

**PHASE II  
ENVIRONMENTAL SITE ASSESSMENT**

**CHIKUMA PROPERTY  
WEST OF THE SOUTH PLATTE RIVER  
NORTHWEST QUARTER OF SECTION 18, T1N, R66W, 6<sup>TH</sup>  
P.M.  
WELD COUNTY, COLORADO**

*Prepared for—*

City of Aurora  
Water Resources Division  
15151 E. Alameda Parkway  
Aurora, Colorado 80012-1555

*Prepared by—*

ERO Resources Corporation  
1842 Clarkson Street  
Denver, Colorado 80218  
(303) 830-1188  
ERO Project #3620

March 5, 2007

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## **Executive Summary**

The City of Aurora retained ERO Resources Corporation (ERO) to conduct a Phase II Environmental Site Assessment (ESA) of the 36-acre Chikuma property located west of the South Platte River in the northwest corner of Section 18, Township 1 North, Range 66 West of the 6<sup>th</sup> P.M. in Weld County, Colorado. ERO's January 3, 2007 Draft Phase I ESA for the property identified the Helmer Getz Unit True #1 oil and gas well and associated tank battery, oil/water separator, and meter shed (collectively called the "operations area") as a recognized environmental condition associated with the property (ERO 2007). The purpose of this Phase II ESA is to assess the soil and ground water quality for petroleum hydrocarbons in the vicinity of the recognized environmental condition.

This Phase II consists of the installation and sampling of three ground water monitoring wells and two temporary wells in the vicinity of the Helmer Getz Unit True #1 oil and gas well and operations area. ERO encountered ground water between 4 and 5 feet below ground surface during the investigation. Based on field observations and analytical results, ERO identified the following indications of release or disposal of petroleum products on the property:

- Petroleum staining and odors were noted in soil cores from wells in the vicinity of the tank battery immediately above the observed ground water table;
- Low concentrations of toluene, xylenes and total petroleum hydrocarbons in subsurface soils; and
- Very low concentrations of xylenes in ground water.

Detected soil petroleum hydrocarbon concentrations were below the applicable Colorado Oil and Gas Conservation Commission thresholds and Colorado Department of Public Health and Environment cleanup values. Ground water petroleum hydrocarbon concentrations were below the applicable Colorado Basic Standards for Ground Water.

It is ERO's professional opinion that the recognized environmental condition identified during ERO's Phase I ESA has resulted in a release or disposal of petroleum product on the property. Based on the results of this investigation and the previous Phase I ESA, it is ERO's professional opinion that the release or disposal of petroleum products on the property has not impacted the soil or ground water above applicable standards and no further assessment or regulatory-driven actions are necessary.

**PHASE II ENVIRONMENTAL SITE ASSESSMENT**  
**CHIKUMA PROPERTY**  
**WEST OF THE SOUTH PLATTE RIVER**  
**NORTHWEST QUARTER OF SECTION 18, T1N, S66W, 6<sup>TH</sup> P.M.**  
**WELD COUNTY, COLORADO**

**Introduction and Background**

The City of Aurora (the City) retained ERO Resources Corporation (ERO) to conduct a Phase II Environmental Site Assessment (ESA) of the Chikuma Property located west of the South Platte River in the northwest corner of Section 18, Township 1 North, Range 66 West of the 6<sup>th</sup> P.M. in Weld County, Colorado. The property consists of a 36-acre portion of a larger 87-acre parcel of land owned by the Chikuma Family LLC. The property and surrounding area is shown in Figure 1. This Phase II ESA was conducted in accordance with the scope of work provided to the City on October 20, 2006 and in general conformance with the ASTM Phase II Environmental Site Assessment Process standard guide E1903-97 (2002). Deviations from the October 20, 2006 Scope of Work provided to the City are presented in the Table 2.

ERO's Draft Phase I ESA dated January 3, 2007 identified the Helmer Getz Unit True #1 oil and gas well and the associated tank battery, oil/water separator, and meter shed (collectively, the "operations area") as a recognized environmental condition associated with the property. This report presents the findings and conclusions of a subsurface investigation to assess the potential for release or disposal of petroleum products on the property associated with the well and operations area.

**Regulatory Setting and Cleanup Standards**

**Soils**

*Colorado Oil and Gas Conservation Commission.* The Colorado Oil and Gas Conservation Commission (COGCC) regulates oil and gas exploration and production activities and operations in Colorado. Under COGCC's regulations, subsurface soils are categorized into sensitive and nonsensitive areas. Sensitive areas are defined as those

areas with the depth to average high water table of less than 20 feet below ground surface (BGS). Nonsensitive areas are defined as those with an average high water table of more than 20 feet BGS. COGCC's regulations allow 10,000 mg/kg or less of total petroleum hydrocarbons (TPH) to remain in soils in nonsensitive areas (COGCC 2004). For sensitive areas, COGCC's regulations allow 1,000 mg/kg or less TPH. COGCC has not established specific soil cleanup standards for individual petroleum hydrocarbon constituents (e.g., benzene, toluene, ethylbenzene, or total xylenes).

It is ERO's opinion that COGCC's cleanup standards based on total petroleum hydrocarbons do not adequately address potential risks to human health and the environment from petroleum hydrocarbons. TPH is a measure of all petroleum hydrocarbons that are within a particular boiling range and does not provide specific compound concentration information. The different chemical and physical properties of petroleum hydrocarbons pose different risk levels to human health and the environment that vary by compound. Because TPH does not differentiate between petroleum hydrocarbon constituents, which would allow for specific risk-based calculations and, in ERO's professional opinion, a more accurate assessment, ERO used cleanup standards issued by other Colorado regulatory agencies as described below.

***Cleanup Standards of Other Colorado Regulatory Agencies.*** The Colorado Department of Labor and Employment, Division of Oil and Public Safety (CDLE/OPS) has issued risk-based screening levels (RBSLs) for petroleum hydrocarbons in soils. The Colorado Department of Public Health and Environment (CDPHE) has issued Soil Remediation Objectives (SROs) for numerous additional compounds. CDLE/OPS regulates petroleum storage tanks and releases associated with nonagricultural storage tanks greater than 110 gallons and less than 39,999 gallons. CDPHE regulates releases from storage tanks not regulated by CDLE/OPS, including tanks associated with farm activities and those storing hazardous materials. The four primary petroleum hydrocarbons within petroleum products with the greatest risk to human health and the environment are benzene, toluene, ethylbenzene, and total xylenes (BTEX). CDLE/OPS and CDPHE have developed cleanup standards for these four specific hydrocarbons. The

cleanup standards from all three regulatory agencies (COGCC, CDLE/OPS, and CDPHE) are presented in Table 1.

Both CDLE/OPS and CDPHE require analysis of poly-aromatic hydrocarbons (PAHs) if total petroleum hydrocarbon concentrations are greater than 500 mg/kg and contaminated soils are to remain in place. The two agencies have also established cleanup standards for PAHs. Unless specifically cited otherwise, the CDPHE standards are referenced in the remaining sections of this report without citation.

#### **Ground Water**

The Colorado Water Quality Control Commission issues Colorado Basic Standards for Ground Water (CBGWS) for contaminants in drinking and ground water in Colorado. All regulatory agencies are required to adopt the standards. Because standards have been set for numerous chemical compounds, the standards will not be listed in this section, but are listed for individual compounds in the *Analytical Results* section.

#### **Subsurface Investigation**

On December 6, 2006, ERO supervised the installation of three monitoring wells and two temporary wells on the property to assess the recognized environmental condition identified in the January 3, 2007 Draft Phase I ESA. Based on topographic interpretation, the inferred local ground water flow is to the north-northeast, toward the South Platte River. When possible, soil borings were located hydrologically downgradient from the identified recognized environmental condition; and where possible, the soil borings were located based on buried subsurface utility clearance. Temporary well and monitoring well locations are shown in Figure 2. Three monitoring wells (CMW-1 through CMW-3) were drilled around the tank battery and two temporary wells (TW-3 and TW-4) were drilled around the wellhead (Table 2).

#### **Methods**

On December 6, 2006, ERO contracted with Vironex of Golden, Colorado to use a truck-mounted Geoprobe 6620 direct push rig to drill continuous soil cores at each of the boring locations. Soil cores were collected in polybutyl sleeves as the rig advanced at 5-

foot intervals. Soil cores were collected from the surface to 10 feet BGS. ERO logged the subsurface lithology, monitored the soil cores for volatile organic vapors with a photoionization detector (PID), and collected soil samples during the drilling activities.

PID readings were recorded directly off the soil cores in 1-foot intervals. Soil samples collected during investigation were collected from above the ground water table or from intervals with elevated PID readings (visual or olfactory indications of possible contamination). All soil samples were labeled with the site location (CMW = Chikuma monitoring well, TW = temporary well) and the sample depth in feet BGS. For example, CMW-1-4 was collected from monitoring well CMW-1 at a depth of 4 feet BGS.

The samples were collected and placed in laboratory-provided, certified pre-cleaned glass jars and placed in an iced cooler for delivery to Evergreen Analytical, Inc. in Wheat Ridge, Colorado. A total of 5 soil samples were collected throughout the investigation, one from each boring from soils at or immediately above the observed ground water table. The soil samples were analyzed for BTEX by EPA Method 8021, and total volatile petroleum hydrocarbons (TVPH) by EPA Method 8015 modified. The soil samples collected from intervals with elevated PID readings and visible staining were also analyzed for total extractable petroleum hydrocarbons (TEPH) by EPA Method 8015 modified.

Monitoring wells consisted of 5 feet of 1-inch factory-slotted (0.01 inch) poly-vinyl chloride (PVC) well screen with solid PVC casing riser to the surface. Native sands caved in on the well screens up to 4 feet BGS. The remaining annular spacing was filled with hydrated bentonite to the surface. The solid well casing was extended about 3.25 feet above the ground surface and capped with PVC slip caps. Protective steel casings were set over the PVC casing, set in concrete, and locked with a padlock to prevent unauthorized access. The wells were not professionally surveyed after installation.

