



EA Engineering, Science, & Technology, Inc.  
320 Gold Avenue SW, Suite 1210  
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Phone: (505) 224-9013 Fax (505) 224-9016

October 21, 2010

Mr. George Beaumont  
New Mexico Environment Department  
Petroleum Storage Tank Bureau  
1301 Siler Road, Building B  
Santa Fe, New Mexico 87507

Dear Mr. Beaumont:

On behalf of Conway Oil Company, EA Engineering, Science, and Technology, Inc. is submitting the first Semi-Annual Groundwater Monitoring Report for the Holiday Chevron site located in Tucumcari, New Mexico. Groundwater monitoring was conducted on September 23, 2010 and September 24, 2010, in accordance with the applicable requirements of the New Mexico Administrative Code, Title 20, Chapter 5, Section 12 titled "Corrective Action for UST Systems Containing Petroleum Products", and the Petroleum Storage Tank Bureau's "Guidelines for Corrective Action" (NMED 2000).

The total approved scope of work was completed during this sampling event. The total for the first Semi-Annual Monitoring Report and work plan preparation is \$5,450.00. The total including New Mexico Gross Receipts Tax of 7% is \$5,831.50.

Please let me know if you have any questions regarding the information provided in this report.

Sincerely,

A handwritten signature in black ink, appearing to read "Teri McMillan".

Teri McMillan  
Project Manager

A handwritten signature in blue ink, appearing to read "Jay Snyder".

Jay Snyder  
Senior Hydrogeologist

Enclosure

Cc: Jim Conway, Conway Oil Company  
File



# **SEMI-ANNUAL GROUNDWATER MONITORING REPORT**

**HOLIDAY CHEVRON  
PSTB FACILITY #1407**

**3623 EAST TUCUMCARI BLVD  
TUCUMCARI, NEW MEXICO**

Prepared for:

Mr. Jim Conway  
Conway Oil Company  
1348 US Hwy 60-84  
Clovis, NM 88101

Prepared by:

EA Engineering, Science, and Technology, Inc.  
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Albuquerque, New Mexico 87102

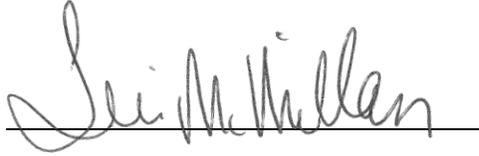
October 2010

EA Project No. 6231702.02

**STATEMENT OF FAMILIARITY**

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.

Signature:

A handwritten signature in black ink, appearing to read "Teri McMillan", is written over a horizontal line.

Name: Teri McMillan  
Affiliation: EA Engineering, Science, and Technology, Inc.  
Title: Senior Geologist  
Date: October 21, 2010

## I. INTRODUCTION

On behalf of Conway Oil Company, EA Engineering, Science, and Technology, Inc. (EA) has prepared this Semi-Annual Groundwater Monitoring Report for the Holiday Chevron located at 3623 East Tucumcari Boulevard, Tucumcari, New Mexico (Site). This report was completed in accordance with the *Work Plan for Semi-Annual Groundwater Monitoring*, dated July 27, 2010, prepared by EA to satisfy the requirements stated in the New Mexico Administrative Code (NMAC), Title 20, Chapter 5, Section 12 (20.5.12 NMAC) and the New Mexico Environment Department (NMED) Petroleum Storage Tank Bureau (PSTB) Guidelines for Corrective Action (GCA) (NMED 2000). The work plan was approved by the NMED PSTB on September 3, 2010. Work was completed under work plan identification number (WPID #) 15712-1.

The Site, located on the east end of Tucumcari, New Mexico, is no longer an active gasoline station. Three underground storage tanks (USTs) were located southeast of the store and east of the canopy and dispenser islands (Figure 1). The USTs (installed in 1984) only contained unleaded gasoline. The dispenser islands were located south of the store. The USTs were steel with cathodic protection and the product lines were composed of fiberglass. The facility was placed in temporary closure on December 5, 2005, when all automatic tank gauging reports for this facility indicated there were no leaks in the tanks. The cathodic protection system was maintained as required until lines, dispensers and tanks were removed on August 24, 2009. However, upon removal of the USTs, water was found in one of the tanks indicating a leak, and petroleum hydrocarbon-impacted soils were found in the UST tank hold, confirming that a release had occurred at the Site.

There are two known leaking petroleum storage tank sites in close proximity to the Holiday Chevron site. A former Whiting Brothers gas station was located adjacent to and immediately west of the Site; this site is now a vacant lot with existing groundwater monitoring wells. The Holiday Conoco is located across Tucumcari Boulevard, southeast of the Site. The Holiday Conoco is an operating gas station that is out of compliance with NMED PSTB Regulations.

On September 23, 2010, and September 24, 2010, EA measured fluid levels and collected groundwater samples from monitoring wells MW-1 through MW-5 and Holiday Conoco monitoring well MW-8. All six wells were sampled as no measureable non-aqueous phase liquid (NAPL) was present in any of the wells. The groundwater samples were analyzed for volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX), ethylene dichloride (EDC), ethylene dibromide (EDB), methyl tertiary butyl ether (MTBE), and total naphthalenes by Environmental Protection Agency (EPA) Method 8260B. In addition, pH, specific conductance, and temperature were monitored in the field.

This report summarizes the results of the semi-annual monitoring event.

## II. ACTIVITIES PERFORMED DURING THIS QUARTER

This section provides a brief description of monitoring activities performed during this monitoring period.

### A. Brief Description of Remediation System and Date Installed

A summary of corrective action activities that have occurred at the Site include:

- On August 24, 2009, two USTs were removed from the Site. Water was found in one of them indicating a leak. The removal action also revealed petroleum hydrocarbon-impacted soils in the UST tank hold, confirming a hydrocarbon release at the Site.
- Based on the Minimum Site Assessment investigation activities conducted in May 2010, it appears that the release has impacted groundwater below the Site. Hydrocarbon-impacted soil and aquifer matrix are present beneath the Site at depths from approximately 6 to at least 14 feet below the ground surface (ft bgs).
- In September 2010, NMED PSTB approved semi-annual groundwater monitoring.

### B. Description of Activities Performed to Keep System Operating Properly

No active remediation activities have been completed at the site.

### C. Monitoring Activities Performed

#### *Groundwater Sampling Activities*

Prior to collecting groundwater samples, fluid levels in all five Site monitoring wells and a Holiday Conoco monitoring well were gauged with an interface probe and/or an electronic water level meter. Table 1 provides a summary of the groundwater gauging data collected from the monitoring network. A potentiometric surface map, Figure 2, was constructed based on the collected data, with the exception of the water level measurement taken for MW-5. This well may not have fully charged since the well was installed.

On September 23, 2010, and September 24, 2010, groundwater from Site wells MW-1 through MW-5 and Holiday Conoco monitoring well MW-8 were sampled with disposable bailers. Wells were sampled from clean to dirty to the extent possible to minimize cross-contamination. All equipment was decontaminated between wells with an Alconox™ solution to further ensure sample quality. Wells were purged of three casing volumes to the extent possible without bailing dry prior to sampling. Purge water was ground discharged to an impervious surface in accordance with Section 1.7.2 of the GCA. Samples were collected by carefully pouring groundwater from the bailer into the sample containers.

Field parameters were measured with a YSI® water quality meter during purging and prior to sampling. Conductivity, pH, and temperature were monitored and recorded on monitoring well sampling field forms. The meter was calibrated and/or checked against a standard in accordance with manufacturer's specifications prior to use. Monitoring well sampling field forms are provided in Appendix A.

Sample containers, preservatives, analytical methods, and holding times are specified in Table 2. Samples for VOC analysis were collected such that no headspace existed in the sample vial. All samples were preserved in accordance with method requirements, then immediately cooled to less than 6 degrees Celsius (°C) with ice and delivered under chain-of-custody to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. The analytical laboratory report is provided in Appendix B.

On September 24, 2010, the day after well MW-5 was sampled, EA attempted to develop the well. The well had not recovered from sampling so approximately 2 to 4 gallons of additional water was added to the well. The water was bailed and surged to try and remove fines from the filter pack. Recovery of this well is very slow. Additional development may be necessary in the future.

#### *NAPL Thickness*

There was no measurable NAPL present in any of the wells gauged this sampling event.

#### *Groundwater Sampling Results*

Dissolved phase benzene and MTBE concentrations were above the New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards in all wells during this sampling event. Monitoring wells MW-3, MW-4, and MW-5 exhibited the highest benzene, ethyl benzene, xylene and toluene concentrations. Concentrations in these three wells were greater than 1,000 times the NMWQCC standard for benzene. Naphthalene concentrations were above standards in all wells, except MW-1 and MW-8.

#### **D. System Performance and Effectiveness**

No system has been installed at the Site.

#### **E. Statement Verifying Containment of Release**

The extent of soil and groundwater contamination has not been delineated at the Site. The plume does not appear to be contained onsite.

### III. SUMMARY AND CONCLUSIONS

This section summarizes the results, contains a brief discussion of Site trends, and provides recommendations for future Site activities.

#### A. Discussion of any Trends or Changes Noted in Analytical Results or Site Conditions

The results of groundwater gauging indicate an overall decrease in water levels compared to the previous gauging event in May 2010. Water levels in MW-3 are likely influenced by precipitation events as more water is likely to infiltrate the more permeable fill material used to backfill the former tank hold. This has caused slight groundwater mounding in the vicinity of the tank hold as shown on the potentiometric surface map Figure 2. At the time of this monitoring event, the groundwater flow direction was to the southwest.

The September 2010 distribution of dissolved phase organic contaminants is shown in Figure 3. Benzene and MTBE concentrations are present above NMWQCC standards in all groundwater monitoring wells (Table 3). Hydrocarbon concentrations have increased in wells MW-3 and MW-5 since April 2010. Hydrocarbon concentrations have decreased significantly in well MW-1 since April 2010. Due to a limited dataset, concentration trends are not presented.

