

3R - 98

**GENERAL
CORRESPONDENCE**

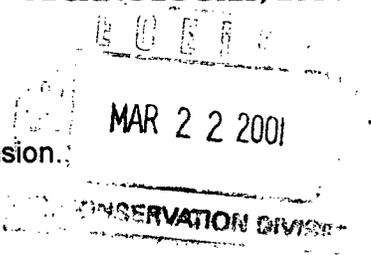
YEAR(S):
2001-1997

ON SITE

TECHNOLOGIES, LTD.

February 27, 2001

Mr. Bill Olson
New Mexico Oil Conservation Division,
2040 South Pacheco
Santa Fe, New Mexico 87505



RE: Conoco Groundwater Report Summary

On behalf of Conoco *On Site Technologies Limited Partnership*, is submitting the enclosed 2000 Annual Groundwater report for Ten (10) sites.

LOCATION NAME	LEGAL DESCRIPTION	RECOMMENDATION
Farmington B Com 1	Unit H, S 12, T29N, R12W	WSP-1 still has high BTEX, all other at or below NMWQCC standards, continue monitoring of WSP #1
Nell-Hall#1	Unit M, S 07, T30N, R11W	Continue to monitor as required in NMCOD letter dated September, 1998
Farmington C Com 1	Unit L, S 15, T29N, R13W	Continue to monitor as required in NMCOD letter dated September, 1998
Farmington B Com 1E	Unit O, S 15, T29N, R13W	Free product is still present in MW-1. Sampling stopped at this time IAW NMOCD direction, more aggressive recovery program being investigated.
Salmon # 1	Unit P, S 30, T29N, R11W	DG#2 still has high BTEX, Continue monitoring in accordance with NMOCD letter dated September, 1998.
San Juan 28-7#126	Unit M, S 1, T27N, R7W	Research is being done to complete and submit the Pit closure forms and final reports
San Juan 28-7#219	Unit N, S 20, T28N, R7W	Research is being done to complete and submit the Pit closure forms and final reports
S&K1	Unit L, S 29, T29N, R11W	Research is being done to complete and submit the Pit closure forms and final reports
San Juan 28-7#19	Unit G, S 25, T28N, R7W	research is being done to complete and submit the Pit closure forms and final reports
San Juan 28-7#47	Unit A, S 20, T28N, R7W	Research is being done to complete and submit the Pit closure forms and final reports
Farmington Com #1	Unit P, Sec 11, T29N, R13W	Monitoring wells and piezometer plug and abandoned IAW NMOCD Letter dated December 13, 2000
Shephard & Kelsey #1E	Unit D, Sec. 29, T29N, R11W	Monitoring wells plug and abandoned IAW NMOCD Letter dated December 14, 2000

PO Box 2606
Farmington, NM 87499

505-325-5667

FAX: 505-327-1496

Conoco Inc.
Summary of 1999 Ground Water Monitoring
On Site Technologies, Ltd.

February 27, 2001

If there are any questions or concerns on this matter, feel free to contact me at (505) 325-5667.

Thank you for your time and considerations.

Respectfully submitted,



Larry Trujillo, CHMM
Environmental Specialist
On Site Technologies Limited Partnership

CC:

Gary Ledbetter, SHEAR, Conoco Inc., 3315 Bloomfield HWY, Farmington, NM 87401
John Cofer, Sr. Environmental Specialist, Conoco Inc., 3315 Bloomfield HWY, Farmington, NM 874
Denny Foust, NMOCD 1000 Rio Brazos, Aztec, NM 87410
Bill Liess, BLM 1235 La Plata HWY, Farmington, NM 87401
File



February 14, 2000

Mr. Wm. "Bill" Olsen, Hydrologist
 NMOCD
 P. O. Box 2088
 Santa Fe, NM, 87504 - 2088

RE: Conoco Groundwater Report Summary

On behalf of Conoco *On Site Technologies Limited Partnership*, is submitting the enclosed 1999 Annual Groundwater report for twelve (12) sites.

LOCATION NAME	LEGAL DESCRIPTION	RECOMMENDATION
Farmington B Com 1	Unit H, S 12, T29N, R12W	WSP-1 still has high BTEX, all other at or below NMWQCC standards, continue monitoring of WSP #1
San Juan 28-7#19	Unit G, S 25, T28N, R7W	Sample well in March, 2000, if below NMWQCC standard, discontinue sampling and complete pit closure report.
San Juan 28-7#47	Unit A, S 20, T28N, R7W	Sample well in March, 2000, if below NMWQCC standard, discontinue sampling and complete pit closure report.
Nell-Hall#1	Unit M, S 07, T30N, R11W	Continue to monitor as required in NMCOD letter dated September, 1998
Farmington C Com 1	Unit L, S 15, T29N, R13W	Continue to monitor as required in NMCOD letter dated September, 1998
Farmington B Com 1E	Unit O, S 15, T29N, R13W	Free product is still present in MW-1. ORC socks are saturated and appear to have become ineffective (refer to enclosed report).
Salmon # 1	Unit P, S 30, T29N, R11W	DG#2 still has high BTEX, Continue monitoring in accordance with NMOCD letter dated September, 1998, ASTs installed on the location by the landowner (refer to enclosed report) up gradient of DG#2.
San Juan 28-7#126	Unit M, S 1, T27N, R7W	4 quarters of sampling below NMWQCC standards, recommend closure, pit closure report enclosed.
San Juan 28-7#219	Unit N, S 20, T28N, R7W	4 quarters of sampling below NMWQCC standards, recommend closure, pit closure report enclosed.
S&K1	Unit L, S 29, T29N, R11W	4 quarters of sampling below NMWQCC standards recommend closure, pit closure report enclosed.
Farmington Com 1	Unit P, S 11, T29N, R13W	4 quarters of sampling below NMWQCC standards recommend closure, pit closure report enclosed.
S&K1E	Unit D, S 29, T29N, R11W	4 quarters of sampling below OCD action levels recommend closure, pit closure report enclosed.

PO Box 2606
 Farmington, NM

505-325-5667

FAX: 505-327-1496

Conoco Inc.
Summary of 1999 Ground Water Monitoring
On Site Technologies, Ltd.

February 14, 2000

If there are any questions or concerns on this matter, feel free to contact me at (505) 325-5667.

Thank you for your time and considerations.

Respectfully submitted,



Larry Trujillo, CHMM
Environmental Specialist
On Site Technologies Limited Partnership

CC:
Shirley Ebert, SHEAR, Conoco Inc., Farmington Office
Neal Goates, Sr. Environmental Specialist, Conoco Inc.
Denny Foust, NMOCD Aztec Office
Bill Liess, BLM Farmington Office
File



NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

September 28, 1999

Ms. Shirley Ebert
Conoco, Inc.
10 Desta Dr., Suite 100W
Midland, Texas 79705-4500

RE: FINAL SAN JUAN BASIN PIT CLOSURE REPORTS

Dear Ms. Ebert:

The New Mexico Oil Conservation Division (OCD) has reviewed Conoco's August 9, 1999 "CONOCO GROUNDWATER REPORT SUMMARY" which was received by the OCD on September 11, 1999. This document which was submitted on behalf of Conoco by their consultant On Site Technologies, Ltd. requests the status of approval of the corrective actions at a number of pit sites in the San Juan Basin.

A review of the case files on these sites shows there have been recommendations from On Site Technologies to Conoco that Conoco seek closure of the remedial actions at some of the sites. However, the OCD has no record of receiving any closure requests from Conoco. If Conoco wishes to seek closure of the pits at these sites, Conoco will need to submit a completed OCD "Pit Remediation and Closure Report" form for each site. The report should include the results of all soil and ground water remediation actions and information on the current operator of the site.

If you have any questions, please call me at (505) 827-7154.

Sincerely,

William C. Olson
Hydrologist
Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Larry Trujillo, On Site Technologies, Ltd.

ON SITE
TECHNOLOGIES, LTD.

RECEIVED

SEP - 1999

August 9, 1999

Mr. Wm. "Bill" Olsen, Hydrologist
NMOCD

2040 S. PACHECO ST
Santa Fe, NM, 87505

RE: Conoco Groundwater Report Summary

On behalf of Conoco Inc., *On Site Technologies Limited Partnership* requests a status of approval for the corrective actions on the following list of well locations.

RECOMMEND	CONTINUED	MONITORING
Farmington B Com 1	Unit H, S 12, T29N, R12W	WSP-1 still has high BTEX, all other at or below NMWQCC standards, continue monitoring of WSP #1
San Juan 28-7#19	Unit G, S 25, T28N, R7W	Continue monitoring, BTEX levels still above NMWQCC standards
San Juan 28-7#47	Unit A, S 20, T28N, R7W	Continue monitoring, BTEX levels still above NMWQCC standards
Nell-Hall#1	Unit M, S 07, T30N, R11W	Continue to monitor as required in NMCOD letter dated September, 1998
Farmington C Com 1	Unit L, S 15, T29N, R13W	Continue to monitor as required in NMCOD letter dated September, 1998
Farmington B Com 1E	Unit O, S 15, T29N, R13W	Continue to monitor as required in NMCOD letter dated September, 1998
Salmon # 1	Unit P, S 30, T29N, R11W	DG#2 still has high BTEX, Continue monitoring in accordance with NMOCD letter dated September, 1998
RECOMMEND	CLOSURE	
San Juan 28-7#126	Unit M, S 1, T27N, R7W	4 quarters of sampling below NMWQCC standards, recommend closure
San Juan 28-7#219	Unit N, S 20, T28N, R7W	4 quarters of sampling below NMWQCC standards, recommend closure
S&K1	Unit L, S 29, T29N, R11W	4 quarters of sampling below NMWQCC standards recommend closure.
Farmington Com 1	Unit P, S 11, T29N, R13W	Contamination level in MW 1 below OCD action levels for the last four quarters, MW2 and MW3 historically have not had any contamination above NMWQCC standards. Recommend closure of the location.
S&K1E	Unit D, S 29, T29N, R11W	4 quarters of sampling below OCD action levels recommend closure.

PO Box 2606
Farmington, NM

505-325-5667

FAX: 505-327-1496

August 9, 1998

Recommendations listed above were included in the 1997 and 1998 Conoco Annual Ground Water Reports. Please advise *On Site* and Conoco of NMOCD's approval, as we are only scheduling the sites requiring continued monitoring.

If there are any questions or concerns on this matter, feel free to contact me at (505) 325-5667.

Thank you for your time and considerations.

Respectfully submitted,



Larry Trujillo CHMM
Senior Environmental Technician
On Site Technologies Limited Partnership

CC:

Shirley Ebert, SHEAR, Conoco Inc., Farmington Office
Neal Goates, Sr. Environmental Specialist, Conoco Inc.



RECEIVED

FEB 19 1999

Letter of Transmittal

ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

ATTENTION:

DATE: February 17, 1999

Mr. Bill Olson
New Mexico Oil Conservation Division.
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Conoco's 1998 Annual Groundwater Report

Dear Mr. Olson:
On behalf of Conoco *On Site Technologies Limited Partnership*, is submitting the enclosed 1998 Annual Groundwater report for ten (10) sites.

Number of Originals	Description
1	Shephard & Kelsey #1E Unit D, Sec. 29, T29N, R11W
1	Shephard & Kelsey #1 Unit L, Sec. 29, T29N, R11W
1	Salmon #1 Unit P, Sec. 30, T29N, R7W
1	Nell-Hall #1 Unit, M, Sec 7, T30N, R11W
1	San Juan 28-7-19 Unit G, Sec. 25, T28N, R7W
1	San Juan 28-7-47 Unit A, Sec. 20, T28N, R7W
1	Farmington Com #1 Unit P, Sec 11, T29N, R13W
1	Farmington B Com #1 Unit H, T29N R13W
1	Farmington C Com 1 Unit L, Sec. 15, T29N, R13W
1	Farmington B Com 1E Unit O, Sec 15, T29, R13W

Thank you,

Larry Trujillo
Sr. Environmental Technician

CC:
Shirley Ebert
Neal Goates
Denny Foust
File

PO Box 2606
Farmington, NM

505-325-5667

FAX: 505-327-1496

Ms. Shirley Ebert
June 5, 1998
Page 2

3. Some of the report site maps do not show the former locations of the pits, the excavated areas nor the locations of all monitor wells (former and current) . The OCD requires that Conoco include this information in future reports.
4. Some of the reports do not contain quarterly ground water potentiometric maps. The OCD requires that Conoco's future reports include ground water potentiometric maps for each sampling event. The maps will be created using the water table elevation in all site monitor wells.
5. Some of the report summary tables do not contain the results of all past water quality sampling. It is difficult for the OCD to evaluate remedial progress at a site without this data. The OCD requires that Conoco's future reports include summary tables that contain the results of all past and present water quality sampling.

If you have any questions, please call me at (505) 827-7154.

Sincerely,


William C. Olson
Hydrologist
Environmental Bureau

xc: Denny Foust, OCD Aztec District Office
Larry Trujillo, On Site Technologies, Ltd.

RECEIVED

FEB 27 1998

Environmental & O&G
Oil Conservation Division

Letter of Transmittal

ATTENTION:

DATE: February 4, 1998

Mr. Bill Olson
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Conoco's 1997 Annual Groundwater Report.

REMARKS:

Dear Mr. Olson:

On behalf of Conoco, *On Site Technologies Limited Partnership*, is submitting the enclosed 1997 Annual Groundwater report for the twelve (12) sites

We are sending you:

No. Originals	No. Copies	Description
1		Farmington B Com 1, Unit H, Sec. 12, T29N, R12W
1		San Juan 28-7-19, Unit G, Sec. 25, T28N, R7W
1		San Juan 28-7-47, Unit A, Sec.20, T28N, R7W
1		San Juan 28-7-126, Unit M, Sec.1, T27N, R7W
1		San Juan 28-7-219, Unit N, Sec. 20, T28N, R7W
1		Shephard & Kelsey #1, Unit L, Sec. 29, T29N, R11W
1		Nell-Hall #1, Unit , Sec. 1, T30N, R11W
1		Farmington Com #1, Unit P, Sec. 11, T29N, R13W
1		Farmington C Com #1, Unit L, Sec. 15, T29N, R13W
1		Farmington B Com #1E, Unit O, Sec. 15, T29N, R13W
1		Salmon #1, Unit P Sec. 30, T29N, R11W
1		Shephard & Kelsey 1E, Unit D, Sec. 29, T29W, R11W

SIGNATURE:



Larry Trujillo
Sr. Environmental Technician

cc:

Denny Foust
Shirley Ebert
Neal Goates



RECEIVED

C. John Coy
SHEAR Specialist
Exploration, Production &
Natural Gas, North America

AUG 28 1997

Environmental Bureau
Oil Conservation Division

Conoco Inc.
3315 Bloomfield Hwy.
Farmington, NM 87401
Bus. (505) 324-5813
Fax (505) 324-5825

August 22, 1997

New Mexico Oil Conservation Division
Attn.: Mr. William C. Olson
2040 S. Pacheco
Santa Fe, New Mexico 87505

8/29/97 1500 hrs.
Verbal approval given to
John Coy voice mail
William Olson

RE: NMOCD Letter Dated July 28, 1997 Regarding Conoco's Annual Pit
Closure Summary and Ground Water Impacts

Dear Mr. Olson:

In response to and acknowledgement of the referenced letter, we offer the
following item by item discussion and progress report.