Ground water grab samples were collected using a peristaltic pump and dedicated tubing. The samples are referred to as "grab" samples because wells were not purged prior to sampling. Ground water samples were collected in laboratory-provided, certified pre-cleaned (VOA) vials and placed in an iced cooler for delivery to Evergreen

Analytical Laboratory, Inc. in Wheat Ridge, Colorado. Ground water samples were analyzed for BTEX by EPA method 8021 and TVPH by EPA Method 8015 modified.

### **Subsurface Conditions**

In general, the subsurface conditions consisted of silt with lesser amounts of sand and clay from the surface to a depth of 2 to 4 feet BGS, followed by coarse-grained sand. Boring logs are presented in Appendix A. Soil staining, hydrocarbon odors, and elevated PID readings, ranging from 1.5 to 229 parts per million (ppm), were noted in borings CMW-1, CMW-2, and CMW-3 from 3 to 8 feet BGS. Ground water was encountered between 4 and 5 feet BGS.

### **Analytical Results**

Soil and ground water analytical results are presented in Tables 4 and 5. Laboratory sheets are included in Appendix B. Toluene, total xylenes, and TVPH were detected in soil samples collected from TW-3 and CMW-3. Soil samples from CMW-1 and CMW-2 contained detectable TEPH concentrations. The petroleum hydrocarbon detections in soil samples were below the COGCC threshold for sensitive areas, below the more conservative CDPHE SRO value for total petroleum hydrocarbons 500 mg/Kg, and below CDPHE SRO compound specific values (Table 4).

Xylenes and TVPH were detected in the ground water samples collected from CMW-1 and CMW-3. All of the petroleum hydrocarbon concentrations detected in the ground water samples were below the CBGWS for total xylenes (Table 5). There is no ground water standard for TVPH.

### **Findings and Conclusions**

ERO performed a Phase II ESA for the Chikuma property located west of the South Platte River in the northwest quarter of Section 18, Township 1 North, Range 66 West of the 6<sup>th</sup> P.M. in Weld County, Colorado. This Phase II ESA was conducted in accordance with the Scope of Work provided to the City on October 20, 2006 and the ASTM Phase II Environmental Site Assessment Process standard guide E1903-97 (2002). The Phase II ESA consisted of installing and sampling three ground water monitoring wells and two



temporary wells to assess the soil and ground water quality with respect to the Helmer Getz Unit True #1 oil and gas well.

During drilling, ERO noted petroleum staining and odors in soil cores from wells in the vicinity of the tank battery (CMW-1 to CMW-3) at depths immediately above and below the observed ground water table. Subsurface soils from CMW-2 contained total petroleum hydrocarbon concentrations that were below the COGCC thresholds for sensitive areas. Ground water in the vicinity of the identified soil contamination contained detectable concentrations of petroleum hydrocarbons, all of which were detected at concentrations below the CBGWS.

It is ERO's professional opinion that the recognized environmental condition identified during the Phase I ESA has resulted in a release or disposal of petroleum product on the property. Based on the results of this investigation and the previous Phase I ESA, it is ERO's professional opinion that the release or disposal of petroleum products on the property has not impacted the soil or ground water above applicable standards and no further assessment or regulatory-driven actions are necessary.

## **References**

- Colorado Department of Labor and Employment, Division of Oil and Public Safety. 2005. Petroleum storage tank regulations 7 CCR 1101-14.
- Colorado Department of Public Health and Environment. 2003. Information Regarding Management of Petroleum Contaminated Soil. October.
- Colorado Department of Public Health and Environment. 2005. Soil Remediation Objectives, Table 1. Soil Cleanup Table Value Standards in mg/Kg. March.
- Colorado Department of Public Health and Environment. 2005. Colorado Water Quality Control Commission. Basic Standards for Ground Water. Regulation No. 41. March 22.
- Colorado Oil and Gas Conservation Commission. 2004. Rules and regulations—Exploration and Production (E&P) Waste Management (900 series). Table 910-1. Allowable concentrations and levels. April.
- ERO Resources Corporation. 2007. Phase I Environmental Site Assessment for the Chikuma Property. January 3.

PHASE II ENVIRONMENTAL SITE ASSESSMENT  
CHIKUMA PROPERTY, WEST OF THE SOUTH PLATTE RIVER, NW1/4, S18, T1N, R66W, 6<sup>TH</sup> P.M.  
WELD COUNTY, COLORADO

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This Phase II ESA was conducted under my supervision and direction:



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Jack Denman  
Environmental Scientist/Principal

By



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Courtney Sockwell  
Environmental Scientist

PHASE II ENVIRONMENTAL SITE ASSESSMENT  
CHIKUMA PROPERTY, WEST OF THE SOUTH PLATTE RIVER, NW1/4, S18, T1N, R66W  
WELD COUNTY, COLORADO

**Table 1. Cleanup standards for petroleum hydrocarbons in soils.**

<b>Agency</b>	<b>Benzene (mg/kg)</b>	<b>Toluene (mg/kg)</b>	<b>Ethyl- benzene (mg/kg)</b>	<b>Total Xylenes (mg/kg)</b>	<b>TPH (mg/kg)</b>
COGCC	NS	NS	NS	NS	10,000/1,000 <sup>1</sup>
OPS Surface Soils (<3' deep)	2.8	4,000	2,100	10,000	500 <sup>2</sup>
OPS Subsurface Soils (>3' deep)	0.26	140	190	260	500 <sup>2</sup>
CDPHE Residential	0.84	1,000	1,000	1,000	500 <sup>2</sup>
CDPHE Protective of Ground Water	0.17	85	104	1,000	NS

NS = No applicable standard.

TPH = Total petroleum hydrocarbons.

COGCC = Colorado Oil and Gas Conservation Commission 2004.

OPS = Colorado Department of Labor and Employment Department of Oil and Public Safety 2005.

CDPHE = Colorado Department of Public Health and Environment Soil Remediation Objectives 2005

<sup>1</sup>COGCC Standard for Total Petroleum Hydrocarbons (TPH) in nonsensitive/sensitive areas.

<sup>2</sup>CDPHE and CDLE/OPS require PAH analysis if TPH exceeds 500 mg/kg.

PHASE II ENVIRONMENTAL SITE ASSESSMENT  
CHIKUMA PROPERTY, WEST OF THE SOUTH PLATTE RIVER, NW1/4, S18, T1N, R66W, 6<sup>TH</sup> P.M.  
WELD COUNTY, COLORADO

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**Table 2. Recognized environmental conditions proposed/performed investigations.**

Recognized Environmental Condition <sup>1</sup>	Proposed Drilling Program			Investigation Performed			Soil Sample Analysis <sup>2</sup>	Water Sample Analysis <sup>2</sup>
	Soil Borings	Monitoring Wells	Surface Soil Samples	Temporary Wells	Monitoring Wells	Surface Soil Samples		
Helmer Getz Unit True #1 Oil and Gas Well	0	7	0	TW-3 TW-4	---	---	BTEX, TVPH	BTEX, TVPH
				---	CMW-1 CMW-2 CMW-3	---	BTEX, TVPH, TEPH	BTEX, TVPH

<sup>1</sup>As identified in ERO's Phase I ESA (2007).

<sup>2</sup>BTEX = Benzene, Toluene, Ethylbenzene, total Xylenes by EPA method 8021; TVPH = Total Volatile Petroleum Hydrocarbons, and TEPH = Total Extractable Petroleum Hydrocarbons by EPA method 8015 modified.

PHASE II ENVIRONMENTAL SITE ASSESSMENT  
 CHIKUMA PROPERTY, WEST OF THE SOUTH PLATTE RIVER, NW1/4, S18, T1N, R66W, 6<sup>TH</sup> P.M.  
 WELD COUNTY, COLORADO

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**Table 3. Investigation details and ground water levels.**

<b>Feature</b>	<b>Boring</b>	<b>Soil Sample ID</b>	<b>Sample Depth (feet BGS)</b>	<b>Total Depth (feet BGS)</b>	<b>Location with Respect to Feature</b>
Helmer Getz Unit True #1 Oil and Gas Well	TW-3	TW-3-4	4	15	West side of wellhead
	TW-4	TW-4-4	4	15	East side of wellhead
	CMW-1	CMW-1-5	5	15	North side of operations area
	CMW-2	CMW-2-5	5	15	East side of operations area
	CMW-3	CMW-3-4	4	15	West side of operations area

PHASE II ENVIRONMENTAL SITE ASSESSMENT  
CHIKUMA PROPERTY, WEST OF THE SOUTH PLATTE RIVER, NW1/4, S18, T1N, R66W  
WELD COUNTY, COLORADO

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**Table 4. Soil sample analytical results.**

Sample ID	Units	Depth of Sample (feet BGS)	Benzene	Toluene	Ethylbenzene	Xylenes (total)	TVPH	TEPH
TW-3-4	mg/kg	4	ND	0.24	ND	5.1	180	ND
TW-4-4	mg/kg	4	ND	ND	ND	ND	ND	ND
CMW-1-5	mg/kg	5	ND	ND	ND	ND	ND	19
CMW-2-5	mg/kg	5	ND	ND	ND	ND	ND	34
CMW-3-4	mg/kg	4	ND	0.24	ND	3.0	140	ND
CDPHE Standard	mg/kg		0.26	140	190	260	500	500

ND = Compound not detected above the method detection limit at standard dilutions.

**Bold** = Result exceeds applicable standard; TVPH = Total Volatile Petroleum Hydrocarbons; TEPH = Total Extractable Petroleum Hydrocarbons

PHASE II ENVIRONMENTAL SITE ASSESSMENT  
CHIKUMA PROPERTY, WEST OF THE SOUTH PLATTE RIVER, NW1/4, S18, T1N, R66W  
WELD COUNTY, COLORADO

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**Table 5. Ground water analytical results.**

Sample ID	Units	Benzene	Toluene	Ethylbenzene	Xylenes (total)	TVPH <sup>3</sup> (mg/L)
TW-3	µg/L	ND	ND	ND	ND	ND
TW-4	µg/L	ND	ND	ND	ND	ND
CMW-1	µg/L	ND	ND	ND	12.7	1.2
CMW-2	µg/L	ND	ND	ND	ND	ND
CMW-3	µg/L	ND	ND	ND	13.7	0.8
CBGWS	µg/L	5	1,000	700	1,400 <sup>1</sup> (10,000 <sup>2</sup> )	NS

ND = Compound not detected above the laboratory reporting limit.

