Cinizal Gallup

ENTERED

**Monzeglio, Hope, NMENV**

**From:** Rajen, Gaurav [Gaurav.Rajen@wnr.com]
**Sent:** Tuesday, September 09, 2008 10:13 AM
**To:** Monzeglio, Hope, NMENV; Chavez, Carl J, EMNRD
**Cc:** Riege, Ed; Johnson, Cheryl; Dorsey, Alvin
**Subject:** Recent Findings in our 2008 Groundwater Monitoring Events
**Attachments:** 0808012.pdf; Tables for Hope and Carl 9-8-08-manganese.doc

Carl Chavez
Oil Conservation Division
1220 S. Saint Francis
Santa Fe, NM 87505

Hope Monzeglio
New Mexico Environment Department
Hazardous Waste Bureau
2905 Rodeo Park Drive East, BLDG 1
Santa Fe NM 87505

**RE: Recent Findings in our 2008 Groundwater Monitoring Events**

Dear Hope and Carl:

It is a pleasure to write to you. Many thanks for your help, support and keen oversight.

This e-mail is to comply with the Western Refining Gallup Refinery (GW-032) Discharge Permit requirement 20.B.2.

During review of the ongoing 2008 groundwater monitoring events, I discovered that levels of manganese in two of our down-gradient groundwater monitoring wells had exceeded the NM WQCC Standards of 0.2 mg/L (this is a drinking water standard) - 0.43 mg/L of manganese in BW-2C and 0.41 mg/L of manganese in BW-3C. These wells and others are listed in the attached Table, along with data from previous years. These wells (BW-2C and BW-3C) had not exceeded WQCC standards for manganese in the previous year.

Wells BW-2A and BW-2B that had exceeded the standard for manganese in 2007 did have elevated levels of manganese again in 2008 but are now below the standard.

Also, as in previous years, Fluoride levels were high in some of these wells, but no new contamination over the standards was discovered related to Fluorides. Levels of Fluorides in BW-3A and BW-3C have fallen below the standard as compared to 2007.

A copy of the laboratory analytical results is also attached.

All sampling events and results are not completed as yet for 2008. We will keep you informed as new findings are interpreted by us.

Many thanks,

Sincerely,

Raj

9/10/2008

This inbound email has been scanned by the MessageLabs Email Security System.

**TABLE: Anions and Select Parameters in Boundary Wells (All units are in mg/l, except for pH and Specific Conductivity)**

| | Year | Date Sampled | Fluoride | Chloride | Nitrate (as N) + Nitrite | Phosphorous Orthophosphate (as P) | Sulfate | pH | Specific Conductivity microSiemens /cm |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| BW-1C | 2008 | 7/31/08 | **2.4** | 35 | <1.0 | <0.5 | 260 | 8.68 | 1400 |
| | 2007 | 12/31/07 | **2.6** | 35 | <1.0 | <0.5 | 270 | 8.5 | 1400 |
| | 2006 | 10/27/06 | **2.7** | 36 | <0.5 | <0.5 | NA* | 8.39 | 1400 |
| BW-2A | 2008 | 7/30/08 | 1.1 | 40 | <1.0 | 0.75 | 7.3 | 7.87 | 1400 |
| | 2007 | 12/31/07 | 1.3 | 42 | <1.0 | 0.70 | 7.7 | 7.76 | 1400 |
| | 2006 | 10/27/06 | 1.3 | 39 | <0.5 | 0.64 | 7.5 | 8.27 | 1400 |
| BW-2B | 2008 | 7/30/08 | **1.6** | 30 | <1.0 | <.0.5 | 150 | 7.76 | 2200 |
| | 2007 | 12/31/07 | **1.8** | 30 | <1.0 | <0.5 | 150 | 7.77 | 2400 |
| | 2006 | 10/27/06 | **1.9** | 31 | <0.5 | <0.5 | 140 | 8.1 | 1400 |
| BW-2C | 2008 | 7/30/08 | **1.9** | 44 | <1.0 | <50 | 270 | 8.83 | 1400 |
| | 2007 | 12/31/07 | **2.3** | 45 | <1.0 | <0.5 | 290 | 8.73 | 1400 |
| | 2006 | 10/27/06 | **2.4** | 42 | <0.5 | <0.5 | 270 | 8.52 | 1300 |
| BW-3B | 2008 | 7/31/08 | 1.4 | 34 | <1.0 | 1.1 | 55 | 7.95 | 1500 |
| | 2007 | 12/31/07 | **1.6** | 35 | <1.0 | 1.1 | 51 | 7.93 | 1600 |
| | 2006 | 10/27/06 | **1.7** | 33 | <0.5 | 1.1 | 250 | 8.5 | 1600 |
| BW-3C | 2008 | 8/1/08 | 1.5 | 34 | <2.0 | <5.0 | 240 | 8.63 | 1500 |
| | 2007 | 12/31/07 | **1.8** | 38 | <1.0 | <0.5 | 300 | 8.59 | 1500 |
| | 2006 | 10/27/06 | **1.9** | 37 | <0.5 | <0.5 | 280 | 8.39 | 1400 |
| EPA MCLs | | | 4.0 | | | | | 6-9 | |
| NMWQS | | | 1.6 | 250 (domestic water) | 10 | | 600 | 6.5 – 8.5 | |

Note: Levels over regulatory standards are in bold and underlined.

**TABLE: Detected Total Recoverable Metals in Boundary Wells (Note: Only data for detected contaminants are presented. For a complete list of all metals analyzed see section 5.0. All units are in mg/l.)**

| | Date Sampled | Ba | Ca | Fe | Mg | Mn | K | Na | U |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |
| BW-1C | 7/31/08 | .016 | 3.0 | <0.05 | .62 | .013 | <1.0 | 310 | .00115 |
| | 12/31/07 | 0.023 | 3.6 | <0.05 | 0.74 | 0.01 | <1.0 | 360 | <0.1 |
| | 10/28/06 | <0.02 | 3.4 | <0.05 | <1.0 | | | | |
| BW-2A | 7/30/08 | 0.14 | 8.6 | 0.37 | 3.2 | 0.14 | <1.0 | 320 | <.001 |
| | 12/31/07 | 0.18 | 11 | 0.7 | 3.9 | **0.22** | <1/0 | 380 | <0.1 |
| | 10/28/06 | 0.15 | 10 | <0.05 | | | | | |
| BW-2B | 7/30/08 | 0.041 | 13 | .064 | 3.0 | 0.16 | <1.0 | 570 | .0115 |
| | 12/31/07 | 0.07 | 16 | 0.62 | 3.6 | **0.29** | 1.6 | 640 | <0.1 |
| | 10/28/06 | 0.071 | 23 | <0.05 | | | | | |
| BW-2C | 7/30/08 | 0.13 | 24 | 1.3 | 2.0 | **0.43** | 1.1 | 300 | .00728 |
| | 12/31/07 | 0.026 | 2.9 | 0.16 | 0.68 | 0.024 | <1.0 | 340 | <0.1 |
| | 10/28/06 | 0.031 | 5.6 | <0.05 | <1.0 | | | | |
| BW-3B | 7/31/08 | 0.11 | 8.3 | 0.43 | 2.6 | 0.12 | <1.0 | 370 | <.001 |
| | 12/31/07 | 0.099 | 9.0 | 0.64 | 2.9 | 0.13 | <1.0 | 430 | <0.1 |
| | 10/28/06 | 0.11 | 9.0 | <0.05 | | | | | |
| BW-3C | 8/1/08 | .27 | 28 | 3.0 | 2.2 | **0.41** | 1.6 | 350 | .00251 |
| | 12/31/07 | 0.068 | 4.2 | 0.14 | 0.81 | 0.015 | 1.1 | 360 | <0.1 |
| | 10/28/06 | 0.029 | 6.0 | <0.05 | | | | | |
| EPA MCLs | | 2.0 | | | | | | | 0.03 |
| NMWQS | | 1.0 | | | | 0.2 | | | |

Note: levels exceeding the standard are in bold and underlined.

HALL ENVIRONMENTAL ANALYSIS LABORATORY

# COVER LETTER

Wednesday, August 27, 2008

Ed Riege
Western Refining Southwest, Gallup
Rt. 3 Box 7
Gallup, NM 87301

TEL: (505) 722-3833
FAX (505) 722-0210

RE: 2008 Annual Groundwater Event

Order No.: 0808012

Dear Ed Riege:

Hall Environmental Analysis Laboratory, Inc. received 7 sample(s) on 8/1/2008 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent.

Reporting limits are determined by EPA methodology. No determination of compounds below these (denoted by the ND or < sign) has been made.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