1. General Conditions
 - a. Ground water sampling conducted after August 10, 1997 will include analysis for cations/anions and RCRA metals from the well at the source on each location. If a sheen is noted, the water will also be analyzed for Polynuclear Aromatic Hydrocarbons (PAH). If the well at the source exhibits results above regulatory limits, additional wells at the location as well as future sampling events will be analyzed for those parameters. The results of these analyses will be included in subsequent annual reports.
 - b. A comprehensive ground water remediation plan and long term ground water monitoring plan will be submitted to NMOCD as required by October 10, 1997.
 - c. Future annual ground water reports will be submitted to NMOCD by March 1 of each year. Each site will be treated as a separate case and information presented will include:
 - i. A summary of ground water remediation and monitoring activities for the prior calendar year.
 - ii. A summary table of all past and present ground water quality analytical results with copies of laboratory analytical results for samples taken during the prior calendar year.
 - iii. An updated site map showing the locations of relevant features (i.e. well head, pits, former pits, monitor wells, etc.)
 - iv. A quarterly ground water potentiometric map.
 - v. A geologic log and well completion diagram for each monitor well.

2. Status report of remedial actions for the Farmington Com #1, Farmington C Com #1, and Farmington B Com #1E; ground water remediation work plan for the Farmington B Com #1:

Conoco, Inc. has contracted with On Site Technologies Limited of Farmington, NM to determine a scope of work, solicit bids, procure and supervise a qualified excavation and hauling subcontractor to remove the impacted soils delineated in the April, 1997 Investigation Reports for each site. However, On Site has experienced considerable difficulty obtaining responses from contractors due to the intense level of activity in the San Juan Basin. Two bids have now been received and a contractor, Consolidated Constructors, selected based on both price and timely availability of equipment. Even so, due to prior commitments, that contractor cannot mobilize until after August 29, 1997. On Site plans to commence work on the Farmington C Com #1 and then the Farmington B Com #1E as soon as the contractor's schedule permits pending access permission from an adjacent landowner outside the C Com #1 location fence.

In addition to the difficulty of obtaining a contractor, we are aware that Merrion Oil, the current operator of these locations, has requested an extension until November, 1997 on the Farmington Com #1 based on a substantial risk to the public due to the proximity of the location to a City-owned public park and recreation area.

For the reasons given above, we request that an extension be granted for the soils remediation at the Farmington C Com #1, and Farmington B Com #1E until September 30, 1997 and at the Farmington Com #1 until the November date requested by Merrion Oil.

Furthermore, on the Farmington B Com #1 where the soil remediation has been completed, another ground water sample event is due in mid-September. We believe that the information from that event will be very helpful in developing an effective ground water remediation plan for the B Com #1. Additionally, the analyses specified in Item 1.a. have not been performed at this location and will be run on the September samples.

Regarding ground water remediation work plans, we request that extensions be granted for each site as noted below:

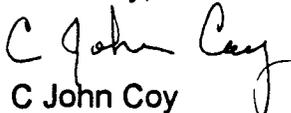
Farmington Com #1	November 30, 1997
Farmington C Com #1	October 10, 1997
Farmington B Com #1E	October 10, 1997
Farmington B Com #1	October 10, 1997

3. Status of the Sheperd & Kelsey #1E (Separator pit)

On August 19, 1997, On Site Technologies advanced four test holes, using a direct-punch probing system, in the area of the separator pit at the Shepard & Kelsey #1E for the purpose of determining the extent of ground water contamination. Soil samples were taken at the soil/water interface at approximately five feet below ground surface. Field headspace results for those samples ranged from 0.0 to 5.9 units. Cobbles were encountered at eight to ten feet below surface. Monitoring wells were installed in the two test holes with the highest headspace readings of 2.9 and 5.9 units. The wells were then developed and, the next day, sampled. The existing monitor well (MW 1) in the pit proper was also purged, tested for pH and conductivity, and sampled. MW 1 is being analyzed for BTEX, API Water suite, Total RCRA Metals, and Polynuclear Aromatic Hydrocarbons. Samples from MW 2 and MW 3, the new wells, are being analyzed for BTEX only as directed. A report delineating the extent of ground water contamination at this location will be prepared upon receipt of laboratory analytical results.

We hope that the information above meets with your approval and adequately addresses the requirements delineated in your letter of July 28, 1997. We will keep you and Mr. Denny Foust of your Aztec office advised of our progress on the Farmington locations. If you have any questions or need further information, please contact me at (505) 324-5813.

Sincerely,



C John Coy
Field SHEAR Specialist
CONOCO, Inc.

CJC/csg

xc: Neil Goates, Conoco, Inc.
Denny Foust, OCD Aztec District Office
Bill Liess, BLM Farmington District Office
Myke Lane, Cindy Gray, On Site Technologies

file: CONOCOC.D.net



ANNUAL SUMMARY
PIT CLOSURES
AND
GROUND WATER IMPACT UPDATES
STATE OF NEW MEXICO
1996

RECEIVED

MAY 20 1997

Environmental Bureau
Oil Conservation Division

*Each site
filed under
case files separate*



Midland Division
Exploration Production

Conoco Inc.
10 Desta Drive, Suite 100W
Midland, TX 79705-4500
(915) 686-5400

Certified Mail
P 895 104 872

April 25, 1997

Mr. Denny Fouts
New Mexico Oil Conservation Commission
1000 Rio Brazos Rd.
Aztec, NM 87410

Dear Mr. Fouts:

Re: NMOCD letters P-471-215-177, P-471-215-178
and P-471-215-179

Reference NMOCD letters of February 18, 1997 (P-471-215-177 and P-471-215-178) directed to Conoco Inc. and NMOCD letter of February 18, 1997 (P-471-215-179) directed to Merrion Oil and Gas Corporation.

This letter is intended to update NMOCD on the progress made to date to evaluate the alleged environmental contamination identified in the subject NMOCD letters. Evaluation work was timely commenced at all sites under Conoco's supervision. Initial results are being documented and evaluated. Where appropriate, possible remediation plans are being considered. As you are aware, ownership of the sites have changed hands several times, and we are in the process of developing proposed plans consistent with the contractual obligations of the successive owners. As soon as reasonably possible, NMOCD will be advised of proposed remediation plans where appropriate, to resolve the environmental matters addressed in the subject NMOCD letters.

Regards,

Carl J. Coy
Field SHEAR Specialist

cc: Merrion
Mesa
Bill Olson - NMOCD Santa Fe

Table of Contents

1	1996 PIT CLOSURE SUMMARY DATA
2	FARMINGTON COM #1
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6	SHEPHERD & KELSEY #1
7	SHEPHERD & KELSEY #1E (DEHY/SEP PIT) PRODUCTION TANK LEAK
8	FARMINGTON B COM #1
9	FEDERAL COM #15
10	SALMON #1
11	NELL HALL #1
12	SAN JUAN 28-7 #19
13	SAN JUAN 28-7 #47
14	SAN JUAN 28-7 #126
15	SAN JUAN 28-7 #219



Revised: May 15, 1997

Conoco, Inc., Midland Division
Exploration and Production, North America
10 Desta Drive, Suite 100W
Midland, Texas 79705-4500

Attn.: Mr. Neal Goates, Senior Environmental Specialist

RE: Transmittal of Information for 1996 Annual NMOCD Reporting

Per your request and at Mr. C. John Coy's (Farmington Office) direction, we have compiled the attached information to assist you with the annual reporting to NMOCD. The information listed in Table 1 is included.

If there are any questions regarding this status report, please contact either Cindy Gray or Myke Lane at On Site Technologies, (505) 325-5667. Thank you for considering On Site to assist you with this matter.

Respectfully submitted,
On Site Technologies Limited Partnership

A handwritten signature in black ink, appearing to read "Michael K. Lane", is written over a horizontal line.

Michael K. Lane, P.E.
Senior Engineer

Enclosures: Table 1 & Listed Attachments

CC: C. John Coy (w/o attachments)
MKL/mkl

file: 41303.doc

TABLE 1: CONCLUSO SUMMARY
Transmittal of Information for 1996 Annual NMOCD Reporting

On Site Technologies Limited Partnership
 May 15, 1997

Project: 4-1303

Well	Date	Documents	Comments
Farmington Com #1	Apr. 18, 97	Site Assessment Brief w/ lab and QA/QC	Corrective Action to address soil and/or ground water contamination pending negotiations with former lease operator.
Farmington C Com #1	Apr. 22, 97	Site Assessment Brief w/ lab and QA/QC	Corrective Action to address soil and/or ground water contamination pending negotiations with former lease operator.
Farmington B Com #1E	Apr. 22, 97	Site Assessment Brief w/ lab and QA/QC	Corrective Action to address soil and/or ground water contamination pending negotiations with former lease operator.
Smith #1 & Drip Pit	Apr. 22, 97	Site Assessment Brief w/ lab and QA/QC	Corrective Action to address soil and/or ground water contamination pending negotiations with former lease operator.
Shepherd & Kelsey #1	Mar. 21, 97 July 18, 96 Mar. 20, 97	Summary of Monitor Well Install & Map Sample Results w/ QA/QC (IML) Sample Results w/ QA/QC (On Site)	Continue ground water monitoring for 3 additional quarters to verify RBCA.
Shepherd & Kelsey #1E (Dehy/Sep Pit)	Apr. 16, 97	Pit Assessment & Remediation Summary w/ lab and QA/QC	No further reclamation efforts recommended, and propose continued ground water monitoring until four consecutive sample events are "clean".
Shepherd & Kelsey #1E (Production Tank Spill)	Apr. 28, 97	Spill Assessment & Remediation Summary w/ lab and QA/QC	No further corrective action, with plug and abandonment of monitor well proposed.
Farmington B Com #1	Apr. 16, 97	Investigation & Remediation Summary w/ lab and QA/QC	No further reclamation efforts recommended, and propose continued ground water monitoring until four consecutive sample events are "clean".
Federal Com #15	Apr. 28, 97	Site Assessment Summary	No further action.
Salmon #1	May 12, 97 July 17, 96 Mar. 18, 96 Mar. 26, 97	Corrective Action Proposal (On Site) Lab Reports & QA/QC (IML) Lab Reports & QA/QC (On Site) Lab Reports & QA/QC (On Site)	Additional excavation and treatment of contaminated soil down-gradient of original pit proposed.

**TABLE 1: CONOCO SUMMARY
Transmittal of Information for 1996 Annual NMOCD Reporting**

On Site Technologies Limited Partnership
May 15, 1997

Project: 4-1303

Well	Date	Documents	Comments
Neil Hall #1	June 14, 97	Lab Reports & QA/QC (IML)	Due to seasonal low water table, propose annual sampling to be scheduled in June to Aug. with closure once two consecutive sample events show "clean".
	June 28, 96	Lab Reports & QA/QC (IML)	
	July 12, 96	Lab Reports & QA/QC (IML)	
	Apr. 1, 97	Letter regarding no water (On Site)	
SJ 28-7 #19	Mar. 12, 96	Lab Reports & QA/QC (IML)	Continue ground water monitoring for four additional quarters.
	July 17, 96	Lab Reports & QA/QC (IML)	
	Mar. 19, 97	Lab Reports & QA/QC (On Site)	
	Apr. 21, 97	Lab Reports & QA/QC (On Site)	
SJ 28-7 #47	Mar. 12, 96	Lab Reports & QA/QC (IML)	Continue ground water monitoring for four additional quarters.
	Apr. 15, 96	Lab Reports & QA/QC (IML)	
	July 17, 96	Lab Reports & QA/QC (IML)	
	Mar. 19, 97	Lab Reports & QA/QC (On Site)	
SJ 28-7 #126	Apr. 21, 97	Lab Reports & QA/QC (On Site)	Continue ground water monitoring for an additional quarter.
	Mar. 12, 96	Lab Reports & QA/QC (IML)	
	July 17, 96	Lab Reports & QA/QC (IML)	
	Mar. 26, 97	Lab Reports & QA/QC (On Site)	
SJ 28-7 #219	Mar. 12, 96	Lab Reports & QA/QC (IML)	Continue ground water monitoring for two additional quarters.
	July 17, 96	Lab Reports & QA/QC (IML)	
	Mar. 26, 97	Lab Reports & QA/QC (On Site)	

'NEW MEXICO PIT DATA
'CONOCO INC.