NS = No Standard.

CBGWS = Colorado Basic Ground Water Standard.

<sup>1</sup>CBGWS for releases after September 14, 2004.

<sup>2</sup>CBGWS for releases prior to September 14, 2004.

<sup>3</sup>Results reported in mg/L.



PHASE II ENVIRONMENTAL SITE ASSESSMENT  
CIBIKUMA PROPERTY, WEST OF THE SOUTH PLATTE RIVER, NW 1/4, S18, T1N, R66W  
WELD COUNTY, COLORADO

Table 6. Recognized environmental conditions and resolutions.

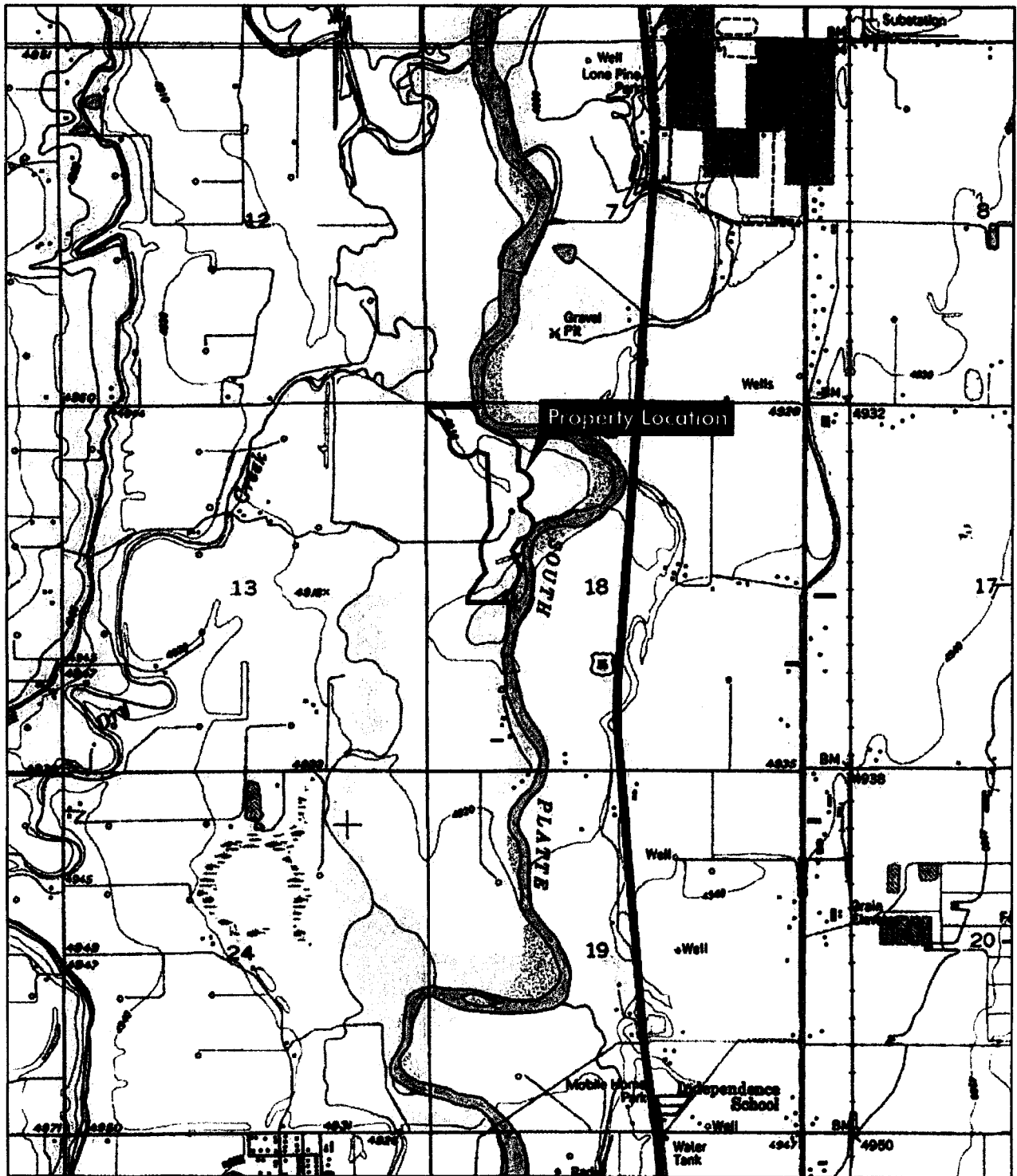
Recognized Environmental Condition	On-site Observations and Size or Extents of Staining	Drilling Program			Actions Taken	Analysis		Results	Estimated Volumes of Contaminated Soil <sup>1</sup>	Resolution		
		Temporary Well	Monitoring Well Completions	Subsurface Soil Samples		Soil	Water					
Helmer Getz Unit True #1 Oil and Gas Well	No soil staining observed around the wellhead.	TW-3	---	TW-3-4	Two temporary monitoring wells drilled	BTEX/ TVPH	BTEX/ TVPH	No petroleum hydrocarbons detected above standards	---	Soil and ground water around wellhead has not been impacted by oil and gas well drilling and operations. No additional assessment is necessary		
	TW-4	TW-4-4		BTEX/ TVPH								
	No soil staining observed around the tank battery, oil/water separator, or meter shed.	---	CMW-1	CMW-1-5	Three monitoring wells drilled and completed with protective steel stickups.	BTEX/ TVPH/TEPH	BTEX/ TVPH	No petroleum hydrocarbons detected above standards	---	Soil and ground water has not been impacted above standards. No further assessment is necessary		
		---	CMW-2	CMW-2-5		BTEX/ TVPH/TEPH		No petroleum hydrocarbons detected above standards	---	Soil and ground water has not been impacted above standards. No further assessment is necessary		
		---	CMW-3	CMW-3-4		BTEX/ TVPH/TEPH		No petroleum hydrocarbons detected above standards	---	Soil and ground water has not been impacted above standards. No further assessment is necessary		
		---										

<sup>1</sup> Measurements based on surface and observed depth

## **FIGURES**

**Figure 1. Property location.**

**Figure 2. Monitoring well locations.**



**ERO**

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Fax: (303) 830-1199

## Chikuma Property; Phase II ESA

Section 18, T1N, R66W  
UTM Coordinates: Zone 13; 514890mE, 4433757mN  
USGS Fort Lupton, CO Quadrangle  
Weld County, Colorado



**AURORA WATER**  
Prairie Waters Project

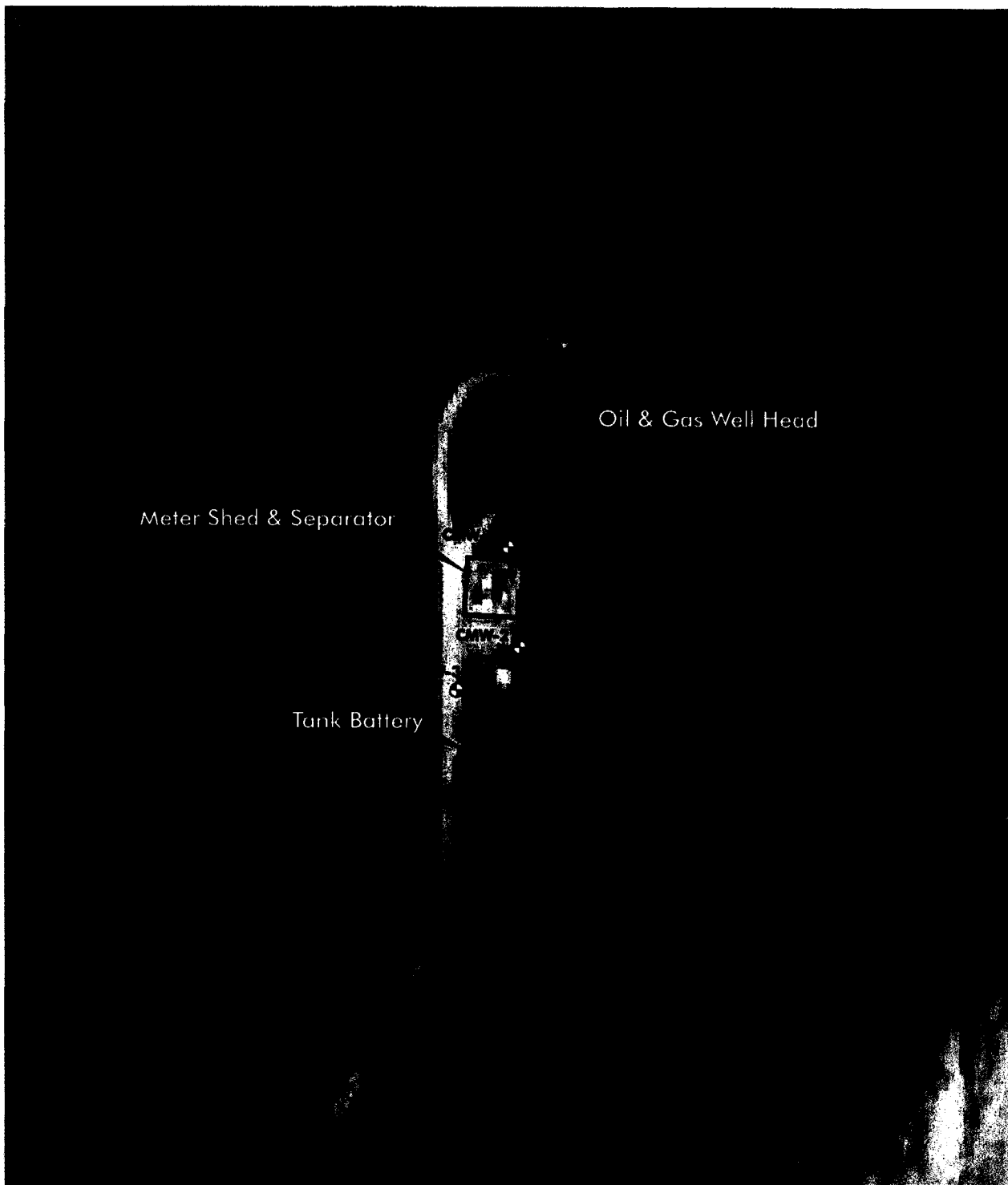
0 2000 4000 feet

1 Inch = 2,000 Feet



## Figure 1 Property Location

Prepared for: City of Aurora  
File: 2599 figure 1 Ch Ph II.pdf  
March 2007



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Chikuma Property; Phase II ESA



