00	"
4-Methyl-2-pentanone	ND	10.0	"
Methylene chloride	ND	5.00	"
Naphthalene	ND	1.00	"
n-Propylbenzene	ND	1.00	"
Styrene	ND	1.00	"
1,2,3-Trichlorobenzene	ND	1.00	"
1,2,4-Trichlorobenzene	ND	1.00	"
1,1,1,2-Tetrachloroethane	ND	1.00	"
1,1,2,2-Tetrachloroethane	ND	1.00	"
Tetrachloroethene	ND	1.00	"
Toluene	ND	1.00	"

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Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G27044: Prepared 07/26/05 Using EPA 5030B

Blank (5G27044-BLK1)

1,1,1-Trichloroethane	ND	1.00	ug/l							
1,1,2-Trichloroethane	ND	1.00	"							
Trichloroethene	ND	1.00	"							
Trichlorofluoromethane	ND	1.00	"							
1,2,3-Trichloropropane	ND	1.00	"							
1,2,4-Trimethylbenzene	ND	1.00	"							
1,3,5-Trimethylbenzene	ND	1.00	"							
Vinyl chloride	ND	1.00	"							
o-Xylene	ND	1.00	"							
m,p-Xylene	ND	2.00	"							
Surrogate: 1,2-DCA-d4	19.9		"	20.0		99.5	70-130			
Surrogate: Toluene-d8	20.1		"	20.0		100	70-130			
Surrogate: 4-BFB	19.8		"	20.0		99.0	70-130			

LCS (5G27044-BS1)

Benzene	36.9	1.00	ug/l	40.0		92.2	80-120			
Chlorobenzene	36.0	1.00	"	40.0		90.0	80-120			
1-Chlorohexane	41.5	1.00	"	40.0		104	70-125			
1,1-Dichloroethene	37.8	1.00	"	40.0		94.5	80-120			
Methyl tert-butyl ether	38.3	2.00	"	40.0		95.8	80-120			
Toluene	37.6	1.00	"	40.0		94.0	80-120			
Trichloroethene	36.9	1.00	"	40.0		92.2	80-120			
Surrogate: 1,2-DCA-d4	19.6		"	20.0		98.0	70-130			
Surrogate: Toluene-d8	19.6		"	20.0		98.0	70-130			
Surrogate: 4-BFB	20.1		"	20.0		100	70-130			

LCS Dup (5G27044-BSD1)

Benzene	37.4	1.00	ug/l	40.0		93.5	80-120	1.35	20	
Chlorobenzene	36.8	1.00	"	40.0		92.0	80-120	2.20	20	
1-Chlorohexane	43.5	1.00	"	40.0		109	70-125	4.71	20	
1,1-Dichloroethene	39.5	1.00	"	40.0		98.8	80-120	4.40	20	
Methyl tert-butyl ether	39.5	2.00	"	40.0		98.8	80-120	3.08	20	
Toluene	39.5	1.00	"	40.0		98.8	80-120	4.93	20	
Trichloroethene	36.9	1.00	"	40.0		92.2	80-120	0.00	20	
Surrogate: 1,2-DCA-d4	19.4		"	20.0		97.0	70-130			
Surrogate: Toluene-d8	20.2		"	20.0		101	70-130			

North Creek Analytical - Bothell

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North Creek Analytical, Inc.
Environmental Laboratory Network

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ERM-Bellevue
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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G27044: Prepared 07/26/05 Using EPA 5030B

LCS Dup (5G27044-BSD1)

Surrogate: 4-BFB 20.2 ug/l 20.0 101 70-130

Matrix Spike (5G27044-MS1)

Source: B5G0502-15

Benzene	39.2	1.00	ug/l	40.0	ND	98.0	76-137
Chlorobenzene	39.8	1.00	"	40.0	ND	99.5	81-127
1-Chlorohexane	41.2	1.00	"	40.0	ND	103	70-125
1,1-Dichloroethene	40.2	1.00	"	40.0	ND	100	74-148
Methyl tert-butyl ether	43.1	2.00	"	40.0	ND	108	60-140
Toluene	33.2	1.00	"	40.0	ND	83.0	79-131
Trichloroethene	40.6	1.00	"	40.0	ND	102	65-158

Surrogate: 1,2-DCA-d4 23.4 " 20.0 117 70-130

Surrogate: Toluene-d8 19.3 " 20.0 96.5 70-130

Surrogate: 4-BFB 19.1 " 20.0 95.5 70-130

Matrix Spike Dup (5G27044-MSD1)