Andy Freeman, Business Manager
Nancy McDuffie, Laboratory Manager

NM Lab # NM9425
AZ license # AZ0682
ORELAP Lab # NM100001

4901 Hawkins NE ■ Suite D ■ Albuquerque, NM 87109
505.345.3975 ■ Fax 505.345.4107
www.hallenvironmental.com

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-1C |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/31/2008 8:30:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-01 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **SLB** |
| Fluoride | 2.4 | 0.10 | | mg/L | 1 | 8/1/2008 9:47:26 PM |
| Chloride | 35 | 0.10 | | mg/L | 1 | 8/1/2008 9:47:26 PM |
| Bromide | ND | 0.10 | | mg/L | 1 | 8/1/2008 9:47:26 PM |
| Nitrate (As N)+Nitrite (As N) | ND | 1.0 | | mg/L | 5 | 8/4/2008 1:10:49 PM |
| Phosphorus, Orthophosphate (As P) | ND | 0.50 | | mg/L | 1 | 8/1/2008 9:47:26 PM |
| Sulfate | 260 | 5.0 | | mg/L | 10 | 8/1/2008 10:04:51 PM |
| **EPA METHOD 7470: MERCURY** | | | | | | Analyst: **SNV** |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/8/2008 3:28:48 PM |
| **EPA 6010B: TOTAL RECOVERABLE METALS** | | | | | | Analyst: **TES** |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Barium | 0.016 | 0.010 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Calcium | 3.0 | 0.50 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Copper | ND | 0.0060 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Iron | ND | 0.050 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Magnesium | 0.62 | 0.50 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Manganese | 0.013 | 0.0020 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Potassium | ND | 1.0 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Silver | ND | 0.0050 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| Sodium | 310 | 2.5 | | mg/L | 5 | 8/8/2008 4:09:59 PM |
| Zinc | ND | 0.020 | | mg/L | 1 | 8/8/2008 1:52:22 PM |
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: **JDC** |
| Acenaphthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Acenaphthylene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Aniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Azobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benz(a)anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(a)pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(b)fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(g,h,i)perylene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(k)fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzoic acid | ND | 20 | | µg/L | 1 | 8/6/2008 |
| Benzyl alcohol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethoxy)methane | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethyl)ether | ND | 10 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-1C |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/31/2008 8:30:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-01 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: JDC |
| Bis(2-chloroisopropyl)ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-ethylhexyl)phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Bromophenyl phenyl ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Butyl benzyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Carbazole | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chloro-3-methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chloroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Chloronaphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Chlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chlorophenyl phenyl ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Chrysene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Di-n-butyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Di-n-octyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dibenz(a,h)anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dibenzofuran | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,2-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,3-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,4-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3,3'-Dichlorobenzidine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Diethyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dimethyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dichlorophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dimethylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4,6-Dinitro-2-methylphenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrotoluene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,6-Dinitrotoluene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Fluorene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobutadiene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorocyclopentadiene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachloroethane | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Indeno(1,2,3-cd)pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Isophorone | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Methylnaphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3+4-Methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodi-n-propylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodimethylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodiphenylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Naphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-1C |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/31/2008 8:30:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-01 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: JDC |
| 2-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Nitrobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Nitrophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Nitrophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pentachlorophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| Phenanthrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Phenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pyridine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,2,4-Trichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4,5-Trichlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4,6-Trichlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Surr: 2,4,6-Tribromophenol | 53.6 | 16.6-150 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorobiphenyl | 55.5 | 19.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorophenol | 42.8 | 9.54-113 | | %REC | 1 | 8/6/2008 |
| Surr: 4-Terphenyl-d14 | 64.6 | 22.7-145 | | %REC | 1 | 8/6/2008 |
| Surr: Nitrobenzene-d5 | 47.8 | 14.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: Phenol-d5 | 28.2 | 10.7-80.3 | | %REC | 1 | 8/6/2008 |
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Benzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,2,4-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,3,5-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Naphthalene | ND | 2.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 2-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Acetone | ND | 10 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Bromobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Bromodichloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Bromoform | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Bromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 2-Butanone | ND | 10 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Carbon disulfide | ND | 10 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Carbon Tetrachloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Chlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-1C |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/31/2008 8:30:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-01 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Chloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Chloroform | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Chloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 2-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 4-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| cis-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| cis-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Dibromochloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Dibromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,2-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,3-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,4-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Dichlorodifluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,1-Dichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,1-Dichloroethene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,2-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,3-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 2,2-Dichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,1-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Hexachlorobutadiene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 2-Hexanone | ND | 10 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Isopropylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 4-Isopropyltoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 4-Methyl-2-pentanone | ND | 10 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Methylene Chloride | ND | 3.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| n-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| n-Propylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| sec-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Styrene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| tert-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Tetrachloroethene (PCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| trans-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| trans-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,2,3-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,2,4-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,1,1-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| 1,1,2-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Trichloroethene (TCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Trichlorofluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-1C |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/31/2008 8:30:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-01 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **HL** |
| 1,2,3-Trichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Vinyl chloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 8/5/2008 3:37:29 AM |
| Surr: 1,2-Dichloroethane-d4 | 97.4 | 68.1-123 | | %REC | 1 | 8/5/2008 3:37:29 AM |
| Surr: 4-Bromofluorobenzene | 98.9 | 53.2-145 | | %REC | 1 | 8/5/2008 3:37:29 AM |
| Surr: Dibromofluoromethane | 99.7 | 68.5-119 | | %REC | 1 | 8/5/2008 3:37:29 AM |
| Surr: Toluene-d8 | 95.2 | 64-131 | | %REC | 1 | 8/5/2008 3:37:29 AM |
| **EPA 120.1: SPECIFIC CONDUCTANCE** | | | | | | Analyst: **KMS** |
| Specific Conductance | 1400 | 0.010 | | µmhos/cm | 1 | 8/4/2008 |
| **SM4500-H+B: PH** | | | | | | Analyst: **KMS** |
| pH | 8.68 | 0.1 | | pH units | 1 | 8/4/2008 |

| Qualifiers: | | | | |
|---|---|---|---|---|
| | * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| | E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| | J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| | ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| | S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2A |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 9:00:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-02 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **SLB** |
| Fluoride | 1.1 | 0.10 | | mg/L | 1 | 8/1/2008 10:22:16 PM |
| Chloride | 40 | 0.10 | | mg/L | 1 | 8/1/2008 10:22:16 PM |
| Bromide | 0.43 | 0.10 | | mg/L | 1 | 8/1/2008 10:22:16 PM |
| Nitrate (As N)+Nitrite (As N) | ND | 1.0 | | mg/L | 5 | 8/4/2008 1:28:13 PM |
| Phosphorus, Orthophosphate (As P) | 0.75 | 0.50 | H | mg/L | 1 | 8/1/2008 10:22:16 PM |
| Sulfate | 7.3 | 0.50 | | mg/L | 1 | 8/1/2008 10:22:16 PM |
| **EPA METHOD 7470: MERCURY** | | | | | | Analyst: **SNV** |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/8/2008 3:30:38 PM |
| **EPA 6010B: TOTAL RECOVERABLE METALS** | | | | | | Analyst: **TES** |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Barium | 0.14 | 0.010 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Calcium | 8.6 | 0.50 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Copper | ND | 0.0060 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Iron | 0.37 | 0.050 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Magnesium | 3.2 | 0.50 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Manganese | 0.14 | 0.0020 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Potassium | ND | 1.0 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Silver | ND | 0.0050 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| Sodium | 320 | 2.5 | | mg/L | 5 | 8/8/2008 4:12:44 PM |
| Zinc | ND | 0.020 | | mg/L | 1 | 8/8/2008 1:56:35 PM |
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: **JDC** |
| Acenaphthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Acenaphthylene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Aniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Azobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benz(a)anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(a)pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(b)fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(g,h,i)perylene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(k)fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzoic acid | ND | 20 | | µg/L | 1 | 8/6/2008 |
| Benzyl alcohol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethoxy)methane | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethyl)ether | ND | 10 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2A |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 9:00:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-02 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: JDC |
| Bis(2-chloroisopropyl)ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-ethylhexyl)phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Bromophenyl phenyl ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Butyl benzyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Carbazole | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chloro-3-methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chloroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Chloronaphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Chlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chlorophenyl phenyl ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Chrysene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Di-n-butyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Di-n-octyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dibenz(a,h)anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dibenzofuran | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,2-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,3-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,4-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3,3'-Dichlorobenzidine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Diethyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dimethyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dichlorophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dimethylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4,6-Dinitro-2-methylphenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrotoluene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,6-Dinitrotoluene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Fluorene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobutadiene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorocyclopentadiene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachloroethane | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Indeno(1,2,3-cd)pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Isophorone | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Methylnaphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3+4-Methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodi-n-propylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodimethylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodiphenylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Naphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2A |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 9:00:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-02 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: JDC |
| 2-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Nitrobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Nitrophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Nitrophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pentachlorophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| Phenanthrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Phenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pyridine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,2,4-Trichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4,5-Trichlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4,6-Trichlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Surr: 2,4,6-Tribromophenol | 59.7 | 16.6-150 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorobiphenyl | 68.8 | 19.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorophenol | 50.7 | 9.54-113 | | %REC | 1 | 8/6/2008 |
| Surr: 4-Terphenyl-d14 | 67.9 | 22.7-145 | | %REC | 1 | 8/6/2008 |
| Surr: Nitrobenzene-d5 | 60.8 | 14.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: Phenol-d5 | 35.3 | 10.7-80.3 | | %REC | 1 | 8/6/2008 |
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Benzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,2,4-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,3,5-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Naphthalene | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 2-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Acetone | ND | 10 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Bromobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Bromodichloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Bromoform | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Bromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 2-Butanone | ND | 10 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Carbon disulfide | ND | 10 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Carbon Tetrachloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Chlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2A |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 9:00:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-02 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Chloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Chloroform | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Chloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 2-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 4-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| cis-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| cis-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Dibromochloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Dibromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,2-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,3-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,4-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Dichlorodifluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,1-Dichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,1-Dichloroethene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,2-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,3-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 2,2-Dichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,1-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Hexachlorobutadiene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 2-Hexanone | ND | 10 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Isopropylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 4-Isopropyltoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 4-Methyl-2-pentanone | ND | 10 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Methylene Chloride | ND | 3.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| n-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| n-Propylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| sec-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Styrene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| tert-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Tetrachloroethene (PCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| trans-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| trans-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,2,3-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,2,4-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,1,1-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| 1,1,2-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Trichloroethene (TCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Trichlorofluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2A |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 9:00:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-02 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **HL** |
| 1,2,3-Trichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Vinyl chloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 8/5/2008 4:06:13 AM |
| Surr: 1,2-Dichloroethane-d4 | 97.1 | 68.1-123 | | %REC | 1 | 8/5/2008 4:06:13 AM |
| Surr: 4-Bromofluorobenzene | 105 | 53.2-145 | | %REC | 1 | 8/5/2008 4:06:13 AM |
| Surr: Dibromofluoromethane | 98.8 | 68.5-119 | | %REC | 1 | 8/5/2008 4:06:13 AM |
| Surr: Toluene-d8 | 95.6 | 64-131 | | %REC | 1 | 8/5/2008 4:06:13 AM |
| **EPA 120.1: SPECIFIC CONDUCTANCE** | | | | | | Analyst: **KMS** |
| Specific Conductance | 1400 | 0.010 | | µmhos/cm | 1 | 8/4/2008 |
| **SM4500-H+B: PH** | | | | | | Analyst: **KMS** |
| pH | 7.87 | 0.1 | | pH units | 1 | 8/4/2008 |