TYPES OF PITS

SEP: Separator Pit BDP: Blowdown Pit
 DHP: Dehydrator Pit FGP: Fiberglass Tank Pit
 CSP: Compressor Scrubber Pit LDHP: Lined Dehy Pit
 TDP: Tank Drip Pit DRP: Drilling Reserve Pit
 LDP: Line Drip Pit NONE: No Pits

#	WELL NAME AND NUMBER	FEDERAL, STATE INDIAN CONTRACT NO. OR FEE	LOCATION	TYPES OF PITS	PIT SIZE	VULN. AREA	EXPANDED VULN. AREA	NON-VULN. AREA	OTHER PARTY PIT	DATE STOPPED FLOW TO PIT	DATE PIT REMEDIATION STARTED	DATE PIT CLOSED
SENSITIVE AREA PITS - JICARILLA												
1	Apache No. 1	Contract #98	Unit D, Sec. 18-26N-3W	SEP	30' x 24' x 4'		X			Unknown		05/06/96
2	Apache No. 3E	Contract #98	Unit H, Sec. 19-26N-3W	TDP	18' x 17' x 3'		X			Unknown		04/25/96
3	Apache No. 7	Contract #98	Unit D, Sec. 20-26N-3W	SEP	44' x 30' x 6'		X			Unknown		04/25/96
4	AXI Apache J No. 22	Contract #147	Unit L, Sec. 6-25N-5W	SEP	37' x 36' x 3'		X			09/10/96		09/30/96
5	AXI Apache N No. 14	Contract #121	Unit C, Sec. 1-25N-4W	SEP	19' x 19' x 4'		X			03/27/96		04/15/96
6	AXI Apache N No. 16A	Contract #121	Unit C, Sec. 12-25N-4W	DHP	18' x 18' x 3'		X			03/18/96		03/26/96
7	Jicarilla No. 3	Contract #12	Unit D, Sec. 31-26N-4W	TDP	28' x 22' x 4'		X			Unknown		08/05/96
8	Jicarilla No. 4	Contract #12	Unit L, Sec. 31-26N-4W	TDP	10' x 8' x 3'		X			Unknown		08/05/96
9	Jicarilla No. 8	Contract #12	Unit L, Sec. 32-26N-4W	SEP	35' x 27' x 4'		X			Unknown		08/15/96
10	Jicarilla No. 11	Contract #12	Unit G, Sec. 30-26N-4W	SEP	21' x 20' x 4'		X			Unknown		08/15/96
11	Jicarilla No. 11	Contract #12	Unit G, Sec. 30-26N-4W	TDP	22' x 22' x 4'		X			Unknown		08/15/96
12	Jicarilla No. 13	Contract #12	Unit G, Sec. 31-26N-4W	TDP	18' x 16' x 4'		X			Unknown		08/05/96
13	Jicarilla No. 14	Contract #12	Unit P, Sec. 31-26N-4W	SEP	19' x 18' x 3'		X			Unknown		08/07/96
14	Jicarilla No. 14	Contract #12	Unit P, Sec. 31-26N-4W	TDP	18' x 17' x 4'		X			Unknown		08/15/96
15	Jicarilla No. 17	Contract #12	Unit B, Sec. 32-26N-4W	SEP	17' x 16' x 4'		X			Unknown		08/15/96
16	Jicarilla No. 17	Contract #12	Unit B, Sec. 32-26N-4W	TDP	19' x 17' x 4'		X			Unknown		08/15/96
17	Jicarilla No. 18	Contract #12	Unit I, Sec. 32-26N-4W	SEP	28' x 22' x 4'		X			Unknown		08/15/96
18	Jicarilla No. 18	Contract #12	Unit I, Sec. 32-26N-4W	TDP	25' x 25' x 4'		X			Unknown		08/15/96
19	Jicarilla A No. 8	Contract #105	Unit D, Sec. 23-26N-4W	SEP	20' x 20' x 3'		X			Unknown		07/25/96
20	Jicarilla A No. 9	Contract #105	Unit C, Sec. 14-26N-4W	TDP	10' x 10' x 5'		X			05/15/96		05/22/96
21	Jicarilla A No. 10	Contract #105	Unit D, Sec. 23-26N-4W	SEP	16' x 16' x 4'		X			06/11/96		06/26/96
22	Jicarilla A No. 13	Contract #105	Unit E, Sec. 13-26N-4W	TDP	16' x 16' x 4'		X			05/08/96		05/15/96
23	Jicarilla B No. 2	Contract #106	Unit K, Sec. 25-26N-4W	BDP	15' x 25' x 3'		X			Unknown		07/25/96
24	Jicarilla B No. 8	Contract #106	Unit K, Sec. 25-26N-4W	SEP	10' x 15' x 3'		X			06/06/96		06/26/96
25	Jicarilla B No. 9	Contract #106	Unit K, Sec. 26-26N-4W	SEP	15' x 15' x 2'		X			05/22/96		05/31/96
26	Jicarilla B No. 9A	Contract #106	Unit D, Sec. 26-26N-4W	SEP	18' x 18' x 3'		X			06/10/96		08/15/96
27	Jicarilla B No. 13	Contract #106	Unit M, Sec. 36-26N-4W	SEP	16' x 18' x 4'		X			03/27/96		03/29/96
28	Jicarilla B No. 15	Contract #106	Unit J, Sec. 36-26N-4W	SEP	12' x 12' x 2'		X			03/29/96		03/29/96
29	Jicarilla D No. 11	Contract #100	Unit A, Sec. 29-26N-3W	TDP	12' x 14' x 4'		X			04/04/96		04/15/96
30	Jicarilla D No. 17	Contract #100	Unit D, Sec. 29-26N-3W	TDP	16' x 18' x 3'		X			04/09/96		04/15/96
31	Jicarilla D No. 18	Contract #100	Unit A, Sec. 30-26N-3W	SEP	15' x 15' x 2'		X			04/12/96		04/15/96
32	Jicarilla E No. 6	Contract #104	Unit B, Sec. 21-26N-4W	TDP	18' x 18' x 3'		X			07/29/96		08/15/96
33	Jicarilla E No. 8	Contract #104	Unit C, Sec. 15-26N-4W	TDP	10' x 10' x 3'		X			06/05/96		06/21/96
34	Jicarilla E No. 14	Contract #104	Unit D, Sec. 15-26N-4W	CSP	10' x 12' x 3'		X			03/25/96		06/05/96
35	Jicarilla K No. 12E	Contract No. 145	Unit M, Sec. 02-25N-5W	SEP	12' x 14' x 3'		X			Unknown		06/24/96
36	Jicarilla K No. 15	Contract No. 145	Unit I, Sec. 01-25N-5W	SEP	14' x 16' x 2'		X			08/26/96		09/03/96
37	Jicarilla K No. 22	Contract No. 145	Unit M, Sec. 02-25N-5W	SEP	12' x 14' x 4'		X			Unknown		10/02/96
38	Jicarilla K No. 22A	Contract No. 145	Unit O, Sec. 02-25N-5W	SEP	10' x 10' x 01'		X			Unknown		09/24/96

39	Tribal No. 2	Fed. 6090001150	Unit L, Sec. 9-26N-3W	SEP	30' x 24' x 6'							Unknown	05/06/96
40	Tribal No. 2	Fed. 6090001150	Unit L, Sec. 9-26N-3W	TDP	24' x 17' x 4'				X			Unknown	05/06/96

NON - SENSITIVE AREA PITS - JICARILLA

1	AXI Apache N No. 11A	Contract #121	Unit B, Sec. 12-25N-4W	SEP	22' x 19' x 3'							Unknown	03/22/96
2	AXI Apache N No. 12A	Contract #121	Unit L, Sec. 11-25N-4W	SEP	21' x 21' x 4'				X			Unknown	03/22/96
3	AXI Apache N No. 14A	Contract #121	Unit K, Sec. 1-25N-4W	SEP	19' x 19' x 3'				X			Unknown	03/22/96
4	AXI Apache N No. 12	Contract #121	Unit C, Sec. 11-25N-4W	SEP	20' x 16' x 3'				X			03/25/96	03/26/96
5	AXI Apache N No. 13	Contract #121	Unit G, Sec. 2-25N-4W	SEP	22' x 21' x 3'				X			03/25/96	03/29/96
6	AXI Apache O No. 10	Contract #122	Unit J, Sec. 3-25N-4W	SEP	23' x 21' x 3'				X			03/20/96	03/25/96
7	Jicarilla D No. 11A	Contract # 100	Unit P, Sec 29-26N-3W	TDP	16' x 16' x 3'				X			04/19/96	04/22/96
8	Jicarilla D No. 13	Contract # 100	Unit A, Sec 32-26N-3W	TDP	15' x 15' x 2'				X			04/16/96	04/22/96
9	Jicarilla D No. 13A	Contract # 100	Unit P, Sec 32-26N-3W	SEP	20' x 20' x 2'				X			04/15/96	04/22/96
10	Jicarilla D No. 19	Contract # 100	Unit I, Sec 31-26N-3W	TDP	25' x 26' x 2'				X			04/25/96	05/03/96
11	Jicarilla D No. 20	Contract # 100	Unit N, Sec 31-26N-3W	TDP	20' x 30' x 4'				X			04/25/96	05/03/96



April 28, 1997

Conoco, Inc., Midland Division
Exploration and Production, North America
10 Desta Drive, Suite 100W
Midland, Texas 79705-4500

RECEIVED

MAY 20 1997

Environmental Bureau
Oil Conservation Division

Attn.: Mr. Neal Goates, Senior Environmental Specialist

RE: Former Production Tank Leak
Assessment and Remediation
Conoco Location Shepherd & Kelsey #1E
Unit D, Sec. 29, T29N, R11W, NMPM, San Juan Co., NM

The following report is intended to continue the documentation of events and activities with regards to a hydrocarbon release at the above location and to inform interested parties of the current status of the remediation, reclamation, and investigation.

INITIAL FIELD INVESTIGATIONS

On November 11, 1996, Mr. Larry Gomez, land owner's representative and Mr. Denny Foust, Oil and Gas Inspector for the New Mexico Oil Conservation Division (NMOCD), noted that the production tank on the referenced well location operated by Conoco had corroded at the base and was leaking water within the bermed impoundment.

At NMOCD's request, Conoco removed the production tank and repiped all produced liquids to a new tank in a different bermed impoundment on the well location.

During the upgrade on November 18, 1996, Cindy Gray of On Site Technologies collected soil samples from exploratory backhoe test holes to project the extent of soil contamination resulting from the tank leak. As a follow-up on November 18, 1996, Mr. Robert Crabb of On Site advanced seven additional test holes by hand auger to complete the assessment. Ground water was not encountered in any of the test holes.

Grab soil samples were collected from each test hole off the backhoe bucket or augered cuttings at three to six feet (the apparent depth of soil contamination). Samples were field tested for volatile hydrocarbons per the NMOCD Field Heated Headspace Method. Selected split samples were also collected in 4 oz. glass containers with Teflon® closures, labeled, and placed on ice for delivery to the

laboratory. Lab samples were tested for Total Petroleum Hydrocarbons (TPH) per EPA Method 8015M and for volatile organics (i.e. BTEX) per EPA Method 8020.

Based on the results of the November 1996 sampling, significant soil contamination from hydrocarbons was found and appeared to be limited to the former bermed impoundment.

Figure 1 shows the approximate location of the test holes and Table 1 summarizes the soil and lab testing for the preliminary investigations. The attached laboratory package contains copies of the laboratory reports and QA/QC documentation.

REMEDIAL ACTIONS

Due to the proximity of the site to a residential water supply well, the San Juan River, and shallow depth to groundwater, NMOCD directed that the operator, Conoco, assess and remediate contaminated soils from the tank leak.

On February 12 and 13, 1996, approximately 180 cubic yards of soil were excavated from the former production tank impoundment area. The excavation extended to a maximum depth of six feet in the approximate center of the impoundment and averaged roughly three feet overall. Refer to Figure 2 for the approximate location and dimensions of the excavation.

Myke Lane of On Site monitored the soil removal efforts and collected verification samples for closure. Grab samples were taken from the excavation bottom and sidewalls. Samples were field screened for volatile hydrocarbons using a PID to monitor the progress. When field screening indicated that closure levels of <100 parts per million TPH, < 50 ppm BTEX, and <10 ppm Benzene had been reached in the soils, record samples were taken for laboratory analysis. Table 2 summarizes the results of the remediation effort. The vertical and lateral extent of excavation was carried to the limits of the apparent soil contamination as noted during the excavation efforts. Due to snow and rain on February 13, 1997, the excavation was backfilled before lab verification of the soil samples. Based on the lab results, only a small amount of residual soil contamination above NMOCD standards remains in the area of samples #23.

Earth-moving equipment and personnel were provided by Rosenbaum Construction. Excavated contaminated material was transported for off-site disposal at the Envirotech NMOCD Permitted Landfarm at Hilltop south of Farmington.

Immediately following the remediation effort described above and at the request of NMOCD, a test hole was advanced to fourteen feet with the Trackhoe in the down-gradient portion of the excavated area and a temporary monitor well was installed (Refer to Sheet 2). The well was constructed of 2 inch Sch. 40 PVC with 10 feet of 0.010 inch slotted pipe. The test hole was backfilled with the same clean imported sandy soil used to backfill the excavation. As the monitor well was intended to be temporary, no bentonite seal or permanent surface protector was constructed for the

well. Following installation, the well was developed by removing approximately ten well volumes or until dry, and allowed to stabilize for approximately one month before sampling.

On March 20, 1997, a water sample was collected from the well. Prior to sampling, the well was purged by bailing approximately three well volumes. The sample was placed in 40 ml VOA glass vials, labeled and placed on ice for delivery to the lab. The sample was analyzed for BTEX per EPA Method 8020. Table 2 summarizes monitor well lab results obtained after the remedial activities. The attached laboratory package contains copies of the laboratory reports and QA/QC documentation.

SUMMARY AND CONCLUSIONS:

The following conclusions are based on the aforementioned site investigations and remedial efforts taken in the area of a former production tank leak at the Shepherd and Kelsey #1E well location:

1. Soil contamination from TPH and BTEX was identified immediately adjacent to the production tank.
2. An effort was made to remove heavily impacted soils in the apparent former source area. Soils were excavated to the extent of TPH and BTEX contamination, and only a relatively minor amount of contamination remains. However, since the removal of contaminated source soils, the level of residual soil contamination is anticipated to decrease rapidly. Excavated soils were removed off site for treatment and disposal.
3. Shallow ground water does not appear to have been impacted by the tank leak, based on lab results that indicate no BTEX contamination above the New Mexico Water Quality Control Commission (NMWQCC) standards.

RECOMMENDATIONS:

Further investigation or remedial efforts do not appear to be warranted. The monitor well should be removed and plugged following NMOCD standards to avoid possible migration of surface spills to ground water.

LIMITATIONS AND CLOSURE:

This summary documents visual observations of the site, subsurface conditions encountered during Phase II investigations and soil remediation efforts, and analysis of soil and groundwater samples collected during the various corrective actions. This summary does not reflect subsurface variations which may exist between sampling points, or subsurface changes which may occur due to seasonal variations.

The scope of our services consisted of the performance of a preliminary investigation, project management and sampling during soil remediation efforts, installation of one monitoring well to assess the possible ground water impact, field and lab testing of soil and water for hydrocarbon contamination, and preparation of a summary. All work has

been performed in accordance with generally accepted professional practices in geotechnical, petroleum and environmental engineering, and hydrogeology.

This document has been prepared by On Site Technologies for the exclusive use of Conoco Inc. as it pertains to the referenced well location operated by Conoco.

If there are any questions regarding this status report, please contact either Cindy Gray or Myke Lane at On Site Technologies, (505) 325-5667. Thank you for allowing On Site to assist you with this matter.