Source: B5G0502-15

Benzene	39.5	1.00	ug/l	40.0	ND	98.8	76-137	0.762	20
Chlorobenzene	39.4	1.00	"	40.0	ND	98.5	81-127	1.01	20
1-Chlorohexane	40.5	1.00	"	40.0	ND	101	70-125	1.71	20
1,1-Dichloroethene	39.4	1.00	"	40.0	ND	98.5	74-148	2.01	30
Methyl tert-butyl ether	42.3	2.00	"	40.0	ND	106	60-140	1.87	30
Toluene	32.4	1.00	"	40.0	ND	81.0	79-131	2.44	20
Trichloroethene	39.7	1.00	"	40.0	ND	99.2	65-158	2.24	20

Surrogate: 1,2-DCA-d4 21.5 " 20.0 108 70-130

Surrogate: Toluene-d8 19.4 " 20.0 97.0 70-130

Surrogate: 4-BFB 19.8 " 20.0 99.0 70-130

Batch 5G29051: Prepared 07/27/05 Using EPA 5030B

Blank (5G29051-BLK1)

Acetone	ND	20.0	ug/l
Benzene	ND	1.00	"
Bromobenzene	ND	1.00	"
Bromochloromethane	ND	1.00	"
Bromodichloromethane	ND	1.00	"
Bromoform	ND	1.00	"
Bromomethane	ND	2.00	"
2-Butanone	ND	10.0	"

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ERM-Bellevue
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Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	-----------------	-------	-------------	---------------	------	-------------	-----	-----------	-------

Batch 5G29051: Prepared 07/27/05 Using EPA 5030B

Blank (5G29051-BLK1)

n-Butylbenzene	ND	1.00	ug/l
sec-Butylbenzene	ND	1.00	"
tert-Butylbenzene	ND	1.00	"
Carbon disulfide	ND	1.00	"
Carbon tetrachloride	ND	1.00	"
Chlorobenzene	ND	1.00	"
Chloroethane	ND	1.00	"
1-Chlorohexane	ND	1.00	"
Chloroform	ND	1.00	"
Chloromethane	ND	5.00	"
2-Chlorotoluene	ND	1.00	"
4-Chlorotoluene	ND	1.00	"
Dibromochloromethane	ND	1.00	"
1,2-Dibromo-3-chloropropane	ND	5.00	"
1,2-Dibromoethane	ND	1.00	"
Dibromomethane	ND	1.00	"
1,2-Dichlorobenzene	ND	1.00	"
1,3-Dichlorobenzene	ND	1.00	"
1,4-Dichlorobenzene	ND	1.00	"
Dichlorodifluoromethane	ND	1.00	"
1,1-Dichloroethane	ND	1.00	"
1,2-Dichloroethane	ND	1.00	"
1,1-Dichloroethene	ND	1.00	"
cis-1,2-Dichloroethene	ND	1.00	"
trans-1,2-Dichloroethene	ND	1.00	"
1,2-Dichloropropane	ND	1.00	"
1,3-Dichloropropane	ND	1.00	"
2,2-Dichloropropane	ND	1.00	"
1,1-Dichloropropene	ND	1.00	"
cis-1,3-Dichloropropene	ND	1.00	"
trans-1,3-Dichloropropene	ND	1.00	"
Ethylbenzene	ND	1.00	"
Hexachlorobutadiene	ND	1.00	"
Methyl tert-butyl ether	ND	2.00	"
n-Hexane	ND	2.00	"

North Creek Analytical - Bothell

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Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
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Batch 5G29051: Prepared 07/27/05 Using EPA 5030B

Blank (5G29051-BLK1)