| Qualifiers: | | | | |
|---|---|---|---|---|
| | * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| | E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| | J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| | ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| | S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2B |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 10:30:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-03 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **SLB** |
| Fluoride | 1.6 | 0.10 | | mg/L | 1 | 8/1/2008 11:49:19 PM |
| Chloride | 30 | 0.10 | | mg/L | 1 | 8/1/2008 11:49:19 PM |
| Bromide | 1.1 | 0.10 | | mg/L | 1 | 8/1/2008 11:49:19 PM |
| Nitrate (As N)+Nitrite (As N) | ND | 1.0 | | mg/L | 5 | 8/4/2008 1:45:38 PM |
| Phosphorus, Orthophosphate (As P) | ND | 0.50 | H | mg/L | 1 | 8/1/2008 11:49:19 PM |
| Sulfate | 150 | 5.0 | | mg/L | 10 | 8/2/2008 12:06:44 AM |
| **EPA METHOD 7470: MERCURY** | | | | | | Analyst: **SNV** |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/8/2008 3:32:28 PM |
| **EPA 6010B: TOTAL RECOVERABLE METALS** | | | | | | Analyst: **TES** |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Barium | 0.041 | 0.010 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Calcium | 13 | 0.50 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Copper | ND | 0.0060 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Iron | 0.064 | 0.050 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Magnesium | 3.0 | 0.50 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Manganese | 0.16 | 0.0020 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Potassium | ND | 1.0 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Silver | ND | 0.0050 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| Sodium | 570 | 5.0 | | mg/L | 10 | 8/12/2008 2:00:43 PM |
| Zinc | ND | 0.020 | | mg/L | 1 | 8/12/2008 11:06:57 AM |
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: **JDC** |
| Acenaphthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Acenaphthylene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Aniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Azobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benz(a)anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(a)pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(b)fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(g,h,i)perylene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(k)fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzoic acid | ND | 20 | | µg/L | 1 | 8/6/2008 |
| Benzyl alcohol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethoxy)methane | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethyl)ether | ND | 10 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2B |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 10:30:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-03 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: **JDC** |
| Bis(2-chloroisopropyl)ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-ethylhexyl)phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Bromophenyl phenyl ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Butyl benzyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Carbazole | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chloro-3-methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chloroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Chloronaphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Chlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chlorophenyl phenyl ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Chrysene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Di-n-butyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Di-n-octyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dibenz(a,h)anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dibenzofuran | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,2-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,3-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,4-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3,3'-Dichlorobenzidine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Diethyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dimethyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dichlorophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dimethylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4,6-Dinitro-2-methylphenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrotoluene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,6-Dinitrotoluene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Fluorene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobutadiene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorocyclopentadiene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachloroethane | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Indeno(1,2,3-cd)pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Isophorone | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Methylnaphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3+4-Methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodi-n-propylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodimethylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodiphenylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Naphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2B |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 10:30:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-03 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: **JDC** |
| 2-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Nitrobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Nitrophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Nitrophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pentachlorophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| Phenanthrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Phenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pyridine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,2,4-Trichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4,5-Trichlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4,6-Trichlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Surr: 2,4,6-Tribromophenol | 55.8 | 16.6-150 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorobiphenyl | 61.7 | 19.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorophenol | 45.2 | 9.54-113 | | %REC | 1 | 8/6/2008 |
| Surr: 4-Terphenyl-d14 | 63.1 | 22.7-145 | | %REC | 1 | 8/6/2008 |
| Surr: Nitrobenzene-d5 | 58.9 | 14.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: Phenol-d5 | 29.9 | 10.7-80.3 | | %REC | 1 | 8/6/2008 |
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **HL** |
| Benzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,2,4-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,3,5-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Naphthalene | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 2-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Acetone | ND | 10 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Bromobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Bromodichloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Bromoform | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Bromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 2-Butanone | ND | 10 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Carbon disulfide | ND | 10 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Carbon Tetrachloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Chlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2B |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 10:30:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-03 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Chloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Chloroform | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Chloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 2-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 4-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| cis-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| cis-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Dibromochloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Dibromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,2-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,3-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,4-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Dichlorodifluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,1-Dichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,1-Dichloroethene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,2-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,3-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 2,2-Dichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,1-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Hexachlorobutadiene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 2-Hexanone | ND | 10 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Isopropylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 4-Isopropyltoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 4-Methyl-2-pentanone | ND | 10 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Methylene Chloride | ND | 3.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| n-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| n-Propylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| sec-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Styrene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| tert-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Tetrachloroethene (PCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| trans-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| trans-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,2,3-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,2,4-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,1,1-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| 1,1,2-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Trichloroethene (TCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Trichlorofluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2B |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 10:30:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-03 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **HL** |
| 1,2,3-Trichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Vinyl chloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 8/5/2008 4:34:55 AM |
| Surr: 1,2-Dichloroethane-d4 | 96.5 | 68.1-123 | | %REC | 1 | 8/5/2008 4:34:55 AM |
| Surr: 4-Bromofluorobenzene | 102 | 53.2-145 | | %REC | 1 | 8/5/2008 4:34:55 AM |
| Surr: Dibromofluoromethane | 100 | 68.5-119 | | %REC | 1 | 8/5/2008 4:34:55 AM |
| Surr: Toluene-d8 | 96.9 | 64-131 | | %REC | 1 | 8/5/2008 4:34:55 AM |
| **EPA 120.1: SPECIFIC CONDUCTANCE** | | | | | | Analyst: **KMS** |
| Specific Conductance | 2200 | 0.010 | | µmhos/cm | 1 | 8/4/2008 |
| **SM4500-H+B: PH** | | | | | | Analyst: **KMS** |
| pH | 7.76 | 0.1 | | pH units | 1 | 8/4/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2C |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 2:45:00 PM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-04 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **SLB** |
| Fluoride | 1.9 | 0.10 | | mg/L | 1 | 8/2/2008 12:41:33 AM |
| Chloride | 44 | 1.0 | | mg/L | 10 | 8/2/2008 12:58:58 AM |
| Bromide | 0.14 | 0.10 | | mg/L | 1 | 8/2/2008 12:41:33 AM |
| Nitrate (As N)+Nitrite (As N) | ND | 1.0 | | mg/L | 5 | 8/4/2008 2:03:03 PM |
| Phosphorus, Orthophosphate (As P) | ND | 0.50 | H | mg/L | 1 | 8/2/2008 12:41:33 AM |
| Sulfate | 270 | 5.0 | | mg/L | 10 | 8/2/2008 12:58:58 AM |
| **EPA METHOD 7470: MERCURY** | | | | | | Analyst: **SNV** |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/8/2008 3:34:12 PM |
| **EPA 6010B: TOTAL RECOVERABLE METALS** | | | | | | Analyst: **TES** |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Barium | 0.13 | 0.010 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Calcium | 24 | 0.50 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Copper | ND | 0.0060 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Iron | 1.3 | 0.25 | | mg/L | 5 | 8/8/2008 4:15:15 PM |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Magnesium | 2.0 | 0.50 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Manganese | 0.43 | 0.0020 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Potassium | 1.1 | 1.0 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Silver | ND | 0.0050 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| Sodium | 300 | 2.5 | | mg/L | 5 | 8/8/2008 4:15:15 PM |
| Zinc | ND | 0.020 | | mg/L | 1 | 8/8/2008 2:00:45 PM |
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: **JDC** |
| Acenaphthene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Acenaphthylene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Aniline | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Anthracene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Azobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benz(a)anthracene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benzo(a)pyrene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benzo(b)fluoranthene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benzo(g,h,i)perylene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benzo(k)fluoranthene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benzoic acid | ND | 100 | | µg/L | 1 | 8/6/2008 |
| Benzyl alcohol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethoxy)methane | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethyl)ether | ND | 50 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2C |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 2:45:00 PM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-04 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: JDC |
| Bis(2-chloroisopropyl)ether | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Bis(2-ethylhexyl)phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Bromophenyl phenyl ether | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Butyl benzyl phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Carbazole | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Chloro-3-methylphenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Chloroaniline | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2-Chloronaphthalene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2-Chlorophenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Chlorophenyl phenyl ether | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Chrysene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Di-n-butyl phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Di-n-octyl phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Dibenz(a,h)anthracene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Dibenzofuran | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 1,2-Dichlorobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 1,3-Dichlorobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 1,4-Dichlorobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 3,3'-Dichlorobenzidine | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Diethyl phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Dimethyl phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dichlorophenol | ND | 100 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dimethylphenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4,6-Dinitro-2-methylphenol | ND | 100 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrophenol | ND | 100 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrotoluene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2,6-Dinitrotoluene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Fluoranthene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Fluorene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobutadiene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Hexachlorocyclopentadiene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Hexachloroethane | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Indeno(1,2,3-cd)pyrene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Isophorone | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2-Methylnaphthalene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2-Methylphenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 3+4-Methylphenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodi-n-propylamine | ND | 50 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodimethylamine | ND | 50 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodiphenylamine | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Naphthalene | ND | 50 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2C |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 2:45:00 PM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-04 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: **JDC** |
| 2-Nitroaniline | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 3-Nitroaniline | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Nitroaniline | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Nitrobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2-Nitrophenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Nitrophenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Pentachlorophenol | ND | 100 | | µg/L | 1 | 8/6/2008 |
| Phenanthrene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Phenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Pyrene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Pyridine | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 1,2,4-Trichlorobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2,4,5-Trichlorophenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2,4,6-Trichlorophenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Surr: 2,4,6-Tribromophenol | 68.4 | 16.6-150 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorobiphenyl | 76.6 | 19.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorophenol | 58.9 | 9.54-113 | | %REC | 1 | 8/6/2008 |
| Surr: 4-Terphenyl-d14 | 69.2 | 22.7-145 | | %REC | 1 | 8/6/2008 |
| Surr: Nitrobenzene-d5 | 68.3 | 14.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: Phenol-d5 | 40.5 | 10.7-80.3 | | %REC | 1 | 8/6/2008 |
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **HL** |
| Benzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,2,4-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,3,5-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Naphthalene | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 2-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Acetone | ND | 10 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Bromobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Bromodichloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Bromoform | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Bromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 2-Butanone | ND | 10 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Carbon disulfide | ND | 10 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Carbon Tetrachloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Chlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2C |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 2:45:00 PM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-04 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Chloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Chloroform | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Chloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 2-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 4-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| cis-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| cis-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Dibromochloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Dibromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,2-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,3-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,4-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Dichlorodifluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,1-Dichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,1-Dichloroethene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,2-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,3-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 2,2-Dichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,1-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Hexachlorobutadiene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 2-Hexanone | ND | 10 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Isopropylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 4-Isopropyltoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 4-Methyl-2-pentanone | ND | 10 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Methylene Chloride | ND | 3.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| n-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| n-Propylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| sec-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Styrene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| tert-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Tetrachloroethene (PCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| trans-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| trans-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,2,3-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,2,4-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,1,1-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| 1,1,2-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Trichloroethene (TCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Trichlorofluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-2C |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/30/2008 2:45:00 PM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-04 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **HL** |
| 1,2,3-Trichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Vinyl chloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 8/5/2008 5:03:37 AM |
| Surr: 1,2-Dichloroethane-d4 | 96.3 | 68.1-123 | | %REC | 1 | 8/5/2008 5:03:37 AM |
| Surr: 4-Bromofluorobenzene | 102 | 53.2-145 | | %REC | 1 | 8/5/2008 5:03:37 AM |
| Surr: Dibromofluoromethane | 100 | 68.5-119 | | %REC | 1 | 8/5/2008 5:03:37 AM |
| Surr: Toluene-d8 | 90.9 | 64-131 | | %REC | 1 | 8/5/2008 5:03:37 AM |
| **EPA 120.1: SPECIFIC CONDUCTANCE** | | | | | | Analyst: **KMS** |
| Specific Conductance | 1400 | 0.010 | | µmhos/cm | 1 | 8/4/2008 |
| **SM4500-H+B: PH** | | | | | | Analyst: **KMS** |
| pH | 8.83 | 0.1 | | pH units | 1 | 8/4/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-3B |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/31/2008 1:50:00 PM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-05 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **SLB** |
| Fluoride | 1.4 | 0.10 | | mg/L | 1 | 8/2/2008 1:33:47 AM |
| Chloride | 34 | 0.10 | | mg/L | 1 | 8/2/2008 1:33:47 AM |
| Bromide | 0.42 | 0.10 | | mg/L | 1 | 8/2/2008 1:33:47 AM |
| Nitrate (As N)+Nitrite (As N) | ND | 1.0 | | mg/L | 5 | 8/4/2008 2:20:28 PM |
| Phosphorus, Orthophosphate (As P) | 1.1 | 0.50 | | mg/L | 1 | 8/2/2008 1:33:47 AM |
| Sulfate | 55 | 0.50 | | mg/L | 1 | 8/2/2008 1:33:47 AM |
| **EPA METHOD 7470: MERCURY** | | | | | | Analyst: **SNV** |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/8/2008 3:35:55 PM |
| **EPA 6010B: TOTAL RECOVERABLE METALS** | | | | | | Analyst: **TES** |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Barium | 0.11 | 0.010 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Calcium | 8.3 | 0.50 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Chromium | ND | 0.0060 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Copper | ND | 0.0060 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Iron | 0.43 | 0.050 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Magnesium | 2.6 | 0.50 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Manganese | 0.12 | 0.0020 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Potassium | ND | 1.0 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Silver | ND | 0.0050 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| Sodium | 370 | 2.5 | | mg/L | 5 | 8/8/2008 4:17:46 PM |
| Zinc | ND | 0.020 | | mg/L | 1 | 8/8/2008 2:06:19 PM |
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: **JDC** |
| Acenaphthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Acenaphthylene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Aniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Azobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benz(a)anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(a)pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(b)fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(g,h,i)perylene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzo(k)fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Benzoic acid | ND | 20 | | µg/L | 1 | 8/6/2008 |
| Benzyl alcohol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethoxy)methane | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethyl)ether | ND | 10 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