Upon arriving at the Site, it was discovered that Holiday Conoco well MW-8 was in disrepair and covered with soil. The outer well casing is broken and the cap to the well needs to be replaced to prevent the well from serving as a conduit to groundwater.

#### B. Ongoing Assessment of Remediation System

There is no active remediation system installed at the Site at this time.

#### C. Recommendations

Based on the results of the groundwater monitoring, EA recommends the following:

- Complete soil and groundwater plume delineation by installing additional groundwater monitor wells.
- Contact the Responsible Party of the Holiday Conoco to let them know that Holiday Conoco well MW-8 is in need of repair.
- Continue semi-annual groundwater monitoring.

**TABLES**

TABLE 1 SUMMARY OF FLUID GAUGING DATA  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO

Monitor Well	Date Measured	Northing <sup>1</sup>	Easting <sup>1</sup>	Casing Elevation <sup>2</sup>	Depth to Product <sup>3</sup>	Product Thickness <sup>4</sup>	Depth to Water <sup>3</sup>	Groundwater Elevation <sup>2</sup>
Holiday Chevron								
MW-1	23-Sep-2010	1518602.926	736405.740	4037.08	-	-	7.93	4029.15
	11-May-2010				-	-	7.59	4029.49
MW-2	23-Sep-2010	1518688.909	736281.164	4035.97	-	-	6.80	4029.17
	11-May-2010				-	-	6.37	4029.60
MW-3	23-Sep-2010	1518664.905	736356.987	4036.61	-	-	6.39	4030.22
	11-May-2010				-	-	6.26	4030.35
MW-4	23-Sep-2010	1518642.754	736291.257	4034.98	-	-	5.80	4029.18
	11-May-2010				-	-	5.41	4029.57
MW-5*	23-Sep-2010	1518718.060	736341.413	4036.25	-	-	7.86	4028.39
	11-May-2010				-	-	12.93	4023.32
Holiday Conoco								
MW-8	23-Sep-2010	1518652.105	736416.409	4037.19	-	-	7.68	4029.51
	11-May-2010				-	-	NM	NM

Notes:

<sup>1</sup> Horizontal control to NM State Plane Coordinates Central NAD83 Grid Coordinates (in feet)

<sup>2</sup> Vertical Control to NAVD88 Datum in feet above mean sea level

<sup>3</sup> Measured in feet below the top of casing at survey point on north side of well

<sup>4</sup> Measured in feet.

\* Well has not fully charged; data not used in preparation of Potentiometric Surface Map.

TABLE 2 SAMPLE ANALYTICAL AND QUALITY CONTROL REQUIREMENTS  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO

Target Analytes	Matrix	Analytical Method	Sample Container	Preservative	Holding Time
VOCs	Water	EPA 8260B	3 x 40-mL glass vials	Mercuric Chloride; Cool to <6°C	14 days

Notes:

VOCs = volatile organic compounds

EPA = U.S. Environmental Protection Agency

°C = degrees Celsius

TABLE 3 SUMMARY OF GROUNDWATER SAMPLE RESULTS  
VOLATILE ORGANIC COMPOUNDS  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO

Monitor Well	Date Sampled	Benzene	Toluene	Ethyl-benzene	Xylenes	MTBE	EDB	EDC	Total Naphthalenes
MW-1	23-Sep-10	98	< 5.0	14	< 7.5	370	< 5.0	< 5.0	< 10
	28-Apr-10	550	1,200	240	750	510	< 10	< 10	39
MW-2	23-Sep-10	3,500	< 10	1,200	31	170	< 10	< 10	150
	28-Apr-10	4,400	5,500	3,100	9,600	66	< 20	< 20	680
MW-3	24-Sep-10	47,000	49,000	3,900	19,000	6,400	< 100	< 100	340
	28-Apr-10	37,000	43,000	2,800	18,000	5,000	< 50	< 50	350
MW-4	24-Sep-10	21,000	24,000	2,800	13,000	1,100	< 50	< 50	350
	28-Apr-10	28,000	37,000	3,900	20,000	430	< 50	< 50	570
MW-5	23-Sep-10	36,000	52,000	3,000	20,000	3,100	< 100	< 100	440
	11-May-10	25,000	34,000	1,200	14,000	2,600	< 10	< 10	393
MW-8	23-Sep-10	4,100	< 10	73	< 15	900	< 10	< 10	< 20
<b>NMWQCC and EIB Standards</b>		10	750	750	620	100	0.1	10	30

Notes:

All concentrations are in micrograms per liter (ug/L) which is equivalent to parts per billion (ppb)

EDB = Ethylene dibromide

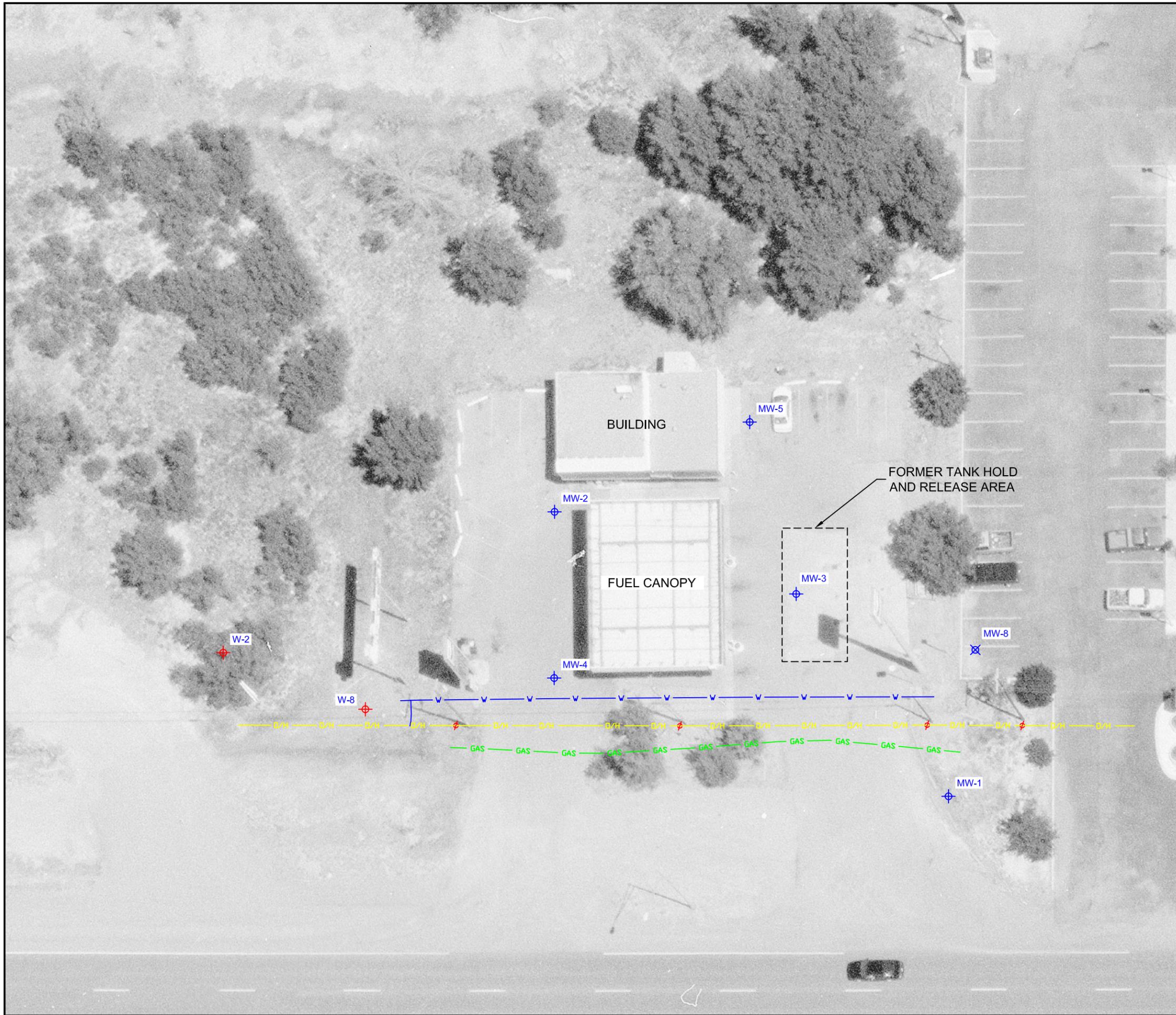
EDC = Ethylene dichloride

EIB = Environmental Improvement Board

MTBE = Methyl tertiary butyl ether

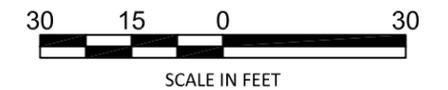
NMWQCC = New Mexico Water Quality Control Commission (20.6.2.3103 NMAC)

**FIGURES**



**LEGEND:**

-  MONITORING WELL
-  HOLIDAY CONOCO MONITORING WELLS
-  WHITNEY BROS. MONITORING WELLS
-  UNDERGROUND GAS LINE
-  UNDERGROUND WATER LINE
-  OVERHEAD ELECTRIC LINE
-  POWER POLE



- SOURCES:
1. GOOGLE EARTH PRO 2009. IMAGE DATE 02/26/06
  2. NMDOT AERIAL PHOTOGRAPH. IMAGE DATE 05/14/04
  3. BILLINGS AND ASSOCIATES, INC. 10/15/07