Respectfully submitted,
On Site Technologies, Limited Partnership



Michael K. Lane, P.E.
Senior Engineer

Attachments: Table 1: Assessment Results
Table 2: Remediation Results
Figure 1: Site Assessment/Remediation Sketch
Laboratory Package with QA/QC and Chain-of-Custody Forms

CC: C. John Coy, Farmington Office

MKL/mkl

file: 41303-5a.doc

TABLE 1: SUMMARY PRELIMINARY ASSESSMENTS
 TANK LEAK
 SHEPHERD & KELSEY #1E
 Unit D, Sec. 29, T29N, R11W, NMPM
 SAN JUAN COUNTY, NM

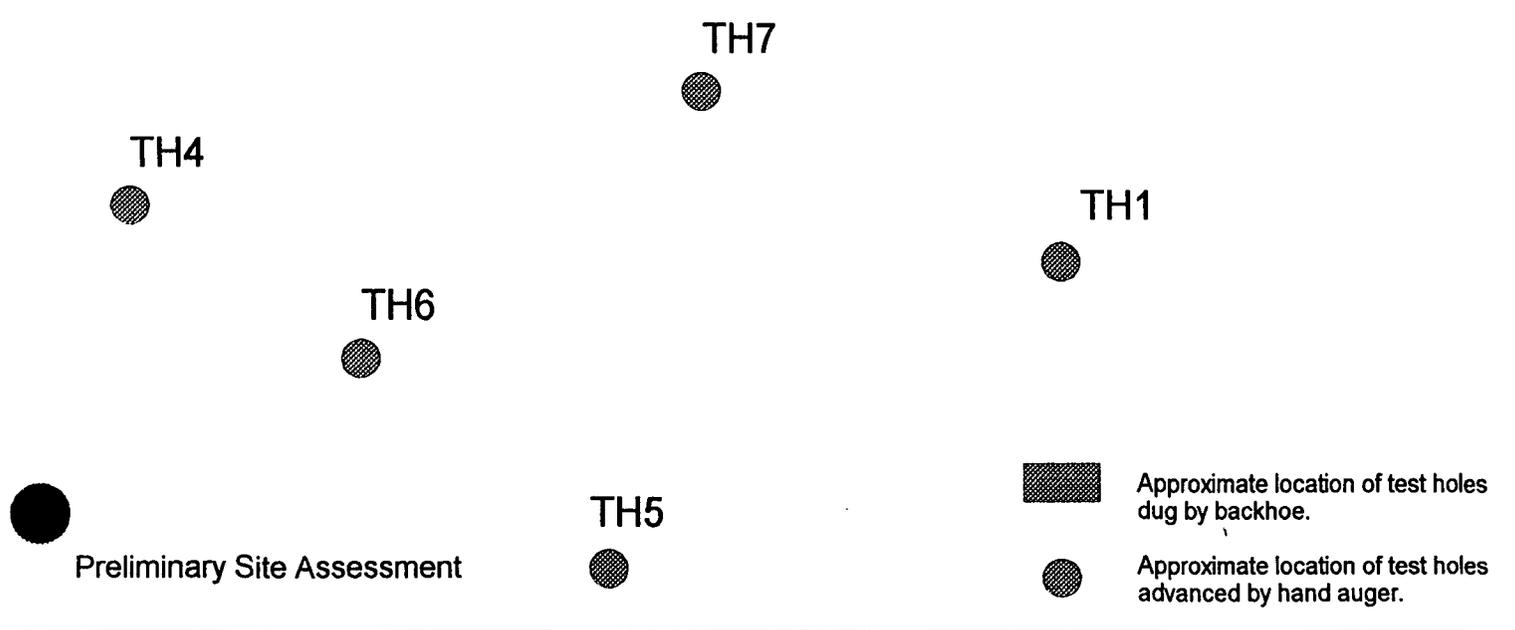
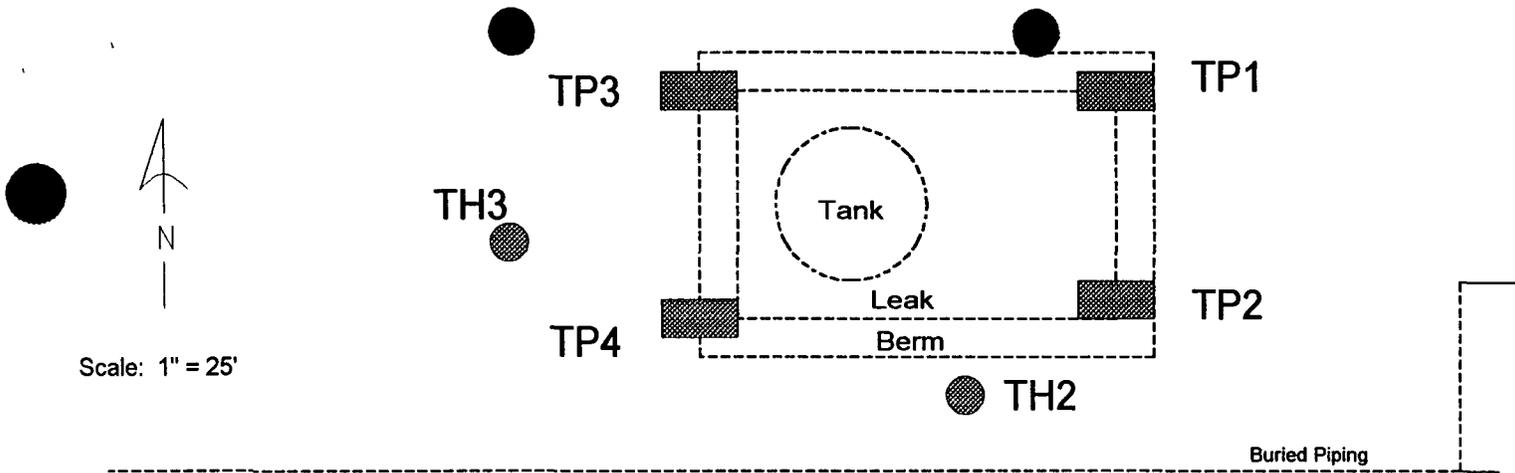
SAMPLE LOCATION	DATE	DEPTH ⁽¹⁾ (ft)	PID ⁽²⁾ (units)	Benzene (ppm)	Total BTEX ⁽³⁾ (ppm)	TPH ⁽⁴⁾ (ppm)
TP-1	11/18/96	4.0	2.3			
TP-2	11/18/96	3.0	>2500			
TP-2	11/18/96	3.5	1.0			
TP-3	11/18/96	6.0	2.3			
TP-4	11/18/96	3.0	55.6			
TH-1	11/20/97	5.0	35.9			
TH-2	11/20/96	3.0	125	0.027	0.049	<5.0
TH-2	11/20/96	5.0	43.7	0.0039	0.011	<5.0
TH-3	11/20/96	5.0	88.6			
TH-4	11/20/96	5.0	65.9			
TH-5	11/20/96	5.0	94.5			
TH-6	11/20/96	5.0	42.2			
TH-7	11/20/96	1.5	3.0		0.017	<5.0
TH-7	11/20/96	3.0	43.7		0.012	<5.0
TH-7	11/20/96	5.0	22.7		0.004	<5.0
NMOC Action Levels	Feb. 1993	SOIL	100	10	50	100

- Notes: (1) Depth below ground surface.
 (2) PID: Results of field headspace samples measured with an organic vapor meter equipped with a photoionization detector, and Benzene Response Factor of 0.56.
 (3) BTEX: Benzene, Toluene, Ethyl-benzene, and total Xylenes measure by EPA Method 8020.
 (4) TPH: Total Petroleum Hydrocarbons as measured by EPA Method 8015 (mod.).
 (5) ND: Not detected, NA: Not Applicable.

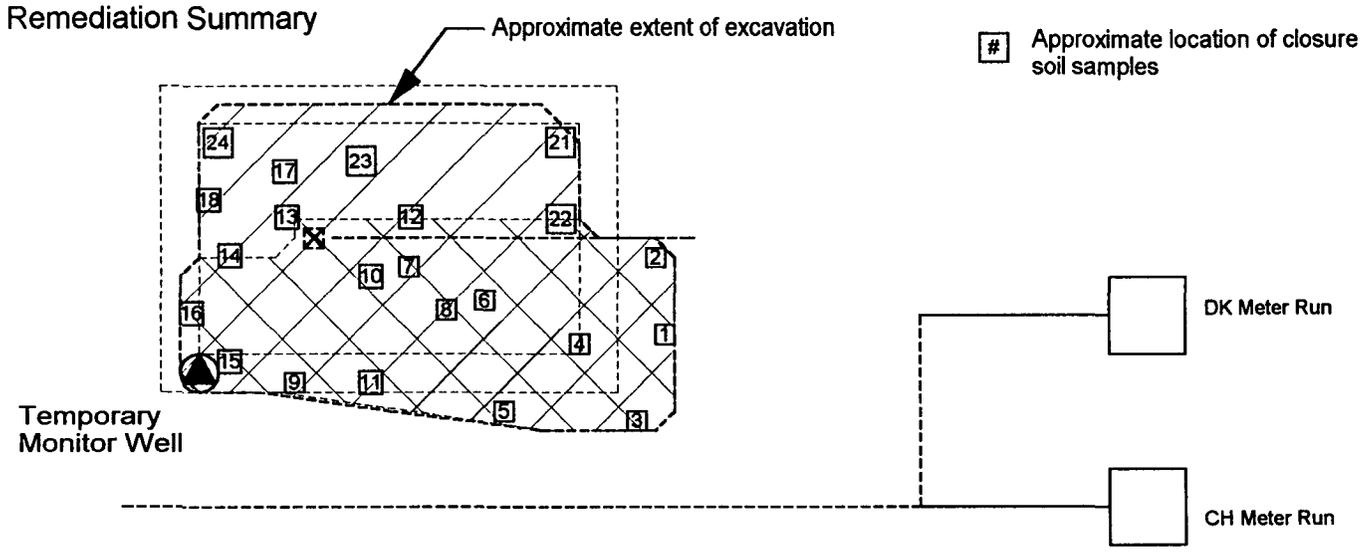
TABLE 2: SUMMARY TANK LEAK REMEDIATION
 SHEPHERD & KELSEY #1E
 Unit D, Sec. 29, T29N, R11W, NMPM
 SAN JUAN COUNTY, NM

SAMPLE	DATE	DEPTH ⁽¹⁾ (ft)	PID ⁽²⁾ (units)	Benzene (ppm)	Total BTEX ⁽³⁾ (ppm)	TPH ⁽⁴⁾ (ppm)
#1	2/12/97	5.0	ND			<6.0
#2	2/12/97	5.0	ND			
#3	2/12/97	4.5	4.0			
#4	2/12/97	4.0	15.0			
#5	2/12/97	4.0	65.0	<0.0002	0.0385	<6.0
#6	2/12/97	4.0	>2500	Resample	#8	
#7	2/12/97	3.5	>2500	Resample	#9	
#8	2/12/97	5.0	ND			<6.0
#9	2/12/97	5.0	5.8			<6.0
#10	2/12/97	6.0	52.3			<6.0
#11	2/12/97	5.0	8.0			
#12	2/12/97	5.0	17.8	0.208	0.235	<6.0
#13	2/12/97	5.0	5.8			
#14	2/12/97	4.0	9.3			
#15	2/12/97	4.0	24.9			<6.0
#16	2/12/97	4.0	3.5			
#17	2/12/97	1.5	92.2	0.137	1.117	4.9
#18	2/12/97	1.5	2.2			
#19	2/12/97	3.0	45.0			<6.0
#20	2/12/97	10.0	3.0			
#21	2/13/96	2.0	6.9			
#22	2/13/96	2.0	15.9			
#23	2/13/96	2.0	50.9			163.1
#24	2/13/96	2.0	26.7			
MW	3/20/97	WATER	NA	ND	ND	NA
NMOCD Action Levels	Feb. 1993	SOIL WATER	100 --	10 0.010	50 --	100 --

- Notes:
- (1) Depth below ground surface.
 - (2) PID: Results of field headspace samples measured with an organic vapor meter equipped with a photoionization detector, and Benzene Response Factor of 0.56.
 - (3) BTEX: Benzene, Toluene, Ethyl-benzene, and total Xylenes measure by EPA Method 8020.
 - (4) TPH: Total Petroleum Hydrocarbons as measured by EPA Method 8015 (mod.).
 - (5) ND: Not detected, NA: Not Applicable.
 - (6) Samples #6 and #7: areas resampled following additional excavation, refer to samples #8 and #9.



Remediation Summary



SHEPHERD & KELSEY #1E NE/NE, Sec. 29, T29W, R11W SAN JUAN BASIN, NM		FORMER PRODUCTION TANK IMPOUNDMENT	<p>ON SITE TECHNOLOGIES, LTD. P.O. BOX 2606, FARMINGTON, NM 87499 (505) 325-5667</p>
PROJECT NO: 4-1303-5		DRWN: 04-28-97	
FIGURE: 1	FILE: 41303S4.CAD	DRWN BY: MKL	
		PROJECT: ASSESSMENT & CLEANUP	

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Myke Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco, Inc.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *22-Nov-96*
 COC No.: *6205*
 Sample No. *12947*
 Job No. *4-1303*

Project Name: *Conoco - Shepperd-Kelsey E-1*
 Project Location: *TH-2 @ 3'*
 Sampled by: *RLC* Date: *20-Nov-96* Time: *9:25*
 Analyzed by: *DC/HR* Date: *21-Nov-96*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
	TOTAL	<5.0		mg/kg

Quality Assurance Report

GRO QC No.: *0480-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,801	1,817	0.9	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	105	4.8	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	103	100	(70-130)	2	20%
Diesel Range (C10-C28)	109	107	(70-130)	1	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/22/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Myke Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco, Inc.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *22-Nov-96*
 COC No.: *6205*
 Sample No. *12947*
 Job No. *4-1303*

Project Name: *Conoco - Shepperd-Kelsey E-1*
 Project Location: *TH-2 @ 3'*
 Sampled by: *RLC* Date: *20-Nov-96* Time: *9:25*
 Analyzed by: *DC* Date: *21-Nov-96*
 Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>27.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>8.0</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>1.4</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>9.3</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>2.9</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>48.8</i>		<i>ug/kg</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/22/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Myke Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco, Inc.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *22-Nov-96*
 COC No.: *6205*
 Sample No. *12948*
 Job No. *4-1303*

Project Name: *Conoco - Shepperd-Kelsey E-1*
 Project Location: *TH-2 @ 5'*
 Sampled by: *RLC*
 Analyzed by: *DC/HR*
 Sample Matrix: *Soil*

Date: *20-Nov-96* Time: *9:40*
 Date: *21-Nov-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i><5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i><5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
	TOTAL	<i><5.0</i>		<i>mg/kg</i>

Quality Assurance Report

GRO QC No.: *0480-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Gasoline Range (C5 - C9)</i>	<i><50</i>	<i>ppb</i>	<i>1,801</i>	<i>1,817</i>	<i>0.9</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i><5.0</i>	<i>ppm</i>	<i>100</i>	<i>105</i>	<i>4.8</i>	<i>15%</i>

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
<i>Gasoline Range (C5-C9)</i>	<i>103</i>	<i>100</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>109</i>	<i>107</i>	<i>(70-130)</i>	<i>1</i>	<i>20%</i>

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/22/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Myke Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco, Inc.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *22-Nov-96*
 COC No.: *6205*
 Sample No. *12948*
 Job No. *4-1303*

Project Name: *Conoco - Shepperd-Kelsey E-1*
 Project Location: *TH-2 @ 5'*
 Sampled by: *RLC* Date: *20-Nov-96* Time: *9:40*
 Analyzed by: *DC* Date: *21-Nov-96*
 Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>3.9</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>3.3</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>2.5</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>0.7</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>10.5</i>		<i>ug/kg</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *DCG*
 Date: *11/22/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Myke Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco, Inc.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *22-Nov-96*
 COC No.: *6205*
 Sample No. *12944*
 Job No. *4-1303*

Project Name: *Conoco - Shepperd-Kelsey E-1*
 Project Location: *TH-7 @ 18"*
 Sampled by: *RLC* Date: *20-Nov-96* Time: *11:25*
 Analyzed by: *DC/HR* Date: *21-Nov-96*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	< 5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	< 5.0	mg/kg	5.0	mg/kg
TOTAL	< 5.0	mg/kg		