- * Value exceeds Maximum Contaminant Level
- E Value above quantitation range
- J Analyte detected below quantitation limits
- ND Not Detected at the Reporting Limit
- S Spike recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- MCL Maximum Contaminant Level
- RL Reporting Limit

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-3B |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/31/2008 1:50:00 PM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-05 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: JDC |
| Bis(2-chloroisopropyl)ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Bis(2-ethylhexyl)phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Bromophenyl phenyl ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Butyl benzyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Carbazole | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chloro-3-methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chloroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Chloronaphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Chlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Chlorophenyl phenyl ether | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Chrysene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Di-n-butyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Di-n-octyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dibenz(a,h)anthracene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dibenzofuran | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,2-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,3-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,4-Dichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3,3'-Dichlorobenzidine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Diethyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Dimethyl phthalate | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dichlorophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dimethylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4,6-Dinitro-2-methylphenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrotoluene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,6-Dinitrotoluene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Fluoranthene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Fluorene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobutadiene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachlorocyclopentadiene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Hexachloroethane | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Indeno(1,2,3-cd)pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Isophorone | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Methylnaphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3+4-Methylphenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodi-n-propylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodimethylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodiphenylamine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Naphthalene | ND | 10 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-3B |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/31/2008 1:50:00 PM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-05 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: **JDC** |
| 2-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 3-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Nitroaniline | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Nitrobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2-Nitrophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 4-Nitrophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pentachlorophenol | ND | 20 | | µg/L | 1 | 8/6/2008 |
| Phenanthrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Phenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pyrene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Pyridine | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 1,2,4-Trichlorobenzene | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4,5-Trichlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| 2,4,6-Trichlorophenol | ND | 10 | | µg/L | 1 | 8/6/2008 |
| Surr: 2,4,6-Tribromophenol | 64.2 | 16.6-150 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorobiphenyl | 70.7 | 19.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorophenol | 51.8 | 9.54-113 | | %REC | 1 | 8/6/2008 |
| Surr: 4-Terphenyl-d14 | 70.3 | 22.7-145 | | %REC | 1 | 8/6/2008 |
| Surr: Nitrobenzene-d5 | 63.6 | 14.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: Phenol-d5 | 33.7 | 10.7-80.3 | | %REC | 1 | 8/6/2008 |
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **HL** |
| Benzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,2,4-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,3,5-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Naphthalene | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 2-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Acetone | ND | 10 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Bromobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Bromodichloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Bromoform | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Bromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 2-Butanone | ND | 10 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Carbon disulfide | ND | 10 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Carbon Tetrachloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Chlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-3B |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/31/2008 1:50:00 PM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-05 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Chloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Chloroform | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Chloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 2-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 4-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| cis-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| cis-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Dibromochloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Dibromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,2-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,3-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,4-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Dichlorodifluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,1-Dichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,1-Dichloroethene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,2-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,3-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 2,2-Dichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,1-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Hexachlorobutadiene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 2-Hexanone | ND | 10 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Isopropylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 4-Isopropyltoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 4-Methyl-2-pentanone | ND | 10 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Methylene Chloride | ND | 3.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| n-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| n-Propylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| sec-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Styrene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| tert-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Tetrachloroethene (PCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| trans-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| trans-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,2,3-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,2,4-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,1,1-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| 1,1,2-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Trichloroethene (TCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Trichlorofluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-3B |
| **Lab Order:** | 0808012 | **Collection Date:** | 7/31/2008 1:50:00 PM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-05 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **HL** |
| 1,2,3-Trichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Vinyl chloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 8/5/2008 5:32:20 AM |
| Surr: 1,2-Dichloroethane-d4 | 98.4 | 68.1-123 | | %REC | 1 | 8/5/2008 5:32:20 AM |
| Surr: 4-Bromofluorobenzene | 103 | 53.2-145 | | %REC | 1 | 8/5/2008 5:32:20 AM |
| Surr: Dibromofluoromethane | 98.1 | 68.5-119 | | %REC | 1 | 8/5/2008 5:32:20 AM |
| Surr: Toluene-d8 | 91.6 | 64-131 | | %REC | 1 | 8/5/2008 5:32:20 AM |
| **EPA 120.1: SPECIFIC CONDUCTANCE** | | | | | | Analyst: **KMS** |
| Specific Conductance | 1500 | 0.010 | | µmhos/cm | 1 | 8/4/2008 |
| **SM4500-H+B: PH** | | | | | | Analyst: **KMS** |
| pH | 7.95 | 0.1 | | pH units | 1 | 8/4/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-3C |
| **Lab Order:** | 0808012 | **Collection Date:** | 8/1/2008 8:00:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-06 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 300.0: ANIONS** | | | | | | Analyst: **SLB** |
| Fluoride | 1.5 | 1.0 | | mg/L | 10 | 8/2/2008 2:43:25 AM |
| Chloride | 34 | 1.0 | | mg/L | 10 | 8/2/2008 2:43:25 AM |
| Bromide | ND | 1.0 | | mg/L | 10 | 8/2/2008 2:43:25 AM |
| Nitrate (As N)+Nitrite (As N) | ND | 2.0 | | mg/L | 10 | 8/7/2008 9:23:20 PM |
| Phosphorus, Orthophosphate (As P) | ND | 5.0 | | mg/L | 10 | 8/2/2008 2:43:25 AM |
| Sulfate | 240 | 5.0 | | mg/L | 10 | 8/2/2008 2:43:25 AM |
| **EPA METHOD 7470: MERCURY** | | | | | | Analyst: **SNV** |
| Mercury | ND | 0.00020 | | mg/L | 1 | 8/8/2008 3:37:40 PM |
| **EPA 6010B: TOTAL RECOVERABLE METALS** | | | | | | Analyst: **TES** |
| Arsenic | ND | 0.020 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Barium | 0.27 | 0.010 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Cadmium | ND | 0.0020 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Calcium | 28 | 0.50 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Chromium | 0.0078 | 0.0060 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Copper | ND | 0.0060 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Iron | 3.0 | 0.25 | | mg/L | 5 | 8/8/2008 4:20:18 PM |
| Lead | ND | 0.0050 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Magnesium | 2.2 | 0.50 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Manganese | 0.41 | 0.0020 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Potassium | 1.6 | 1.0 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Selenium | ND | 0.050 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Silver | ND | 0.0050 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| Sodium | 350 | 2.5 | | mg/L | 5 | 8/8/2008 4:20:18 PM |
| Zinc | 0.032 | 0.020 | | mg/L | 1 | 8/8/2008 2:10:30 PM |
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: **JDC** |
| Acenaphthene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Acenaphthylene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Aniline | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Anthracene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Azobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benz(a)anthracene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benzo(a)pyrene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benzo(b)fluoranthene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benzo(g,h,i)perylene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benzo(k)fluoranthene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Benzoic acid | ND | 100 | | µg/L | 1 | 8/6/2008 |
| Benzyl alcohol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethoxy)methane | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Bis(2-chloroethyl)ether | ND | 50 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-3C |
| **Lab Order:** | 0808012 | **Collection Date:** | 8/1/2008 8:00:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-06 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: JDC |
| Bis(2-chloroisopropyl)ether | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Bis(2-ethylhexyl)phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Bromophenyl phenyl ether | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Butyl benzyl phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Carbazole | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Chloro-3-methylphenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Chloroaniline | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2-Chloronaphthalene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2-Chlorophenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Chlorophenyl phenyl ether | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Chrysene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Di-n-butyl phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Di-n-octyl phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Dibenz(a,h)anthracene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Dibenzofuran | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 1,2-Dichlorobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 1,3-Dichlorobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 1,4-Dichlorobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 3,3'-Dichlorobenzidine | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Diethyl phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Dimethyl phthalate | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dichlorophenol | ND | 100 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dimethylphenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4,6-Dinitro-2-methylphenol | ND | 100 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrophenol | ND | 100 | | µg/L | 1 | 8/6/2008 |
| 2,4-Dinitrotoluene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2,6-Dinitrotoluene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Fluoranthene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Fluorene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Hexachlorobutadiene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Hexachlorocyclopentadiene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Hexachloroethane | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Indeno(1,2,3-cd)pyrene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Isophorone | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2-Methylnaphthalene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2-Methylphenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 3+4-Methylphenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodi-n-propylamine | ND | 50 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodimethylamine | ND | 50 | | µg/L | 1 | 8/6/2008 |
| N-Nitrosodiphenylamine | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Naphthalene | ND | 50 | | µg/L | 1 | 8/6/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-3C |
| **Lab Order:** | 0808012 | **Collection Date:** | 8/1/2008 8:00:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-06 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8270C: SEMIVOLATILES** | | | | | | Analyst: JDC |
| 2-Nitroaniline | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 3-Nitroaniline | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Nitroaniline | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Nitrobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2-Nitrophenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 4-Nitrophenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Pentachlorophenol | ND | 100 | | µg/L | 1 | 8/6/2008 |
| Phenanthrene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Phenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Pyrene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Pyridine | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 1,2,4-Trichlorobenzene | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2,4,5-Trichlorophenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| 2,4,6-Trichlorophenol | ND | 50 | | µg/L | 1 | 8/6/2008 |
| Surr: 2,4,6-Tribromophenol | 64.9 | 16.6-150 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorobiphenyl | 66.0 | 19.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: 2-Fluorophenol | 48.5 | 9.54-113 | | %REC | 1 | 8/6/2008 |
| Surr: 4-Terphenyl-d14 | 64.1 | 22.7-145 | | %REC | 1 | 8/6/2008 |
| Surr: Nitrobenzene-d5 | 56.9 | 14.6-134 | | %REC | 1 | 8/6/2008 |
| Surr: Phenol-d5 | 31.8 | 10.7-80.3 | | %REC | 1 | 8/6/2008 |
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Benzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,2,4-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,3,5-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Naphthalene | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 2-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Acetone | ND | 10 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Bromobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Bromodichloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Bromoform | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Bromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 2-Butanone | ND | 10 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Carbon disulfide | ND | 10 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Carbon Tetrachloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Chlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-3C |
| **Lab Order:** | 0808012 | **Collection Date:** | 8/1/2008 8:00:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-06 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Chloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Chloroform | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Chloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 2-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 4-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| cis-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| cis-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Dibromochloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Dibromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,2-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,3-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,4-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Dichlorodifluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,1-Dichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,1-Dichloroethene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,2-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,3-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 2,2-Dichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,1-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Hexachlorobutadiene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 2-Hexanone | ND | 10 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Isopropylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 4-Isopropyltoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 4-Methyl-2-pentanone | ND | 10 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Methylene Chloride | ND | 3.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| n-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| n-Propylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| sec-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Styrene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| tert-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Tetrachloroethene (PCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| trans-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| trans-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,2,3-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,2,4-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,1,1-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| 1,1,2-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Trichloroethene (TCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Trichlorofluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | BW-3C |
| **Lab Order:** | 0808012 | **Collection Date:** | 8/1/2008 8:00:00 AM |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-06 | **Matrix:** | AQUEOUS |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: **HL** |
| 1,2,3-Trichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Vinyl chloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 8/5/2008 6:00:59 AM |
| Surr: 1,2-Dichloroethane-d4 | 97.1 | 68.1-123 | | %REC | 1 | 8/5/2008 6:00:59 AM |
| Surr: 4-Bromofluorobenzene | 98.5 | 53.2-145 | | %REC | 1 | 8/5/2008 6:00:59 AM |
| Surr: Dibromofluoromethane | 101 | 68.5-119 | | %REC | 1 | 8/5/2008 6:00:59 AM |
| Surr: Toluene-d8 | 91.2 | 64-131 | | %REC | 1 | 8/5/2008 6:00:59 AM |
| **EPA 120.1: SPECIFIC CONDUCTANCE** | | | | | | Analyst: **KMS** |
| Specific Conductance | 1500 | 0.010 | | µmhos/cm | 1 | 8/4/2008 |
| **SM4500-H+B: PH** | | | | | | Analyst: **KMS** |
| pH | 8.63 | 0.1 | | pH units | 1 | 8/4/2008 |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | Trip Blank |
| **Lab Order:** | 0808012 | **Collection Date:** | |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-07 | **Matrix:** | TRIP BLANK |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Benzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Toluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Ethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Methyl tert-butyl ether (MTBE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,2,4-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,3,5-Trimethylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,2-Dichloroethane (EDC) | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Naphthalene | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 2-Methylnaphthalene | ND | 4.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Acetone | ND | 10 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Bromobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Bromodichloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Bromoform | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Bromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 2-Butanone | ND | 10 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Carbon disulfide | ND | 10 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Carbon Tetrachloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Chlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Chloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Chloroform | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Chloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 2-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 4-Chlorotoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| cis-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| cis-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,2-Dibromo-3-chloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Dibromochloromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Dibromomethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,2-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,3-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,4-Dichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Dichlorodifluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,1-Dichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,1-Dichloroethene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,2-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,3-Dichloropropane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 2,2-Dichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,1-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Hexachlorobutadiene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 2-Hexanone | ND | 10 | | µg/L | 1 | 8/5/2008 6:29:44 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