AURORA WATER  
Prairie Waters Project

Aerial Photograph: USGS 2005

0 100 200 feet

1 Inch = 100 Feet

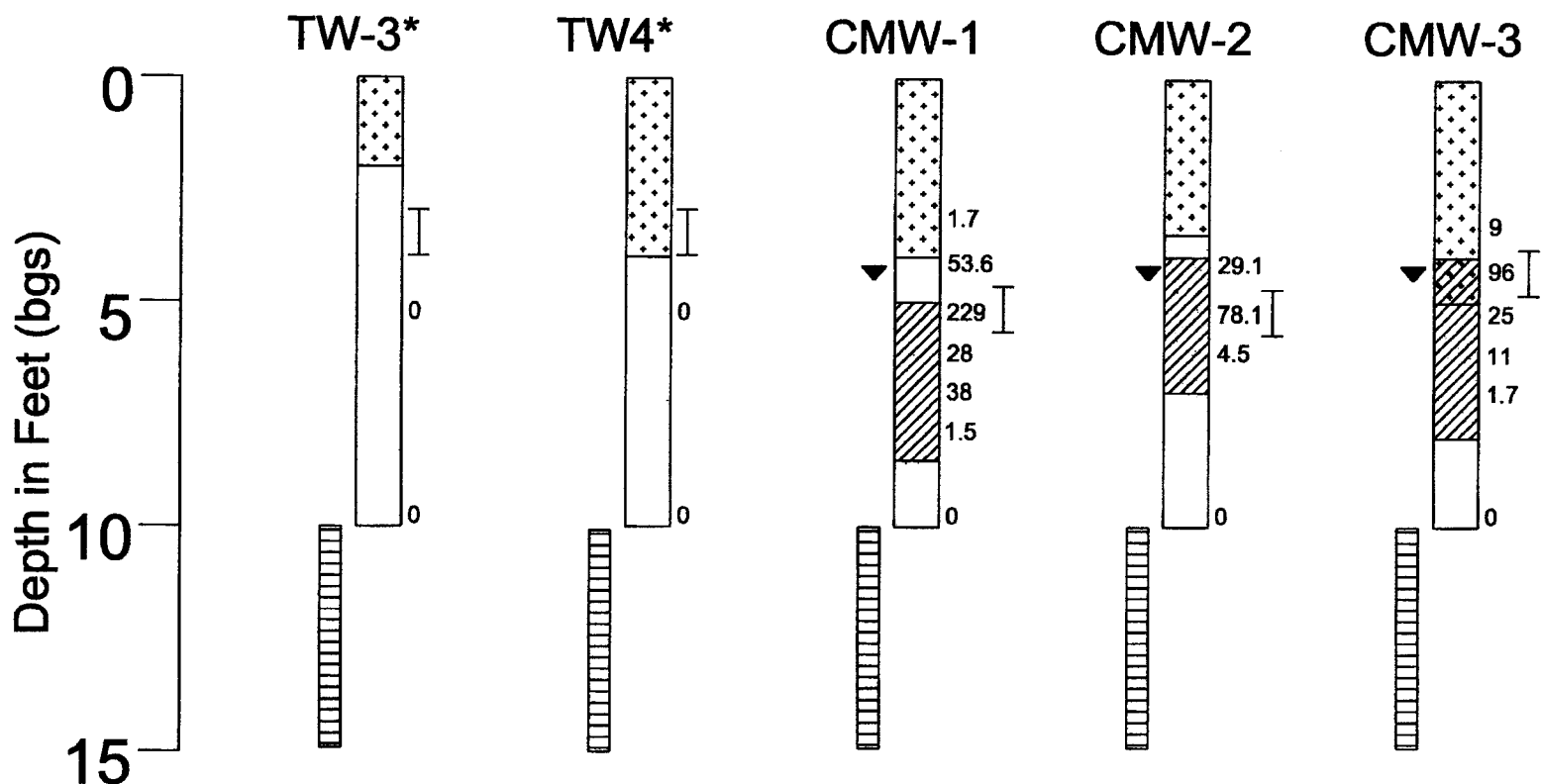


**Figure 2**  
**Boring Locations**

Prepared for: City of Aurora  
File: 2599 Figure 2 Ch Ph II.pdf  
March 2007

**APPENDIX A —**

**BORING LOGS**



## Notes:

- All borings were drilled using a truck mounted Geoprobe 6620 direct push drill rig on December 6, 2006.
  - 22 Photoionization Detector (PID) readings in parts per million (ppm)
  - I Soil sample interval.
  - Well screen interval. 1-inch diameter slotted PVC well screen (0.010-inch slot)
- Water was encountered in the wells at 4 feet below ground surface.

## Lithology:

- Silt, with lesser amounts of sand, very fine grain to medium grain, medium brown, non-plastic
- Sand, medium fine grain to coarse grain, light brown to orangish brown, poorly sorted to moderately well sorted, loose.
- Petroleum hydrocarbon staining, strong to moderate odors, grey to black in color.

**ERO**

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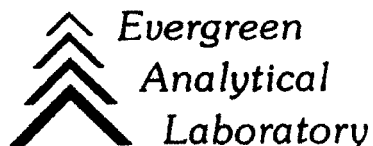
**Chikuma Property**  
Boring Logs and Well  
Completions

**The City of Aurora**  
**Prairie Waters**  
**Project**

*Prepared for: the City of Aurora*  
*December 2006*

- \* Temporary wells. Wells not fully completed and pulled and abandoned immediately after sampling
- All permanent monitoring wells were installed with native sands up to 4 feet below ground surface and bentonite to the surface. Protective steel stickup casings were installed at the surface.
- ▼ Depth to water measured from the ground surface in monitoring wells

**APPENDIX B—**  
**LABORATORY ANALYTICAL DATA**



December 13, 2006

Courtney Sockwell  
ERO Resources Corporation  
1842 Clarkson St.  
Denver, CO 80218

Lab Work Order: 06-8330  
Client Project ID: 3620

Dear Courtney Sockwell:

Enclosed are the analytical results for the samples shown in the Laboratory Work Order Summary. The invoice is included with this report or has been mailed to another party as indicated on the chain of custody.

The enclosed data for testing performed at Evergreen Analytical Laboratory (EAL) have been reviewed for quality assurance. A case narrative is included to describe any anomalies associated with the samples or data.

EAL will dispose of all samples one month from the date of this letter. If you want samples returned, please advise us by mail or fax as soon as possible.

A copy of this project report and supporting data will be retained for a period of five years unless we are otherwise advised by you. A document retrieval charge will apply.

Thank you for using the services of Evergreen Analytical. If you have any questions concerning the analytical data, please contact me. Please direct other questions to Client Services.

Sincerely,

A handwritten signature in cursive script that reads 'Carl Smits'.

Carl Smits / Kaprie Hollman  
Technical Director of Chemical Analysis



## WORK ORDER Summary

Evergreen Analytical, Inc.

06-8330

Rpt To: Courtney Sockwell  
 ERO Resources Corporation  
 1842 Clarkson St.  
 Denver, CO 80218  
 (303) 830-1188

Email To: csockwell@eroreources.com

12/6/2006 4:27:20 PM

Client Project ID: 3620

QC Level: Level 1

## Comments:

Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Test Code	Test Name	Hold	MS	Date Due	Hold Time
06-8330-01A	TW-1-5	Soil	12/05/06 0930	12/06/06	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-01A	TW-1-5	Soil	12/05/06 0930	12/06/06	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-02A	TW-2-5	Soil	12/05/06 0947	12/06/06	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-02A	TW-2-5	Soil	12/05/06 0947	12/06/06	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-03A	MMW-1-5	Soil	12/05/06 1025	12/06/06	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-03A	MMW-1-5	Soil	12/05/06 1025	12/06/06	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-03B	MMW-1-5	Soil	12/05/06 1025	12/06/06	TEH_S *	8015: TEH-Diesel	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-04A	MMW-2-9	Soil	12/05/06 1125	12/06/06	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-04A	MMW-2-9	Soil	12/05/06 1125	12/06/06	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-04B	MMW-2-9	Soil	12/05/06 1125	12/06/06	TEH_S *	8015: TEH-Diesel	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-05A	MMW-3-7	Soil	12/05/06 1215	12/06/06	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-05A	MMW-3-7	Soil	12/05/06 1215	12/06/06	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-05B	MMW-3-7	Soil	12/05/06 1215	12/06/06	TEH_S *	8015: TEH-Diesel	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-06A	TW-3-4	Soil	12/06/06 0830	12/06/06	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-06A	TW-3-4	Soil	12/06/06 0830	12/06/06	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-07A	TW-4-4	Soil	12/06/06 0900	12/06/06	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-07A	TW-4-4	Soil	12/06/06 0900	12/06/06	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-08A	CMW-1-5	Soil	12/06/06 0935	12/06/06	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-08A	CMW-1-5	Soil	12/06/06 0935	12/06/06	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-08B	CMW-1-5	Soil	12/06/06 0935	12/06/06	TEH_S *	8015: TEH-Diesel	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-09A	CMW-2-5	Soil	12/06/06 1005	12/06/06	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06

Definitions: \* - Test Code has a Select List

## WORK ORDER Summary

Evergreen Analytical, Inc.