Quality Assurance Report

GRO QC No.: *0480-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 50	ppb	1,801	1,817	0.9	15%
Diesel Range (C10 - C28)	< 5.0	ppm	100	104	4.2	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	103	100	(70-130)	2	20%
Diesel Range (C10-C28)	109	107	(70-130)	1	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/22/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Myke Lane*
Company: *On Site Technologies, Ltd. c/o Conoco, Inc.*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *22-Nov-96*
COC No.: *6205*
Sample No. *12944*
Job No. *4-1303*

Project Name: *Conoco - Shepperd-Kelsey E-1*
Project Location: *TH-7 @ 18"*
Sampled by: *RLC*
Analyzed by: *DC*
Sample Matrix: *Soil*

Date: *20-Nov-96* Time: *11:25*
Date: *21-Nov-96*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>0.7</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>8.1</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>2.9</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>5.6</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>17.3</i>		<i>ug/kg</i>

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: *[Signature]*
Date: *11/22/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Myke Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco, Inc.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *22-Nov-96*
 COC No.: *6205*
 Sample No. *12945*
 Job No. *4-1303*

Project Name: *Conoco - Shepperd-Kelsey E-1*
 Project Location: *TH-7 @ 3'*
 Sampled by: *RLC* Date: *20-Nov-96* Time: *11:30*
 Analyzed by: *DC/HR* Date: *21-Nov-96*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	< 5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	< 5.0	mg/kg	5.0	mg/kg
TOTAL	< 5.0	mg/kg		

Quality Assurance Report

GRO QC No.: *0480-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 50	ppb	1,801	1,817	0.9	15%
Diesel Range (C10 - C28)	< 5.0	ppm	100	104	4.2	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	103	100	(70-130)	2	20%
Diesel Range (C10-C28)	109	107	(70-130)	1	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/22/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Myke Lane*
Company: *On Site Technologies, Ltd. c/o Conoco, Inc.*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *22-Nov-96*
COC No.: *6205*
Sample No. *12945*
Job No. *4-1303*

Project Name: *Conoco - Shepperd-Kelsey E-1*
Project Location: *TH-7 @ 3'*
Sampled by: *RLC* Date: *20-Nov-96* Time: *11:30*
Analyzed by: *DC* Date: *21-Nov-96*
Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>0.8</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>8.5</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>3.0</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>12.3</i>		<i>ug/kg</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *11/22/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Myke Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco, Inc.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *22-Nov-96*
 COC No.: *6205*
 Sample No. *12946*
 Job No. *4-1303*

Project Name: *Conoco - Sheppard-Kelsey E-1*
 Project Location: *TH-7 @ 5'*
 Sampled by: *RLC*
 Analyzed by: *DC/HR*
 Sample Matrix: *Soil*

Date: *20-Nov-96* Time: *11:40*
 Date: *21-Nov-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
	TOTAL	<5.0		mg/kg

Quality Assurance Report

GRO QC No.: *0480-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,801	1,817	0.9	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	105	4.8	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	103	100	(70-130)	2	20%
Diesel Range (C10-C28)	109	107	(70-130)	1	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/22/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Myke Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco, Inc.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *22-Nov-96*
 COC No.: *6205*
 Sample No. *12946*
 Job No. *4-1303*

Project Name: *Conoco - Shepperd-Kelsey E-1*
 Project Location: *TH-7 @ 5'*
 Sampled by: *RLC* Date: *20-Nov-96* Time: *11:40*
 Analyzed by: *DC* Date: *21-Nov-96*
 Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i><0.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>3.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>1.1</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>4.3</i>		<i>ug/kg</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *DC*
 Date: *11/22/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *18-Feb-97*
 COC No.: *5008*
 Sample No.: *13677*
 Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*
 Project Location: *Tank Excavation; Sample #1 @ 5'*
 Sampled by: *MKL* Date: *12-Feb-97* Time: *10:45*
 Analyzed by: *HR/DC* Date: *18-Feb-97*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i>< 1.0</i>	<i>mg/kg</i>	<i>1.0</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i>< 5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
	TOTAL	<i>< 6.0</i>		<i>mg/kg</i>

Quality Assurance Report

GRO QC No.: *0480-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Gasoline Range (C5 - C9)</i>	<i>< 50</i>	<i>ppb</i>	<i>1,351</i>	<i>1,423</i>	<i>5.3</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i>< 5.0</i>	<i>ppm</i>	<i>100</i>	<i>106</i>	<i>6.1</i>	<i>15%</i>

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
<i>Gasoline Range (C5-C9)</i>	<i>104</i>	<i>106</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>81</i>	<i>94</i>	<i>(70-130)</i>	<i>10</i>	<i>20%</i>

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *DAG*
 Date: *2/19/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *18-Feb-97*
 COC No.: *5008*
 Sample No.: *13678*
 Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*
 Project Location: *Tank Excavation; Sample #5 @ 4'*
 Sampled by: *MKL* Date: *12-Feb-97* Time: *11:55*
 Analyzed by: *HR/DC* Date: *18-Feb-97*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i>< 1.0</i>	<i>mg/kg</i>	<i>1.0</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i>< 5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
	TOTAL	<i>< 6.0</i>		<i>mg/kg</i>

Quality Assurance Report

GRO QC No.: *0535-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Gasoline Range (C5 - C9)</i>	<i>< 50</i>	<i>ppb</i>	<i>1,351</i>	<i>1,423</i>	<i>5.3</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i>< 5.0</i>	<i>ppm</i>	<i>100</i>	<i>106</i>	<i>6.1</i>	<i>15%</i>

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
<i>Gasoline Range (C5-C9)</i>	<i>104</i>	<i>106</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>81</i>	<i>94</i>	<i>(70-130)</i>	<i>10</i>	<i>20%</i>

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *Dag*
 Date: *2/19/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
Company: *On Site Technologies, Ltd. c/o Conoco*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *18-Feb-97*
COC No.: *5008*
Sample No.: *13678*
Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*
Project Location: *Tank Excavation; Sample #5 @ 4'*
Sampled by: *MKL* Date: *12-Feb-97* Time: *11:55*
Analyzed by: *HR* Date: *14-Feb-97*
Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i><0.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>14.8</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>3.9</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>14.5</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>5.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>TOTAL</i>	<i>38.5</i>	<i>ug/kg</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *DAG*
Date: *2/18/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *18-Feb-97*
 COC No.: *5008*
 Sample No.: *13679*
 Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*
 Project Location: *Tank Excavation; Composite Sample #8-5', #9-5', #10-6'*
 Sampled by: *MKL* Date: *12-Feb-97* Time: *13:25*
 Analyzed by: *HR/DC* Date: *18-Feb-97*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i><1.0</i>	<i>mg/kg</i>	<i>1.0</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i><5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
TOTAL	<i><6.0</i>	<i>mg/kg</i>		

Quality Assurance Report

GRO QC No.: *0535-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Gasoline Range (C5 - C9)</i>	<i><50</i>	<i>ppb</i>	<i>1,351</i>	<i>1,423</i>	<i>5.3</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i><5.0</i>	<i>ppm</i>	<i>100</i>	<i>106</i>	<i>6.1</i>	<i>15%</i>

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
<i>Gasoline Range (C5-C9)</i>	<i>104</i>	<i>106</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>81</i>	<i>94</i>	<i>(70-130)</i>	<i>10</i>	<i>20%</i>

Method - *SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by: *[Signature]*
 Date: *2/19/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *18-Feb-97*
 COC No.: *5008*
 Sample No.: *13680*
 Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*

Project Location: *Tank Excavation; Sample #12 @ 5'*

Sampled by: *MKL* Date: *12-Feb-97* Time: *13:25*

Analyzed by: *HR/DC* Date: *18-Feb-97*

Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i>< 1.0</i>	<i>mg/kg.</i>	<i>1.0</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i>< 5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
TOTAL	< 6.0	mg/kg		

Quality Assurance Report

GRO QC No.: *0535-STD*

DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Gasoline Range (C5 - C9)</i>	<i>< 50</i>	<i>ppb</i>	<i>1,351</i>	<i>1,423</i>	<i>5.3</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i>< 5.0</i>	<i>ppm</i>	<i>100</i>	<i>106</i>	<i>6.1</i>	<i>15%</i>

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
<i>Gasoline Range (C5-C9)</i>	<i>104</i>	<i>106</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>81</i>	<i>94</i>	<i>(70-130)</i>	<i>10</i>	<i>20%</i>

Method - *SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography*

Approved by: *DAG*
 Date: *2/19/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
Company: *On Site Technologies, Ltd. c/o Conoco*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *18-Feb-97*
COC No.: *5008*
Sample No.: *13680*
Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*
Project Location: *Tank Excavation; Sample #12 @ 5'*
Sampled by: *MKL* Date: *12-Feb-97* Time: *13:25*
Analyzed by: *HR* Date: *14-Feb-97*
Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>207.9</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>16.5</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>2.0</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>5.6</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>2.9</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>235.0</i>		<i>ug/kg</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *2/18/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *18-Feb-97*
 COC No.: *5008*
 Sample No.: *13681*
 Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*
 Project Location: *Tank Excavation; Sample #15 @ 4'*
 Sampled by: *MKL* Date: *12-Feb-97* Time: *15:45*
 Analyzed by: *HR/DC* Date: *18-Feb-97*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i><1.0</i>	<i>mg/kg</i>	<i>1.0</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i><5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
	TOTAL	<i><6.0</i>		<i>mg/kg</i>

Quality Assurance Report

GRO QC No.: *0535-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Gasoline Range (C5 - C9)</i>	<i><50</i>	<i>ppb</i>	<i>1,351</i>	<i>1,423</i>	<i>5.3</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i><5.0</i>	<i>ppm</i>	<i>100</i>	<i>106</i>	<i>6.1</i>	<i>15%</i>

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
<i>Gasoline Range (C5-C9)</i>	<i>104</i>	<i>106</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>97</i>	<i>92</i>	<i>(70-130)</i>	<i>4</i>	<i>20%</i>

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *2/19/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *19-Feb-97*
 COC No.: *5008*
 Sample No.: *13682*
 Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*
 Project Location: *Tank Excavation; Sample #17 @ 1.5'*
 Sampled by: *MKL* Date: *12-Feb-97* Time: *16:40*
 Analyzed by: *HR/DC* Date: *19-Feb-97*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i>4.9</i>	<i>mg/kg</i>	<i>1.0</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i><5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
TOTAL	4.9	mg/kg		

Quality Assurance Report

GRO QC No.: *0535-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Gasoline Range (C5 - C9)</i>	<i><50</i>	<i>ppb</i>	<i>1,351</i>	<i>1,451</i>	<i>7.4</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i><5.0</i>	<i>ppm</i>	<i>100</i>	<i>106</i>	<i>6.1</i>	<i>15%</i>

Matrix Spike

Parameter	1- Percent Recovered	2- Percent Recovered	Limit	%RSD	Limit
<i>Gasoline Range (C5-C9)</i>	<i>104</i>	<i>106</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>97</i>	<i>92</i>	<i>(70-130)</i>	<i>4</i>	<i>20%</i>

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *2/19/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
Company: *On Site Technologies, Ltd. c/o Conoco*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *18-Feb-97*
COC No.: *5008*
Sample No.: *13682*
Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*
Project Location: *Tank Excavation; Sample #17 @ 1.5'*
Sampled by: *MKL* Date: *12-Feb-97* Time: *16:40*
Analyzed by: *HR* Date: *14-Feb-97*
Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>136.8</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>131.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>151.9</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>595.4</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>101.6</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>TOTAL</i>	<i>1116.9</i>	<i>ug/kg</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *2/18/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *19-Feb-97*
 COC No.: *5008*
 Sample No.: *13683*
 Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*
 Project Location: *Tank Excavation; Sample #19 @ 3'*
 Sampled by: *MKL* Date: *12-Feb-97* Time: *17:00*
 Analyzed by: *HR/DC* Date: *19-Feb-97*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<1.0	mg/kg	1.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
	TOTAL	<6.0		mg/kg

Quality Assurance Report

GRO QC No.: *0535-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,351	1,451	7.4	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	106	6.1	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	104	106	(70-130)	2	20%
Diesel Range (C10-C28)	97	92	(70-130)	4	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *2/19/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *19-Feb-97*
 COC No.: *5008*
 Sample No.: *13685*
 Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Tank Battery*
 Project Location: *Tank Excavation; Sample #23 @ 2'*
 Sampled by: *MKL* Date: *13-Feb-97* Time: *10:00*
 Analyzed by: *HR/DC* Date: *19-Feb-97*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i>163.1</i>	<i>mg/kg</i>	<i>1.0</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i><5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
TOTAL	<i>163.1</i>	<i>mg/kg</i>		

Quality Assurance Report

GRO QC No.: *0535-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Gasoline Range (C5 - C9)</i>	<i><50</i>	<i>ppb</i>	<i>1,351</i>	<i>1,451</i>	<i>7.4</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i><5.0</i>	<i>ppm</i>	<i>100</i>	<i>106</i>	<i>6.1</i>	<i>15%</i>

Matrix Spike

Parameter	1- Percent Recovered	2- Percent Recovered	Limit	%RSD	Limit
<i>Gasoline Range (C5-C9)</i>	<i>104</i>	<i>106</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>97</i>	<i>92</i>	<i>(70-130)</i>	<i>4</i>	<i>20%</i>

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *2/19/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael Lane*
Company: *On Site Technologies, Ltd. c/o Conoco*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *26-Mar-97*
COC No.: *5060*
Sample No.: *13998*
Job No.: *4-1303-5*

Project Name: *Conoco - Shepherd & Kelsey #1E*
Project Location: *Tank Excavation - MW*
Sampled by: *ML* Date: *20-Mar-97* Time: *10:10*
Analyzed by: *DC* Date: *24-Mar-97*
Sample Matrix: *Liquid*

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i><0.2</i>	<i>ug/L</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved By: *[Signature]*
Date: *3/26/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 21-Nov-96

Internal QC No.: 0515-QC
Surrogate QC No.: 0516-QC
Reference Standard QC No.: 0417-QC

Method Blank

Analyte	Result	Units of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Analyte	Units of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	19.6	2	15%
Toluene	ppb	20.0	20.4	2	15%
Ethylbenzene	ppb	20.0	21.1	6	15%
m,p-Xylene	ppb	40.0	41.4	3	15%
o-Xylene	ppb	20.0	20.7	3	15%

Matrix Spike

Analyte	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	96	98	(39-150)	1	20%
Toluene	94	93	(46-148)	0	20%
Ethylbenzene	90	87	(32-160)	3	20%
m,p-Xylene	86	82	(35-145)	3	20%
o-Xylene	87	82	(35-145)	4	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
S1: Fluorobenzene			S1: Fluorobenzene		
12944-6205	96				
12945-6205	95				
12946-6205	94				
12947-6205	94				
12948-6205	95				

De

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 14-Feb-97

Internal QC No.: 0527-STD
Surrogate QC No.: 0528-STD
Reference Standard QC No.: 0417-QC

Method Blank

Analyte	Result	Units of Measure
Average Amount of All Analytes in Blank	<0.2	ppb

Calibration Check

Analyte	Units of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	19.8	1	15%
Toluene	ppb	20.0	20.5	3	15%
Ethylbenzene	ppb	20.0	20.9	5	15%
m,p-Xylene	ppb	40.0	40.6	1	15%
o-Xylene	ppb	20.0	20.6	3	15%

Matrix Spike

Analyte	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	83	79	(39-150)	3	20%
Toluene	90	79	(46-148)	8	20%
Ethylbenzene	82	78	(32-160)	4	20%
m,p-Xylene	77	73	(35-145)	3	20%
o-Xylene	77	74	(35-145)	3	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
S1: Fluorobenzene			S1: Fluorobenzene		
13678-5008	97				
13680-5008	81				
13682-5008	73				

(Handwritten initials)

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 24-Mar-97

Internal QC No.: 0527-STD
Surrogate QC No.: 0528-STD
Reference Standard QC No.: 0529/30-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	18.6	7	15%
Toluene	ppb	20.0	19.4	3	15%
Ethylbenzene	ppb	20.0	19.8	1	15%
m,p-Xylene	ppb	40.0	38.2	4	15%
o-Xylene	ppb	20.0	19.5	2	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	89	88	(39-150)	1	20%
Toluene	92	92	(46-148)	0	20%
Ethylbenzene	94	94	(32-160)	0	20%
m,p-Xylene	90	90	(35-145)	0	20%
o-Xylene	93	93	(35-145)	0	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
13998-5060	96				
13999-5060	93				

S1: Fluorobenzene

Handwritten: 3/26/97

CHAIN OF CUSTODY RECORD



657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 11.20.06

Purchase Order No.: <u>4-1303</u>		Job No. <u>4-1303</u>		Name <u>Mlyke LNA</u>		Title	
Name <u>John Cey</u>		Company <u>CONCRETE ZONE</u>		Mailing Address		City, State, Zip	
Address		City, State, Zip		Telephone No.		Telefax No.	

