

OIL PIPELINE SPILL



STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

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OIL CONSERVATION DIVISION

HOBBS DISTRICT OFFICE

94 SEP 2 AM 8 50

BRUCE KING
GOVERNOR

POST OFFICE BOX 1980
HOBBS, NEW MEXICO 88241-1980
(505) 393-6161

NMOCD Inter-Correspondence

To: Roger Anderson-Environmental Bureau Chief

From: Wayne Price-Environmental Engineer District I *Wayne Price*

Date: September 1, 1994

Reference: Arco crude oil pipeline spill in the Hobbs landfill.

Subject: Meeting of parties involved.

Comments:

On August 31, 1994 there was a meeting held at the request of Arco and Waste Management Inc. Personnel attending the meeting were as follows:

Jerry Sexton, Wayne Price-NMOCD
Buddy Bowman, Larry Graves-Arco
LC Mimns, Larry Santucci-Waste Management

The Meeting primarily consisted of discussing the different options that were available for properly disposing of the oily soil located at the spill site, which is inside of the landfill. There appeared to be two issues involved. One being the stocked pile of dirt which has been tested and is non-hazardous, and the remaining contamination left in the ground, which has also been tested to be approximately 4000 ppm TPH.



It appears that the landfill is registered under the New Mexico Environmental Department Solid Waste Division. According to Waste Management they are not allowed to dispose of any solid waste that has a TPH level of 1000 ppm or greater. Also they are not permitted to landfarm on site.

The meeting ended with both Companies agreeing to approach the NMED in Santa Fe in order to determine if they would be allowed to landfarm on site. This future meeting would probably include the NMOCD Santa Fe Environmental Bureau.

I advised Arco that the NMOCD would probably be agreeable to any solution as long as the final disposition of material is approved by the District and Santa Fe group.

There were discussions about Arco setting up a landfarm at a near by location. I gave Arco the latest set of guidelines for centralized landfarms. I also gave Waste Management a set of spill/leak guidelines for reference only.

Please find enclosed documents submitted to this office by Arco as of this date.

If you have any questions please don't hesitate to call or write.

cc: Jerry Sexton-District I Supervisor

Attachments-1

ARCO Pipe Line Company
Midland Crude Systems
Post Office Box 1190
Midland, Texas 79702
Telephone 915 682 2576



August 23, 1994

Mr. Wayne Price
Environmental Engineer
State of New Mexico
Energy and Minerals Department
Oil Conservation Division
Hobbs, New Mexico 88240

Dear Wayne:

Please find enclosed the analytical results from the soil samples collected at our crude oil spill site within the Hobbs sanitary landfill on August 1, 1994. As I discussed with you earlier, the analysis results show the soil to be non-hazardous due to the low levels of Benzene but the soil will need to be treated to lower the TPH levels.

After your review of the analysis results I would like to discuss clean up options once again before arranging a meeting with Waste Management.

If you have any questions please contact me at (915) 682-2576. I am also enclosing one of my new business cards with my phone number listed on it

Sincerely,

Larry E. Graves
Sr. Safety and Environmental Advisor
LEG/leg

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ENTRIX

ENTRIX, Inc.
5252 Westchester, Suite 250
Houston TX 77005
(713) 666-6223
(713) 666-5227 FAX

Since 1984 - Environmental Excellence

August 8, 1994

Mr. Harold Underwood
SHEP Compliance
ARCO Pipe Line Company
15600 John F. Kennedy Blvd., Suite 300
Houston, Texas 77032

Re: Documentation of Soil Sampling Services
Crude Oil Release, Hobbs NM
Contract #E-285, Work Order No. 31
ENTRIX Project No. 143545

Dear Harold:

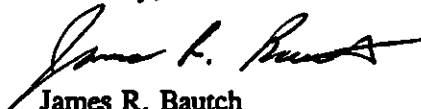
This letter is to update you on the soil sampling project activities that took place in Hobbs, New Mexico on August 1, 1994. Mr. Larry Graves of ARCO Pipe Line Company and Mr. Jim Bautch of ENTRIX, Inc. arrived at the site at 11:00 am, and the sampling activities commenced soon thereafter.