CONWAY OIL COMPANY  
 HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO

**FIGURE 1  
 SITE LAYOUT**

PROJECT #:	6231702.01	PROJECT PHASE:	MSA	PROJECT MANAGER:	TM
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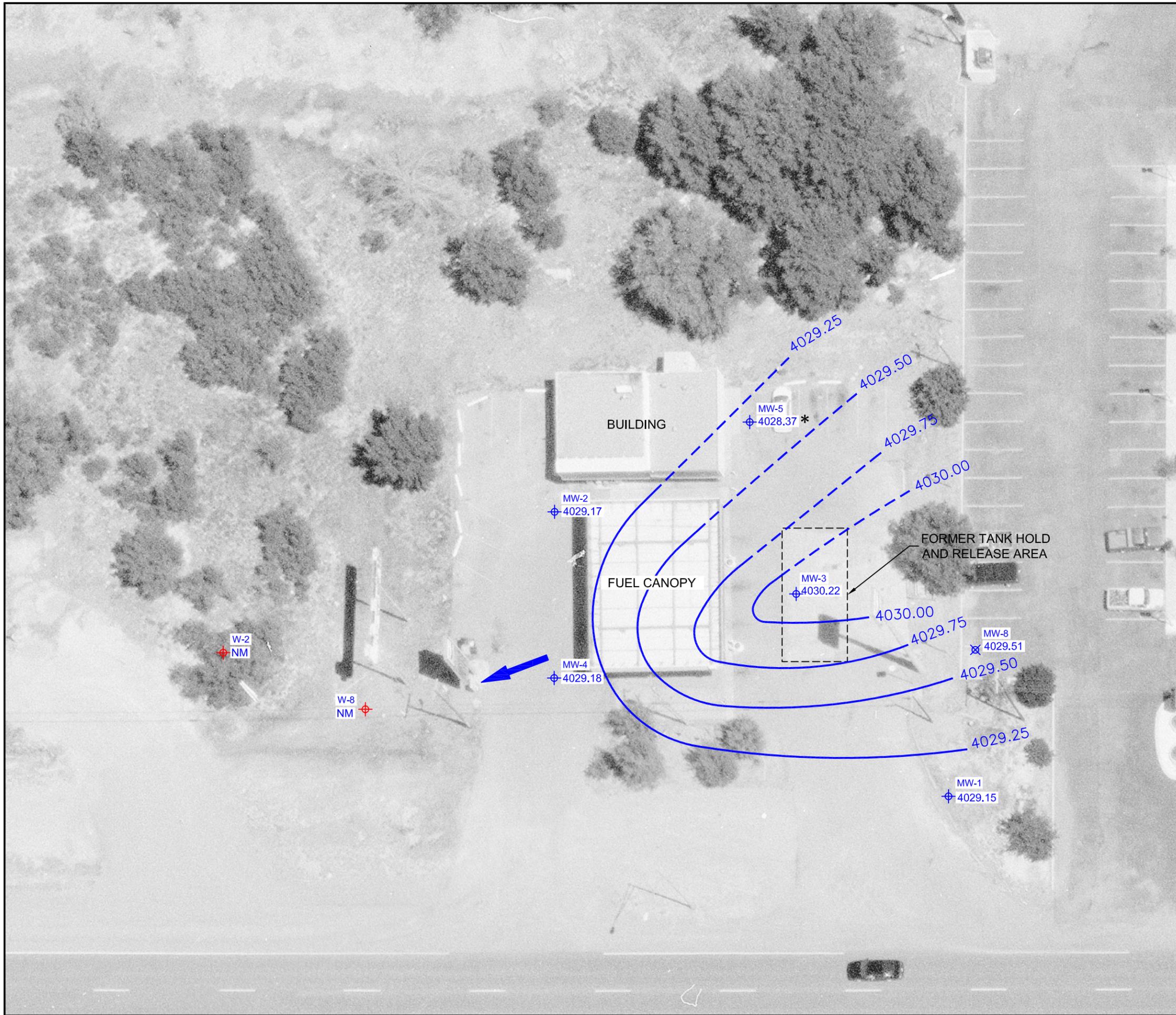


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**LEGEND:**

-  MONITORING WELL
-  HOLIDAY CONOCO MONITORING WELLS
-  WHITNEY BROS. MONITORING WELLS
-  DATA NOT USED IN CONTOURING
-  ELEVATION NOT MEASURED
-  4030.00 GROUNDWATER SURFACE ELEVATION (DASHED WHERE INFERRED) FEET ABOVE MEAN SEA LEVEL
-  GROUNDWATER FLOW DIRECTION



- SOURCES:
1. GOOGLE EARTH PRO 2009. IMAGE DATE 02/26/06
  2. NMDOT AERIAL PHOTOGRAPH. IMAGE DATE 05/14/04
  3. BILLINGS AND ASSOCIATES, INC. 10/15/07

CONWAY OIL COMPANY  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO

**FIGURE 2  
POTENTIOMETRIC SURFACE  
MAP - SEPTEMBER 2010**

PROJECT #:	6231702.01	PROJECT PHASE:	MSA	PROJECT MANAGER:	TM
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P:\Active Projects\Conway\Holiday Chevron\Full MSA\CADD

**LEGEND:**

- MTBE METHYL TETRIARY BUTYL ETHER
- TOTAL NAPH. TOTAL NAPHTHALENES
-  HOLIDAY CHEVRON MONITORING WELLS
-  HOLIDAY CONOCO MONITORING WELLS
-  WHITNEY BROS. MONITORING WELLS

NOTES:

1. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (ug/L)
2. **RED TEXT** INDICATES CONCENTRATIONS ARE ABOVE NEW MEXICO WATER QUALITY CONTROL COMMISSION (NMWQCC) STANDARDS.



BENZENE	36,000
TOLUENE	52,000
ETHYLBENZENE	3,000
XYLENES	20,000
MTBE	3,100
TOTAL NAPH.	440

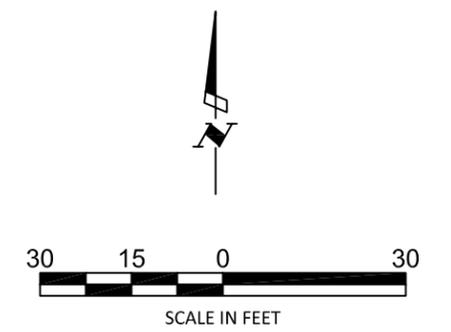
BENZENE	3,500
TOLUENE	<10
ETHYLBENZENE	1,200
XYLENES	31
MTBE	170
TOTAL NAPH.	150

BENZENE	47,000
TOLUENE	49,000
ETHYLBENZENE	3,900
XYLENES	19,000
MTBE	6,400
TOTAL NAPH.	340

BENZENE	4,100
TOLUENE	<10
ETHYLBENZENE	73
XYLENES	<15
MTBE	900
TOTAL NAPH.	<20

BENZENE	21,000
TOLUENE	24,000
ETHYLBENZENE	2,800
XYLENES	13,000
MTBE	1,100
TOTAL NAPH.	350

BENZENE	98
TOLUENE	<5.0
ETHYLBENZENE	14
XYLENES	<7.5
MTBE	370
TOTAL NAPH.	<10



- SOURCES:
1. GOOGLE EARTH PRO 2009. IMAGE DATE 02/26/06
  2. NMDOT AERIAL PHOTOGRAPH. IMAGE DATE 05/14/04
  3. BILLINGS AND ASSOCIATES, INC. 10/15/07

CONWAY OIL COMPANY  
HOLIDAY CHEVRON, TUCUMCARI, NEW MEXICO

**FIGURE 3  
GROUNDWATER ANALYTICAL  
RESULTS SEPTEMBER 2010**

PROJECT #:	6231702.01	PROJECT PHASE:	MSA	PROJECT MANAGER:	TM
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**EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.**

**APPENDIX A  
SAMPLING FIELD FORMS**



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-3 Date gauged 9.23.10  
 Site HOLIDAY CHEV. Time gauged 1530  
 Depth to PSH      Feet Well diameter 2" Inches  
 Depth to water 6.39 Feet Height of fluid column 5.43 Feet  
 Total depth 11.82 Feet Volume in well 0.92 Gallons  
 (3 well volumes = 2.77 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 0755 9/24/10 Purge Method HAND BAIL

Time	Purge Volume (gal)	Temp (°C)	Cond. Spc (µs/cm)	pH	ORP (mV)	DO (mg/L)
0756	0.25	22.8	1791	7.60	✓	
	1.25	23.1	1791	7.56		
	2.00	23.6	1762	7.65		
	2.30	23.1	1879	7.83		

Actual purge volume 2.5 gal. Field measurements stabilized within ± 10%? NO!

Time/date sampled 9/24/10 0815 Purged/sampled by [Signature]

Sample method     

Requested analyses     

Comments/observations strong HC color - well is full of silt!  
light sheen on H<sub>2</sub>O, well stopped developing  
@ 2.3 gallons - sampling

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-4 Date gauged 9.23.10  
 Site HOLIDAY CHEVROLET Time gauged 8:1518  
 Depth to PSH        Feet Well diameter 2" Inches  
 Depth to water 5.80 Feet Height of fluid column 7.37 Feet  
 Total depth 13.17 Feet Volume in well 1.25 Gallons  
 (3 well volumes = 3.76 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9/24/10 0725 Purge Method hand bailed

Time	Purge Volume (gal)	Temp (°C)	Cond SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
	0.5	22.0	1085	7.25	✓	✓
	1.25	23.3	1087	7.37		
	2.50	23.8	1481	7.61		
	3.30	23.6	2023	7.86		
	3.50	23.4	2026	7.89		

Actual purge volume 3.8 gal. Field measurements stabilized within ± 10%?         
 Time/date sampled 9/24/10 0745 Purged/sampled by fiors  
 Sample method new twine & bailer  
 Requested analyses 8260  
 Comments/observations       

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-5 Date gauged 9.23.10  
 Site HOLIDAY CHEVRON Time gauged 1510  
 Depth to PSH        Feet Well diameter 2" Inches  
 Depth to water 7.86 Feet Height of fluid column 4.99 Feet  
 Total depth 12.85 Feet Volume in well 0.85 Gallons

(3 well volumes = 2.55 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 1746 9/23/10 Purge Method hand bailed

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
<u>1747</u>	<u>0.25</u>	<u>24.4</u>	<u>3392</u>	<u>8.03</u>	<u>✓</u>	<u>—</u>
	<u>1.0</u>	<u>23.8</u>	<u>3041</u>	<u>7.85</u>		
	<u>2.0</u>	<u>23.2</u>	<u>3338</u>	<u>8.09</u>		
	<u>2.3</u>	<u>22.7</u>	<u>3361</u>	<u>8.13</u>		

Actual purge volume 2.6 gal. Field measurements stabilized within ± 10%?       

