

May 27, 2008

Hope Monzeglio  
Environmental Specialist  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico, 87505-6303

Re: **Response to Approval with Direction  
Summary of Drilling and Sampling Activities  
Western Refining Southwest Inc., Gallup refinery  
NMED ID # NMD000333211  
HWB-GRCC-08-002**

Dear Ms. Monzeglio:

It is a pleasure to submit our response to the letter of May 23, 2008 by Mr. John Kieling granting Approval with Direction to our report on Summary of Drilling and Sampling Activities, Western Refining (WNR) Southwest Inc., Gallup refinery. In this response we have provided explanations to all of the comments the letter has detailed that direct us to provide clarifications.

**Comment 1**

No response required. We will correct the date as mentioned in all future correspondence.

**Comment 2**

- a. In this response, we first explain why the original sample analysis did not include tests for volatile organic compounds (VOCs). Eventually, however, we did test the cutting soils for hydrocarbons. Originally, the soils were destined for WNR's land farm. The land farm operated by WNR is in accordance with established guidelines of the New Mexico Oil Conservation Division (OCD). Sampling and analysis of the soils prior to treatment of the soils was to verify that the soils were not characteristic RCRA hazardous wastes as such wastes are not permitted by the OCD to be treated at WNR's land farm. Soils contaminated with volatile organic compounds (VOCs) are allowed to be treated at the land farm which has an ongoing sampling and analysis program according to OCD requirements. Sampling for VOCs of soils emplaced in the land farm occurs as a part of ongoing land farm operations, including sampling to verify no migration from the land farm. Hence, we did not sample the soils for VOCs, even though the groundwater in the area does contain trace levels of VOCs. As one of the drums containing well bore cuttings was damaged, these soils were re-packaged into a new drum

with good integrity. Eventually, due to a lack of availability of treatment space at WNR's land farm, a decision was made to dispose off these soils at an appropriate landfill. A composite sample of soils was taken from all the drums containing soil cuttings and analyzed for Total Petroleum Hydrocarbons using EPA Method 8015B (Gas/Diesel) and Toxicity Characteristic Leachate Procedure (TCLP) tests for RCRA 8 metals, Volatile Organic Aromatics (VOA), and Semi-VOA, as well as reactivity, corrosivity and ignitability tests. An attachment presents details of the tests requested and the laboratory analytical results. The tests allowed the soil cuttings to be designated non-hazardous, and the drums were disposed off at a certified non-hazardous landfill with appropriate documentation and shipping manifests on file at WNR.

- b. Soils from the damaged drum containing cuttings from KA-1 were re-drummed and disposed off as described in response (a).
- c. WNR has an operating permit from the OCD and all soils treated at this facility are monitored in accordance with this permit's conditions. For this project, no soils cuttings were treated at the WNR land farm.

### **Comment 3**

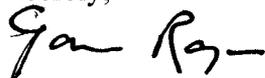
In future we will use the EPA Region 6's Medium-Specific Screening Level of 11 micro-g/L as the standard for comparison of groundwater MTBE levels at this site.

### **Comment 4**

The depth to water (DTW) measurements for well KA-3 were different on different days and slowly increasing as the shallow groundwater flow in this area is through a series of non-continuous layers of sand and clay that are of varying permeability. The flow of groundwater into well KA-3 is known to be at very low velocities with high variations in the flow rates. Future sampling will occur in well KA-3R, and well KA-3 has been closed and is not proposed to be a part of future sampling efforts (as agreed to by NMED). Since installation, we have proceeded with a DTW monitoring program (data have been shared with NMED) at well KA-3R. This well (KA-3R) has been found to recharge at less than a foot a day after being bailed dry.

Thank you for giving us this opportunity to respond to your approval with direction of our report. Please do not hesitate to contact me with further questions at 505-722-0227 if I can provide any further clarifications.

Sincerely,

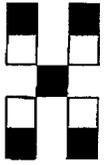


Gaurav Rajen, Ph.D.  
Environmental Engineer

Cc: John E. Kieling, Program Manager, Permits Management Program, Hazardous  
Waste Bureau, 2905 Rodeo Park Drive East, Building 1, Santa Fe, New Mexico,  
87505-6303  
Carl J. Chavez, CHMM, NM Energy, Minerals & Natural Resources Department,  
Oil Conservation Division, Environmental Bureau, 1220 South St. Francis Drive,  
Santa Fe, NM 87505  
Ed Riege, Environmental Superintendent, WNR  
Thurman B. Larsen, Environmental Engineer, WNR  
Cheryl Johnson, Environmental Specialist, WNR  
/File

# CHAIN-OF-CUSTODY RECORD

QA/QC Package:  
 Std  Level 4   
 Other: \_\_\_\_\_



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Client: Western Refinery  
Gallup Refinery  
 Address: Rt 3 Box 17  
Gallup, NM 87301  
Cheryl.johnson@wnr.com  
gaurav.rajen@wnr.com  
 Phone #: 505-722-3833  
 Fax #: 505-722-0210

Project Name: 90 DAY Soil Samples  
 Project #: \_\_\_\_\_  
 Project Manager: Gaurav Rajen  
 Sampler: C Johnson & A. Dorsey  
 Sample Temperature: on ice 4°