Separate composite samples were collected from both the stockpiled soil and the bottom of the excavation. One composite sample, consisting of 17 grabs, was collected from the stockpiled crude oil-affected soil. The grab samples were obtained from depths of one to two feet throughout the stockpile using a sharpshooter and combined to obtain one representative, composite sample (SS #1). The second composite sample consisted of 11 grabs from the base of the excavation. The grab samples were collected from depths of 0 to 6 inches throughout the excavated area using a sharpshooter and combined to obtain one representative, composite sample (SS #2). A site plot plan showing grab sample locations is provided in Figure 1.

Composite samples SS #1 and SS #2 were placed in glass jars and packaged in an iced cooler for overnight shipment to ETC Gulf South Laboratories in New Orleans, Louisiana. Each of the composite samples was analyzed for total petroleum hydrocarbons (EPA Method 418.1). In addition, SS #1 (obtained from stockpile) was analyzed for toxicity characteristic leaching procedure (TCLP) volatile organics (EPA Method 1311/8240 for benzene only).

Should you have any questions or require any further information regarding this letter report, please contact Mr. Evan Swingholm or me at 666-6223. We appreciate the opportunity to work with you on this project.

Sincerely,


James R. Bautch
Staff Scientist

JRB/mhb

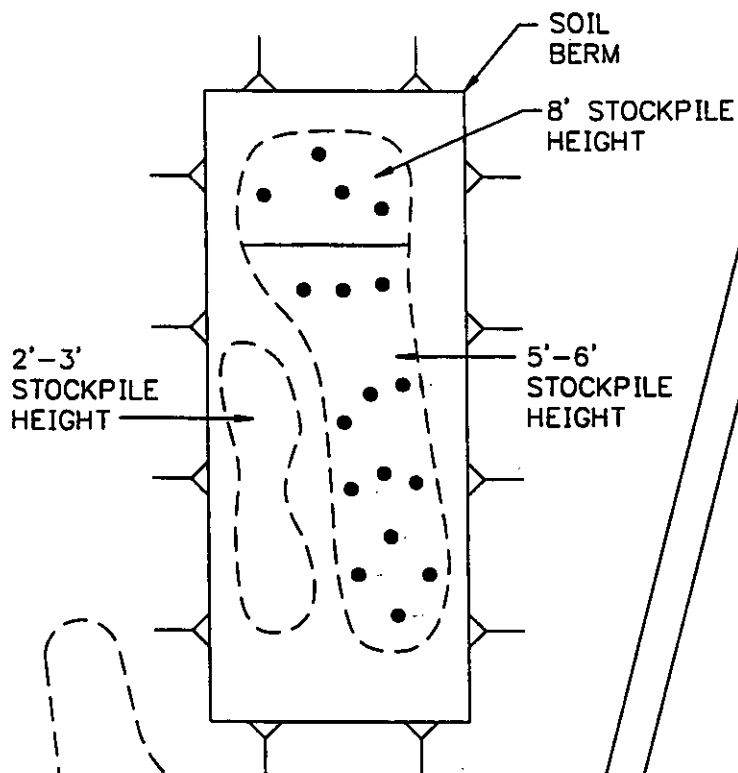
cc: Evan K. Swingholm

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**JOE HOBBS
OFFICE**

APPROX. SCALE: 1"=25'

E N T R I X

**Figure 1
Site Plot Plan
Crude Oil Release
Hobbs, New Mexico
ARCO Pipeline Company**

PROJ. NO: 143545 | CK: | DATE: 8/94

Laboratory Quality Control

Our laboratory employs quality control (QC) measures and components to ensure the quality of analytical data by defining its accuracy and precision. Presentation of the QC data with a report allows the data user the opportunity to evaluate the results and as well as gauge the performance of the laboratory with the methods performed. In order to assist understanding these data, routine components of our QC program which are included in this report are defined below:

Batch - A batch is a group of 20 or less samples of a given matrix for analysis by a specific protocol or analytical method.

Blank - A method blank is a "clean" laboratory sample carried through the entire analytical process. A method blank is prepared with each batch of samples. The analysis of method blanks demonstrates that method interferences caused by contaminants in solvents, reagents and glassware are known and minimized. A method blank should not contain any analytes of interest above the reported detection limit. There are, however, method allowances made for common laboratory artifacts such as methylene chloride, acetone and phthalates.