Time/date sampled 9/23/10 1800 Purged/sampled by [Signature]

Sample method New bailer of twine

Requested analyses 0260

Comments/observations HC odor when opened cap  
light sheen on H<sub>2</sub>O surface during sampling

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID mw-8 Date gauged 9.23.10  
 Site Holiday Chevron Time gauged 1442  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2" Inches  
 Depth to water 7.68 Feet Height of fluid column 7.22 Feet  
 Total depth 14.90 Feet Volume in well 1.23 Gallons  
 (3 well volumes = 3.68 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9/23/10 1645 Purge Method \_\_\_\_\_

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
<u>1646</u>	<u>0.25</u>	<u>23.3</u>	<u>3570</u>	<u>7.92</u>		
	<u>1.25</u>	<u>23.4</u>	<u>3275</u>	<u>7.82</u>		
	<u>2.50</u>	<u>22.8</u>	<u>3510</u>	<u>7.91</u>		
	<u>3.40</u>	<u>22.5</u>	<u>3508</u>	<u>7.94</u>		

Actual purge volume 3.7 gal. Field measurements stabilized within ± 10%? \_\_\_\_\_

Time/date sampled 9/23/10 1705 Purged/sampled by [Signature]

Sample method new bailer of twine

Requested analyses B260

Comments/observations found well casing full of mud w/ make shift cap on well - took picture @ 1442

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-1 Date gauged 9.23.10  
 Site Holiday Chevron Time gauged 1435  
 Depth to PSH        Feet Well diameter 2" Inches  
 Depth to water 7.93 8.93 Feet Height of fluid column 5.27 Feet  
 Total depth 14.20 Feet Volume in well 0.89 Gallons

(3 well volumes = 2.7 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9.23.10 1615 Purge Method HAND BAILED

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
<u>1616</u>	<u>0.25</u>	<u>25.2</u>	<u>3869</u>	<u>8.01</u>	<u>      </u>	<u>      </u>
	<u>1.25</u>	<u>24.2</u>	<u>3639</u>	<u>7.99</u>		
	<u>2.30</u>	<u>22.6</u>	<u>3934</u>	<u>8.15</u>		

Actual purge volume 2.6 gal. Field measurements stabilized within ± 10%?       

Time/date sampled 9/23/10 1630 Purged/sampled by Fiona Jordan

Sample method HAND BAILED w/ new twine & bailer

Requested analyses 8260

Comments/observations well stopped developing @ 2.4 gallons sampled @ 2.6

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-2 Date gauged 9.23.10  
 Site HOLIDAY CHEV. Time gauged 1455  
 Depth to PSH / Feet Well diameter 2" Inches  
 Depth to water 6.80 Feet Height of fluid column 6.38 Feet  
 Total depth 13.18 Feet Volume in well 1.08 Gallons

(3 well volumes = 3.25 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 9/23/10 1715 Purge Method hand bailed

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
<u>9/23/10 1717</u>	<u>0.25</u>	<u>25.3</u>	<u>2045</u>	<u>7.55</u>		
	<u>1.25</u>	<u>25.3</u>	<u>1937</u>	<u>7.45</u>		
	<u>2.25</u>	<u>25.4</u>	<u>2196</u>	<u>7.83</u>		
	<u>2.90</u>	<u>25.1</u>	<u>2334</u>	<u>8.01</u>		

Actual purge volume 3.0 gal. Field measurements stabilized within ± 10%? /

Time/date sampled 9/23/10 1735 Purged/sampled by Lina J...

Sample method new bailer & twine

Requested analyses 8260

Comments/observations well stopped developing - sampling 3.0 gallons ②

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft

**APPENDIX B  
ANALYTICAL LABORATORY RESULTS**

## COVER LETTER

Tuesday, October 05, 2010

Teri McMillan  
EA Engineering  
320 Gold Ave SW Suite 120  
Albuquerque, NM 87102

TEL: (505) 224-9013

FAX:

RE: Holiday Chevron

Order No.: 1009B13

Dear Teri McMillan:

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 9/24/2010 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. Below is a list of our accreditations. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites.

Reporting limits are determined by EPA methodology.

Please do not hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

  
Andy Freeman, Laboratory Manager

NM Lab # NM9425 NM0901  
AZ license # AZ0682  
ORELAP Lab # NM100001  
Texas Lab# T104704424-08-TX



# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-10

**CLIENT:** EA Engineering  
**Lab Order:** 1009B13  
**Project:** Holiday Chevron  
**Lab ID:** 1009B13-01

**Client Sample ID:** MW-1  
**Collection Date:** 9/23/2010 4:30:00 PM  
**Date Received:** 9/24/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: <b>MMS</b>
Benzene	98	5.0		µg/L	5	9/29/2010 2:00:24 PM
Toluene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Ethylbenzene	14	5.0		µg/L	5	9/29/2010 2:00:24 PM
Methyl tert-butyl ether (MTBE)	370	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,2,4-Trimethylbenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,3,5-Trimethylbenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,2-Dichloroethane (EDC)	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,2-Dibromoethane (EDB)	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Naphthalene	ND	10		µg/L	5	9/29/2010 2:00:24 PM
1-Methylnaphthalene	ND	20		µg/L	5	9/29/2010 2:00:24 PM
2-Methylnaphthalene	ND	20		µg/L	5	9/29/2010 2:00:24 PM
Acetone	ND	50		µg/L	5	9/29/2010 2:00:24 PM
Bromobenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Bromodichloromethane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Bromoform	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Bromomethane	ND	15		µg/L	5	9/29/2010 2:00:24 PM
2-Butanone	ND	50		µg/L	5	9/29/2010 2:00:24 PM
Carbon disulfide	ND	50		µg/L	5	9/29/2010 2:00:24 PM
Carbon Tetrachloride	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Chlorobenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Chloroethane	ND	10		µg/L	5	9/29/2010 2:00:24 PM
Chloroform	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Chloromethane	ND	15		µg/L	5	9/29/2010 2:00:24 PM
2-Chlorotoluene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
4-Chlorotoluene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
cis-1,2-DCE	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
cis-1,3-Dichloropropene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,2-Dibromo-3-chloropropane	ND	10		µg/L	5	9/29/2010 2:00:24 PM
Dibromochloromethane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Dibromomethane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,2-Dichlorobenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,3-Dichlorobenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,4-Dichlorobenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Dichlorodifluoromethane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,1-Dichloroethane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,1-Dichloroethene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,2-Dichloropropane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,3-Dichloropropane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
2,2-Dichloropropane	ND	10		µg/L	5	9/29/2010 2:00:24 PM
1,1-Dichloropropene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Hexachlorobutadiene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

**Hall Environmental Analysis Laboratory, Inc.**

Date: 05-Oct-10

**CLIENT:** EA Engineering  
**Lab Order:** 1009B13  
**Project:** Holiday Chevron  
**Lab ID:** 1009B13-01

**Client Sample ID:** MW-1  
**Collection Date:** 9/23/2010 4:30:00 PM  
**Date Received:** 9/24/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
2-Hexanone	ND	50		µg/L	5	9/29/2010 2:00:24 PM
Isopropylbenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
4-Isopropyltoluene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
4-Methyl-2-pentanone	ND	50		µg/L	5	9/29/2010 2:00:24 PM
Methylene Chloride	ND	15		µg/L	5	9/29/2010 2:00:24 PM
n-Butylbenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
n-Propylbenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
sec-Butylbenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Styrene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
tert-Butylbenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,1,1,2-Tetrachloroethane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/L	5	9/29/2010 2:00:24 PM
Tetrachloroethene (PCE)	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
trans-1,2-DCE	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
trans-1,3-Dichloropropene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,2,3-Trichlorobenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,2,4-Trichlorobenzene	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,1,1-Trichloroethane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,1,2-Trichloroethane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Trichloroethene (TCE)	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Trichlorofluoromethane	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
1,2,3-Trichloropropane	ND	10		µg/L	5	9/29/2010 2:00:24 PM
Vinyl chloride	ND	5.0		µg/L	5	9/29/2010 2:00:24 PM
Xylenes, Total	ND	7.5		µg/L	5	9/29/2010 2:00:24 PM
Surr: 1,2-Dichloroethane-d4	85.2	54.6-141		%REC	5	9/29/2010 2:00:24 PM
Surr: 4-Bromofluorobenzene	95.7	60.1-133		%REC	5	9/29/2010 2:00:24 PM
Surr: Dibromofluoromethane	95.2	78.5-130		%REC	5	9/29/2010 2:00:24 PM
Surr: Toluene-d8	98.7	79.5-126		%REC	5	9/29/2010 2:00:24 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-10