2-Hexanone	ND	10.0	ug/l						
Isopropylbenzene	ND	1.00	"						
p-Isopropyltoluene	ND	1.00	"						
4-Methyl-2-pentanone	ND	10.0	"						
Methylene chloride	ND	5.00	"						
Naphthalene	ND	1.00	"						
n-Propylbenzene	ND	1.00	"						
Styrene	ND	1.00	"						
1,2,3-Trichlorobenzene	ND	1.00	"						
1,2,4-Trichlorobenzene	ND	1.00	"						
1,1,1,2-Tetrachloroethane	ND	1.00	"						
1,1,2,2-Tetrachloroethane	ND	1.00	"						
Tetrachloroethene	ND	1.00	"						
Toluene	ND	1.00	"						
1,1,1-Trichloroethane	ND	1.00	"						
1,1,2-Trichloroethane	ND	1.00	"						
Trichloroethene	ND	1.00	"						
Trichlorofluoromethane	ND	1.00	"						
1,2,3-Trichloropropane	ND	1.00	"						
1,2,4-Trimethylbenzene	ND	1.00	"						
1,3,5-Trimethylbenzene	ND	1.00	"						
Vinyl chloride	ND	1.00	"						
o-Xylene	ND	1.00	"						
m,p-Xylene	ND	2.00	"						
Surrogate: 1,2-DCA-d4	20.6		"	20.0		103	70-130		
Surrogate: Toluene-d8	20.3		"	20.0		102	70-130		
Surrogate: 4-BFB	19.8		"	20.0		99.0	70-130		

North Creek Analytical - Bothell

Robert Greer, Project Manager

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Project: Spokane ANG5
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Volatile Organic Compounds by EPA Method 8260B - Quality Control
North Creek Analytical - Bothell

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	----------------	-----	--------------	-------

Batch 5G29051: Prepared 07/27/05 Using EPA 5030B

LCS (5G29051-BS1)

Benzene	36.6	1.00	ug/l	40.0		91.5	80-120		
Chlorobenzene	35.8	1.00	"	40.0		89.5	80-120		
1-Chlorohexane	40.0	1.00	"	40.0		100	70-125		
1,1-Dichloroethene	37.6	1.00	"	40.0		94.0	80-120		
Methyl tert-butyl ether	39.3	2.00	"	40.0		98.2	80-120		
Toluene	37.5	1.00	"	40.0		93.8	80-120		
Trichloroethene	36.6	1.00	"	40.0		91.5	80-120		
Surrogate: 1,2-DCA-d4	20.3		"	20.0		102	70-130		
Surrogate: Toluene-d8	19.8		"	20.0		99.0	70-130		
Surrogate: 4-BFB	20.1		"	20.0		100	70-130		

LCS Dup (5G29051-BS1)

Benzene	39.8	1.00	ug/l	40.0		99.5	80-120	8.38	20
Chlorobenzene	39.0	1.00	"	40.0		97.5	80-120	8.56	20
1-Chlorohexane	40.8	1.00	"	40.0		102	70-125	1.98	20
1,1-Dichloroethene	42.1	1.00	"	40.0		105	80-120	11.3	20
Methyl tert-butyl ether	41.8	2.00	"	40.0		104	80-120	6.17	20
Toluene	40.6	1.00	"	40.0		102	80-120	7.94	20
Trichloroethene	40.1	1.00	"	40.0		100	80-120	9.13	20
Surrogate: 1,2-DCA-d4	19.9		"	20.0		99.5	70-130		
Surrogate: Toluene-d8	19.9		"	20.0		99.5	70-130		
Surrogate: 4-BFB	19.8		"	20.0		99.0	70-130		

North Creek Analytical - Bothell

Robert Greer, Project Manager

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915-118th Avenue S.E., Suite 130
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Project: Spokane ANG
Project Number: 20536.50
Project Manager: Mike Arnold

Reported:
08/19/05 13:31

Notes and Definitions

A-01 MSD was analyzed 13 minutes outside of 12hr QC window.
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

North Creek Analytical - Bothell

Robert Greer, Project Manager

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APPENDIX G

*QUALITY ASSURANCE / QUALITY CONTROL
DATA VALIDATION REPORT*

APPENDIX G

QUALITY ASSURANCE/QUALITY CONTROL DATA VALIDATION

Analytical data are the basis for evaluating the environmental conditions present within the Spokane Air National Guard Station (Spokane ANGS). It is essential that the data be accurate and reflective of actual conditions.

To ensure data quality was acceptable for decision-making purposes, ERM-West, Inc., (ERM) reviewed laboratory analytical results for the Spokane ANGS investigation. This review identified limitations on the use of the data. The quality of the data was assessed and qualifiers were applied following the *United States Environmental Protection Agency (USEPA) Contract Laboratory Program National Functional Guidelines for Organic Data Review* (USEPA, October 1999) and *USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review* (USEPA, July 2002).