SEND INVOICE TO

Sampling Location: SHIPPERS - KELSY E-1

Sampler: RHC

REPORT RESULTS TO

Number of Containers

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE		MATRIX	PRES.	LAB ID
	DATE	TIME			
TH-7 77 15"	11-20-06	1135	SC11	✓	17944-0705
TH-7 77 3'	"	1136	"	✓	17945
TH-7 77 5'	"	1140	"	✓	17946
TH-2 77 3'	"	0925	"	✓	17947
TH-2 77 5'	"	0946	"	✓	17946

Received by: [Signature] Date/Time 11/20/06 11:00

Received by: _____ Date/Time _____

Received by: _____ Date/Time _____

Rush _____ 24-48 Hours _____ 10 Working Days _____

Special Instructions: _____

Method of Shipment: _____

Authorized by: [Signature] Date 11.20.06

(Client Signature Must Accompany Request)

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client



CHAIN OF CUSTODY RECORD

5008

Page 1 of 1

Date: 2.13.97

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.: <u>4-1208</u>		Job No. <u>4-1208</u>		Name <u>MICHAEL K. LANE</u>		Title <u>Analyst</u>	
Company <u>MICHAEL K. LANE</u>		Dept.		Company <u>MICHAEL K. LANE</u>		City, State, Zip	
Address <u>1000 S. GARDEN</u>		City, State, Zip		Mailing Address		Telephone No.	
City, State, Zip		City, State, Zip		Telephone No.		Telefax No.	
Sampling Location: <u>STATION 1 KENNEDY IC</u>				ANALYSIS REQUESTED			
Sampler: <u>MICHAEL K. LANE</u>				Number of Containers			
Method of Shipment: <u>FURNACE TANK CATEGORY</u>				REPORT RESULTS TO			
SAMPLE IDENTIFICATION	SAMPLE DATE		MATRIX	PRES.	Number of Containers	LAB ID	Date/Time
	DATE	TIME					
SMP # 10-51	11:45	11:45	Soil	N	1		1/11/97
SMP # 10-52	"	11:55	"	"	1		1/11/97
SMP # 10-53	"	12:05	"	"	1		1/11/97
SMP # 10-54	"	12:15	"	"	1		1/11/97
SMP # 10-55	"	12:25	"	"	1		1/11/97
SMP # 10-56	"	12:35	"	"	1		1/11/97
SMP # 10-57	"	12:45	"	"	1		1/11/97
SMP # 10-58	"	12:55	"	"	1		1/11/97
SMP # 10-59	"	1:05	"	"	1		1/11/97
SMP # 10-60	"	1:15	"	"	1		1/11/97
SMP # 10-61	"	1:25	"	"	1		1/11/97
SMP # 10-62	"	1:35	"	"	1		1/11/97
SMP # 10-63	"	1:45	"	"	1		1/11/97
SMP # 10-64	"	1:55	"	"	1		1/11/97
SMP # 10-65	"	2:05	"	"	1		1/11/97
SMP # 10-66	"	2:15	"	"	1		1/11/97
SMP # 10-67	"	2:25	"	"	1		1/11/97
SMP # 10-68	"	2:35	"	"	1		1/11/97
SMP # 10-69	"	2:45	"	"	1		1/11/97
SMP # 10-70	"	2:55	"	"	1		1/11/97
SMP # 10-71	"	3:05	"	"	1		1/11/97
SMP # 10-72	"	3:15	"	"	1		1/11/97
SMP # 10-73	"	3:25	"	"	1		1/11/97
SMP # 10-74	"	3:35	"	"	1		1/11/97
SMP # 10-75	"	3:45	"	"	1		1/11/97
SMP # 10-76	"	3:55	"	"	1		1/11/97
SMP # 10-77	"	4:05	"	"	1		1/11/97
SMP # 10-78	"	4:15	"	"	1		1/11/97
SMP # 10-79	"	4:25	"	"	1		1/11/97
SMP # 10-80	"	4:35	"	"	1		1/11/97
SMP # 10-81	"	4:45	"	"	1		1/11/97
SMP # 10-82	"	4:55	"	"	1		1/11/97
SMP # 10-83	"	5:05	"	"	1		1/11/97
SMP # 10-84	"	5:15	"	"	1		1/11/97
SMP # 10-85	"	5:25	"	"	1		1/11/97
SMP # 10-86	"	5:35	"	"	1		1/11/97
SMP # 10-87	"	5:45	"	"	1		1/11/97
SMP # 10-88	"	5:55	"	"	1		1/11/97
SMP # 10-89	"	6:05	"	"	1		1/11/97
SMP # 10-90	"	6:15	"	"	1		1/11/97
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SMP # 10-92	"	6:35	"	"	1		1/11/97
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SMP # 10-95	"	7:05	"	"	1		1/11/97
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SMP # 10-99	"	7:45	"	"	1		1/11/97
SMP # 10-100	"	7:55	"	"	1		1/11/97
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SMP # 10-103	"	8:25	"	"	1		1/11/97
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SMP # 10-111	"	9:45	"	"	1		1/11/97
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SMP # 10-202	"	12:55	"	"	1		1/11/97
SMP # 10-203	"	1:05	"	"	1		1/11/97
SMP # 10-							



CHAIN OF CUSTODY RECORD

Date: 3/20/97 Page 1 of 1

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
 LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.: <u>Job No. 4-1203-5</u>		Name: <u>Michelle Lane</u>		Title: <u>SALES</u>	
SEND INVOICE TO		Company: <u>Chalco</u>		Mailing Address:	
Address:		City, State, Zip:		Telephone No.:	
City, State, Zip:		Telephone No.:		Telefax No.:	
Sampling Location: <u>Intersect of Highway 71E</u>		ANALYSIS REQUESTED			
Sampler: <u>Michelle Lane</u>		LAB ID			
SAMPLE IDENTIFICATION		REPORT TO RESULTS TO		Number of Containers	
DATE	SAMPLE TIME	MATRIX	PRES.		
<u>3/20</u>	<u>12:00</u>	<u>Water</u>	<u>MLC</u>	<u>2</u>	<u>1319E-5000</u>
<u>"</u>	<u>12:00</u>	<u>Water</u>	<u>MLC</u>	<u>2</u>	<u>1319F-5000</u>
TANK EXHAUSTION - MUL					
EXHAUSTIVE FILL EXC. - MUL					
Relinquished by: <u>[Signature]</u>		Date/Time: <u>3/20/97 12:00</u>		Received by: <u>[Signature]</u>	
Relinquished by:		Date/Time:		Date/Time:	
Relinquished by:		Date/Time:		Date/Time:	
Method of Shipment:		Rush		Special Instructions:	
Authorized by: <u>[Signature]</u>		Date: <u>3/20/97</u>		24-48 Hours	
				10 Working Days	



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April 16, 1997

Conoco, Inc., Midland Division
Exploration and Production, North America
10 Desta Drive, Suite 100W
Midland, Texas 79705-4500

RECEIVED

MAY 20 1997

Environmental Bureau
Oil Conservation Division

Attn.: Mr. W.L. Brignon, Senior Counsel

RE: Former Production Pit Assessment and Remediation
Conoco Location Shepherd & Kelsey #1E
Unit D, Sec. 29, T29N, R11W, NMPM, San Juan Co., NM

Dear Mr. Coy:

The following report is intended to continue the documentation of events and activities with regards to a hydrocarbon release at the above location and to inform interested parties of the current status of the remediation, reclamation, and investigation.

INITIAL FIELD INVESTIGATIONS

Due to inquiries from the landowner Ken and Larry Gomez, Conoco commissioned On Site Technologies to conduct a preliminary screen for hydrocarbon contamination in the area of a former unlined earthen pit and existing production tank used to store separator waste water. On September 30, 1996, Michael Lane and Bobby Crabb of On Site Technologies, Ltd. advanced two test holes (TH #1 and TH #2) by hand auger: one adjacent to the tank, and another in an estimated down gradient location. Test holes were advanced to the shallow water table at approximately 3.5 to 4 feet below the surface. Grab soil samples were collected from each test hole off the augered cuttings at the apparent water level, and field tested for volatile hydrocarbons per the NMOCD Field Heated Headspace Method. Split samples were also collected in 4 oz. glass containers with Teflon® closures, labeled, and placed on ice for delivery to the laboratory. Lab samples were tested for Total Petroleum Hydrocarbons (TPH) per EPA Method 8015M. In addition to soil sampling, a ground water sample was collected from TH#1 and tested for volatile organics (i.e. BTEX) per EPA Method 8020. Based on the results of this September 1996 sampling, no soil or ground water contamination above current NMOCD action levels was detected.

Following discussions with Mr. Denny Foust inspector for the New Mexico Oil Conservation Division (NMOCD) and Larry Gomez, it was determined that the

PO Box 2606
Farmington, NM
PHONE: 505-325-5667 FAX: 505-327-1496

September 1996 sampling may not have assessed the area of the former pit. Mr. Lane of On Site met with Mr. Foust and Mr. Gomez on November 11, 1996, and advanced two additional test holes immediately adjacent to the production tank (TH #3 and TH #4). As with the earlier sampling, grab samples were field tested for volatile hydrocarbons and lab tested for TPH. To verify the field screening, soil samples were also laboratory tested for BTEX per EPA Method 8020. Based on the results of the November 1996 sampling, some soil and ground water contamination from hydrocarbons was found northeast of the tank. Full delineation of the contamination was not done at the time.

Figure 1 shows the approximate location of the test holes and Table 1 summarizes the soil and lab testing for the preliminary investigations. The attached laboratory package has copies of the laboratory reports and QA/QC documentation.

REMEDIAL ACTIONS

Due to the proximity of the site to a residential water supply well, the San Juan River, and shallow depth to groundwater, NMOCD directed that the operator, Conoco, assess and remediate contaminated soils from the former pit.

On February 13, 1996 and concurrent with other soil remediation efforts at the well location, 30 cubic yards of soil were excavated from the former pit area. Prior to the excavation effort, the production tank was moved by Conoco as part of upgrades at the location, making TH #4 and the contaminated area difficult to relocate. Exploratory excavations were made until the contaminated area was found and the lateral extent delineated. The excavation exposed the apparent outline of a former production pit filled with gravel and debris. Refer to Figure 2 for the approximate location and dimensions of the excavation.

Grab samples were taken from the excavation bottom and sidewalls. Samples were field screened to monitor the progress. When field screening indicated that closure levels of <100 parts per million TPH, < 50 ppm BTEX, and <10 ppm Benzene had been reached in the soils, record samples were taken for laboratory analysis. Table 2 summarizes the results of the remediation effort. The vertical extent of excavation was carried to the level of ground water as soil contamination was observed to that depth. Laterally, the excavation removed all contaminated soils that field tested above NMOCD standards, except to the west where production equipment limited safe excavation.

Excavation and earth-moving equipment and personnel were provided by Rosenbaum Construction. Excavated contaminated material was transported for off-site disposal at the Envirotech NMOCD Permitted Landfarm at Hilltop south of Farmington.

Subsequent to the remediation effort described above and at the request of NMOCD, a monitor well was installed in the down-gradient portion of the excavated area (Refer to Sheet 1). The well was constructed of 2 inch Sch. 40 PVC with 5 feet of 0.010 inch slotted pipe. The annular space was sand packed with 10-20 mesh clean sand. Due

to the shallow depth to ground water and anticipated rise in the water table, the top of the screen was located within 12 inches of the surface, and only a thin bentonite seal was placed around each well at the surface. The well was developed by removing approximately ten well volumes or until dry, and allowed to stabilize for approximately one month before sampling.

On March 20, 1997, a water sample was collected from the well. Prior to sampling the well was purged by bailing approximately three well volumes. The sample was placed in 40 ml VOA glass vials, labeled and placed on ice for delivery to the lab. The sample was analyzed for BTEX per EPA Method 8020. Table 2 summarizes monitor well lab results obtained after the remedial activities. The attached laboratory package has copies of the laboratory reports and QA/QC documentation.

SUMMARY AND CONCLUSIONS:

The following conclusions are based on the forementioned site investigations and remedial efforts taken in the area of a former production pit at the Shepherd and Kelsey #1E well location:

1. Soil and ground water contamination from TPH and BTEX was identified immediately adjacent to the production tank used to store separator waste water.
2. An effort was made to remove heavily impacted soils to ground water in the apparent former source area. Soils were excavated to the extent of TPH and BTEX contamination, or the practical extent possible considering existing improvements and other site restrictions. Excavated soils were removed off site for treatment and disposal.
3. Ground water with BTEX contamination above the New Mexico Water Quality Control Commission (NMWQCC) standards remains in the area of former pit. However, since the removal of contaminated source soils, the level of ground water contamination is anticipated to decrease rapidly.