**CLIENT:** EA Engineering  
**Lab Order:** 1009B13  
**Project:** Holiday Chevron  
**Lab ID:** 1009B13-02

**Client Sample ID:** MW-8  
**Collection Date:** 9/23/2010 5:05:00 PM  
**Date Received:** 9/24/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	4100	100		µg/L	100	9/29/2010 4:14:18 PM
Toluene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Ethylbenzene	73	10		µg/L	10	9/29/2010 4:42:38 PM
Methyl tert-butyl ether (MTBE)	900	10		µg/L	10	9/29/2010 4:42:38 PM
1,2,4-Trimethylbenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,3,5-Trimethylbenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Naphthalene	ND	20		µg/L	10	9/29/2010 4:42:38 PM
1-Methylnaphthalene	ND	40		µg/L	10	9/29/2010 4:42:38 PM
2-Methylnaphthalene	ND	40		µg/L	10	9/29/2010 4:42:38 PM
Acetone	ND	100		µg/L	10	9/29/2010 4:42:38 PM
Bromobenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Bromodichloromethane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Bromoform	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Bromomethane	ND	30		µg/L	10	9/29/2010 4:42:38 PM
2-Butanone	ND	100		µg/L	10	9/29/2010 4:42:38 PM
Carbon disulfide	ND	100		µg/L	10	9/29/2010 4:42:38 PM
Carbon Tetrachloride	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Chlorobenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Chloroethane	ND	20		µg/L	10	9/29/2010 4:42:38 PM
Chloroform	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Chloromethane	ND	30		µg/L	10	9/29/2010 4:42:38 PM
2-Chlorotoluene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
4-Chlorotoluene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
cis-1,2-DCE	ND	10		µg/L	10	9/29/2010 4:42:38 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	9/29/2010 4:42:38 PM
Dibromochloromethane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Dibromomethane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Dichlorodifluoromethane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,1-Dichloroethane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,1-Dichloroethene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,2-Dichloropropane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,3-Dichloropropane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
2,2-Dichloropropane	ND	20		µg/L	10	9/29/2010 4:42:38 PM
1,1-Dichloropropene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Hexachlorobutadiene	ND	10		µg/L	10	9/29/2010 4:42:38 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

CLIENT: EA Engineering  
 Lab Order: 1009B13  
 Project: Holiday Chevron  
 Lab ID: 1009B13-02

Client Sample ID: MW-8  
 Collection Date: 9/23/2010 5:05:00 PM  
 Date Received: 9/24/2010  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
2-Hexanone	ND	100		µg/L	10	9/29/2010 4:42:38 PM
Isopropylbenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
4-Isopropyltoluene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	9/29/2010 4:42:38 PM
Methylene Chloride	ND	30		µg/L	10	9/29/2010 4:42:38 PM
n-Butylbenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
n-Propylbenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
sec-Butylbenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Styrene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
tert-Butylbenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	9/29/2010 4:42:38 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	9/29/2010 4:42:38 PM
trans-1,2-DCE	ND	10		µg/L	10	9/29/2010 4:42:38 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Trichloroethene (TCE)	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Trichlorofluoromethane	ND	10		µg/L	10	9/29/2010 4:42:38 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	9/29/2010 4:42:38 PM
Vinyl chloride	ND	10		µg/L	10	9/29/2010 4:42:38 PM
Xylenes, Total	ND	15		µg/L	10	9/29/2010 4:42:38 PM
Surr: 1,2-Dichloroethane-d4	90.0	54.6-141		%REC	10	9/29/2010 4:42:38 PM
Surr: 4-Bromofluorobenzene	92.7	60.1-133		%REC	10	9/29/2010 4:42:38 PM
Surr: Dibromofluoromethane	101	78.5-130		%REC	10	9/29/2010 4:42:38 PM
Surr: Toluene-d8	100	79.5-126		%REC	10	9/29/2010 4:42:38 PM

Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-10

CLIENT: EA Engineering  
 Lab Order: 1009B13  
 Project: Holiday Chevron  
 Lab ID: 1009B13-03

Client Sample ID: MW-2  
 Collection Date: 9/23/2010 5:35:00 PM  
 Date Received: 9/24/2010  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	3500	100		µg/L	100	9/29/2010 5:39:20 PM
Toluene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Ethylbenzene	1200	100		µg/L	100	9/29/2010 5:39:20 PM
Methyl tert-butyl ether (MTBE)	170	10		µg/L	10	9/29/2010 6:07:33 PM
1,2,4-Trimethylbenzene	170	10		µg/L	10	9/29/2010 6:07:33 PM
1,3,5-Trimethylbenzene	100	10		µg/L	10	9/29/2010 6:07:33 PM
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Naphthalene	150	20		µg/L	10	9/29/2010 6:07:33 PM
1-Methylnaphthalene	ND	40		µg/L	10	9/29/2010 6:07:33 PM
2-Methylnaphthalene	ND	40		µg/L	10	9/29/2010 6:07:33 PM
Acetone	ND	100		µg/L	10	9/29/2010 6:07:33 PM
Bromobenzene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Bromodichloromethane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Bromoform	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Bromomethane	ND	30		µg/L	10	9/29/2010 6:07:33 PM
2-Butanone	ND	100		µg/L	10	9/29/2010 6:07:33 PM
Carbon disulfide	ND	100		µg/L	10	9/29/2010 6:07:33 PM
Carbon Tetrachloride	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Chlorobenzene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Chloroethane	ND	20		µg/L	10	9/29/2010 6:07:33 PM
Chloroform	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Chloromethane	ND	30		µg/L	10	9/29/2010 6:07:33 PM
2-Chlorotoluene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
4-Chlorotoluene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
cis-1,2-DCE	ND	10		µg/L	10	9/29/2010 6:07:33 PM
cis-1,3-Dichloropropene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	9/29/2010 6:07:33 PM
Dibromochloromethane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Dibromomethane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,2-Dichlorobenzene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,3-Dichlorobenzene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,4-Dichlorobenzene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Dichlorodifluoromethane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,1-Dichloroethane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,1-Dichloroethene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,2-Dichloropropane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,3-Dichloropropane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
2,2-Dichloropropane	ND	20		µg/L	10	9/29/2010 6:07:33 PM
1,1-Dichloropropene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Hexachlorobutadiene	ND	10		µg/L	10	9/29/2010 6:07:33 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-10

CLIENT: EA Engineering  
 Lab Order: 1009B13  
 Project: Holiday Chevron  
 Lab ID: 1009B13-03

Client Sample ID: MW-2  
 Collection Date: 9/23/2010 5:35:00 PM  
 Date Received: 9/24/2010  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
2-Hexanone	ND	100		µg/L	10	9/29/2010 6:07:33 PM
Isopropylbenzene	34	10		µg/L	10	9/29/2010 6:07:33 PM
4-Isopropyltoluene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
4-Methyl-2-pentanone	ND	100		µg/L	10	9/29/2010 6:07:33 PM
Methylene Chloride	ND	30		µg/L	10	9/29/2010 6:07:33 PM
n-Butylbenzene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
n-Propylbenzene	71	10		µg/L	10	9/29/2010 6:07:33 PM
sec-Butylbenzene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Styrene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
tert-Butylbenzene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	9/29/2010 6:07:33 PM
Tetrachloroethene (PCE)	ND	10		µg/L	10	9/29/2010 6:07:33 PM
trans-1,2-DCE	ND	10		µg/L	10	9/29/2010 6:07:33 PM
trans-1,3-Dichloropropene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,2,3-Trichlorobenzene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,2,4-Trichlorobenzene	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,1,1-Trichloroethane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,1,2-Trichloroethane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Trichloroethene (TCE)	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Trichlorofluoromethane	ND	10		µg/L	10	9/29/2010 6:07:33 PM
1,2,3-Trichloropropane	ND	20		µg/L	10	9/29/2010 6:07:33 PM
Vinyl chloride	ND	10		µg/L	10	9/29/2010 6:07:33 PM
Xylenes, Total	31	15		µg/L	10	9/29/2010 6:07:33 PM
Surr: 1,2-Dichloroethane-d4	78.2	54.6-141		%REC	10	9/29/2010 6:07:33 PM
Surr: 4-Bromofluorobenzene	89.9	60.1-133		%REC	10	9/29/2010 6:07:33 PM
Surr: Dibromofluoromethane	88.7	78.5-130		%REC	10	9/29/2010 6:07:33 PM
Surr: Toluene-d8	98.6	79.5-126		%REC	10	9/29/2010 6:07:33 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-10

CLIENT: EA Engineering  
 Lab Order: 1009B13  
 Project: Holiday Chevron  
 Lab ID: 1009B13-04

Client Sample ID: MW-5  
 Collection Date: 9/23/2010 6:00:00 PM  
 Date Received: 9/24/2010  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	36000	1000		µg/L	1000	9/29/2010 7:04:04 PM
Toluene	52000	1000		µg/L	1000	9/29/2010 7:04:04 PM
Ethylbenzene	3000	100		µg/L	100	9/29/2010 7:32:12 PM
Methyl tert-butyl ether (MTBE)	3100	100		µg/L	100	9/29/2010 7:32:12 PM
1,2,4-Trimethylbenzene	2100	100		µg/L	100	9/29/2010 7:32:12 PM
1,3,5-Trimethylbenzene	560	100		µg/L	100	9/29/2010 7:32:12 PM
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Naphthalene	440	200		µg/L	100	9/29/2010 7:32:12 PM
1-Methylnaphthalene	ND	400		µg/L	100	9/29/2010 7:32:12 PM
2-Methylnaphthalene	ND	400		µg/L	100	9/29/2010 7:32:12 PM
Acetone	ND	1000		µg/L	100	9/29/2010 7:32:12 PM
Bromobenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Bromodichloromethane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Bromoform	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Bromomethane	ND	300		µg/L	100	9/29/2010 7:32:12 PM
2-Butanone	ND	1000		µg/L	100	9/29/2010 7:32:12 PM
Carbon disulfide	ND	1000		µg/L	100	9/29/2010 7:32:12 PM
Carbon Tetrachloride	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Chlorobenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Chloroethane	ND	200		µg/L	100	9/29/2010 7:32:12 PM
Chloroform	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Chloromethane	ND	300		µg/L	100	9/29/2010 7:32:12 PM
2-Chlorotoluene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
4-Chlorotoluene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
cis-1,2-DCE	ND	100		µg/L	100	9/29/2010 7:32:12 PM
cis-1,3-Dichloropropene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	9/29/2010 7:32:12 PM
Dibromochloromethane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Dibromomethane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,2-Dichlorobenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,3-Dichlorobenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,4-Dichlorobenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Dichlorodifluoromethane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,1-Dichloroethane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,1-Dichloroethene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,2-Dichloropropane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,3-Dichloropropane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
2,2-Dichloropropane	ND	200		µg/L	100	9/29/2010 7:32:12 PM
1,1-Dichloropropene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Hexachlorobutadiene	ND	100		µg/L	100	9/29/2010 7:32:12 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-10