ERM reviewed North Creek Analytical data packages B4J0690, B4J0693, B5A0562, B5A0563, B5D0704, B5D0705, and B5G0502 for compliance with the following quality assurance/quality control (QA/QC) method-prescribed criteria for level II review:

- **Holding Time and Sample Preservation:** The period of time between collection of the sample and preparation/analysis of the sample is evaluated. Analyses performed for this project have method-prescribed holding times as well as temperature and chemical preservation requirements.
- **Blank Samples:** The preparation and analysis of reagent (contaminant-free) water are evaluated. Blank samples for this investigation included method, trip, rinsate, and field blanks. Detections in a blank sample indicate laboratory and/or transportation or field contamination. Each sample is evaluated for common laboratory contaminants during the blank evaluation.
- **Spike Samples:** The preparation and analysis of an environmental sample or a sample of reagent water spiked with a subset of target compounds at known concentrations are evaluated. The results of the

spike analysis measure laboratory accuracy in the reagent sample, and results from the environmental sample spike measure potential interferences from the matrix.

- **Surrogate Spikes:** The addition of compounds similar to target compounds of interest that are added to sample aliquots for organic analysis is evaluated. Surrogate spikes measure possible interferences from the sample matrix for the analysis of target compounds.
- **Duplicate Samples:** The preparation and analysis of an additional aliquot of the sample is evaluated. The results from duplicate analysis measure potential heterogeneity of the sample.

Level IV review was performed on North Creek Analytical data package B5G0502. The level IV review included all of the QA/QC method-prescribed criteria for level II review plus:

- **Calibration:** The analysis of target analytes at a range of concentrations to develop a graphical plot of instrument response against the different analyte concentrations is reviewed. An initial calibration curve establishes the graphical plot, and the continuing calibration verification (CCV) monitors daily instrument linearity against the initial calibration.
- **Internal standards:** The addition of compounds similar to target compounds of interest that are added to sample aliquots for organic analysis is reviewed. Internal standards are used to quantitatively and qualitatively evaluate retention time and response for each sample.
- **Recalculation:** Ten percent of the initial calibration, continuing calibration, internal response, surrogate percent recoveries (%R), laboratory control sample (LCS) %R, matrix spike/matrix spike duplicate %R, and detected sample concentrations were recalculated.

Potential USEPA qualifiers that may have been applied during the review process are as follows:

- **U (Nondetected):** The analyte was reported as detected by the laboratory, but the reported concentrations should be considered nondetected above the laboratory reporting limit.
- **J (Estimated):** The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

- **N** (Tentative identification): The analysis indicated the presence of an analyte for which there was presumptive evidence to make only a “tentative identification.”
- **NJ** (Estimated tentative identification): The analysis indicated the presence of an analyte that had been “tentatively identified” and the associated numerical value represents its approximate concentration.
- **UJ** (Estimated, nondetected): The analyte was not detected above the reported sample quantitation limit; however, the reported quantitation limit was approximate and may or may not have represented the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- **R** (Rejected): The sample results were rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte could not be verified.

No sample results were rejected based on the data review. All data, including data qualified as estimated, are acceptable and can be used for decision-making purposes. The following discussion addresses each of the QA/QC components listed above and the validation results for each of the components.

Holding Time and Preservation

The USEPA has established a maximum sample holding time for each analysis. The USEPA has also established chemical and temperature preservation requirements for those analyses that may be subject to chemical degradation. Holding times and sample temperatures extending beyond the USEPA maximum or samples that are not properly preserved can negatively affect sample integrity (e.g., loss of volatile compounds, biodegradation) and are qualified depending on the severity of the exceedence and compounds of concern.

ERM has reviewed the analytical results for the Spokane ANGS data for compliance with the method-prescribed preparation and analysis holding times as well as preservation requirements. All of the sample analyses were performed within the sample preparation and analysis holding times. All sample shipments were received within the acceptable temperature range of 2 to 6 degrees Celsius. No samples required qualification due to holding time or temperature exceedances.

Blank Samples

A blank sample that is theoretically contaminant-free is prepared in the laboratory and carried through the analytical process. The purpose of a blank sample is to determine the presence and magnitude of contamination resulting from laboratory, shipping, or other sample-handling activities. Blank samples are analyzed and evaluated for detections of target compounds. If target compounds are detected in a blank sample that was initially intended to be contaminant-free, these detections indicate that some element of the sample collection, transportation, or analysis activities has introduced contaminants not present in the original environmental sample aliquot. If target compounds are detected in a blank sample, then all associated data must be evaluated to determine whether those results have been similarly impacted, or the blank problem is an isolated occurrence not representative of other data.