06-8330

Rpt To: Courtney Sockwell  
 ERO Resources Corporation  
 1842 Clarkson St.  
 Denver, CO 80218  
 (303) 830-1188

Email To: csockwell@eroresources.com

12/6/2006 4:27:20 PM

Client Project ID: 3620

QC Level: Level I

06-8330-09A	CMW-2-5	Soil	12/06/06 1005	12/06/06	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-09B	CMW-2-5	Soil	12/06/06 1005	12/06/06	TEH_S *	8015: TEH-Diesel	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-10A	CMW-3-4	Soil	12/06/06 1035	12/06/06	8021_S *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-10A	CMW-3-4	Soil	12/06/06 1035	12/06/06	TVH_S *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-10B	CMW-3-4	Soil	12/06/06 1035	12/06/06	TEH_S *	8015: TEH-Diesel	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-11A	TW-1	Groundwater	12/05/06 0930	12/06/06	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-11A	TW-1	Groundwater	12/05/06 0930	12/06/06	TVH_W *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-12A	TW-2	Groundwater	12/05/06 1005	12/06/06	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-12A	TW-2	Groundwater	12/05/06 1005	12/06/06	TVH_W *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-13A	MMW-1	Groundwater	12/05/06 1050	12/06/06	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-13A	MMW-1	Groundwater	12/05/06 1050	12/06/06	TVH_W *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-14A	MMW-2	Groundwater	12/05/06 1145	12/06/06	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-14A	MMW-2	Groundwater	12/05/06 1145	12/06/06	TVH_W *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-15A	MMW-3	Groundwater	12/05/06 1240	12/06/06	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-15A	MMW-3	Groundwater	12/05/06 1240	12/06/06	TVH_W *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/19/06
06-8330-16A	TW-3	Groundwater	12/06/06 0845	12/06/06	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-16A	TW-3	Groundwater	12/06/06 0845	12/06/06	TVH_W *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-17A	TW-4	Groundwater	12/06/06 0910	12/06/06	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-17A	TW-4	Groundwater	12/06/06 0910	12/06/06	TVH_W *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-18A	CMW-1	Groundwater	12/06/06 0945	12/06/06	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-18A	CMW-1	Groundwater	12/06/06 0945	12/06/06	TVH_W *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-19A	CMW-2	Groundwater	12/06/06 1020	12/06/06	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-19A	CMW-2	Groundwater	12/06/06 1020	12/06/06	TVH_W *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06

Definitions: \* - Test Code has a Select List

06-8330

**WORK ORDER Summary****Evergreen Analytical, Inc.****06-8330**

Rpt To: Courtney Sockwell  
ERO Resources Corporation  
1842 Clarkson St.  
Denver, CO 80218  
(303) 830-1188

Email To: csockwell@eroreources.com

12/6/2006 4:27:20 PM

Client Project ID: 3620

QC Level: Level I

06-8330-20A	CMW-3	Groundwater	12/06/06 1050	12/06/06	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06
06-8330-20A	CMW-3	Groundwater	12/06/06 1050	12/06/06	TVH_W *	8015: TVH-Gasoline	<input type="checkbox"/>	<input type="checkbox"/>	12/11/06	12/20/06

Definitions: \* - Test Code has a Select List

**Evergreen Analytical Laboratory Inc.**

Page 1 of 2

CLIENT EPIC Resources

CITY Denver STATE CO ZIP 80218

PHONE 3/830-1188 FAX 3/830-1199

REPORT BY ☐ MAIL ☐ FAX ☒ PDF ☐ EDD

REPORT CHROMATOGRAMS ☐ YES

REPORT TO (Mr/Ms) Courtney Schwell

INVOICE TO Sam

PROJECT I.D. 3620

P.O. # \_\_\_\_\_ EAL QUOTE # \_\_\_\_\_

Sampler: GS Shell

**NOTE:** Identify Known Hazards Below

[illegible]

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME
--------------------------	-----------------	------

csackwell@erofesources.com

4036 Youngfield St.  
Wheat Ridge, Colorado 80033  
(303) 425-6021  
FAX (303) 425-6854  
(877) 737-4521  
e-mail [info@evergreenanalytical.com](mailto:info@evergreenanalytical.com)

Report Results by: \_\_\_\_\_ (Date)\*

Standard 2 working weeks ☐

UST Analyses per Fee Schedule ☒

\* Rush: ☐ less than 24 hrs, 150% ☐ 1 - 2 work days, 100%

☐ 3 - 5 work days, 50%      ☐ 6 - 9 work days, 25%

\*Subject to surcharge & exceptions noted in fee schedule.

**For Laboratory  
Use Only**

W.O.# 06-8330

B.O.F.# 29

C/S (O) Na / Na

C/S # 644 1252

Temp °C 22 / Ice \_\_\_\_\_  
Back Pressure \_\_\_\_\_

Seals Present Y 1 / NA

Headspace Y / N / NA

By           

[illegible]

**\*\* Important Note:** See reverse side hereof for terms and conditions.

Relinquished by: (Signature) <i>[Signature]</i>	Date/Time 12/6/06 1320	Received by: (Signature) <i>Walter Stone</i> #416	Date/Time 12-6-06 1:30	Relinquished by: (Signature)	Date/Time	Received by: (Signature) <i>[Signature]</i>	Date/Time 12/6/6 3:10 pm
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**Evergreen Analytical Laboratory Inc.**

## CLIENT INFORMATION

085 CLIENT ERD

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PHONE \_\_\_\_\_ FAX \_\_\_\_\_ E-mail \_\_\_\_\_

REPORT BY ☐ MAIL ☐ FAX ☒ PDF ☐ EDD

REPORT CHROMATOGRAMS ☐ YES

REPORT TO (Mr/Ms) Constance S. H. Y.

INVOICE TO Sina

PROJECT I.D. 3620

P.O. # \_\_\_\_\_ EAL QUOTE # \_\_\_\_\_

Sampler: 

**NOTE:** Identify Known Hazards Below

SAMPLE IDENTIFICATION	DATE SAMPLED	TIME
--------------------------	-----------------	------

**4036 Youngfield St.  
Wheat Ridge, Colorado 80033  
(303) 425-6021  
FAX (303) 425-6854  
(877) 737-4521  
e-mail [info@evergreenanalytical.com](mailto:info@evergreenanalytical.com)**

Report Results by: \_\_\_\_\_ (Date)\*

Standard 2 working weeks ☐

UST Analyses per Fee Schedule ☒

\* Rush: ☐ less than 24 hrs, 150% ☐ 1 - 2 work days, 100%  
☐ 3 - 5 work days, 50% ☐ 6 - 9 work days, 25%

**\*Subject to surcharge & exceptions noted in fee schedule.**

**For Laboratory  
Use Only**

WD#06-8330

B.O.F. # 22

C/S (O) 72 / 12



C/S (1) C+P/Q

Temp. °C 22 / Ice     Seals Present Y ~~IN~~ NA**Samples Pres. Y/N/NA****Filespace Y / N / NA**

By                     

[illegible]

**\*\* Important Note:** See reverse side hereof for terms and conditions.

Relinquished by: (Signature) 	Date/Time 12/6/06 1320	Received by: (Signature) Walter Stone #416	Date/Time 12-6-06 1:30	Relinquished by: (Signature)	Date/Time	Received by: (Signature) 	Date/Time 12/6/06 3:15 PM
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**Evergreen Analytical, Inc.**

**Date: 13-Dec-06**

**Client Project ID: 3620**

**Lab Order: 06-8330**

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**CASE NARRATIVE**

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**SAMPLE RECEIVING**

Custody seals were not present.

The temperature of the sample(s) upon arrival was 2.2 °C.

Sample(s) were received in good condition, in the proper container, and within holding times.

VOC water sample(s) were marked as preserved on the bottle labels.

VOC sample(s) were received with no headspace present. JD

**QUALITY ASSURANCE**

Analyses performed on samples in this work order meet the requirements of the EAL Quality Assurance Program unless otherwise explained. Analyses of RCRA samples meet the requirements of NELAC and Utah Rule R444-14 unless otherwise explained. CMS

**CLIENT SERVICES**

There are no anomalies to report. AMU

**GAS CHROMATOGRAPHY**

Method 8021\_S and TVH\_S: The surrogate recovery for samples 06-8330-03A, -04A, -05A, -06A, and -10A is above the QC limit due to coeluting interference. This does not affect the analysis of the target analytes, which elute before the interference. The TVH surrogate recovery for LCS2120806-B, 06-8330-2AMS, and sample 06-8330-08A is above the QC limits due to coeluting interference ; the same surrogates measured by PID (BTEX analysis) are within QC limits. The surrogate recovery for one set of Laboratory Control Spikes ( LCS121006, and LCSD121006) is above the QC limit but all analyte recoveries are within limits, so sample results are not affected. All other quality control associated with this project is within QC limits. There are no other other anomalies to report. GJR/JM/CMS

Method 8021\_W and TVH\_W: The surrogate recovery for samples 06-8330-13A, -18A, and -20A is above the QC limit due to coeluting interference. This does not affect the analysis of the target analytes, which elute before the interference. The surrogate recovery for the matrix spike and matrix spike duplicate (06-8330-12AMS and 06-8330-12AMSD) is above the QC limit but all target analyte recoveries are within QC limits. All other quality control samples associated with this project are within QC limits. There are no other anomalies to report. AE/CMS

Method TEH\_S: There are no anomalies to report. AE

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**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: TW-3-4  
Client Project ID: 3620  
Date Collected: 12/6/2006  
Date Received: 12/6/2006

Lab Work Order: 06-8330  
Lab Sample ID: 06-8330-06A  
Sample Matrix: Soil

**AROMATIC VOLATILE ORGANICS**

**Method: SW8021B**

**Prep Method: SW5035A**

Date Prepared: 12/7/2006  
Date Analyzed: 12/11/2006

Lab File ID: TVB21211\007R  
Method Blank: MEB2120706

Dilution Factor: 100

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	100	µg/Kg
Toluene	108-88-3	240	200	µg/Kg
Ethylbenzene	100-41-4	U	200	µg/Kg
m,p-Xylene	1330-20-7	3000	200	µg/Kg
o-Xylene	95-47-6	2100	200	µg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	174 S	QC Limits: 60-140	%REC

**TOTAL VOLATILE HYDROCARBONS**

**Method: SW8015M**

**Prep Method: SW5035A**

Date Prepared: 12/7/2006  
Date Analyzed: 12/11/2006

Lab File ID: TVB21211\007F  
Method Blank: MEB2120706

Dilution Factor: 100

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	180	20	mg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	186 S	QC Limits: 60-140	%REC

  
Analyst

  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 12/12/2006

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**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: TW-4-4  
Client Project ID: 3620  
Date Collected: 12/6/2006  
Date Received: 12/6/2006