CLIENT: EA Engineering  
 Lab Order: 1009B13  
 Project: Holiday Chevron  
 Lab ID: 1009B13-04

Client Sample ID: MW-5  
 Collection Date: 9/23/2010 6:00:00 PM  
 Date Received: 9/24/2010  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
2-Hexanone	ND	1000		µg/L	100	9/29/2010 7:32:12 PM
Isopropylbenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
4-Isopropyltoluene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
4-Methyl-2-pentanone	ND	1000		µg/L	100	9/29/2010 7:32:12 PM
Methylene Chloride	ND	300		µg/L	100	9/29/2010 7:32:12 PM
n-Butylbenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
n-Propylbenzene	200	100		µg/L	100	9/29/2010 7:32:12 PM
sec-Butylbenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Styrene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
tert-Butylbenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	9/29/2010 7:32:12 PM
Tetrachloroethene (PCE)	ND	100		µg/L	100	9/29/2010 7:32:12 PM
trans-1,2-DCE	ND	100		µg/L	100	9/29/2010 7:32:12 PM
trans-1,3-Dichloropropene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,1,1-Trichloroethane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,1,2-Trichloroethane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Trichloroethene (TCE)	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Trichlorofluoromethane	ND	100		µg/L	100	9/29/2010 7:32:12 PM
1,2,3-Trichloropropane	ND	200		µg/L	100	9/29/2010 7:32:12 PM
Vinyl chloride	ND	100		µg/L	100	9/29/2010 7:32:12 PM
Xylenes, Total	20000	150		µg/L	100	9/29/2010 7:32:12 PM
Surr: 1,2-Dichloroethane-d4	87.5	54.6-141		%REC	100	9/29/2010 7:32:12 PM
Surr: 4-Bromofluorobenzene	94.7	60.1-133		%REC	100	9/29/2010 7:32:12 PM
Surr: Dibromofluoromethane	96.7	78.5-130		%REC	100	9/29/2010 7:32:12 PM
Surr: Toluene-d8	96.8	79.5-126		%REC	100	9/29/2010 7:32:12 PM

Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

CLIENT: EA Engineering  
 Lab Order: 1009B13  
 Project: Holiday Chevron  
 Lab ID: 1009B13-05

Client Sample ID: MW-4  
 Collection Date: 9/24/2010 7:45:00 AM  
 Date Received: 9/24/2010  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: MMS
<b>EPA METHOD 8260B: VOLATILES</b>						
Benzene	21000	500		µg/L	500	9/28/2010 7:11:34 AM
Toluene	24000	500		µg/L	500	9/28/2010 7:11:34 AM
Ethylbenzene	2800	50		µg/L	50	9/29/2010 9:53:21 PM
Methyl tert-butyl ether (MTBE)	1100	50		µg/L	50	9/29/2010 9:53:21 PM
1,2,4-Trimethylbenzene	2000	50		µg/L	50	9/29/2010 9:53:21 PM
1,3,5-Trimethylbenzene	540	50		µg/L	50	9/29/2010 9:53:21 PM
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Naphthalene	350	100		µg/L	50	9/29/2010 9:53:21 PM
1-Methylnaphthalene	ND	200		µg/L	50	9/29/2010 9:53:21 PM
2-Methylnaphthalene	ND	200		µg/L	50	9/29/2010 9:53:21 PM
Acetone	ND	500		µg/L	50	9/29/2010 9:53:21 PM
Bromobenzene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Bromodichloromethane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Bromoform	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Bromomethane	ND	150		µg/L	50	9/29/2010 9:53:21 PM
2-Butanone	ND	500		µg/L	50	9/29/2010 9:53:21 PM
Carbon disulfide	ND	500		µg/L	50	9/29/2010 9:53:21 PM
Carbon Tetrachloride	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Chlorobenzene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Chloroethane	ND	100		µg/L	50	9/29/2010 9:53:21 PM
Chloroform	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Chloromethane	ND	150		µg/L	50	9/29/2010 9:53:21 PM
2-Chlorotoluene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
4-Chlorotoluene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
cis-1,2-DCE	ND	50		µg/L	50	9/29/2010 9:53:21 PM
cis-1,3-Dichloropropene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	9/29/2010 9:53:21 PM
Dibromochloromethane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Dibromomethane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,2-Dichlorobenzene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,3-Dichlorobenzene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,4-Dichlorobenzene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Dichlorodifluoromethane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,1-Dichloroethane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,1-Dichloroethene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,2-Dichloropropane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,3-Dichloropropane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
2,2-Dichloropropane	ND	100		µg/L	50	9/29/2010 9:53:21 PM
1,1-Dichloropropene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Hexachlorobutadiene	ND	50		µg/L	50	9/29/2010 9:53:21 PM

Qualifiers:

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-10

CLIENT: EA Engineering  
 Lab Order: 1009B13  
 Project: Holiday Chevron  
 Lab ID: 1009B13-05

Client Sample ID: MW-4  
 Collection Date: 9/24/2010 7:45:00 AM  
 Date Received: 9/24/2010  
 Matrix: AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
2-Hexanone	ND	500		µg/L	50	9/29/2010 9:53:21 PM
Isopropylbenzene	110	50		µg/L	50	9/29/2010 9:53:21 PM
4-Isopropyltoluene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
4-Methyl-2-pentanone	ND	500		µg/L	50	9/29/2010 9:53:21 PM
Methylene Chloride	ND	150		µg/L	50	9/29/2010 9:53:21 PM
n-Butylbenzene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
n-Propylbenzene	270	50		µg/L	50	9/29/2010 9:53:21 PM
sec-Butylbenzene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Styrene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
tert-Butylbenzene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	9/29/2010 9:53:21 PM
Tetrachloroethene (PCE)	ND	50		µg/L	50	9/29/2010 9:53:21 PM
trans-1,2-DCE	ND	50		µg/L	50	9/29/2010 9:53:21 PM
trans-1,3-Dichloropropene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,2,3-Trichlorobenzene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,2,4-Trichlorobenzene	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,1,1-Trichloroethane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,1,2-Trichloroethane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Trichloroethene (TCE)	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Trichlorofluoromethane	ND	50		µg/L	50	9/29/2010 9:53:21 PM
1,2,3-Trichloropropane	ND	100		µg/L	50	9/29/2010 9:53:21 PM
Vinyl chloride	ND	50		µg/L	50	9/29/2010 9:53:21 PM
Xylenes, Total	13000	750		µg/L	500	9/28/2010 7:11:34 AM
Surr: 1,2-Dichloroethane-d4	83.6	54.6-141		%REC	50	9/29/2010 9:53:21 PM
Surr: 4-Bromofluorobenzene	91.8	60.1-133		%REC	50	9/29/2010 9:53:21 PM
Surr: Dibromofluoromethane	89.9	78.5-130		%REC	50	9/29/2010 9:53:21 PM
Surr: Toluene-d8	103	79.5-126		%REC	50	9/29/2010 9:53:21 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-10

**CLIENT:** EA Engineering  
**Lab Order:** 1009B13  
**Project:** Holiday Chevron  
**Lab ID:** 1009B13-06

**Client Sample ID:** MW-3  
**Collection Date:** 9/24/2010 8:15:00 AM  
**Date Received:** 9/24/2010  
**Matrix:** AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	47000	1000		µg/L	1000	9/29/2010 10:49:39 PM
Toluene	49000	1000		µg/L	1000	9/29/2010 10:49:39 PM
Ethylbenzene	3900	100		µg/L	100	9/29/2010 11:17:45 PM
Methyl tert-butyl ether (MTBE)	6400	100		µg/L	100	9/29/2010 11:17:45 PM
1,2,4-Trimethylbenzene	2300	100		µg/L	100	9/29/2010 11:17:45 PM
1,3,5-Trimethylbenzene	620	100		µg/L	100	9/29/2010 11:17:45 PM
1,2-Dichloroethane (EDC)	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,2-Dibromoethane (EDB)	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Naphthalene	340	200		µg/L	100	9/29/2010 11:17:45 PM
1-Methylnaphthalene	ND	400		µg/L	100	9/29/2010 11:17:45 PM
2-Methylnaphthalene	ND	400		µg/L	100	9/29/2010 11:17:45 PM
Acetone	ND	1000		µg/L	100	9/29/2010 11:17:45 PM
Bromobenzene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Bromodichloromethane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Bromoform	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Bromomethane	ND	300		µg/L	100	9/29/2010 11:17:45 PM
2-Butanone	ND	1000		µg/L	100	9/29/2010 11:17:45 PM
Carbon disulfide	ND	1000		µg/L	100	9/29/2010 11:17:45 PM
Carbon Tetrachloride	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Chlorobenzene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Chloroethane	ND	200		µg/L	100	9/29/2010 11:17:45 PM
Chloroform	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Chloromethane	ND	300		µg/L	100	9/29/2010 11:17:45 PM
2-Chlorotoluene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
4-Chlorotoluene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
cis-1,2-DCE	ND	100		µg/L	100	9/29/2010 11:17:45 PM
cis-1,3-Dichloropropene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,2-Dibromo-3-chloropropane	ND	200		µg/L	100	9/29/2010 11:17:45 PM
Dibromochloromethane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Dibromomethane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,2-Dichlorobenzene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,3-Dichlorobenzene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,4-Dichlorobenzene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Dichlorodifluoromethane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,1-Dichloroethane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,1-Dichloroethene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,2-Dichloropropane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,3-Dichloropropane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
2,2-Dichloropropane	ND	200		µg/L	100	9/29/2010 11:17:45 PM
1,1-Dichloropropene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Hexachlorobutadiene	ND	100		µg/L	100	9/29/2010 11:17:45 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-10