# Hall Environmental Analysis Laboratory, Inc.

**Date:** *27-Aug-08*

| | | | |
|---|---|---|---|
| **CLIENT:** | Western Refining Southwest, Gallup | **Client Sample ID:** | Trip Blank |
| **Lab Order:** | 0808012 | **Collection Date:** | |
| **Project:** | 2008 Annual Groundwater Event | **Date Received:** | 8/1/2008 |
| **Lab ID:** | 0808012-07 | **Matrix:** | TRIP BLANK |

| Analyses | Result | PQL | Qual | Units | DF | Date Analyzed |
|---|---|---|---|---|---|---|
| **EPA METHOD 8260B: VOLATILES** | | | | | | Analyst: HL |
| Isopropylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 4-Isopropyltoluene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 4-Methyl-2-pentanone | ND | 10 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Methylene Chloride | ND | 3.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| n-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| n-Propylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| sec-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Styrene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| tert-Butylbenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,1,2,2-Tetrachloroethane | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Tetrachloroethene (PCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| trans-1,2-DCE | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| trans-1,3-Dichloropropene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,2,3-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,2,4-Trichlorobenzene | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,1,1-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,1,2-Trichloroethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Trichloroethene (TCE) | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Trichlorofluoromethane | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| 1,2,3-Trichloropropane | ND | 2.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Vinyl chloride | ND | 1.0 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Xylenes, Total | ND | 1.5 | | µg/L | 1 | 8/5/2008 6:29:44 AM |
| Surr: 1,2-Dichloroethane-d4 | 96.4 | 68.1-123 | | %REC | 1 | 8/5/2008 6:29:44 AM |
| Surr: 4-Bromofluorobenzene | 101 | 53.2-145 | | %REC | 1 | 8/5/2008 6:29:44 AM |
| Surr: Dibromofluoromethane | 102 | 68.5-119 | | %REC | 1 | 8/5/2008 6:29:44 AM |
| Surr: Toluene-d8 | 90.4 | 64-131 | | %REC | 1 | 8/5/2008 6:29:44 AM |

**Qualifiers:**

| | | | |
|---|---|---|---|
| * | Value exceeds Maximum Contaminant Level | B | Analyte detected in the associated Method Blank |
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | MCL | Maximum Contaminant Level |
| ND | Not Detected at the Reporting Limit | RL | Reporting Limit |
| S | Spike recovery outside accepted recovery limits | | |

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| | | | |
|---|---|---|---|
| **Client:** | HALL ENVIRONMENTAL ANALYSIS LAB | **Batch #:** | 080805040 |
| **Address:** | 4901 HAWKINS NE SUITE D<br>ALBUQUERQUE, NM 87109 | **Project Name:** | 0808012 |
| **Attn:** | ANDY FREEMAN | | |

## Analytical Results Report

| | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Number** | 080805040-001 | **Sampling Date** | 7/31/2008 | **Date/Time Received** | 8/5/2008 | 10:30 AM |
| **Client Sample ID** | 0808012-01E / BW-1C | **Sampling Time** | 8:30 AM | **Extraction Date** | 8/12/2008 | |
| **Matrix:** | Water | | | | | |

| Parameter | Result | Units | PQL | Analysis Date | Analyst | Method | Qualifier |
|---|---|---|---|---|---|---|---|
| Uranium | 0.00115 | mg/L | 0.001 | 8/15/2008 | DMB | EPA 6020A | |

**Comments:**

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C1287

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| | | | |
|---|---|---|---|
| **Client:** | HALL ENVIRONMENTAL ANALYSIS LAB | **Batch #:** | 080805040 |
| **Address:** | 4901 HAWKINS NE SUITE D<br>ALBUQUERQUE, NM 87109 | **Project Name:** | 0808012 |
| **Attn:** | ANDY FREEMAN | | |

## Analytical Results Report

| | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Number** | 080805040-002 | **Sampling Date** | 7/30/2008 | **Date/Time Received** | 8/5/2008 | 10:30 AM |
| **Client Sample ID** | 0808012-02E / BW-2A | **Sampling Time** | 9:00 AM | **Extraction Date** | 8/12/2008 | |
| **Matrix:** | Water | | | | | |

| Parameter | Result | Units | PQL | Analysis Date | Analyst | Method | Qualifier |
|---|---|---|---|---|---|---|---|
| Uranium | ND | mg/L | 0.001 | 8/15/2008 | DMB | EPA 6020A | |

**Comments:**

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C1287

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| | | | |
|---|---|---|---|
| **Client:** | HALL ENVIRONMENTAL ANALYSIS LAB | **Batch #:** | 080805040 |
| **Address:** | 4901 HAWKINS NE SUITE D<br>ALBUQUERQUE, NM 87109 | **Project Name:** | 0808012 |
| **Attn:** | ANDY FREEMAN | | |

## Analytical Results Report

| | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Number** | 080805040-003 | **Sampling Date** | 7/30/2008 | **Date/Time Received** | 8/5/2008 | 10:30 AM |
| **Client Sample ID** | 0808012-03E / BW-2B | **Sampling Time** | 10:30 AM | **Extraction Date** | 8/12/2008 | |
| **Matrix:** | Water | | | | | |

| Parameter | Result | Units | PQL | Analysis Date | Analyst | Method | Qualifier |
|---|---|---|---|---|---|---|---|
| Uranium | 0.0115 | mg/L | 0.001 | 8/15/2008 | DMB | EPA 6020A | |

**Comments:**

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2832; ID:WA00169; WA:C1287

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| | | | |
|---|---|---|---|
| **Client:** | HALL ENVIRONMENTAL ANALYSIS LAB | **Batch #:** | 080805040 |
| **Address:** | 4901 HAWKINS NE SUITE D<br>ALBUQUERQUE, NM 87109 | **Project Name:** | 0808012 |
| **Attn:** | ANDY FREEMAN | | |

## Analytical Results Report

| | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Number** | 080805040-004 | **Sampling Date** | 7/30/2008 | **Date/Time Received** | 8/5/2008 | 10:30 AM |
| **Client Sample ID** | 0808012-04E / BW-2C | **Sampling Time** | 2:45 PM | **Extraction Date** | 8/12/2008 | |
| **Matrix:** | Water | | | | | |

| Parameter | Result | Units | PQL | Analysis Date | Analyst | Method | Qualifier |
|---|---|---|---|---|---|---|---|
| Uranium | 0.00728 | mg/L | 0.001 | 8/15/2008 | DMB | EPA 6020A | |

**Comments:**

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C1287

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| | | | |
|---|---|---|---|
| **Client:** | HALL ENVIRONMENTAL ANALYSIS LAB | **Batch #:** | 080805040 |
| **Address:** | 4901 HAWKINS NE SUITE D<br>ALBUQUERQUE, NM 87109 | **Project Name:** | 0808012 |
| **Attn:** | ANDY FREEMAN | | |