Lab Work Order: 06-8330  
Lab Sample ID: 06-8330-07A  
Sample Matrix: Soil

**AROMATIC VOLATILE ORGANICS**

Method: SW8021B

Prep Method: SW5035A

Date Prepared: 12/8/2006  
Date Analyzed: 12/9/2006

Lab File ID: TVB21208\039R  
Method Blank: MB2120806-B

Dilution Factor: 5

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	5.0	µg/Kg
Toluene	108-88-3	U	10	µg/Kg
Ethylbenzene	100-41-4	U	10	µg/Kg
m,p-Xylene	1330-20-7	U	10	µg/Kg
o-Xylene	95-47-6	U	10	µg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	110	QC Limits: 60-140	%REC

**TOTAL VOLATILE HYDROCARBONS**

Method: SW8015M

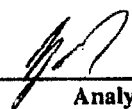
Prep Method: SW5035A

Date Prepared: 12/8/2006  
Date Analyzed: 12/9/2006

Lab File ID: TVB21208\039F  
Method Blank: MB2120806-B

Dilution Factor: 5

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	U	1.0	mg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	104	QC Limits: 60-140	%REC

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 12/13/2006



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**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: CMW-1-5  
Client Project ID: 3620  
Date Collected: 12/6/2006  
Date Received: 12/6/2006

Lab Work Order: 06-8330  
Lab Sample ID: 06-8330-08A  
Sample Matrix: Soil

**AROMATIC VOLATILE ORGANICS**

Method: SW8021B

Prep Method: SW5035A

Date Prepared: 12/8/2006  
Date Analyzed: 12/9/2006

Lab File ID: TVB21208\040R  
Method Blank: MB2120806-B

Dilution Factor: 5

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	5.0	µg/Kg
Toluene	108-88-3	U	10	µg/Kg
Ethylbenzene	100-41-4	U	10	µg/Kg
m,p-Xylene	1330-20-7	U	10	µg/Kg
o-Xylene	95-47-6	U	10	µg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	128	QC Limits: 60-140	%REC

**TOTAL VOLATILE HYDROCARBONS**

Method: SW8015M

Prep Method: SW5035A

Date Prepared: 12/8/2006  
Date Analyzed: 12/9/2006

Lab File ID: TVB21208\040F  
Method Blank: MB2120806-B

Dilution Factor: 5

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	U	1.0	mg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	148 S	QC Limits: 60-140	%REC

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL). TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 12/13/2006

**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: CMW-2-5  
Client Project ID: 3620  
Date Collected: 12/6/2006  
Date Received: 12/6/2006

Lab Work Order: 06-8330  
Lab Sample ID: 06-8330-09A  
Sample Matrix: Soil

**AROMATIC VOLATILE ORGANICS**

Method: SW8021B

Prep Method: SW5035A

Date Prepared: 12/8/2006  
Date Analyzed: 12/9/2006

Lab File ID: TVB21208\041R  
Method Blank: MB2120806-B

Dilution Factor: 5

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	5.0	µg/Kg
Toluene	108-88-3	U	10	µg/Kg
Ethylbenzene	100-41-4	U	10	µg/Kg
m,p-Xylene	1330-20-7	U	10	µg/Kg
o-Xylene	95-47-6	U	10	µg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	116	QC Limits: 60-140	%REC

**TOTAL VOLATILE HYDROCARBONS**

Method: SW8015M

Prep Method: SW5035A

Date Prepared: 12/8/2006  
Date Analyzed: 12/9/2006

Lab File ID: TVB21208\041F  
Method Blank: MB2120806-B

Dilution Factor: 5

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	U	1.0	mg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	140	QC Limits: 60-140	%REC

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 12/13/2006

B34

**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: CMW-3-4  
Client Project ID: 3620  
Date Collected: 12/6/2006  
Date Received: 12/6/2006

Lab Work Order: 06-8330  
Lab Sample ID: 06-8330-10A  
Sample Matrix: Soil

**AROMATIC VOLATILE ORGANICS**

**Method: SW8021B**

**Prep Method: SW5035A**

Date Prepared: 12/7/2006  
Date Analyzed: 12/11/2006

Lab File ID: TVB21211\008R  
Method Blank: MEB2120706

Dilution Factor: 100

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	100	µg/Kg
Toluene	108-88-3	240	200	µg/Kg
Ethylbenzene	100-41-4	U	200	µg/Kg
m,p-Xylene	1330-20-7	1600	200	µg/Kg
o-Xylene	95-47-6	1400	200	µg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	180 S	QC Limits: 60-140	%REC

**TOTAL VOLATILE HYDROCARBONS**

**Method: SW8015M**

**Prep Method: SW5035A**

Date Prepared: 12/7/2006  
Date Analyzed: 12/11/2006

Lab File ID: TVB21211\008F  
Method Blank: MEB2120706

Dilution Factor: 100

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	140	20	mg/Kg
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	252 S	QC Limits: 60-140	%REC

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 12/12/2006

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

Lab Order: 06-8330  
 Client Project ID: 3620  
 Matrix: Soil

Date Received: 12/6/06  
 Date Prepared: 12/7/06  
 Prep Batch ID: 11499  
 Units: mg/Kg

**Total Extractable Hydrocarbons**  
**Diesel Fuel (No. 2)**

Method: SW8015M

Prep Method: SW3550A

Lab ID	Client Sample ID	File ID	Date Collected	Date Analyzed	DF	Surr REC	Sample Results	LQL
06-8330-03B	MMW-1-5	FID51207015F1501	12/5/06	12/7/06	1	58%	260	14
06-8330-04B	MMW-2-9	FID51207016F1601	12/5/06	12/7/06	1	66%	1100	14
06-8330-05B	MMW-3-7	FID51207017F1701	12/5/06	12/7/06	1	58%	340	14
06-8330-08B	CMW-1-5	FID51207023F2301	12/6/06	12/7/06	1	48%	19	14
06-8330-09B	CMW-2-5	FID51207024F2401	12/6/06	12/7/06	1	63%	34	14
06-8330-10B	CMW-3-4	FID51207025F2501	12/6/06	12/7/06	1	64%	U	14

Surrogate QC Limits 39-130 %REC

Surr: TBB

  
 Analyst

  
 Approved

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** DF - Dilution Factor  
 LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 12/11/06

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**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: TW-3  
Client Project ID: 3620  
Date Collected: 12/6/06  
Date Received: 12/6/06

Lab Work Order 06-8330  
Lab Sample ID: 06-8330-16A  
Sample Matrix: Groundwater

**AROMATIC VOLATILE ORGANICS**

Method: SW8021B

Prep Method: SW5030A

Date Prepared: 12/7/06  
Date Analyzed: 12/7/06

Lab File ID: TVB21207014R  
Method Blank: MB2120706

Dilution Factor: 1

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	129	QC Limits: 60-140	%REC

**TOTAL VOLATILE HYDROCARBONS**

Method: SW8015M

Prep Method: SW5030A

Date Prepared: 12/7/06  
Date Analyzed: 12/7/06

Lab File ID: TVB21207014F  
Method Blank: MB2120706

Dilution Factor: 1

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	U	0.20	mg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	117	QC Limits: 60-140	%REC

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 12/8/06

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**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: TW-4  
Client Project ID: 3620  
Date Collected: 12/6/06  
Date Received: 12/6/06

Lab Work Order 06-8330  
Lab Sample ID: 06-8330-17A  
Sample Matrix: Groundwater

**AROMATIC VOLATILE ORGANICS**

Method: SW8021B

Prep Method: SW5030A

Date Prepared: 12/7/06  
Date Analyzed: 12/7/06

Lab File ID: TVB21207015R  
Method Blank: MB2120706

Dilution Factor: 1

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	128	QC Limits: 60-140	%REC

**TOTAL VOLATILE HYDROCARBONS**

Method: SW8015M

Prep Method: SW5030A

Date Prepared: 12/7/06  
Date Analyzed: 12/7/06

Lab File ID: TVB21207015F  
Method Blank: MB2120706

Dilution Factor: 1

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	U	0.20	mg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	117	QC Limits: 60-140	%REC

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 12/8/06

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**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: CMW-1  
Client Project ID: 3620  
Date Collected: 12/6/06  
Date Received: 12/6/06

Lab Work Order 06-8330  
Lab Sample ID: 06-8330-18A  
Sample Matrix: Groundwater

**AROMATIC VOLATILE ORGANICS**

Method: SW8021B

Prep Method: SW5030A

Date Prepared: 12/7/06  
Date Analyzed: 12/7/06

Lab File ID: TVB21207016R  
Method Blank: MB2120706

Dilution Factor: 1

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	10	2.0	µg/L
o-Xylene	95-47-6	2.7	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	153 S	QC Limits: 60-140	%REC

**TOTAL VOLATILE HYDROCARBONS**

Method: SW8015M

Prep Method: SW5030A

Date Prepared: 12/7/06  
Date Analyzed: 12/7/06

Lab File ID: TVB21207016F  
Method Blank: MB2120706

Dilution Factor: 1

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	1.2	0.20	mg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	179 S	QC Limits: 60-140	%REC

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 12/11/06

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**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: CMW-2  
Client Project ID: 3620  
Date Collected: 12/6/06  
Date Received: 12/6/06

Lab Work Order 06-8330  
Lab Sample ID: 06-8330-19A  
Sample Matrix: Groundwater

**AROMATIC VOLATILE ORGANICS**

Method: SW8021B

Prep Method: SW5030A

Date Prepared: 12/7/06

Lab File ID: TVB21207017R

Dilution Factor: 1

Date Analyzed: 12/7/06

Method Blank: MB2120706

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	128	QC Limits: 60-140	%REC

**TOTAL VOLATILE HYDROCARBONS**

Method: SW8015M

Prep Method: SW5030A

Date Prepared: 12/7/06

Lab File ID: TVB21207017F

Dilution Factor: 1

Date Analyzed: 12/7/06

Method Blank: MB2120706

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	U	0.20	mg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	123	QC Limits: 60-140	%REC

  
\_\_\_\_\_  
Analyst

  
\_\_\_\_\_  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 12/8/06



**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** CMW-3  
**Client Project ID:** 3620  
**Date Collected:** 12/6/06  
**Date Received:** 12/6/06