Laboratory Control Spike - A laboratory control spike (LCS or blank spike) is a blank sample which is spiked with known concentrations of target analytes that is carried through the entire analytical process. An LCS is prepared with every batch of samples. The percent recovery of the spiked analytes provides a measure of the accuracy of the analytical process in the absence of matrix effects.

Matrix Spike - A matrix spike (MS) is a field sample which is spiked with known concentrations of target analytes that is carried through the entire analytical process. A MS is prepared with every batch of samples. For organics analysis, a matrix spike duplicate (MSD) is also prepared. The percent recovery of the spiked analytes provides a measure of the accuracy of the analytical process in the selected sample/matrix.

Duplicate - A duplicate is a sample for which replicate aliquots are carried through the entire analytical process. Comparison of the original sample results to those of the duplicate provides a measure of the precision of the analytical process in the selected sample. By convention, precision is demonstrated for inorganic and conventional water quality analyses using a sample and a sample duplicate, whereas an MS and MSD are used for organic analyses.

Surrogate - A surrogate is a non-target analyte which is added to all samples and QC samples (prior to extraction, if required). The percent recovery of the surrogate provides a measure of the accuracy of the analytical process in each sample tested. In general, surrogates are required only for organic analyses.

QC limits - QC limits specify a numerical range within which the percent recovery of a spiked compound can be expected to fall. QC limits are set either by specific method requirements or derived from internal evaluation of laboratory performance data. For many methods these limits are advisory and do not require corrective action if exceeded.

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PACE Incorporated
Sample Cross Reference Report

Episode: SYQ

Project: PROJECT #143545/ARCO-HOBBS

Client: ARCO Pipe Line Company

Site: HOBBS

<u>Lab ID</u>	<u>Client ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
SYQ-001	SS#1	Soil	08/01/94	08/02/94
SYQ-002	SS#2	Soil	08/01/94	08/02/94
SYQ-003	TRIP BLANK	Water	08/01/94	08/02/94

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Narrative

Methylene chloride is a common laboratory solvent; its presence may be considered a laboratory artifact.

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**JOHN HODGES
OFFICE**

Analytical Results - TCLP Volatile Organics by Method 8240
ARCO Pipe Line Company

Client ID: SS#1
Description: NA
Sample ID: SYQ-001
Matrix: Soil
Wet/Dry Basis: NA

Collected: 08/01/94
Received: 08/02/94
Leached & Prepared: 08/04,05/94
Analyzed: 08/05/94
Percent Moisture: NA

		Concentration, ug/l (ppb)				
<u>CAS No.</u>	<u>P a r a m e t e r</u>	<u>(A2)</u> <u>Sample</u>	<u>TCLP</u> <u>Blank</u>	<u>Lab</u> <u>Blank</u>	<u>Detection</u> <u>Limit</u>	<u>Regulatory</u> <u>Level</u>
71-43-2	Benzene	90.1	ND	ND	50.0	500

ND-Not Detected at or above the detection limit stated.

(A2) The sample was analyzed at a 1:2 dilution due to the presence of matrix interferences.
The detection limit has been adjusted for the dilution.

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JOE HODGES
OFFICE

Analytical Results - Volatile Organics by Method 8240
ARCO Pipe Line Company

Client ID: TRIP BLANK
 Description: NA
 Sample ID: SYQ-003
 Matrix: Water
 Wet/Dry Basis: NA

Collected: 08/01/94
 Received: 08/02/94
 Prepared: 08/03/94
 Analyzed: 08/03/94
 Percent Moisture: NA