RECOMMENDATIONS:

The extent of remaining soil and ground water contamination is probably very limited. Further investigation does not appear to be warranted. Periodic sampling of the monitor well for BTEX per EPA Method 8020 should be considered. Sampling should be terminated and the well abandoned, once two consecutive sampling events find no BTEX contamination above the WQCC standards.

LIMITATIONS AND CLOSURE:

This summary documents visual observations of the site, subsurface conditions encountered during Phase II investigations and soil remediation efforts, and analysis of soil and groundwater samples collected during the various corrective actions. This summary does not reflect subsurface variations which may exist between sampling points, or subsurface changes which may occur due to seasonal variations.

The scope of our services consisted of the performance of a preliminary investigation, project management and sampling during soil remediation efforts, installation of one monitoring well to assess the magnitude of residual ground water contamination, field and lab testing of soil and water for hydrocarbon contamination, and preparation of a summary. All work has been performed in accordance with generally accepted professional practices in geotechnical, petroleum and environmental engineering, and hydrogeology.

This document has been prepared by On Site Technologies for the exclusive use of Conoco Inc. as it pertains to the referenced well location operated by Conoco. At your request, On Site has furnished a copy of this assessment report to Mr. C. John Coy, SHEAR Specialist, in the Conoco Farmington office.

If there are any questions regarding this status report, please contact either Cindy Gray or Myke Lane at On Site Technologies, (505) 325-5667. Thank you for considering On Site to assist you with this matter.

Respectfully submitted,



Cynthia A. Sluyter-Gray
Project Manager



Michael K. Lane, P.E.
Senior Engineer

On Site Technologies, Limited Partnership

Attachments: Table 1: Assessment Results
Table 2: Remediation Results
Figure 1: Site Assessment Sketch
Figure 2: Site Remediation Sketch
Laboratory Package with QA/QC and Chain-of-Custodies

MKL/mkl

file: 41303-5.doc

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**TABLE 1: SUMMARY PRELIMINARY SITE ASSESSMENTS
SHEPHERD & KELSEY #1E
Unit D, Sec. 29, T29N, R11W, NMPM
SAN JUAN COUNTY, NM**

SAMPLE LOCATION	DATE	DEPTH ⁽¹⁾ (ft)	PID ⁽²⁾ (units)	Benzene (ppm)	Total BTEX ⁽³⁾ (ppm)	TPH ⁽⁴⁾ (ppm)
TH-1	9/30/96	2.5	10.3			
TH-1	9/30/96	3.5	59.9			15.6
TH-1	9/30/96	4.0	43.7			
TH-1	9/30/96	WATER	NA	2.1	7.7	NA
TH-2	9/30/96	3.0	1.7			
TH-2	9/30/96	3.5	3.8			<0.5
TH-3	11/11/96	1.0	3.4			
TH-3	11/11/96	2.0	11.7			
TH-3	11/11/96	3.0	14.0	0.0008	0.004	<0.5
TH-3	11/11/96	WATER	NA	0.0003	0.0005	NA
TH-4	11/11/96	1.0	12.2			
TH-4	11/11/96	2.0	20.9	0.111	0.171	<5.0
TH-4	11/11/96	2.5	137			
TH-4	11/11/96	3.0	290	1.35	4.31	18.1
TH-4	11/11/96	WATER	NA	0.362	0.471	NA
Drainage Ditch	11/11/96	WATER	NA	ND	ND	NA
NMOCD Action Levels	Feb. 1993	SOIL WATER	100 --	10 0.010	50 --	100 --

- Notes:
- (1) Depth below ground surface.
 - (2) PID: Results of field headspace samples measured with an organic vapor meter equipped with a photoionization detector, and Benzene Response Factor of 0.56.
 - (3) BTEX: Benzene, Toluene, Ethyl-benzene, and total Xylenes measure by EPA Method 8020.
 - (4) TPH: Total Petroleum Hydrocarbons as measured by EPA Method 8015 (mod.).
 - (5) ND: Not detected, NA: Not Applicable.

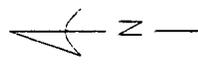
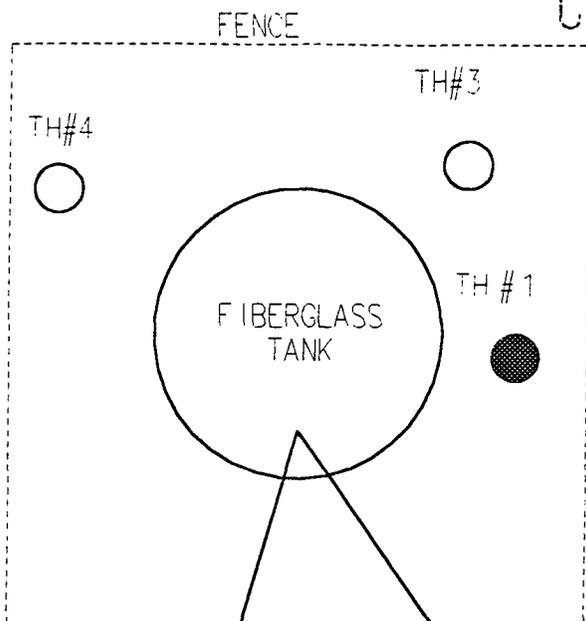
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**TABLE 2: SUMMARY PIT REMEDIATION
SHEPHERD & KELSEY #1E
Unit D, Sec. 29, T29N, R11W, NMPM
SAN JUAN COUNTY, NM**

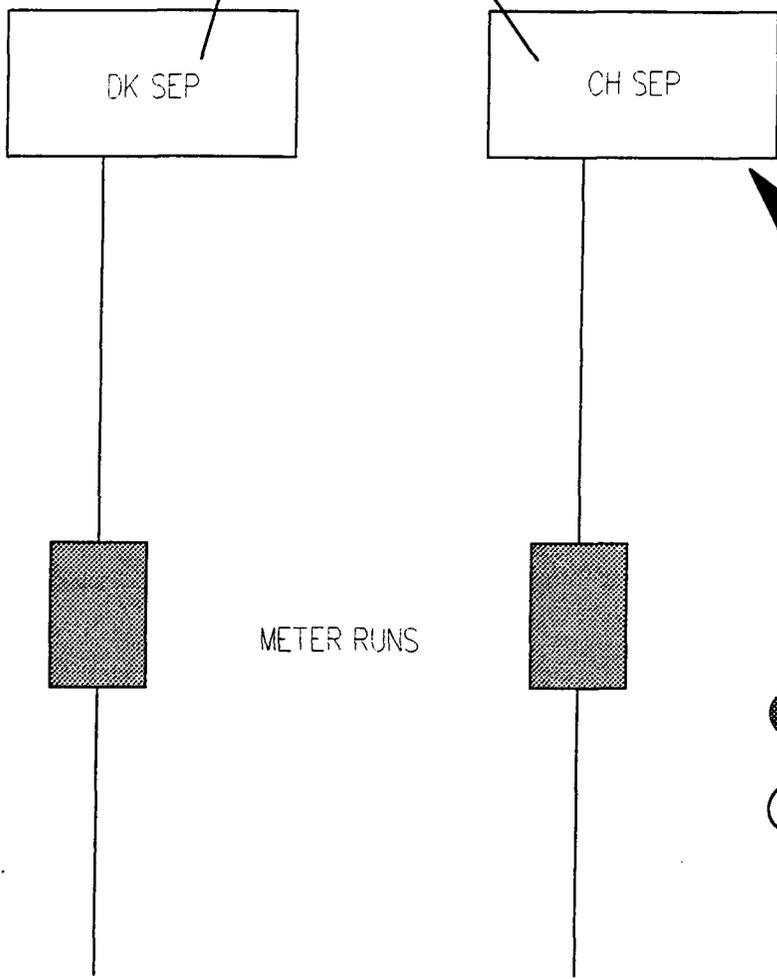
SAMPLE LOCATION	DATE	DEPTH ⁽¹⁾ (ft)	PID ⁽²⁾ (units)	Benzene (ppm)	Total BTEX ⁽³⁾ (ppm)	TPH ⁽⁴⁾ (ppm)
SAMPLE #1	2/13/96	4.5	25.9	0.230	0.388	<6.0
SAMPLE #2	2/13/96	4.5	77.2			
SAMPLE #3	2/13/96	4.5	53.1			
SAMPLE #4	2/13/96	4.5	3.5			
SAMPLE #5	2/13/96	4.5	43.5			
Composite Sample (#2, #3, #4, & #5)	2/13/96	4.5		0.050	0.286	1.1
MW	3/20/97	WATER	NA	0.053	0.110	NA
NMOCD Action Levels	Feb. 1993	SOIL WATER	100 --	10 0.010	50 --	100 --

- Notes:
- (1) Depth below ground surface.
 - (2) PID: Results of field headspace samples measured with an organic vapor meter equipped with a photoionization detector, and Benzene Response Factor of 0.56.
 - (3) BTEX: Benzene, Toluene, Ethyl-benzene, and total Xylenes measure by EPA Method 8020.
 - (4) TPH: Total Petroleum Hydrocarbons as measured by EPA Method 8015 (mod.).
 - (5) ND: Not detected, NA: Not Applicable.

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Scale: 1" = 8'



Approximately 100' N50E
of well head to center
of tank.

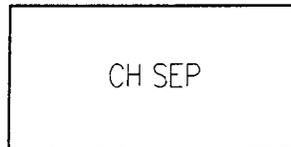
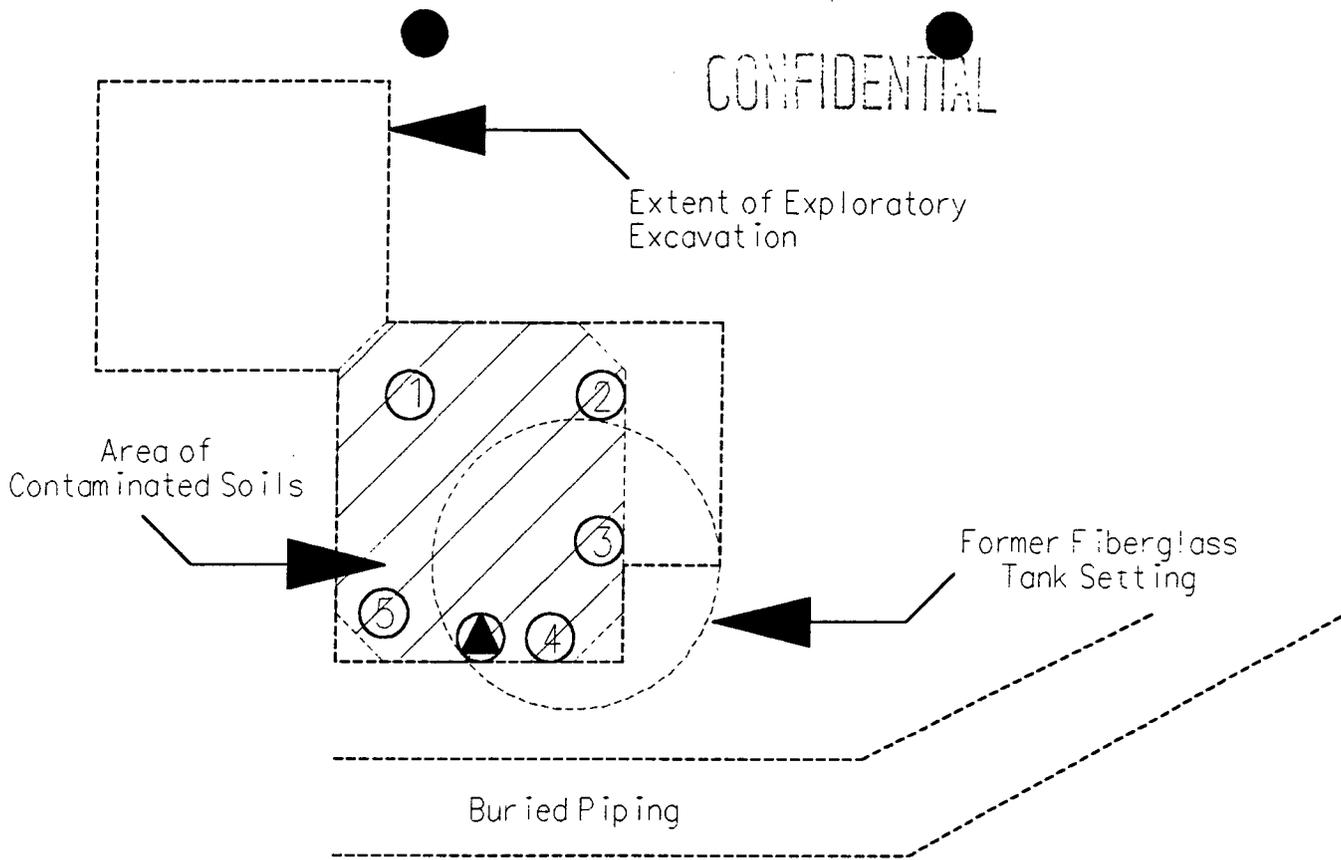
LEGEND

-  Approximate location of test holes drilled on 9/30/96.
-  Approximate location of test holes drilled on 11/11/96.

All dimensions estimated by
pacing and sighting from existing
surface features.

SHEPHERD & KELSEY #1E NE/NE, Sec. 29, T29W, R11W SAN JUAN BASIN, NM		SITE ASSESSMENT SKETCH		 ON SITE TECHNOLOGIES, LTD. P.O. BOX 2606, FARMINGTON, NM 87499 (505) 325-5667
		DRWN: 04-14-97		
PROJECT NO: 4-1303-5		DRWN BY: MKL		
FIGURE: 1	FILE: 41303S1.CAD	PROJECT: SITE ASSESSMENT		

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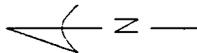


LEGEND

○ Approximate location of closure soil samples (2/13/97).

⊕ Approximate location of monitor well set 2/19/97. drilled on 11/11/96.

All dimensions estimated by pacing and sighting from existing surface features.