**Lab Work Order** 06-8330  
**Lab Sample ID:** 06-8330-20A  
**Sample Matrix:** Groundwater

**AROMATIC VOLATILE ORGANICS**

**Method:** SW8021B

**Prep Method:** SW5030A

**Date Prepared:** 12/7/06  
**Date Analyzed:** 12/7/06

**Lab File ID:** TVB21207018R  
**Method Blank:** MB2120706

**Dilution Factor:** 1

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	11	2.0	µg/L
o-Xylene	95-47-6	2.7	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	159 S	QC Limits: 60-140	%REC

**TOTAL VOLATILE HYDROCARBONS**

**Method:** SW8015M

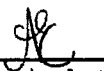
**Prep Method:** SW5030A

**Date Prepared:** 12/7/06  
**Date Analyzed:** 12/7/06

**Lab File ID:** TVB21207018F  
**Method Blank:** MB2120706

**Dilution Factor:** 1

Analytes	CAS Number	Result	LQL	Units
TVH-Gasoline	86290-81-5	0.80	0.20	mg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	204 S	QC Limits: 60-140	%REC



Analyst



Approved

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 12/11/06

## **QUALITY ASSURANCE REPORTS**

**METHOD BLANKS (MB, MEB)**

**LABORATORY CONTROL SPIKES (LCS)**

**MATRIX SPIKES (MS/MSD)\***

**DUPLICATES (DUP)\***

**\*Only included if requested or if performed on this client's samples.**

Work Order: 06-8330

Client Project ID: 3620

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8021\_S

Sample ID: MB2120806-B		SampType: MBLK	TestCode: 8021_S		Run ID: TVHBTEX2_061208C		Prep Date: 12/8/2006		Units: µg/Kg		
		Batch ID: R28696	TestNo: SW8021B		FileID: TVB21208033R		Analysis Date: 12/9/2006		SeqNo: 517127		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	U	5.0									
Toluene	U	10									
Ethylbenzene	U	10									
m,p-Xylene	U	10									
o-Xylene	U	10									
Surr: 1,2,4-Trichlorobenzene (S)	598.2	0	500	0	120	60	140	0	0		

Sample ID: LCS2120806-B		SampType: LCS	TestCode: 8021_S		Run ID: TVHBTEX2_061208C		Prep Date: 12/8/2006		Units: µg/Kg		
		Batch ID: R28696	TestNo: SW8021B		FileID: TVB21208034R		Analysis Date: 12/9/2006		SeqNo: 517128		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	124.8	5.0	127.5	0	97.9	70	130	0	0		
Toluene	867.7	10	918	0	94.5	70	130	0	0		
Ethylbenzene	163.4	10	184	0	88.8	70	130	0	0		
m,p-Xylene	655.6	10	681.6	0	96.2	70	130	0	0		
o-Xylene	268.6	10	286	0	93.9	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	677.7	0	500	0	136	60	140	0	0		

Sample ID: 06-8330-02AMS		SampType: MS	TestCode: 8021_S		Run ID: TVHBTEX2_061208C		Prep Date: 12/8/2006		Units: µg/Kg		
Client ID: TW-2-5		Batch ID: R28696	TestNo: SW8021B		FileID: TVB21208037R		Analysis Date: 12/9/2006		SeqNo: 517131		
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	124	5.0	127.5	0	97.3	70	130	0	0		
Toluene	864.5	10	918	0	94.2	70	130	0	0		
Ethylbenzene	162.9	10	184	0	88.6	60	130	0	0		
m,p-Xylene	660.2	10	681.6	0	96.9	60	137	0	0		
o-Xylene	267.5	10	286	0	93.5	60	132	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	662	0	500	0	132	60	140	0	0		

Qualifiers: ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits  
B - Analyte detected in the associated Method Blank  
H - Sample exceeded analytical holding time

Print Date: 12/13/2006

Work Order: 06-8330

Client Project ID: 3620

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8021\_S

Sample ID: 06-8330-02AMSD	SampType: MSD	TestCode: 8021_S	Run ID: TVHBTEX2_061208C	Prep Date: 12/8/2006	Units: µg/Kg						
Client ID: TW-2-5	Batch ID: R28696	TestNo: SW8021B	FileID: TVB21208\038R	Analysis Date: 12/9/2006	SeqNo: 517132						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	125	5.0	127.5	0	98	70	130	124	0.803	30	
Toluene	871.1	10	918	0	94.9	70	130	864.5	0.756	30	
Ethylbenzene	164	10	184	0	89.1	60	130	162.9	0.639	30	
m,p-Xylene	661.7	10	681.6	0	97.1	60	137	660.2	0.222	30	
o-Xylene	269.6	10	286	0	94.3	60	132	267.5	0.812	30	
Surr: 1,2,4-Trichlorobenzene (S)	693.2	0	500	0	139	60	140	0	0	30	

## Qualifiers:

ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits  
B - Analyte detected in the associated Method Blank  
H - Sample exceeded analytical holding time

Print Date: 12/13/2006

Work Order: 06-8330  
Client Project ID: 3620

## ANALYTICAL QC SUMMARY REPORT

TestCode: TVH\_S

Sample ID: MB2120806-B	SampType: MBLK	TestCode: TVH_S	Run ID: TVHBTEX2_061208D	Prep Date: 12/8/2006	Units: mg/Kg						
	Batch ID: R28697	TestNo: SW8015M	FileID: TVB212081033F	Analysis Date: 12/9/2006	SeqNo: 517146						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TVH-Gasoline	U	1.0									
Surr: 1,2,4-Trichlorobenzene (S)	577.8	0	500	0	116	60	140	0	0		

Sample ID: LCS2120806-B	SampType: LCS	TestCode: TVH_S	Run ID: TVHBTEX2_061208D	Prep Date: 12/8/2006	Units: mg/Kg						
	Batch ID: R28697	TestNo: SW8015M	FileID: TVB212081034F	Analysis Date: 12/9/2006	SeqNo: 517147						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TVH-Gasoline	8.925	1.0	11	0	81.1	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	706	0	500	0	141	60	140	0	0		S

Sample ID: 06-8330-02AMS	SampType: MS	TestCode: TVH_S	Run ID: TVHBTEX2_061208D	Prep Date: 12/8/2006	Units: mg/Kg						
Client ID: TW-2-5	Batch ID: R28697	TestNo: SW8015M	FileID: TVB212081037F	Analysis Date: 12/9/2006	SeqNo: 517150						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TVH-Gasoline	8.105	1.0	11	0	73.7	60	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	713.7	0	500	0	143	60	140	0	0		S

Sample ID: 06-8330-02AMSD	SampType: MSD	TestCode: TVH_S	Run ID: TVHBTEX2_061208D	Prep Date: 12/8/2006	Units: mg/Kg						
Client ID: TW-2-5	Batch ID: R28697	TestNo: SW8015M	FileID: TVB212081038F	Analysis Date: 12/9/2006	SeqNo: 517151						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TVH-Gasoline	8.005	1.0	11	0	72.8	60	130	8.105	1.24	30	
Surr: 1,2,4-Trichlorobenzene (S)	654.4	0	500	0	131	60	140	0	0	0	

**Qualifiers:** ND - Not Detected at the Reporting Limit  
J - Analyte detected below quantitation limits  
S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits  
B - Analyte detected in the associated Method Blank  
H - Sample exceeded analytical holding time

Print Date: 12/13/2006

Work Order: 06-8330

Client Project ID: 3620

## ANALYTICAL QC SUMMARY REPORT

BatchID: 11499

Sample ID: MB-11499	SampType: MBLK	TestCode: TEH_S	Run ID: FID5_061207A	Prep Date: 12/7/06	Units: mg/Kg						
	Batch ID: 11499	TestNo: SW8015M	FileID: FID51207003F0301	Analysis Date: 12/7/06	SeqNo: 516767						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Fuel (No. 2)	U	14									
Surr: TBB	37.38	0	66.67	0	56.1	39	130	0	0		

Sample ID: LCS-11499	SampType: LCS	TestCode: TEH_S	Run ID: FID5_061207A	Prep Date: 12/7/06	Units: mg/Kg						
	Batch ID: 11499	TestNo: SW8015M	FileID: FID51207004F0401	Analysis Date: 12/7/06	SeqNo: 516771						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Fuel (No. 2)	617.5	14	666.7	0	92.6	58	130	0	0		
Surr: TBB	39.73	0	66.67	0	59.6	39	130	0	0		

Sample ID: 06-8330-05BMS	SampType: MS	TestCode: TEH_S	Run ID: FID5_061207A	Prep Date: 12/7/06	Units: mg/Kg						
Client ID: MMW-3-7	Batch ID: 11499	TestNo: SW8015M	FileID: FID51207019F1901	Analysis Date: 12/7/06	SeqNo: 516761						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Fuel (No. 2)	902.9	14	666	340.6	84.4	58	130	0	0		
Surr: TBB	45.99	0	66.6	0	69	39	130	0	0		

Sample ID: 06-8330-05BMSD	SampType: MSD	TestCode: TEH_S	Run ID: FID5_061207A	Prep Date: 12/7/06	Units: mg/Kg						
Client ID: MMW-3-7	Batch ID: 11499	TestNo: SW8015M	FileID: FID51207021F2101	Analysis Date: 12/7/06	SeqNo: 516762						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel Fuel (No. 2)	825.3	14	666.4	340.6	72.7	58	130	902.9	8.98	30	
Surr: TBB	43.85	0	66.64	0	65.8	39	130	0	0	0	

Qualifiers: ND - Not Detected at the Reporting Limit  
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B - Analyte detected in the associated Method Blank  
H - Sample exceeded analytical holding time

Print Date: 12/11/06

Work Order: 06-8330

Client Project ID: 3620

## ANALYTICAL QC SUMMARY REPORT

BatchID: R28665

Sample ID: MB2120706		SampType: MBLK		TestCode: 8021_W		Run ID: TVHBTEX2_061207B		Prep Date: 12/7/06		Units: µg/L	
		Batch ID: R28665		TestNo: SW8021B		FileID: TVB212061040R		Analysis Date: 12/7/06		SeqNo: 516494	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	U	1.0									
Toluene	U	2.0									
Ethylbenzene	U	2.0									
m,p-Xylene	U	2.0									
o-Xylene	U	2.0									
Surr: 1,2,4-Trichlorobenzene (S)	128.7	0	100	0	129	60	140	0	0		