## ANALYSIS REQUEST

Date	Time	Matrix	Sample I.D. No.	Number/Volume	Preservative		HEAL No.
					HgCl <sub>2</sub>	HNO <sub>3</sub>	
4-16-08	11:00	Soil	BZ Strip Clean-up	1 qt			-1
	11:15		NAPIS Well Casing				-2
	11:30		OAPIS Clean-up				-3
	11:45	Sludge	Vactrk-Lagoon				-4
	12:45	Soil	MK4 Clean up				-5
	1300	Soil	T232 Clean up				-6
	1330	Sludge	Pipeline wax/sludge				-7
	1400	Sludge	Stop Tank Sludge				-8
4-17-08	1030	Soil	ASO Sandblast Media				-9

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gasoline Only)	TPH Method 8015B (Gas/Diesel)	TPH (Method 418.1)	EDB (Method 504.1)	EDC (Method 8021)	8310 (PNA or PAH)	RCRA 8 Metals	Anions (F, Cl, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub> )	8081 Pesticides/PCB's (8082)	8260B (VDA) TCLP	8270 (Semi-VOA) TCLP	RCI	Air Bubbles or Headspace (Y or N)
		X					X			X	X	X	

Date: 04/17/08 Time: 13:20 Relinquished By: (Signature) [Signature]  
 Received By: (Signature) [Signature] 4/17/08  
 Date: \_\_\_\_\_ Time: \_\_\_\_\_ Relinquished By: (Signature) \_\_\_\_\_  
 Received By: (Signature) \_\_\_\_\_

Remarks: Rush Analysis please.

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Hall Environmental Analysis Laboratory, Inc.

Date: 30-Apr-08

CLIENT: Western Refining Southwest, Gallup
Lab Order: 0804213
Project: 90 Day Soil Samples
Lab ID: 0804213-02

Client Sample ID: NAPIS Well Casing Composite
Collection Date: 4/16/2008 11:15:00 AM
Date Received: 4/17/2008
Matrix: SOIL

Table with columns: Analyses, Result, PQL, Qual, Units, DF, Date Analyzed. Contains sections for EPA METHOD 8015B: DIESEL RANGE ORGANICS, EPA METHOD 8015B: GASOLINE RANGE, MERCURY, TCLP, EPA METHOD 6010B: TCLP METALS, EPA METHOD 8270C TCLP, and VOLATILES BY 8260B/1311.

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: 30-Apr-08

**CLIENT:** Western Refining Southwest, Gallup  
**Lab Order:** 0804213  
**Project:** 90 Day Soil Samples  
**Lab ID:** 0804213-02

**Client Sample ID:** NAPIS Well Casing  
**Collection Date:** 4/16/2008 11:15:00 AM  
**Date Received:** 4/17/2008  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
						Analyst: BDH
<b>VOLATILES BY 8260B/1311</b>						
Chlorobenzene	ND	100		mg/L	1	4/26/2008 11:32:53 PM
Chloroform	ND	6.0		mg/L	1	4/26/2008 11:32:53 PM
1,4-Dichlorobenzene	ND	7.5		mg/L	1	4/26/2008 11:32:53 PM
1,2-Dichloroethane (EDC)	ND	0.50		mg/L	1	4/26/2008 11:32:53 PM
1,1-Dichloroethene	ND	0.70		mg/L	1	4/26/2008 11:32:53 PM
Hexachlorobutadiene	ND	0.50		mg/L	1	4/26/2008 11:32:53 PM
Tetrachloroethene (PCE)	ND	0.70		mg/L	1	4/26/2008 11:32:53 PM
Trichloroethene (TCE)	ND	0.50		mg/L	1	4/26/2008 11:32:53 PM
Vinyl chloride	ND	0.20		mg/L	1	4/26/2008 11:32:53 PM
Surr: 1,2-Dichloroethane-d4	104	69.9-130		%REC	1	4/26/2008 11:32:53 PM
Surr: 4-Bromofluorobenzene	103	71.2-123		%REC	1	4/26/2008 11:32:53 PM
Surr: Dibromofluoromethane	95.3	73.9-134		%REC	1	4/26/2008 11:32:53 PM
Surr: Toluene-d8	110	81.9-122		%REC	1	4/26/2008 11:32:53 PM

**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



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### LABORATORY ANALYTICAL REPORT

**Client:** Hall Environmental  
**Project:** B0804213  
**Lab ID:** B08042275-002  
**Client Sample ID:** 0804213-02B, NAPIS Well Casing

**Report Date:** 04/30/08  
**Collection Date:** 04/18/08 11:15  
**Date Received:** 04/22/08  
**Matrix:** Soil

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>IGNITABILITY</b>							
Flash Point (Ignitability)	>200	°F		30.0		SW1010M	04/28/08 15:38 / mgs
<b>CORROSIVITY</b>							
pH of Soil and Waste	8.49	s.u.		0.10		SW9045D	04/24/08 14:33 / mgs
<b>REACTIVITY</b>							
Cyanide, Reactive	ND	mg/kg		0.05	250	SW846 Ch 7	04/30/08 10:44 / kjp
Sulfide, Reactive	ND	mg/kg		20	500	SW846 Ch 7	04/29/08 07:00 / pwc

**Report Definitions:** RL - Analyte reporting limit.  
 QCL - Quality control limit.

MCL - Maximum contaminant level.  
 ND - Not detected at the reporting limit.