CAS No.	Parameter	Concentration, ug/l (ppb)		Detection Limit
		Sample	Blank	
67-64-1	Acetone	ND	ND	10.0
71-43-2	Benzene	ND	ND	5.0
75-27-4	Bromodichloromethane	ND	ND	5.0
75-25-2	Bromoform	ND	ND	5.0
74-83-9	Bromomethane	ND	ND	10.0
78-93-3	2-Butanone	ND	ND	10.0
75-15-0	Carbon Disulfide	ND	ND	5.0
56-23-5	Carbon Tetrachloride	ND	ND	5.0
108-90-7	Chlorobenzene	ND	ND	5.0
75-00-3	Chloroethane	ND	ND	10.0
67-66-3	Chloroform	ND	ND	5.0
74-87-3	Chloromethane	ND	ND	10.0
124-48-1	Dibromochloromethane	ND	ND	5.0
75-34-3	1,1-Dichloroethane	ND	ND	5.0
107-06-2	1,2-Dichloroethane	ND	ND	5.0
75-35-4	1,1-Dichloroethene	ND	ND	5.0
540-59-0	1,2-Dichloroethene (total)	ND	ND	5.0
78-87-5	1,2-Dichloropropane	ND	ND	5.0
10061-01-5	cis-1,3-Dichloropropene	ND	ND	5.0
10061-02-6	trans-1,3-Dichloropropene	ND	ND	5.0
100-41-4	Ethylbenzene	ND	ND	5.0
591-78-6	2-Hexanone	ND	ND	10.0
75-09-2	(*) Methylene Chloride	11.1	ND	5.0
108-10-1	4-Methyl-2-Pentanone	ND	ND	10.0

ND-Not Detected at or above the detection limit stated.

(*) See Narrative

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Analytical Results - Volatile Organics by Method 8240
ARCO Pipe Line Company

Client ID: TRIP BLANK
Description: NA
Sample ID: SYQ-003
Matrix: Water
Wet/Dry Basis: NA

Collected: 08/01/94
Received: 08/02/94
Prepared: 08/03/94
Analyzed: 08/03/94
Percent Moisture: NA

CAS No.	P a r a m e t e r	Concentration, ug/l (ppb)		Detection
		Sample	Blank	Limit
100-42-5	Styrene	ND	ND	5.0
79-34-5	1,1,2,2-Tetrachloroethane	ND	ND	5.0
127-18-4	Tetrachloroethene	ND	ND	5.0
108-88-3	Toluene	ND	ND	5.0
71-55-6	1,1,1-Trichloroethane	ND	ND	5.0
79-00-5	1,1,2-Trichloroethane	ND	ND	5.0
79-01-6	Trichloroethene	ND	ND	5.0
108-05-4	Vinyl Acetate	ND	ND	10.0
75-01-4	Vinyl Chloride	ND	ND	10.0
1330-20-7	Xylene (total)	ND	ND	5.0

ND-Not Detected at or above the detection limit stated.

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Analytical Results - TPH-IR by Method 418.1/503 D&E
ARCO Pipe Line Company

Client ID: SS#1
Description: NA
ETC/Gulf South ID: SYQ-001
Matrix: Soil
Wet/Dry Basis: NA

Collected: 08/01/94
Received: 08/02/94
Prepared: 08/03/94
Analyzed: 08/05/94
Percent Moisture: 5

CAS No.	Parameter	Concentration, mg/kg(ppm)		Detection Limit
		Sample	Blank	
NA	TPH-IR	33700(A1)	ND	50

Client ID: SS#2
Description: NA
ETC/Gulf South ID: SYQ-002
Matrix: Soil
Wet/Dry Basis: NA

Collected: 08/01/94
Received: 08/02/94
Prepared: 08/03/94
Analyzed: 08/05/94
Percent Moisture: 14

CAS No.	Parameter	Concentration, mg/kg(ppm)		Detection Limit
		Sample	Blank	
NA	TPH-IR	4430(Ala)	ND	50

ND-Not Detected at or above the detection limit stated.

(A1) The quantitation for this analyte was based upon a 1:20 dilution due to the analyte concentration exceeding the linear calibration range. The detection limit has not been adjusted for the dilution.

(Ala) The quantitation for this analyte was based upon a 1:4 dilution due to the analyte concentration exceeding the linear calibration range. The detection limit has not been adjusted for the dilution.