Sample ID: LCS2120706		SampType: LCS		TestCode: 8021_W		Run ID: TVHBTEX2_061207B		Prep Date: 12/7/06		Units: µg/L	
		Batch ID: R28665		TestNo: SW8021B		FileID: TVB212071002R		Analysis Date: 12/7/06		SeqNo: 516496	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	28.57	1.0	25.5	0	112	70	130	0	0		
Toluene	209.5	2.0	183.6	0	114	70	130	0	0		
Ethylbenzene	40.99	2.0	36.8	0	111	70	130	0	0		
m,p-Xylene	167	2.0	136.3	0	123	70	130	0	0		
o-Xylene	64.91	2.0	57.2	0	113	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	163.7	0	100	0	164	60	140	0	0		S

Sample ID: 06-8330-12AMS		SampType: MS		TestCode: 8021_W		Run ID: TVHBTEX2_061207B		Prep Date: 12/7/06		Units: µg/L	
Client ID: TW-2		Batch ID: R28665		TestNo: SW8021B		FileID: TVB212071007R		Analysis Date: 12/7/06		SeqNo: 516501	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	28.85	1.0	25.5	0	113	70	135	0	0		
Toluene	213.5	2.0	183.6	0	116	70	140	0	0		
Ethylbenzene	42.2	2.0	36.8	0	115	70	130	0	0		
m,p-Xylene	172.3	2.0	136.3	0	126	70	130	0	0		
o-Xylene	66.97	2.0	57.2	0	117	70	132	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	166.9	0	100	0	167	60	140	0	0		S

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B - Analyte detected in the associated Method Blank  
H - Sample exceeded analytical holding time

Print Date: 12/8/06

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Work Order: 06-8330

Client Project ID: 3620

# ANALYTICAL QC SUMMARY REPORT

BatchID: R28665

Sample ID: 06-8330-12AMSD	SampType: MSD	TestCode: 8021_W	Run ID: TVHBTEX2_061207B	Prep Date: 12/7/06	Units: µg/L						
Client ID: TW-2	Batch ID: R28665	TestNo: SW8021B	FileID: TVB21207008R	Analysis Date: 12/7/06	SeqNo: 516502						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	30.1	1.0	25.5	0	118	70	135	28.85	4.28	30	
Toluene	219.1	2.0	183.6	0	119	70	140	213.5	2.61	30	
Ethylbenzene	43.11	2.0	36.8	0	117	70	130	42.2	2.12	30	
m,p-Xylene	176.1	2.0	136.3	0	129	70	130	172.3	2.18	30	
o-Xylene	68.11	2.0	57.2	0	119	70	132	66.97	1.68	30	
Surr: 1,2,4-Trichlorobenzene (S)	164.9	0	100	0	165	60	140	0	0	0	S

Qualifiers: ND - Not Detected at the Reporting Limit  
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B - Analyte detected in the associated Method Blank  
H - Sample exceeded analytical holding time

Print Date: 12/8/06



001

Work Order: 06-8330

Client Project ID: 3620

## ANALYTICAL QC SUMMARY REPORT

BatchID: R28666

Sample ID: MB2120706	SampType: MBLK	TestCode: TVH_W	Run ID: TVHBTEX2_061207C	Prep Date: 12/7/06	Units: mg/L						
	Batch ID: R28666	TestNo: SW8015M	FileID: TVB21206W40F	Analysis Date: 12/7/06	SeqNo: 516495						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TVH-Gasoline	U	0.20									
Surr: 1,2,4-Trichlorobenzene (S)	118.4	0	100	0	118	60	140	0	0		

Sample ID: LCS2120706	SampType: LCS	TestCode: TVH_W	Run ID: TVHBTEX2_061207C	Prep Date: 12/7/06	Units: mg/L						
	Batch ID: R28666	TestNo: SW8015M	FileID: TVB21207W02F	Analysis Date: 12/7/06	SeqNo: 516524						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TVH-Gasoline	2.156	0.20	2.2	0	98	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	172.2	0	100	0	172	60	140	0	0		S

Sample ID: 06-8330-12AMS	SampType: MS	TestCode: TVH_W	Run ID: TVHBTEX2_061207C	Prep Date: 12/7/06	Units: mg/L						
Client ID: TW-2	Batch ID: R28666	TestNo: SW8015M	FileID: TVB21207W07F	Analysis Date: 12/7/06	SeqNo: 516529						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TVH-Gasoline	2.193	0.20	2.2	0	99.7	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	177.2	0	100	0	177	60	140	0	0		S

Sample ID: 06-8330-12AMSD	SampType: MSD	TestCode: TVH_W	Run ID: TVHBTEX2_061207C	Prep Date: 12/7/06	Units: mg/L						
Client ID: TW-2	Batch ID: R28666	TestNo: SW8015M	FileID: TVB21207W08F	Analysis Date: 12/7/06	SeqNo: 516530						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

TVH-Gasoline	2.196	0.20	2.2	0	99.8	70	130	2.193	0.137	30	
Surr: 1,2,4-Trichlorobenzene (S)	172.7	0	100	0	173	60	140	0	0	0	S

Qualifiers: ND - Not Detected at the Reporting Limit  
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R - RPD outside accepted recovery limits  
B - Analyte detected in the associated Method Blank  
H - Sample exceeded analytical holding time

Print Date: 12/8/06

Work Order: 06-8330

Client Project ID: 3620

## ANALYTICAL QC SUMMARY REPORT

BatchID: R28716

Sample ID: MEB2120706	SampType: MBLK	TestCode: 8021_W	Run ID: TVHBTEX2_061211A	Prep Date: 12/7/2006	Units: µg/L						
	Batch ID: R28716	TestNo: SW8021B	FileID: TVB21211W01R	Analysis Date: 12/11/2006	SeqNo: 517775						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0	100									
Toluene	0	200									
Ethylbenzene	0	200									
m,p-Xylene	0	200									
o-Xylene	0	200									
Surr: 1,2,4-Trichlorobenzene (S)	12180	0	10000	0	122	60	140	0	0		

Sample ID: LCS2121006	SampType: LCS	TestCode: 8021_W	Run ID: TVHBTEX2_061211A	Prep Date: 12/11/2006	Units: µg/L						
	Batch ID: R28716	TestNo: SW8021B	FileID: TVB21211W02R	Analysis Date: 12/11/2006	SeqNo: 517768						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	27.03	1.0	25.5	0	106	70	130	0	0		
Toluene	196.1	2.0	183.6	0	107	70	130	0	0		
Ethylbenzene	39.38	2.0	36.8	0	107	70	130	0	0		
m,p-Xylene	159.7	2.0	136.3	0	117	70	130	0	0		
o-Xylene	61.81	2.0	57.2	0	108	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	155.7	0	100	0	156	60	140	0	0		S

Sample ID: LCSD2121006	SampType: LCSD	TestCode: 8021_W	Run ID: TVHBTEX2_061211A	Prep Date: 12/11/2006	Units: µg/L						
	Batch ID: R28716	TestNo: SW8021B	FileID: TVB21211W03R	Analysis Date: 12/11/2006	SeqNo: 517769						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	27.47	1.0	25.5	0	108	70	130	27.03	1.61	30	
Toluene	199.3	2.0	183.6	0	109	70	130	196.1	1.60	30	
Ethylbenzene	39.67	2.0	36.8	0	108	70	130	39.38	0.741	39	
m,p-Xylene	163	2.0	136.3	0	120	70	130	159.7	2.00	30	
o-Xylene	62.68	2.0	57.2	0	110	70	130	61.81	1.40	30	
Surr: 1,2,4-Trichlorobenzene (S)	157.6	0	100	0	158	60	140	0	0	0	S

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Print Date: 12/13/2006

Evergreen Analytical, Inc.

Date: 13-Dec-06

Work Order: 06-8330

Client Project ID: 3620

## ANALYTICAL QC SUMMARY REPORT

BatchID: R28717

Sample ID: MEB2120706		SampType: MBLK		TestCode: TVH_W		Run ID: TVHBTEX2_061212A		Prep Date: 12/7/2006		Units: mg/L	
		Batch ID: R28717		TestNo: SW8015M		FileID: TVB21211V001F		Analysis Date: 12/11/2006		SeqNo: 517776	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TVH-Gasoline	0	20									
Surr: 1,2,4-Trichlorobenzene (S)	11940	0	10000	0	119	60	140	0	0		

Sample ID: LCS2121006		SampType: LCS		TestCode: TVH_W		Run ID: TVHBTEX2_061212A		Prep Date: 12/11/2006		Units: mg/L	
		Batch ID: R28717		TestNo: SW8015M		FileID: TVB21211V002F		Analysis Date: 12/11/2006		SeqNo: 517802	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TVH-Gasoline	2.081	0.20	2.2	0	94.6	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	155	0	100	0	155	60	140	0	0		S

Sample ID: LCSD2121006		SampType: LCSD		TestCode: TVH_W		Run ID: TVHBTEX2_061212A		Prep Date: 12/11/2006		Units: mg/L	
		Batch ID: R28717		TestNo: SW8015M		FileID: TVB21211V003F		Analysis Date: 12/11/2006		SeqNo: 517803	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TVH-Gasoline	2.04	0.20	2.2	0	92.7	70	130	2.081	1.99	30	
Surr: 1,2,4-Trichlorobenzene (S)	158.9	0	100	0	159	60	140	0	0	0	S

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Print Date: 12/13/2006

## **APPENDIX C —**

### **DISCLAIMER**

This Phase II Environmental Site Assessment was performed to satisfy the Scope of Work and contract between the City of Aurora and ERO Resources Corporation. This report is for the use and benefit of the City of Aurora, and is not to be used by others without the prior written consent of ERO. ERO Resources Corporation shall not be held responsible for any conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed. The conclusions in this report are based on limited observations and investigations described herein at the time the Phase II ESA was conducted; future events may alter these findings.

The Phase II ESA was performed in a professional manner using the degree of skill and care exercised for similar projects under similar conditions by reputable and competent environmental consultants. No other warranty, expressed or implied, is made as to the professional opinions included in this report.