<b>CLIENT:</b> EA Engineering	<b>Client Sample ID:</b> MW-3
<b>Lab Order:</b> 1009B13	<b>Collection Date:</b> 9/24/2010 8:15:00 AM
<b>Project:</b> Holiday Chevron	<b>Date Received:</b> 9/24/2010
<b>Lab ID:</b> 1009B13-06	<b>Matrix:</b> AQUEOUS

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
2-Hexanone	ND	1000		µg/L	100	9/29/2010 11:17:45 PM
Isopropylbenzene	120	100		µg/L	100	9/29/2010 11:17:45 PM
4-Isopropyltoluene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
4-Methyl-2-pentanone	ND	1000		µg/L	100	9/29/2010 11:17:45 PM
Methylene Chloride	ND	300		µg/L	100	9/29/2010 11:17:45 PM
n-Butylbenzene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
n-Propylbenzene	340	100		µg/L	100	9/29/2010 11:17:45 PM
sec-Butylbenzene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Styrene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
tert-Butylbenzene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,1,1,2-Tetrachloroethane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,1,2,2-Tetrachloroethane	ND	200		µg/L	100	9/29/2010 11:17:45 PM
Tetrachloroethene (PCE)	ND	100		µg/L	100	9/29/2010 11:17:45 PM
trans-1,2-DCE	ND	100		µg/L	100	9/29/2010 11:17:45 PM
trans-1,3-Dichloropropene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,2,3-Trichlorobenzene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,2,4-Trichlorobenzene	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,1,1-Trichloroethane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,1,2-Trichloroethane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Trichloroethene (TCE)	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Trichlorofluoromethane	ND	100		µg/L	100	9/29/2010 11:17:45 PM
1,2,3-Trichloropropane	ND	200		µg/L	100	9/29/2010 11:17:45 PM
Vinyl chloride	ND	100		µg/L	100	9/29/2010 11:17:45 PM
Xylenes, Total	19000	150		µg/L	100	9/29/2010 11:17:45 PM
Surr: 1,2-Dichloroethane-d4	95.8	54.6-141		%REC	100	9/29/2010 11:17:45 PM
Surr: 4-Bromofluorobenzene	89.8	60.1-133		%REC	100	9/29/2010 11:17:45 PM
Surr: Dibromofluoromethane	99.6	78.5-130		%REC	100	9/29/2010 11:17:45 PM
Surr: Toluene-d8	96.7	79.5-126		%REC	100	9/29/2010 11:17:45 PM

**Qualifiers:**

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level    | B Analyte detected in the associated Method Blank    |
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | MCL Maximum Contaminant Level                        |
| NC Non-Chlorinated                           | ND Not Detected at the Reporting Limit               |
| PQL Practical Quantitation Limit             | S Spike recovery outside accepted recovery limits    |

**Hall Environmental Analysis Laboratory, Inc.**

Date: 05-Oct-10

**CLIENT:** EA Engineering  
**Lab Order:** 1009B13  
**Project:** Holiday Chevron  
**Lab ID:** 1009B13-07

**Client Sample ID:** Trip Blank  
**Collection Date:**  
**Date Received:** 9/24/2010  
**Matrix:** TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
Benzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Toluene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Ethylbenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Naphthalene	ND	2.0		µg/L	1	9/30/2010 12:13:59 AM
1-Methylnaphthalene	ND	4.0		µg/L	1	9/30/2010 12:13:59 AM
2-Methylnaphthalene	ND	4.0		µg/L	1	9/30/2010 12:13:59 AM
Acetone	ND	10		µg/L	1	9/30/2010 12:13:59 AM
Bromobenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Bromodichloromethane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Bromoform	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Bromomethane	ND	3.0		µg/L	1	9/30/2010 12:13:59 AM
2-Butanone	ND	10		µg/L	1	9/30/2010 12:13:59 AM
Carbon disulfide	ND	10		µg/L	1	9/30/2010 12:13:59 AM
Carbon Tetrachloride	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Chlorobenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Chloroethane	ND	2.0		µg/L	1	9/30/2010 12:13:59 AM
Chloroform	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Chloromethane	ND	3.0		µg/L	1	9/30/2010 12:13:59 AM
2-Chlorotoluene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
4-Chlorotoluene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
cis-1,2-DCE	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	9/30/2010 12:13:59 AM
Dibromochloromethane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Dibromomethane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,2-Dichlorobenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,3-Dichlorobenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,4-Dichlorobenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Dichlorodifluoromethane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,1-Dichloroethane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,1-Dichloroethene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,2-Dichloropropane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,3-Dichloropropane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
2,2-Dichloropropane	ND	2.0		µg/L	1	9/30/2010 12:13:59 AM
1,1-Dichloropropene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Hexachlorobutadiene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level  
 E Estimated value  
 J Analyte detected below quantitation limits  
 NC Non-Chlorinated  
 PQL Practical Quantitation Limit

B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 MCL Maximum Contaminant Level  
 ND Not Detected at the Reporting Limit  
 S Spike recovery outside accepted recovery limits

# Hall Environmental Analysis Laboratory, Inc.

Date: 05-Oct-10

**CLIENT:** EA Engineering  
**Lab Order:** 1009B13  
**Project:** Holiday Chevron  
**Lab ID:** 1009B13-07

**Client Sample ID:** Trip Blank  
**Collection Date:**  
**Date Received:** 9/24/2010  
**Matrix:** TRIP BLANK

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 8260B: VOLATILES</b>						Analyst: MMS
2-Hexanone	ND	10		µg/L	1	9/30/2010 12:13:59 AM
Isopropylbenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
4-Isopropyltoluene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
4-Methyl-2-pentanone	ND	10		µg/L	1	9/30/2010 12:13:59 AM
Methylene Chloride	ND	3.0		µg/L	1	9/30/2010 12:13:59 AM
n-Butylbenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
n-Propylbenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
sec-Butylbenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Styrene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
tert-Butylbenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	9/30/2010 12:13:59 AM
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
trans-1,2-DCE	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,1,1-Trichloroethane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,1,2-Trichloroethane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Trichloroethene (TCE)	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Trichlorofluoromethane	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
1,2,3-Trichloropropane	ND	2.0		µg/L	1	9/30/2010 12:13:59 AM
Vinyl chloride	ND	1.0		µg/L	1	9/30/2010 12:13:59 AM
Xylenes, Total	ND	1.5		µg/L	1	9/30/2010 12:13:59 AM
Surr: 1,2-Dichloroethane-d4	92.5	54.6-141		%REC	1	9/30/2010 12:13:59 AM
Surr: 4-Bromofluorobenzene	97.7	60.1-133		%REC	1	9/30/2010 12:13:59 AM
Surr: Dibromofluoromethane	97.2	78.5-130		%REC	1	9/30/2010 12:13:59 AM
Surr: Toluene-d8	99.0	79.5-126		%REC	1	9/30/2010 12:13:59 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- E Estimated value
- J Analyte detected below quantitation limits
- NC Non-Chlorinated
- PQL Practical Quantitation Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: EA Engineering  
Project: Holiday Chevron

Work Order: 1009B13

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
<b>Method: EPA Method 8260B: VOLATILES</b>											
Sample ID: 5ml rb		MBLK									
				Batch ID:	R41211	Analysis Date:	9/27/2010 9:38:40 AM				
Benzene	ND	µg/L	1.0								
Toluene	ND	µg/L	1.0								
Ethylbenzene	ND	µg/L	1.0								
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0								
1,2,4-Trimethylbenzene	ND	µg/L	1.0								
1,3,5-Trimethylbenzene	ND	µg/L	1.0								
1,2-Dichloroethane (EDC)	ND	µg/L	1.0								
1,2-Dibromoethane (EDB)	ND	µg/L	1.0								
Naphthalene	ND	µg/L	2.0								
1-Methylnaphthalene	ND	µg/L	4.0								
2-Methylnaphthalene	ND	µg/L	4.0								
Acetone	ND	µg/L	10								
Bromobenzene	ND	µg/L	1.0								
Bromodichloromethane	ND	µg/L	1.0								
Bromoform	ND	µg/L	1.0								
Bromomethane	ND	µg/L	3.0								
2-Butanone	ND	µg/L	10								
Carbon disulfide	ND	µg/L	10								
Carbon Tetrachloride	ND	µg/L	1.0								
Chlorobenzene	ND	µg/L	1.0								
Chloroethane	ND	µg/L	2.0								
Chloroform	ND	µg/L	1.0								
Chloromethane	ND	µg/L	3.0								
2-Chlorotoluene	ND	µg/L	1.0								
4-Chlorotoluene	ND	µg/L	1.0								
cis-1,2-DCE	ND	µg/L	1.0								
cis-1,3-Dichloropropene	ND	µg/L	1.0								
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0								
Dibromochloromethane	ND	µg/L	1.0								
Dibromomethane	ND	µg/L	1.0								
1,2-Dichlorobenzene	ND	µg/L	1.0								
1,3-Dichlorobenzene	ND	µg/L	1.0								
1,4-Dichlorobenzene	ND	µg/L	1.0								
Dichlorodifluoromethane	ND	µg/L	1.0								
1,1-Dichloroethane	ND	µg/L	1.0								
1,1-Dichloroethene	ND	µg/L	1.0								
1,2-Dichloropropane	ND	µg/L	1.0								
1,3-Dichloropropane	ND	µg/L	1.0								
2,2-Dichloropropane	ND	µg/L	2.0								
1,1-Dichloropropene	ND	µg/L	1.0								
Hexachlorobutadiene	ND	µg/L	1.0								
2-Hexanone	ND	µg/L	10								
Isopropylbenzene	ND	µg/L	1.0								
4-Isopropyltoluene	ND	µg/L	1.0								