## Analytical Results Report

| | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Number** | 080805040-005 | **Sampling Date** | 7/31/2008 | **Date/Time Received** | 8/5/2008 | 10:30 AM |
| **Client Sample ID** | 0808012-05E / BW-3B | **Sampling Time** | 1:50 PM | **Extraction Date** | 8/12/2008 | |
| **Matrix:** | Water | | | | | |

| Parameter | Result | Units | PQL | Analysis Date | Analyst | Method | Qualifier |
|---|---|---|---|---|---|---|---|
| Uranium | ND | mg/L | 0.001 | 8/15/2008 | DMB | EPA 6020A | |

**Comments:**

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C1287

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| | | | |
|---|---|---|---|
| **Client:** | HALL ENVIRONMENTAL ANALYSIS LAB | **Batch #:** | 080805040 |
| **Address:** | 4901 HAWKINS NE SUITE D<br>ALBUQUERQUE, NM 87109 | **Project Name:** | 0808012 |
| **Attn:** | ANDY FREEMAN | | |

## Analytical Results Report

| | | | | | | |
|---|---|---|---|---|---|---|
| **Sample Number** | 080805040-006 | **Sampling Date** | 8/1/2008 | **Date/Time Received** | 8/5/2008 | 10:30 AM |
| **Client Sample ID** | 0808012-06E / BW-3C | **Sampling Time** | 8:00 AM | **Extraction Date** | 8/12/2008 | |
| **Matrix:** | Water | | | | | |

| Parameter | Result | Units | PQL | Analysis Date | Analyst | Method | Qualifier |
|---|---|---|---|---|---|---|---|
| Uranium | 0.00251 | mg/L | 0.001 | 8/15/2008 | DMB | EPA 6020A | |

Authorized Signature

MCL EPA's Maximum Contaminant Level
ND Not Detected
PQL Practical Quantitation Limit

**Comments:**

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C1287

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**Client:** HALL ENVIRONMENTAL ANALYSIS LAB
**Address:** 4901 HAWKINS NE SUITE D
ALBUQUERQUE, NM 87109
**Attn:** ANDY FREEMAN

**Batch #:** 080805040
**Project Name:** 0808012

## Analytical Results Report

### Quality Control Data

### Lab Control Sample

| Parameter | LCS Result | Units | LCS Spike | %Rec | AR %Rec | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|
| Uranium | 0.0473 | mg/L | 0.05 | 94.6 | 85-115 | 8/12/2008 | 8/15/2008 |

### Matrix Spike

| Sample Number | Parameter | Sample Result | MS Result | Units | MS Spike | %Rec | AR %Rec | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|---|
| 080805040-001 | Uranium | 0.00115 | 0.0483 | mg/L | 0.05 | 94.3 | 75-125 | 8/12/2008 | 8/15/2008 |

### Matrix Spike Duplicate

| Parameter | MSD Result | Units | MSD Spike | %Rec | %RPD | AR %RPD | Prep Date | Analysis Date |
|---|---|---|---|---|---|---|---|---|
| Uranium | 0.0474 | mg/L | 0.05 | 92.5 | 1.9 | 0-20 | 8/12/2008 | 8/15/2008 |

### Method Blank

| Parameter | Result | Units | PQL | Prep Date | Analysis Date |
|---|---|---|---|---|---|
| Uranium | ND | mg/L | 0.001 | 8/12/2008 | 8/15/2008 |

AR Acceptable Range
ND Not Detected
PQL Practical Quantitation Limit
RPD Relative Percentage Difference

**Comments:**

Certifications held by Anatek Labs ID: EPA:ID00013; AZ:0701; CO:ID00013; FL(NELAP):E87893; ID:ID00013; IN:C-ID-01; KY:90142; MT:CERT0028; NM: ID00013; OR:ID200001-002; WA:C1320
Certifications held by Anatek Labs WA: EPA:WA00169; CA:Cert2632; ID:WA00169; WA:C1287

# QA/QC SUMMARY REPORT

**Client:** Western Refining Southwest, Gallup
**Project:** 2008 Annual Groundwater Event
**Work Order:** 0808012

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: EPA Method 300.0: Anions** | | | | | | | | | |
| **Sample ID: MB** | | *MBLK* | | | Batch ID: | **R29597** | Analysis Date: | 8/1/2008 9:18:48 AM | |
| Fluoride | ND | mg/L | 0.10 | | | | | | |
| Chloride | ND | mg/L | 0.10 | | | | | | |
| Bromide | ND | mg/L | 0.10 | | | | | | |
| Nitrate (As N)+Nitrite (As N) | ND | mg/L | 0.20 | | | | | | |
| Phosphorus, Orthophosphate (As P) | ND | mg/L | 0.50 | | | | | | |
| Sulfate | ND | mg/L | 0.50 | | | | | | |
| **Sample ID: MB** | | *MBLK* | | | Batch ID: | **R29639** | Analysis Date: | 8/4/2008 9:24:30 AM | |
| Fluoride | ND | mg/L | 0.10 | | | | | | |
| Chloride | ND | mg/L | 0.10 | | | | | | |
| Bromide | ND | mg/L | 0.10 | | | | | | |
| Nitrate (As N)+Nitrite (As N) | ND | mg/L | 0.20 | | | | | | |
| Phosphorus, Orthophosphate (As P) | ND | mg/L | 0.50 | | | | | | |
| Sulfate | ND | mg/L | 0.50 | | | | | | |
| **Sample ID: MB** | | *MBLK* | | | Batch ID: | **R29679** | Analysis Date: | 8/7/2008 10:04:22 AM | |
| Fluoride | ND | mg/L | 0.10 | | | | | | |
| Chloride | ND | mg/L | 0.10 | | | | | | |
| Bromide | ND | mg/L | 0.10 | | | | | | |
| Nitrate (As N)+Nitrite (As N) | ND | mg/L | 0.20 | | | | | | |
| Phosphorus, Orthophosphate (As P) | ND | mg/L | 0.50 | | | | | | |
| Sulfate | ND | mg/L | 0.50 | | | | | | |
| **Sample ID: LCS** | | *LCS* | | | Batch ID: | **R29597** | Analysis Date: | 8/1/2008 9:36:13 AM | |
| Fluoride | 0.5057 | mg/L | 0.10 | 101 | 90 | 110 | | | |
| Chloride | 5.033 | mg/L | 0.10 | 101 | 90 | 110 | | | |
| Bromide | 2.497 | mg/L | 0.10 | 99.9 | 90 | 110 | | | |
| Nitrate (As N)+Nitrite (As N) | 3.580 | mg/L | 0.20 | 102 | 90 | 110 | | | |
| Phosphorus, Orthophosphate (As P) | 4.861 | mg/L | 0.50 | 97.2 | 90 | 110 | | | |
| Sulfate | 10.09 | mg/L | 0.50 | 101 | 90 | 110 | | | |
| **Sample ID: LCS** | | *LCS* | | | Batch ID: | **R29639** | Analysis Date: | 8/4/2008 9:41:54 AM | |
| Fluoride | 0.4918 | mg/L | 0.10 | 98.4 | 90 | 110 | | | |
| Chloride | 4.893 | mg/L | 0.10 | 97.9 | 90 | 110 | | | |
| Bromide | 2.540 | mg/L | 0.10 | 102 | 90 | 110 | | | |
| Nitrate (As N)+Nitrite (As N) | 3.514 | mg/L | 0.20 | 100 | 90 | 110 | | | |
| Phosphorus, Orthophosphate (As P) | 5.000 | mg/L | 0.50 | 100 | 90 | 110 | | | |
| Sulfate | 10.29 | mg/L | 0.50 | 103 | 90 | 110 | | | |
| **Sample ID: LCS** | | *LCS* | | | Batch ID: | **R29679** | Analysis Date: | 8/7/2008 10:21:47 AM | |
| Chloride | 5.038 | mg/L | 0.10 | 101 | 90 | 110 | | | |
| Bromide | 2.618 | mg/L | 0.10 | 105 | 90 | 110 | | | |
| Nitrate (As N)+Nitrite (As N) | 3.599 | mg/L | 0.20 | 103 | 90 | 110 | | | |
| Phosphorus, Orthophosphate (As P) | 5.032 | mg/L | 0.50 | 101 | 90 | 110 | | | |
| Sulfate | 10.46 | mg/L | 0.50 | 105 | 90 | 110 | | | |
| **Sample ID: LCS-b** | | *LCS* | | | Batch ID: | **R29679** | Analysis Date: | 8/7/2008 7:04:05 PM | |
| Fluoride | 0.5291 | mg/L | 0.10 | 106 | 90 | 110 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spike recovery outside accepted recovery limits |

# QA/QC SUMMARY REPORT

**Client:** Western Refining Southwest, Gallup
**Project:** 2008 Annual Groundwater Event **Work Order:** 0808012

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: EPA Method 8270C: Semivolatiles** | | | | | | | | | |
| **Sample ID: mb-16674** | | *MBLK* | | | Batch ID: | **16674** | Analysis Date: | | 8/6/2008 |
| Acenaphthene | ND | µg/L | 10 | | | | | | |
| Acenaphthylene | ND | µg/L | 10 | | | | | | |
| Aniline | ND | µg/L | 10 | | | | | | |
| Anthracene | ND | µg/L | 10 | | | | | | |
| Azobenzene | ND | µg/L | 10 | | | | | | |
| Benz(a)anthracene | ND | µg/L | 10 | | | | | | |
| Benzo(a)pyrene | ND | µg/L | 10 | | | | | | |
| Benzo(b)fluoranthene | ND | µg/L | 10 | | | | | | |
| Benzo(g,h,i)perylene | ND | µg/L | 10 | | | | | | |
| Benzo(k)fluoranthene | ND | µg/L | 10 | | | | | | |
| Benzoic acid | ND | µg/L | 20 | | | | | | |
| Benzyl alcohol | ND | µg/L | 10 | | | | | | |
| Bis(2-chloroethoxy)methane | ND | µg/L | 10 | | | | | | |
| Bis(2-chloroethyl)ether | ND | µg/L | 10 | | | | | | |
| Bis(2-chloroisopropyl)ether | ND | µg/L | 10 | | | | | | |
| Bis(2-ethylhexyl)phthalate | ND | µg/L | 10 | | | | | | |
| 4-Bromophenyl phenyl ether | ND | µg/L | 10 | | | | | | |
| Butyl benzyl phthalate | ND | µg/L | 10 | | | | | | |
| Carbazole | ND | µg/L | 10 | | | | | | |
| 4-Chloro-3-methylphenol | ND | µg/L | 10 | | | | | | |
| 4-Chloroaniline | ND | µg/L | 10 | | | | | | |
| 2-Chloronaphthalene | ND | µg/L | 10 | | | | | | |
| 2-Chlorophenol | ND | µg/L | 10 | | | | | | |
| 4-Chlorophenyl phenyl ether | ND | µg/L | 10 | | | | | | |
| Chrysene | ND | µg/L | 10 | | | | | | |
| Di-n-butyl phthalate | ND | µg/L | 10 | | | | | | |
| Di-n-octyl phthalate | ND | µg/L | 10 | | | | | | |
| Dibenz(a,h)anthracene | ND | µg/L | 10 | | | | | | |
| Dibenzofuran | ND | µg/L | 10 | | | | | | |
| 1,2-Dichlorobenzene | ND | µg/L | 10 | | | | | | |
| 1,3-Dichlorobenzene | ND | µg/L | 10 | | | | | | |
| 1,4-Dichlorobenzene | ND | µg/L | 10 | | | | | | |
| 3,3'-Dichlorobenzidine | ND | µg/L | 10 | | | | | | |
| Diethyl phthalate | ND | µg/L | 10 | | | | | | |
| Dimethyl phthalate | ND | µg/L | 10 | | | | | | |
| 2,4-Dichlorophenol | ND | µg/L | 20 | | | | | | |
| 2,4-Dimethylphenol | ND | µg/L | 10 | | | | | | |
| 4,6-Dinitro-2-methylphenol | ND | µg/L | 20 | | | | | | |
| 2,4-Dinitrophenol | ND | µg/L | 20 | | | | | | |
| 2,4-Dinitrotoluene | ND | µg/L | 10 | | | | | | |
| 2,6-Dinitrotoluene | ND | µg/L | 10 | | | | | | |
| Fluoranthene | ND | µg/L | 10 | | | | | | |
| Fluorene | ND | µg/L | 10 | | | | | | |
| Hexachlorobenzene | ND | µg/L | 10 | | | | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spike recovery outside accepted recovery limits |