The four types of blank samples routinely analyzed and reported with the Spokane ANGS samples were method, trip, rinsate, and field blank samples. Preparation, handling, and analysis of these blank samples are as follows:

- Method blank samples were prepared by the laboratory by taking an aliquot of reagent water through all preparation and analysis steps. A method blank was prepared and analyzed with each batch of environmental samples. Method blank samples monitor for potential contamination of samples from the laboratory.
- Trip blank samples were prepared by the laboratory by filling a volatile organic analysis vial with an aliquot of reagent water and sealing it with a Teflon-lined lid. Trip blank samples monitor for potential contamination of samples during collection and transportation to the laboratory. The trip blank samples travel with the empty aqueous containers to the field and return to the laboratory with the filled aqueous containers. These samples are opened by laboratory personnel only.
- Rinsate blank samples were prepared in the field by slowly pouring reagent water over decontaminated sampling equipment and collecting it into sample bottles. Rinsate blank samples monitor for potential contamination due to insufficient decontamination procedures in the field.

- Field blank samples were prepared at sample collection locations by slowly pouring American Society for Testing and Materials (ASTM) Type II water or tap water into clean sample containers supplied by the laboratory. Field blank samples collected using tap water were labeled with an “FT” identifier at the end of the sample identification number. The identifier “FA” was used in the field blank sample identification number for samples that were prepared with ASTM Type II water. Field blank samples monitor for potential contamination of project samples from ambient conditions at the sample collection site.

Common Laboratory Contamination

As part of the blank sample review, each sample is evaluated for common laboratory contamination. The USEPA has designated certain compounds common laboratory contaminants because of their abundant use in the laboratory. In the volatile organic compounds (VOC) analysis, acetone, 2-butanone, and methylene chloride are the designated common laboratory contaminants.

Detections of these compounds are considered common laboratory contamination when found at concentrations less than 10 times (10x) the report limit. When detected at less than 10x the report limit, the compound is qualified as nondetected at that concentration. When detected below the report limit, the samples are qualified as nondetected at the report limit.

Evaluation for common laboratory contamination was performed in all samples before review of blank samples for other contaminants. Acetone was found at low levels in five samples. These samples were qualified as nondetected (U) for acetone as shown in [Table G-1](#).

Method Blank Samples

No analytes were detected in the method blank samples prepared for the Spokane ANGS analysis program. None of the data required qualification due to method blank contamination, indicating that laboratory preparation and analysis techniques were free of contamination.

Trip Blank Samples

Trip blanks are typically analyzed only for VOCs and may occasionally be contaminated during preparation and/or analysis from ambient conditions at the laboratory. Five trip blank samples were submitted; the

Table G-1

***Blank and Associated Suspect Sample Detections
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington***

Lab Package	Blank ID	Associated Samples	Detected Compound	Reported Concentration	Report Limit	Units	ERM Qualifier
B4J0693	MW-18-04-1 FA	NA	Chloroform	30.9	1.0	µg/l	NA
	MW-18-04-1 FT	NA	Chloroform	31	1.0	µg/l	NA
	MW-19-04-1 R	NA	Chloroform	22.7	1.0	µg/l	NA
B5A0562	MW-4-05-1 R	NA	Chloroform	48.9	1.0	µg/l	NA
B5A0563	NA	MW-4-05-1	Acetone	20.7	20	µg/l	20.7 U
	NA	MW-18-05-1	Acetone	42.0	20	µg/l	42.0 U
B5D0705	MW-19-05-1 R	NA	Chloroform	26.4	1.0	µg/l	NA
	MW-16-05-2 R	NA	Chloroform	29.8	1.0	µg/l	NA
B5G0502	NA	MW-4-05-3	Acetone	31.0	20	µg/l	31.0 U
	NA	MW-4-05-3 D	Acetone	30.0	20	µg/l	30.0 U
	NA	MW-18-05-3	Acetone	26.2	20	µg/l	26.2 U

Notes:

ANGS = Air National Guard Station

ASTM = American Society for Testing and Materials

CCSQ = Combat Communications Squadron

D = Duplicate

ERM = ERM-West, Inc.