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QA/QC SUMMARY

TCLP VOLATILE ORGANICS

Batch #DT049

Volatile Blank and Matrix Spike Results

<u>Parameter</u>	<u>Spike Level</u>	<u>Units</u>	<u>Recovery (%)</u>			<u>EPA/CLP QC Limits</u>
			<u>Blank Spike</u>	<u>MS</u>	<u>MSD</u>	
Vinyl Chloride	200	ug/l	74	86	80	NA
1,1-Dichloroethene	200	ug/l	109	92	92	NA
Chloroform	200	ug/l	81	98	99	NA
1,2-Dichloroethane	200	ug/l	79	90	95	NA
2-Butanone	200	ug/l	66	78	87	NA
Carbon Tetrachloride	200	ug/l	82	97	99	NA
Trichloroethene	200	ug/l	102	95	96	NA
Benzene	200	ug/l	100	97	102	NA
Tetrachloroethene	200	ug/l	91	102	101	NA
Chlorobenzene	200	ug/l	102	92	98	NA

VOLATILE SURROGATE RECOVERY

<u>Sample No.</u>	<u>Toluene-d8</u>	<u>Bromofluorobenzene</u>	<u>1,2-Dichloroethane-d4</u>
Blank	108	104	96
TCLP Blank	98	103	93
SS#1	102	94	93
Blank Spike	103	101	91
MS	99	107	96
MSD	96	109	99
QC Limits	(88-110)	(86-115)	(76-114)

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QA/QC SUMMARY
VOLATILE ORGANICS

Batch #DW151

Volatile Blank and Matrix Spike Results

<u>Parameter</u>	<u>Spike Level</u>	<u>Units</u>	<u>Recovery (%)</u>			<u>EPA/CLP QC Limits</u>
			<u>Blank Spike</u>	<u>MS</u>	<u>MSD</u>	
1,1-Dichloroethene	50.0	ug/l	106	95	92	61-145
Trichloroethene	50.0	ug/l	109	100	93	71-120
Benzene	50.0	ug/l	109	105	98	76-127
Toluene	50.0	ug/l	108	96	92	76-125
Chlorobenzene	50.0	ug/l	108	100	96	75-130

VOLATILE SURROGATE RECOVERY

<u>Sample No.</u>	<u>Toluene-d8</u>	<u>Bromofluorobenzene</u>	<u>1,2-Dichloroethane-d4</u>
Blank	99	102	98
TRIP BLANK	97	100	92
Blank Spike	101	95	87
MS	97	106	95
MSD	96	106	99
QC Limits	(88-110)	(86-115)	(76-114)

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JULY 1994
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QA/QC SUMMARY

TOTAL PETROLEUM HYDROCARBONS - IR

SOIL

BATCH # THRS9423

<u>PARAMETER</u>	<u>Units</u>	Blank Spike <u>Level</u>	Matrix Spike <u>Level</u>	<u>Spike Recovery %</u>		
				Blank Spike	Matrix Spike	Matrix Spike Duplicate
TPH-IR (E3)	mg/kg	250	325	89/87	95	89

(E3) Blend of Hexadecane, Iso-octane and Chlorobenzene.

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Company Name: ENTRIX				Cost Center #	
ARCO Pipe Line Co.				Location #	
Project Number: 143545				Project Name: ARCO-HOBBS	
WO #				Contract #	
Sampled By: (Printed and Written Signature) JIM BAUTCH					
SAMPLE ID	DATE	TIME	S-Soil MATRIX W-Water	LOCATION	TOTAL NO. OF CONTAINERS
SS #1	8/1/94	12:40	S	STOCKPILE	8
SS #2	8/1/94	1:15	S	EXCAVATED AREA	4
TRIP BLANK	8/1/94	-	W		2
ANALYSIS					
TPH (EPA Method 410.1)					
TCLP BENZENE (Method 1311/8240)					
COMMENTS:					
- SOIL FILE - COMPOSITE					
- COMPOSITE					
REMARKS:					
Relinquished by: (Signature) [Signature] Date/Time 8/1/94 Received by: (Signature) Ed EX Date/Time					
Relinquished by: (Signature) Ed EX Date/Time 8/2/94 0920 Received for Laboratory by: (Signature) [Signature] Date/Time 8/2/94 0920					

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JCD HUBBS
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ETC/GULF SOUTH
6801 PRESS DRIVE, EAST BUILDING
NEW ORLEANS, LA 70126 (504) 283-4223