# QA/QC SUMMARY REPORT

**Client:** Western Refining Southwest, Gallup
**Project:** 2008 Annual Groundwater Event **Work Order:** 0808012

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: EPA Method 8270C: Semivolatiles** | | | | | | | | | |
| **Sample ID: mb-16674** | | *MBLK* | | | Batch ID: | **16674** | Analysis Date: | | 8/6/2008 |
| Hexachlorobutadiene | ND | µg/L | 10 | | | | | | |
| Hexachlorocyclopentadiene | ND | µg/L | 10 | | | | | | |
| Hexachloroethane | ND | µg/L | 10 | | | | | | |
| Indeno(1,2,3-cd)pyrene | ND | µg/L | 10 | | | | | | |
| Isophorone | ND | µg/L | 10 | | | | | | |
| 2-Methylnaphthalene | ND | µg/L | 10 | | | | | | |
| 2-Methylphenol | ND | µg/L | 10 | | | | | | |
| 3+4-Methylphenol | ND | µg/L | 10 | | | | | | |
| N-Nitrosodi-n-propylamine | ND | µg/L | 10 | | | | | | |
| N-Nitrosodimethylamine | ND | µg/L | 10 | | | | | | |
| N-Nitrosodiphenylamine | ND | µg/L | 10 | | | | | | |
| Naphthalene | ND | µg/L | 10 | | | | | | |
| 2-Nitroaniline | ND | µg/L | 10 | | | | | | |
| 3-Nitroaniline | ND | µg/L | 10 | | | | | | |
| 4-Nitroaniline | ND | µg/L | 10 | | | | | | |
| Nitrobenzene | ND | µg/L | 10 | | | | | | |
| 2-Nitrophenol | ND | µg/L | 10 | | | | | | |
| 4-Nitrophenol | ND | µg/L | 10 | | | | | | |
| Pentachlorophenol | ND | µg/L | 20 | | | | | | |
| Phenanthrene | ND | µg/L | 10 | | | | | | |
| Phenol | ND | µg/L | 10 | | | | | | |
| Pyrene | ND | µg/L | 10 | | | | | | |
| Pyridine | ND | µg/L | 10 | | | | | | |
| 1,2,4-Trichlorobenzene | ND | µg/L | 10 | | | | | | |
| 2,4,5-Trichlorophenol | ND | µg/L | 10 | | | | | | |
| 2,4,6-Trichlorophenol | ND | µg/L | 10 | | | | | | |
| **Sample ID: lcs-16674** | | *LCS* | | | Batch ID: | **16674** | Analysis Date: | | 8/7/2008 |
| Acenaphthene | 55.04 | µg/L | 10 | 55.0 | 11 | 123 | | | |
| 4-Chloro-3-methylphenol | 67.46 | µg/L | 10 | 33.7 | 15.4 | 119 | | | |
| 2-Chlorophenol | 79.64 | µg/L | 10 | 39.8 | 12.2 | 122 | | | |
| 1,4-Dichlorobenzene | 45.90 | µg/L | 10 | 45.9 | 16.9 | 100 | | | |
| 2,4-Dinitrotoluene | 55.90 | µg/L | 10 | 55.9 | 13 | 138 | | | |
| N-Nitrosodi-n-propylamine | 59.24 | µg/L | 10 | 59.2 | 9.93 | 122 | | | |
| 4-Nitrophenol | 42.36 | µg/L | 10 | 21.2 | 12.5 | 87.4 | | | |
| Pentachlorophenol | 56.14 | µg/L | 20 | 28.1 | 3.55 | 114 | | | |
| Phenol | 54.36 | µg/L | 10 | 27.2 | 7.53 | 73.1 | | | |
| Pyrene | 56.24 | µg/L | 10 | 56.2 | 12.6 | 140 | | | |
| 1,2,4-Trichlorobenzene | 42.92 | µg/L | 10 | 42.9 | 17.4 | 98.7 | | | |
| **Sample ID: lcsd-16674** | | *LCSD* | | | Batch ID: | **16674** | Analysis Date: | | 8/6/2008 |
| Acenaphthene | 62.80 | µg/L | 10 | 62.8 | 11 | 123 | 13.2 | 30.5 | |
| 4-Chloro-3-methylphenol | 97.08 | µg/L | 10 | 48.5 | 15.4 | 119 | 36.0 | 28.6 | R |
| 2-Chlorophenol | 113.3 | µg/L | 10 | 56.7 | 12.2 | 122 | 34.9 | 107 | |
| 1,4-Dichlorobenzene | 49.90 | µg/L | 10 | 49.9 | 16.9 | 100 | 8.35 | 62.1 | |
| 2,4-Dinitrotoluene | 61.94 | µg/L | 10 | 61.9 | 13 | 138 | 10.3 | 14.7 | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spike recovery outside accepted recovery limits |

# QA/QC SUMMARY REPORT

**Client:** Western Refining Southwest, Gallup
**Project:** 2008 Annual Groundwater Event **Work Order:** 0808012

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: EPA Method 8270C: Semivolatiles** | | | | | | | | | |
| **Sample ID: lcsd-16674** | | *LCSD* | | | Batch ID: | **16674** | Analysis Date: | | 8/6/2008 |
| N-Nitrosodi-n-propylamine | 67.04 | µg/L | 10 | 67.0 | 9.93 | 122 | 12.4 | 30.3 | |
| 4-Nitrophenol | 68.84 | µg/L | 10 | 34.4 | 12.5 | 87.4 | 47.6 | 36.3 | R |
| Pentachlorophenol | 89.06 | µg/L | 20 | 44.5 | 3.55 | 114 | 45.3 | 49 | |
| Phenol | 69.16 | µg/L | 10 | 34.6 | 7.53 | 73.1 | 24.0 | 52.4 | |
| Pyrene | 61.18 | µg/L | 10 | 61.2 | 12.6 | 140 | 8.41 | 16.3 | |
| 1,2,4-Trichlorobenzene | 49.38 | µg/L | 10 | 49.4 | 17.4 | 98.7 | 14.0 | 36.4 | |
| **Method: EPA Method 7470: Mercury** | | | | | | | | | |
| **Sample ID: MB-16721** | | *MBLK* | | | Batch ID: | **16721** | Analysis Date: | | 8/8/2008 3:01:50 PM |
| Mercury | ND | mg/L | 0.00020 | | | | | | |
| **Sample ID: LCS-16721** | | *LCS* | | | Batch ID: | **16721** | Analysis Date: | | 8/8/2008 3:03:33 PM |
| Mercury | 0.004789 | mg/L | 0.00020 | 95.8 | 80 | 120 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spike recovery outside accepted recovery limits |

# QA/QC SUMMARY REPORT

**Client:** Western Refining Southwest, Gallup
**Project:** 2008 Annual Groundwater Event **Work Order:** 0808012

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: EPA 6010B: Total Recoverable Metals** | | | | | | | | | |
| **Sample ID: MB-16676** | | *MBLK* | | | Batch ID: | **16676** | Analysis Date: | 8/8/2008 12:36:37 PM | |
| Arsenic | ND | mg/L | 0.020 | | | | | | |
| Barium | ND | mg/L | 0.010 | | | | | | |
| Cadmium | ND | mg/L | 0.0020 | | | | | | |
| Calcium | ND | mg/L | 0.50 | | | | | | |
| Chromium | ND | mg/L | 0.0060 | | | | | | |
| Copper | ND | mg/L | 0.0060 | | | | | | |
| Iron | ND | mg/L | 0.050 | | | | | | |
| Lead | ND | mg/L | 0.0050 | | | | | | |
| Magnesium | ND | mg/L | 0.50 | | | | | | |
| Manganese | ND | mg/L | 0.0020 | | | | | | |
| Potassium | ND | mg/L | 1.0 | | | | | | |
| Selenium | ND | mg/L | 0.050 | | | | | | |
| Silver | ND | mg/L | 0.0050 | | | | | | |
| Sodium | ND | mg/L | 0.50 | | | | | | |
| Zinc | ND | mg/L | 0.020 | | | | | | |
| **Sample ID: MB-16714** | | *MBLK* | | | Batch ID: | **16714** | Analysis Date: | 8/12/2008 10:57:39 AM | |
| Arsenic | ND | mg/L | 0.020 | | | | | | |
| Barium | ND | mg/L | 0.010 | | | | | | |
| Cadmium | ND | mg/L | 0.0020 | | | | | | |
| Calcium | ND | mg/L | 0.50 | | | | | | |
| Chromium | ND | mg/L | 0.0060 | | | | | | |
| Copper | ND | mg/L | 0.0060 | | | | | | |
| Iron | ND | mg/L | 0.050 | | | | | | |
| Lead | ND | mg/L | 0.0050 | | | | | | |
| Magnesium | ND | mg/L | 0.50 | | | | | | |
| Manganese | ND | mg/L | 0.0020 | | | | | | |
| Potassium | ND | mg/L | 1.0 | | | | | | |
| Selenium | ND | mg/L | 0.050 | | | | | | |
| Silver | ND | mg/L | 0.0050 | | | | | | |
| Sodium | ND | mg/L | 0.50 | | | | | | |
| Zinc | ND | mg/L | 0.020 | | | | | | |
| **Sample ID: LCS-16676** | | *LCS* | | | Batch ID: | **16676** | Analysis Date: | 8/8/2008 12:39:41 PM | |
| Arsenic | 0.4558 | mg/L | 0.020 | 91.2 | 80 | 120 | | | |
| Barium | 0.4695 | mg/L | 0.010 | 93.9 | 80 | 120 | | | |
| Cadmium | 0.4515 | mg/L | 0.0020 | 90.3 | 80 | 120 | | | |
| Calcium | 49.55 | mg/L | 0.50 | 99.1 | 80 | 120 | | | |
| Chromium | 0.4716 | mg/L | 0.0060 | 94.3 | 80 | 120 | | | |
| Copper | 0.4909 | mg/L | 0.0060 | 98.2 | 80 | 120 | | | |
| Iron | 0.4831 | mg/L | 0.050 | 96.6 | 80 | 120 | | | |
| Lead | 0.4437 | mg/L | 0.0050 | 88.7 | 80 | 120 | | | |
| Magnesium | 50.39 | mg/L | 0.50 | 101 | 80 | 120 | | | |
| Manganese | 0.4669 | mg/L | 0.0020 | 93.4 | 80 | 120 | | | |
| Potassium | 54.25 | mg/L | 1.0 | 109 | 80 | 120 | | | |
| Selenium | 0.4214 | mg/L | 0.050 | 84.3 | 80 | 120 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spike recovery outside accepted recovery limits |