FA = Field blank using ASTM water

FT = Field blank using tap water

NA = Not applicable

R = Rinsate blank

U = Result was qualified as nondetected

µg/l = Micrograms per liter

results were non-detect for all analytes. The trip blank data indicate sample handling and transportation procedures were acceptable.

Rinsate Blank Samples

Five rinsate blank samples were submitted during the Spokane ANGS investigation. Three rinsate blank samples had low-level detections of chloroform. The chloroform detections did not result in qualification of associated sample results because there were no detections of chloroform in the original groundwater samples. These results are shown in Table G-1.

Field Blank Samples

Four field blank samples were submitted during the Spokane ANGS investigation. Chloroform was detected in one field blank sample using ASTM water, and one field blank sample using tap water. The original groundwater samples were non-detect for chloroform; therefore, no samples required qualification. The field blank sample results are listed in Table G-1.

Spike Samples

A spike sample is a quality control sample that is prepared and analyzed by the laboratory. The laboratory prepares, analyzes, and reports spike sample results to demonstrate proper analysis, detection, and quantification of target compounds. A spike sample result is typically reported as the amount of compound detected divided by the amount spiked into the sample and is commonly referred to as percent recovery. The percent recovery is then compared to an established limit range. The two types of spike samples analyzed with the project samples were matrix spikes (MS) and blank spikes.

MS samples consist of an aliquot of an environmental sample that is spiked with known concentrations of a subset of target compounds. MS samples are used to monitor potential interference from the sample matrix for target compounds. A low MS recovery may indicate low-biased sample results; a high MS recovery may indicate high-biased sample results.

Blank spike samples, which are commonly referred to as LCS, consist of an aliquot of reagent water that is spiked with known concentrations of a subset of target compounds. The LCS sample monitors laboratory

accuracy without the bias of a sample matrix. LCS recoveries outside of acceptable limits may indicate poor laboratory accuracy.

All LCS percent recoveries met control criteria. In two analytical batches, the MS samples did not meet control criteria; however, since the LCS results in the batches were in control, no data required qualification. These results are listed in [Table G-2](#). The MS recoveries indicate minimal matrix interference and the LCS recoveries indicate acceptable laboratory accuracy.

Surrogate Spikes

A surrogate spike is used to assess interferences from the sample matrix during the analysis. Surrogate spike results are typically reported in terms of percent recovery, based on the concentration of surrogate detected divided by the known amount of surrogate added to the sample aliquot.

Surrogate recoveries were compared to the laboratory-generated or method-prescribed limits of acceptance. All of the surrogate recoveries were within acceptable limits, indicating minimal interference from the sample matrix.

Field Duplicate Samples

A field duplicate sample is a second aliquot of a sample that is collected, prepared, and analyzed in the same manner as the original sample. A duplicate sample is collected to measure the precision of the method and to assess matrix heterogeneity.

For the Spokane ANGS investigation, five samples were collected in duplicate. The relative percent difference (RPD) was calculated for each of the detected results in the sample pairs. Since the USEPA has not established control criteria for field duplicate samples, sample data are not qualified on the basis of field duplicate imprecision.

RPDs calculated using sample concentrations less than five times the report limit do not accurately represent precision and should not be used to evaluate precision. The majority of the RPDs were less than 10 percent with three exceptions listed in [Table G-3](#). However, the detected results associated with these higher RPDs were less than five times the report limit and therefore are not meaningful to assess sample homogeneity.

Table G-2

***Matrix Spike Recoveries Outside of Acceptable Limits
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington***

Lab Package	Spike Sample ID	Compound	Recovery (%)	Limit (%)	RPD	RPD Limit
B5A0562	MW-18-05-1	1,1-Dichloroethene	58/51	59-158	13	30
	MW-18-05-1	Toluene	17/11	72-127	41	20
B5A0563	MW-18-05-1	1,1-Dichloroethene	58/51	59-158	13	30
	MW-18-05-1	Toluene	17/11	72-127	41	20

Notes:

ANGS = Air National Guard Station

CCSQ = Combat Communications Squadron

RPD = Relative percent difference

Note: The blank spikes were within control limits; therefore, samples did not require qualification.