## Qualifiers:

E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded  
NC Non-Chlorinated  
R RPD outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: EA Engineering  
 Project: Holiday Chevron

Work Order: 1009B13

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R41211 Analysis Date: 9/27/2010 9:38:40 AM

4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

Sample ID: b2

MBLK

Batch ID: R41211 Analysis Date: 9/27/2010 11:03:15 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	3.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	1.0
Chlorobenzene	ND	µg/L	1.0
Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded  
 NC Non-Chlorinated  
 R RPD outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: EA Engineering  
 Project: Holiday Chevron

Work Order: 1009B13

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: b2

MBLK

Batch ID: R41211 Analysis Date: 9/27/2010 11:03:15 AM

Chloromethane	ND	µg/L	3.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	1.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	1.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
1,1-Dichloropropene	ND	µg/L	1.0
Hexachlorobutadiene	ND	µg/L	1.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0
4-Isopropyltoluene	ND	µg/L	1.0
4-Methyl-2-pentanone	ND	µg/L	10
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

Sample ID: 5ml rb

MBLK

Batch ID: R41268 Analysis Date: 9/29/2010 9:18:32 AM

## Qualifiers:

E Estimated value  
 J Analyte detected below quantitation limits  
 ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded  
 NC Non-Chlorinated  
 R RPD outside accepted recovery limits

## QA/QC SUMMARY REPORT

Client: EA Engineering  
Project: Holiday Chevron

Work Order: 1009B13

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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Method: EPA Method 8260B: VOLATILES

Sample ID: 5ml rb

MBLK

Batch ID: R41268 Analysis Date: 9/29/2010 9:18:32 AM

Benzene	ND	µg/L	1.0
Toluene	ND	µg/L	1.0
Ethylbenzene	ND	µg/L	1.0
Methyl tert-butyl ether (MTBE)	ND	µg/L	1.0
1,2,4-Trimethylbenzene	ND	µg/L	1.0
1,3,5-Trimethylbenzene	ND	µg/L	1.0
1,2-Dichloroethane (EDC)	ND	µg/L	1.0
1,2-Dibromoethane (EDB)	ND	µg/L	1.0
Naphthalene	ND	µg/L	2.0
1-Methylnaphthalene	ND	µg/L	4.0
2-Methylnaphthalene	ND	µg/L	4.0
Acetone	ND	µg/L	10
Bromobenzene	ND	µg/L	1.0
Bromodichloromethane	ND	µg/L	1.0
Bromoform	ND	µg/L	1.0
Bromomethane	ND	µg/L	3.0
2-Butanone	ND	µg/L	10
Carbon disulfide	ND	µg/L	10
Carbon Tetrachloride	ND	µg/L	1.0
Chlorobenzene	ND	µg/L	1.0
Chloroethane	ND	µg/L	2.0
Chloroform	ND	µg/L	1.0
Chloromethane	ND	µg/L	3.0
2-Chlorotoluene	ND	µg/L	1.0
4-Chlorotoluene	ND	µg/L	1.0
cis-1,2-DCE	ND	µg/L	1.0
cis-1,3-Dichloropropene	ND	µg/L	1.0
1,2-Dibromo-3-chloropropane	ND	µg/L	2.0
Dibromochloromethane	ND	µg/L	1.0
Dibromomethane	ND	µg/L	1.0
1,2-Dichlorobenzene	ND	µg/L	1.0
1,3-Dichlorobenzene	ND	µg/L	1.0
1,4-Dichlorobenzene	ND	µg/L	1.0
Dichlorodifluoromethane	ND	µg/L	1.0
1,1-Dichloroethane	ND	µg/L	1.0
1,1-Dichloroethene	ND	µg/L	1.0
1,2-Dichloropropane	ND	µg/L	1.0
1,3-Dichloropropane	ND	µg/L	1.0
2,2-Dichloropropane	ND	µg/L	2.0
1,1-Dichloropropene	ND	µg/L	1.0
Hexachlorobutadiene	ND	µg/L	1.0
2-Hexanone	ND	µg/L	10
Isopropylbenzene	ND	µg/L	1.0
4-Isopropyltoluene	ND	µg/L	1.0

## Qualifiers:

E Estimated value  
J Analyte detected below quantitation limits  
ND Not Detected at the Reporting Limit

H Holding times for preparation or analysis exceeded  
NC Non-Chlorinated  
R RPD outside accepted recovery limits

## QA/QC SUMMARY REPORT

**Client:** EA Engineering  
**Project:** Holiday Chevron

**Work Order:** 1009B13

Analyte	Result	Units	PQL	SPK Val	SPK ref	%Rec	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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**Method:** EPA Method 8260B: VOLATILES

**Sample ID:** 5ml rb **Batch ID:** R41268 **Analysis Date:** 9/29/2010 9:18:32 AM

		MBLK	
4-Methyl-2-pentanone	ND	µg/L	1.0
Methylene Chloride	ND	µg/L	3.0
n-Butylbenzene	ND	µg/L	1.0
n-Propylbenzene	ND	µg/L	1.0
sec-Butylbenzene	ND	µg/L	1.0
Styrene	ND	µg/L	1.0
tert-Butylbenzene	ND	µg/L	1.0
1,1,1,2-Tetrachloroethane	ND	µg/L	1.0
1,1,2,2-Tetrachloroethane	ND	µg/L	2.0
Tetrachloroethene (PCE)	ND	µg/L	1.0
trans-1,2-DCE	ND	µg/L	1.0
trans-1,3-Dichloropropene	ND	µg/L	1.0
1,2,3-Trichlorobenzene	ND	µg/L	1.0
1,2,4-Trichlorobenzene	ND	µg/L	1.0
1,1,1-Trichloroethane	ND	µg/L	1.0
1,1,2-Trichloroethane	ND	µg/L	1.0
Trichloroethene (TCE)	ND	µg/L	1.0
Trichlorofluoromethane	ND	µg/L	1.0
1,2,3-Trichloropropane	ND	µg/L	2.0
Vinyl chloride	ND	µg/L	1.0
Xylenes, Total	ND	µg/L	1.5

**Sample ID:** 100ng lcs **Batch ID:** R41211 **Analysis Date:** 9/27/2010 10:35:08 AM

Benzene	19.54	µg/L	1.0	20	0	97.7	82.4	116
Toluene	20.38	µg/L	1.0	20	0	102	89.5	123
Chlorobenzene	20.52	µg/L	1.0	20	0	103	87.8	120
1,1-Dichloroethene	20.76	µg/L	1.0	20	0	104	90.3	138
Trichloroethene (TCE)	17.87	µg/L	1.0	20	0	89.3	64	129

**Sample ID:** 100ng lcs-2 **Batch ID:** R41211 **Analysis Date:** 9/27/2010 9:49:36 PM

Benzene	19.90	µg/L	1.0	20	0	99.5	82.4	116
Toluene	20.45	µg/L	1.0	20	0	102	89.5	123
Chlorobenzene	20.84	µg/L	1.0	20	0	104	87.8	120
1,1-Dichloroethene	20.63	µg/L	1.0	20	0	103	90.3	138
Trichloroethene (TCE)	18.33	µg/L	1.0	20	0	91.7	64	129

**Sample ID:** 100ng lcs **Batch ID:** R41268 **Analysis Date:** 9/29/2010 11:25:01 AM

Benzene	21.16	µg/L	1.0	20	0	106	82.4	116
Toluene	21.26	µg/L	1.0	20	0	106	89.5	123
Chlorobenzene	21.07	µg/L	1.0	20	0	105	87.8	120
1,1-Dichloroethene	24.28	µg/L	1.0	20	0	121	90.3	138
Trichloroethene (TCE)	19.24	µg/L	1.0	20	0	96.2	64	129

**Qualifiers:**

- |  |  |
|--|--|
| E Estimated value                            | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | NC Non-Chlorinated                                   |
| ND Not Detected at the Reporting Limit       | R RPD outside accepted recovery limits               |

# Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name EA ENGINEERING ALB

Date Received:

9/27/2010

Work Order Number 1009B13

Received by:

MMG

Checklist completed by:

Signature

Sample ID labels checked by:

Initials

Date

9/27/10

AS

Matrix:

Carrier name: Client drop-off

Shipping container/cooler in good condition?	Yes ✓	No	Not Present	
Custody seals intact on shipping container/cooler?	Yes	No	Not Present	Not Shipped ✓
Custody seals intact on sample bottles?	Yes	No	N/A	✓
Chain of custody present?	Yes ✓	No		
Chain of custody signed when relinquished and received?	Yes ✓	No		
Chain of custody agrees with sample labels?	Yes ✓	No		
Samples in proper container/bottle?	Yes ✓	No		
Sample containers intact?	Yes ✓	No		
Sufficient sample volume for indicated test?	Yes ✓	No		
All samples received within holding time?	Yes ✓	No		Number of preserved bottles checked for pH:
Water - VOA vials have zero headspace?	No VOA vials submitted	Yes ✓	No	
Water - Preservation labels on bottle and cap match?	Yes ✓	No	N/A	
Water - pH acceptable upon receipt?	Yes ✓	No	N/A	<2 >12 unless noted below.
Container/Temp Blank temperature?	5.5°	<6° C Acceptable If given sufficient time to cool.		

COMMENTS:

Client contacted

Date contacted:

Person contacted

Contacted by:

Regarding:

Comments:

Corrective Action