# QA/QC SUMMARY REPORT

**Client:** Western Refining Southwest, Gallup
**Project:** 2008 Annual Groundwater Event **Work Order:** 0808012

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: EPA 6010B: Total Recoverable Metals** | | | | | | | | | |
| **Sample ID: LCS-16676** | | *LCS* | | | Batch ID: | **16676** | Analysis Date: | 8/8/2008 12:39:41 PM | |
| Silver | 0.4772 | mg/L | 0.0050 | 95.4 | 80 | 120 | | | |
| Sodium | 53.54 | mg/L | 0.50 | 107 | 80 | 120 | | | |
| Zinc | 0.4601 | mg/L | 0.020 | 92.0 | 80 | 120 | | | |
| **Sample ID: LCS-16714** | | *LCS* | | | Batch ID: | **16714** | Analysis Date: | 8/12/2008 11:00:43 AM | |
| Arsenic | 0.5057 | mg/L | 0.020 | 101 | 80 | 120 | | | |
| Barium | 0.4650 | mg/L | 0.010 | 93.0 | 80 | 120 | | | |
| Cadmium | 0.4711 | mg/L | 0.0020 | 94.2 | 80 | 120 | | | |
| Calcium | 49.53 | mg/L | 0.50 | 99.1 | 80 | 120 | | | |
| Chromium | 0.4722 | mg/L | 0.0060 | 94.4 | 80 | 120 | | | |
| Copper | 0.4766 | mg/L | 0.0060 | 95.3 | 80 | 120 | | | |
| Iron | 0.4698 | mg/L | 0.050 | 94.0 | 80 | 120 | | | |
| Lead | 0.4671 | mg/L | 0.0050 | 93.4 | 80 | 120 | | | |
| Magnesium | 49.31 | mg/L | 0.50 | 98.6 | 80 | 120 | | | |
| Manganese | 0.4625 | mg/L | 0.0020 | 92.5 | 80 | 120 | | | |
| Potassium | 50.47 | mg/L | 1.0 | 101 | 80 | 120 | | | |
| Selenium | 0.4779 | mg/L | 0.050 | 95.6 | 80 | 120 | | | |
| Silver | 0.4733 | mg/L | 0.0050 | 94.1 | 80 | 120 | | | |
| Sodium | 52.15 | mg/L | 0.50 | 104 | 80 | 120 | | | |
| Zinc | 0.4646 | mg/L | 0.020 | 92.9 | 80 | 120 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spike recovery outside accepted recovery limits |

# QA/QC SUMMARY REPORT

**Client:** Western Refining Southwest, Gallup
**Project:** 2008 Annual Groundwater Event **Work Order:** 0808012

**Method:** EPA Method 8260B: VOLATILES
**Sample ID:** 5ml rb *MBLK* Batch ID: **R29596** Analysis Date: 8/4/2008 8:42:06 AM

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| 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 | 1.0 | | | | | | |
| 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 | 1.0 | | | | | | |
| 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 | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spike recovery outside accepted recovery limits |

# QA/QC SUMMARY REPORT

**Client:** Western Refining Southwest, Gallup
**Project:** 2008 Annual Groundwater Event **Work Order:** 0808012

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: EPA Method 8260B: VOLATILES** | | | | | | | | | |
| **Sample ID: 5ml rb** | | *MBLK* | | | Batch ID: | **R29596** | Analysis Date: | 8/4/2008 8:42:06 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: b5** | | *MBLK* | | | Batch ID: | **R29596** | Analysis Date: | 8/4/2008 9:23:12 PM | |
| 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 | 1.0 | | | | | | |
| 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 | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spike recovery outside accepted recovery limits |

# QA/QC SUMMARY REPORT

**Client:** Western Refining Southwest, Gallup
**Project:** 2008 Annual Groundwater Event **Work Order:** 0808012

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: EPA Method 8260B: VOLATILES** | | | | | | | | | |
| **Sample ID: b5** | | *MBLK* | | | Batch ID: | **R29596** | Analysis Date: | 8/4/2008 9:23:12 PM | |
| Chloromethane | ND | µg/L | 1.0 | | | | | | |
| 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 | | | | | | |
| 1,1,2,2-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** | | *LCS* | | | Batch ID: | **R29596** | Analysis Date: | 8/4/2008 9:39:54 AM | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spike recovery outside accepted recovery limits |

# QA/QC SUMMARY REPORT

**Client:** Western Refining Southwest, Gallup
**Project:** 2008 Annual Groundwater Event **Work Order:** 0808012

| Analyte | Result | Units | PQL | %Rec | LowLimit | HighLimit | %RPD | RPDLimit | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **Method: EPA Method 8260B: VOLATILES** | | | | | | | | | |
| **Sample ID: 100ng lcs** | | *LCS* | | | Batch ID: | **R29596** | Analysis Date: | | 8/4/2008 9:39:54 AM |
| Benzene | 22.36 | µg/L | 1.0 | 112 | 86.8 | 120 | | | |
| Toluene | 18.80 | µg/L | 1.0 | 94.0 | 64.1 | 127 | | | |
| Chlorobenzene | 19.23 | µg/L | 1.0 | 96.1 | 82.4 | 113 | | | |
| 1,1-Dichloroethene | 27.46 | µg/L | 1.0 | 137 | 86.5 | 132 | | | S |
| Trichloroethene (TCE) | 23.81 | µg/L | 1.0 | 119 | 77.3 | 123 | | | |
| **Sample ID: 100ng lcs** | | *LCS* | | | Batch ID: | **R29596** | Analysis Date: | | 8/4/2008 10:20:48 PM |
| Benzene | 21.82 | µg/L | 1.0 | 109 | 86.8 | 120 | | | |
| Toluene | 18.43 | µg/L | 1.0 | 92.2 | 64.1 | 127 | | | |
| Chlorobenzene | 18.62 | µg/L | 1.0 | 93.1 | 82.4 | 113 | | | |
| 1,1-Dichloroethene | 26.65 | µg/L | 1.0 | 133 | 86.5 | 132 | | | S |
| Trichloroethene (TCE) | 22.66 | µg/L | 1.0 | 113 | 77.3 | 123 | | | |

**Qualifiers:**

| | | | |
|---|---|---|---|
| E | Value above quantitation range | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits | ND | Not Detected at the Reporting Limit |
| R | RPD outside accepted recovery limits | S | Spike recovery outside accepted recovery limits |

Hall Environmental Analysis Laboratory, Inc.

## Sample Receipt Checklist

Client Name WESTERN REFINING GALLU

Date Received: 8/1/2008

Work Order Number 0808012

Received by: AT

Sample ID labels checked by: BS (Initials)

Checklist completed by: [signature] (Signature) 8/1/08 (Date)

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 ☐ | | |
| 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 ☐ | |

Container/Temp Blank temperature? 3° *<6° C Acceptable* If given sufficient time to cool.

COMMENTS:

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Client contacted _____ Date contacted: _____ Person contacted _____

Contacted by: _____ Regarding: _____

Comments: _____

Corrective Action _____

# Chain-of-Custody Record

Client: Western Refining Company - Gallup
Mailing Address: Route 3 Box 7 Gallup, NM 87301
Phone #: 505 722 3833
email or Fax#: 505 722 0210

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)
☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☐ Rush

Project Name: 2008 Annual Groundwater Event
Project #:
Project Manager: Ed Riege
Sampler: Steve Morris
On Ice: ☒ Yes ☐ No
Sample Temperature: 3°C

**HALL ENVIRONMENTAL ANALYSIS LABORATORY**
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

**Analysis Request**

| Date | Time | Matrix | Sample Request ID | Container Type and # | Preservative Type | HEAL No. 0808012 | BTEX + MTBE + TMB's (8021) | BTEX + MTBE + TPH (Gas only) | TPH Method 8015B (Gas/Diesel) | TPH (Method 418.1) | EDB (Method 504.1) | 8310 (PNA or PAH) | RCRA 8 Metals | Anions (F,Cl,$NO_3$,$NO_2$,$PO_4$,$SO_4$) | 8081 Pesticides / 8082 PCB's | 8260B (VOA) | 8270 (Semi-VOA) | Gen Chem | WQCC Total Metals | | | Air Bubbles (Y or N) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7-31-08 | 0830 | $H_2O$ | BW-1C | | | -1 | | | | | | | | | | X | X | X | X | | | |
| 7/30/08 | 0900 | " | BW-2A | | | -2 | | | | | | | | | | X | X | X | X | | | |
| " | 1030 | " | BW-2B | | | -3 | | | | | | | | | | X | X | X | X | | | |
| " | 1445 | " | BW-2C | | | -4 | | | | | | | | | | X | X | X | X | | | |
| 7-31-08 | 1350 | " | BW-3B | | | -5 | | | | | | | | | | X | X | X | X | | | |
| 8-1-08 | 0800 | " | BW-3C | | | -6 | | | | | | | | | | X | X | X | X | | | |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | Trip Blank | | | -7 | | | | | | | | | | X | | | | | | |

| Date: | Time: | Relinquished by: | Received by: | Date | Time |
|---|---|---|---|---|---|
| 8/1/08 | 1320 | Steve Morris | [signature] | 8/1/08 | 1320 |
| Date: | Time: | Relinquished by: | Received by: | Date | Time |

Remarks: Gen Chem = Cations, Anions, pH, and Conductivity.

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.