Table G-3

*Field Duplicate Results and Calculated Relative Percent Differences
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington*

Lab Package	Sample ID	Compound	Concentration		Report Limit	Units	RPD (%)
			Sample	Duplicate			
B4J0690	MW-4-04-1	Arsenic	0.00102	0.00108	0.001	mg/l	5.7
B5A0562	MW-16-05-1	Zinc	0.0957	0.0996	0.01	mg/l	4.0
	MW-16-05-1	Carbon tetrachloride	6.5	6.3	1.0	µg/l	3.1
B5D0704	MW-2-05-2	Chromium	0.00237	0.00232	0.001	mg/l	2.1
	MW-2-05-2	Mercury	0.00244	0.00244	0.0002	mg/l	0
	MW-2-05-2	Nickel	0.00103	0.00115	0.001	mg/l	11.0
	MW-2-05-2	Carbon tetrachloride	9.73	10.2	1.0	µg/l	4.7
B5D0705	MW-3-05-2	Copper	<0.001	0.00177	0.001	mg/l	NC
	MW-3-05-2	Nickel	0.0132	0.0134	0.001	mg/l	1.5
	MW-3-05-2	Selenium	0.00101	<0.001	0.001	mg/l	NC
	MW-3-05-2	Zinc	0.0178	0.0193	0.01	mg/l	8.1
	MW-3-05-2	Carbon tetrachloride	1.4	1.08	1.0	µg/l	25.8
B5D0502	MW-4-05-3	Beryllium	0.00105	0.00113	0.001	mg/l	7.3
	MW-4-05-3	Chromium	0.00166	0.00178	0.001	mg/l	7.0
	MW-4-05-3	Copper	0.00404	0.00426	0.001	mg/l	5.3
	MW-4-05-3	Mercury	0.000291	0.000275	0.0002	mg/l	5.7
	MW-4-05-3	Nickel	0.0284	0.03	0.001	µg/l	5.5
	MW-4-05-3	Selenium	0.0014	0.00147	0.001	mg/l	4.9
	MW-4-05-3	Zinc	0.0298	0.0395	0.01	mg/l	28.0
	MW-4-05-3	Acetone	31	30	20	µg/l	3.3
	MW-4-05-3	Bromoform	1.82	1.77	1.0	µg/l	2.8
	MW-4-05-3	Carbon tetrachloride	<1.0	1.04	1.0	µg/l	NC

Notes:

ANGS = Air National Guard Station

CCSQ = Combat Communications Squadron

mg/l = Milligrams per liter

NC = Not calculated

RPD = Relative percent difference

µg/l = Micrograms per liter

Calibration Evaluation

In the VOC analysis, the accuracy of the CCV is measured by calculating the percent difference between the CCV and the average calibration factor in the initial calibration for each reported compound. A small number of compounds exceeded the method-prescribed requirement. Affected associated data were qualified as estimated (UJ) as shown in [Table G-4](#).

Overall Assessment

None of the data collected during the Spokane ANGS investigation were rejected. All data, including qualified data, can be used for decision-making purposes; however, the limitation identified by the applied qualifier should be considered when using the data. The quality of the data generated during the Spokane ANGS investigation are acceptable for the preparation of technically defensible documents.

Table G-4

***Calibrations Outside of Acceptable Limits
Remedial Action
242nd CCSQ, Spokane ANG, Spokane, Washington***

Lab Package	QC Sample	Affected Sample	Analyte	%D	%D Criteria	ERM Qualifier
B4J0690	CCV	See below	Acetone	-34.4	≤ 25.0	NA
	CCV	MW-2-04-1	Acetone	NA	NA	UJ
	CCV	MW-4-04-1	Acetone	NA	NA	UJ
	CCV	MW-4-04-1 D	Acetone	NA	NA	UJ
B5A0563	CCV	See below	Naphthalene	-34.1	≤ 25.0	NA
	CCV	See below	1,2,3-Trichlorobenzene	-26.7	≤ 25.0	NA
	CCV	MW-4-05-1	Naphthalene	NA	NA	UJ
	CCV	MW-4-05-1	1,2,3-Trichlorobenzene	NA	NA	UJ
	CCV	MW-18-05-1	Naphthalene	NA	NA	UJ
	CCV	MW-18-05-1	1,2,3-Trichlorobenzene	NA	NA	UJ

Notes:

ANGS = Air National Guard Station

CCSQ = Combat Communications Squadron

CCV = Continuing calibration verification

D = Duplicate

ERM = ERM-West, Inc.

NA = Not applicable

QC = Quality control

UJ = Nondetected result qualified as estimated

%D = Percent difference