Scale: 1" = 8'

SHEPHERD & KELSEY #1E NE/NE, Sec. 29, T29W, R11W SAN JUAN BASIN, NM		PIT REMEDIATION SKETCH		 ON SITE TECHNOLOGIES, LTD. P.O. BOX 2606, FARMINGTON, NM 87499 (505) 325-5667
		DRWN: 04-14-97		
PROJECT NO: 4-1303-5	FILE: 41303S1.CAD	DRWN BY: MKL		
FIGURE: 2		PROJECT: SITE ASSESSMENT		

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Bob Crabb*
 Company: *On Site Technologies, Ltd.*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: 10-Oct-96
 COC No.: 4484
 Sample No. 12387
 Job No. 4-1303

Project Name: *Conoco - S & K 1-E*
 Project Location: *Test Hole #1 @ 42"*
 Sampled by: *ML* Date: 30-Sep-96 Time: 11:15
 Analyzed by: *DC/HR* Date: 10-Oct-96
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	15.6	mg/kg	5.0	mg/kg
TOTAL	15.6	mg/kg		

Quality Assurance Report

GRO QC No.: 0493-STD
 DRO QC No.: 0489-STD

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,447	7.2	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	91	9.1	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	98	85	(70-130)	10	20%
Diesel Range (C10-C28)	99	100	(70-130)	1	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: 10/10/96

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: **Bob Crabb**
 Company: **On Site Technologies, Ltd.**
 Address: **612 E. Murray Drive**
 City, State: **Farmington, NM 87401**

Date: **10-Oct-96**
 COC No.: **4484**
 Sample No. **12388**
 Job No. **4-1303**

Project Name: **Conoco - S & K 1-E**
 Project Location: **Test Hole #2 @ 38-42"**
 Sampled by: **ML**
 Analyzed by: **DC/HR**
 Sample Matrix: **Soil**

Date: **30-Sep-96** Time: **11:45**
 Date: **10-Oct-96**

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	< 5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	< 5.0	mg/kg	5.0	mg/kg
TOTAL	< 5.0	mg/kg		

Quality Assurance Report

GRO QC No.: **0493-STD**
 DRO QC No.: **0489-STD**

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 50	ppb	1,350	1,447	7.2	15%
Diesel Range (C10 - C28)	< 5.0	ppm	100	91	9.1	15%

Matrix Spike

Parameter	1- Percent Recovered	2- Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	98	85	(70-130)	10	20%
Diesel Range (C10-C28)	99	100	(70-130)	1	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: **10/10/96**

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Myke Lane*
Company: *On Site Technologies, Ltd.*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *1-Oct-96*
COC No.: *4484*
Sample No. *12389*
Job No. *4-1303*

Project Name: *Conoco S & K 1-E*
Project Location: *TH-1 Groundwater*
Sampled by: *ML*
Analyzed by: *DC*
Sample Matrix: *Liquid*

Date: *30-Sep-96* Time: *11:40*
Date: *30-Sep-96*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i>2.1</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>2.8</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>0.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>0.7</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>1.9</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>7.7</i>	<i>ug/L</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
Date: *10/1/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Michael Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *15-Nov-96*
 COC No.: *6182*
 Sample No. *12815*
 Job No. *4-1303*

Project Name: *Conoco - Shephard & Kelsey 1E*
 Project Location: *TH #3 @ 36" (@GW)*
 Sampled by: *ML*
 Analyzed by: *DC/HR*
 Sample Matrix: *Soil*

Date: *11-Nov-96* Time: *10:30*
 Date: *14-Nov-96*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
TOTAL	<5.0	mg/kg		

Quality Assurance Report

GRO QC No.: *0480-STD*
 DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,350	1,455	7.8	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	100	0.5	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	109	109	(70-130)	0	20%
Diesel Range (C10-C28)	100	104	(70-130)	3	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/15/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Michael Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: 14-Nov-96
 COC No.: 6182
 Sample No. 12815
 Job No. 4-1303

Project Name: *Conoco - Shephard & Kelsey 1E*
 Project Location: *TH #3 @ 36" (@GW)*
 Sampled by: ML
 Analyzed by: DC
 Sample Matrix: *Soil*

Date: 11-Nov-96 Time: 10:30
 Date: 12-Nov-96

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	0.8	ug/kg	0.2	ug/kg
<i>Toluene</i>	1.9	ug/kg	0.2	ug/kg
<i>Ethylbenzene</i>	0.4	ug/kg	0.2	ug/kg
<i>m,p-Xylene</i>	1.0	ug/kg	0.2	ug/kg
<i>o-Xylene</i>	<0.2	ug/kg	0.2	ug/kg
	<i>TOTAL</i>	4.0		ug/kg

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
 Date: 11/14/96

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: *Michael Lane*
Company: *On Site Technologies, Ltd. c/o Conoco*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *15-Nov-96*
COC No.: *6182*
Sample No. *12816*
Job No. *4-1303*

Project Name: *Conoco - Shephard & Kelsey 1E*
Project Location: *TH #4 @ 24"*
Sampled by: *ML* Date: *11-Nov-96* Time: *10:45*
Analyzed by: *DC/HR* Date: *14-Nov-96*
Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	< 5.0	mg/kg	5.0	mg/kg
Diesel Range Organics (C10 - C28)	< 5.0	mg/kg	5.0	mg/kg
TOTAL	< 5.0	mg/kg		

Quality Assurance Report

GRO QC No.: *0480-STD*
DRO QC No.: *0512-STD*

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	< 50	ppb	1,350	1,455	7.8	15%
Diesel Range (C10 - C28)	< 5.0	ppm	100	100	0.5	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	109	109	(70-130)	0	20%
Diesel Range (C10-C28)	100	104	(70-130)	3	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
Date: *11/15/96*

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OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Michael Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: 14-Nov-96
 COC No.: 6182
 Sample No. 12816
 Job No. 4-1303

Project Name: *Conoco - Shephard & Kelsey 1E*
 Project Location: *TH #4 @ 24"*
 Sampled by: ML
 Analyzed by: DC
 Sample Matrix: *Soil*

Date: 11-Nov-96 Time: 10:45
 Date: 12-Nov-96

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	110.7	ug/kg	0.2	ug/kg
<i>Toluene</i>	9.4	ug/kg	0.2	ug/kg
<i>Ethylbenzene</i>	16.3	ug/kg	0.2	ug/kg
<i>m,p-Xylene</i>	12.4	ug/kg	0.2	ug/kg
<i>o-Xylene</i>	23.2	ug/kg	0.2	ug/kg
TOTAL	171.9	ug/kg		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
 Date: 11/14/96

OFF: (505) 325-5667



LAB: (505) 325-1556

TPH - Gasoline / Diesel Range Organics

Attn: <i>Michael Lane</i>	Date: 15-Nov-96
Company: <i>On Site Technologies, Ltd. c/o Conoco</i>	COC No.: 6182
Address: <i>612 E. Murray Drive</i>	Sample No. 12817
City, State: <i>Farmington, NM 87401</i>	Job No. 4-1303

Project Name:	<i>Conoco - Shephard & Kelsey 1E</i>		
Project Location:	<i>TH #4 @ 36"</i>		
Sampled by:	<i>ML</i>	Date:	<i>11-Nov-96</i> Time: <i>10:50</i>
Analyzed by:	<i>DC/HR</i>	Date:	<i>14-Nov-96</i>
Sample Matrix:	<i>Soil</i>		

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	18.1	mg/kg	5.0	mg/kg
<i>Diesel Range Organics (C10 - C28)</i>	<5.0	mg/kg	5.0	mg/kg
TOTAL	18.1	mg/kg		

Quality Assurance Report

GRO QC No.: 0480-STD
DRO QC No.: 0512-STD

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Gasoline Range (C5 - C9)</i>	<50	ppb	1,350	1,455	7.8	15%
<i>Diesel Range (C10 - C28)</i>	<5.0	ppm	100	100	0.5	15%

Matrix Spike

Parameter	1- Percent Recovered	2- Percent Recovered	Limit	%RSD	Limit
<i>Gasoline Range (C5-C9)</i>	109	109	(70-130)	0	20%
<i>Diesel Range (C10-C28)</i>	100	104	(70-130)	3	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
Date: *11/15/96*

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OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Michael Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *14-Nov-96*
 COC No.: *6182*
 Sample No. *12817*
 Job No. *4-1303*

Project Name: *Conoco - Shephard & Kelsey 1E*
 Project Location: *TH #4 @ 36"*
 Sampled by: *ML* Date: *11-Nov-96*
 Analyzed by: *DC* Date: *12-Nov-96*
 Sample Matrix: *Soil*

Time: *10:50*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>1348.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>783.1</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>669.7</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>1164.3</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>343.4</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>TOTAL</i>	<i>4308.7</i>	<i>ug/kg</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/14/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Michael Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *14-Nov-96*
 COC No.: *6182*
 Sample No. *12818*
 Job No. *4-1303*

Project Name: *Conoco - Shephard & Kelsey 1E*
 Project Location: *TH #3 Groundwater*
 Sampled by: *ML* Date: *11-Nov-96*
 Analyzed by: *DC* Date: *13-Nov-96*
 Sample Matrix: *Liquid*

Time: *11:07*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i>0.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
	<i>TOTAL</i>	<i>0.5</i>		<i>ug/L</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/12/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Michael Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *14-Nov-96*
 COC No.: *6182*
 Sample No. *12819*
 Job No. *4-1303*

Project Name: *Conoco - Shephard & Kelsey 1E*
 Project Location: *TH #4 Groundwater*
 Sampled by: *ML* Date: *11-Nov-96* Time: *11:05*
 Analyzed by: *DC* Date: *13-Nov-96*
 Sample Matrix: *Liquid*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i>362.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>0.9</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethyl benzene</i>	<i>36.9</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>70.6</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
	<i>TOTAL</i>	<i>471.0</i>		<i>ug/L</i>

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/14/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Michael Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *14-Nov-96*
 COC No.: *6182*
 Sample No. *12820*
 Job No. *4-1303*

Project Name: *Conoco - Shephard & Kelsey 1E*
 Project Location: *Drainage Ditch*
 Sampled by: *ML* Date: *11-Nov-96* Time: *11:00*
 Analyzed by: *DC* Date: *13-Nov-96*
 Sample Matrix: *Liquid*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i><0.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i><0.2</i>	<i>ug/L</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/14/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

AROMATIC VOLATILE ORGANICS

Attn: *Michael Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *18-Nov-96*
 COC No.: *6182*
 Sample No. *12821*
 Job No. *4-1303*

Project Name: *Conoco - Shephard & Kelsey 1E*
 Project Location: *@ Storage Tank*
 Sampled by: *ML* Date: *11-Nov-96*
 Analyzed by: *DC* Date: *15-Nov-96*
 Sample Matrix: *Liquid*

Time: *11:15*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i>8997.1</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>6743.7</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>158.5</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>1600.9</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>489.4</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>17989.4</i>	<i>ug/L</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved by: *[Signature]*
 Date: *11/18/96*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: Michael K. Lane
Company: On Site Technologies, Ltd. c/o Conoco
Address: 612 E. Murray Drive
City, State: Farmington, NM 87401

Date: 19-Feb-97
COC No.: 5009
Sample No.: 13686
Job No.: 4-1303

Project Name: Conoco - Shepherd & Kelsey 1E Former Separator Pit
Project Location: Sample #1 @ 4.5'
Sampled by: MKL Date: 13-Feb-97 Time: 10:00
Analyzed by: HR/DC Date: 19-Feb-97
Sample Matrix: Soil

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
Gasoline Range Organics (C5 - C9)	<1.0	mg/kg	1.0	mg/kg
Diesel Range Organics (C10 - C28)	<5.0	mg/kg	5.0	mg/kg
TOTAL	<6.0	mg/kg		

Quality Assurance Report

GRO QC No.: 0535-STD
DRO QC No.: 0512-STD

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Gasoline Range (C5 - C9)	<50	ppb	1,351	1,451	7.4	15%
Diesel Range (C10 - C28)	<5.0	ppm	100	106	6.1	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Gasoline Range (C5-C9)	104	106	(70-130)	2	20%
Diesel Range (C10-C28)	97	92	(70-130)	4	20%

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by:
Date: 2/19/97

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OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
Company: *On Site Technologies, Ltd. c/o Conoco*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *18-Feb-97*
COC No.: *5009*
Sample No.: *13686*
Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Separator Pit*
Project Location: *Sample #1 @ 4.5'*
Sampled by: *MKL* Date: *13-Feb-97* Time: *10:00*
Analyzed by: *HR* Date: *14-Feb-97*
Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>229.5</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>4.3</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>45.9</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>107.5</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>1.1</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>388.3</i>		<i>ug/kg</i>

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: *[Signature]*
Date: *2/13/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *19-Feb-97*
 COC No.: *5009*
 Sample No.: *13687*
 Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Separator Pit*
 Project Location: *Composite @ 4.5'*
 Sampled by: *MKL* Date: *13-Feb-97* Time: *10:00*
 Analyzed by: *HR/DC* Date: *19-Feb-97*
 Sample Matrix: *Soil*

Laboratory Analysis

Parameter	Result	Unit of Measure	Detection Limit	Unit of Measure
<i>Gasoline Range Organics (C5 - C9)</i>	<i>1.1</i>	<i>mg/kg</i>	<i>1.0</i>	<i>mg/kg</i>
<i>Diesel Range Organics (C10 - C28)</i>	<i><5.0</i>	<i>mg/kg</i>	<i>5.0</i>	<i>mg/kg</i>
	TOTAL	<i>1.1</i>		<i>mg/kg</i>

Quality Assurance Report

GRO QC No.: 0535-STD
DRO QC No.: 0512-STD

Calibration Check

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
<i>Gasoline Range (C5 - C9)</i>	<i><50</i>	<i>ppb</i>	<i>1,351</i>	<i>1,451</i>	<i>7.4</i>	<i>15%</i>
<i>Diesel Range (C10 - C28)</i>	<i><5.0</i>	<i>ppm</i>	<i>100</i>	<i>106</i>	<i>6.1</i>	<i>15%</i>

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
<i>Gasoline Range (C5-C9)</i>	<i>104</i>	<i>106</i>	<i>(70-130)</i>	<i>2</i>	<i>20%</i>
<i>Diesel Range (C10-C28)</i>	<i>97</i>	<i>92</i>	<i>(70-130)</i>	<i>4</i>	<i>20%</i>

Method - SW-846 EPA Method 8015A mod. - Nonhalogenated Volatile Hydrocarbons by Gas Chromatography

Approved by: *[Signature]*
 Date: *2/19/97*

P.O. BOX 2606 • FARMINGTON, NM 87499

TECHNOLOGY BLENDING INDUSTRIES, WITH THE FARMINGTON, NM

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael K. Lane*
 Company: *On Site Technologies, Ltd. c/o Conoco*
 Address: *612 E. Murray Drive*
 City, State: *Farmington, NM 87401*

Date: *18-Feb-97*
 COC No.: *5009*
 Sample No.: *13687*
 Job No.: *4-1303*

Project Name: *Conoco - Shepherd & Kelsey 1E Former Separator Pit*

Project Location: *Composite @ 4.5'*

Sampled by: *MKL* Date: *13-Feb-97* Time: *10:00*

Analyzed by: *HR* Date: *14-Feb-97*

Sample Matrix: *Soil*

Laboratory Analysis

<i>Parameter</i>	<i>Result</i>	<i>Units of Measure</i>	<i>Detection Limit</i>	<i>Units of Measure</i>
<i>Benzene</i>	<i>49.7</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Toluene</i>	<i>60.9</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>Ethylbenzene</i>	<i>44.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>m,p-Xylene</i>	<i>80.5</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
<i>o-Xylene</i>	<i>51.2</i>	<i>ug/kg</i>	<i>0.2</i>	<i>ug/kg</i>
	<i>TOTAL</i>	<i>286.4</i>		<i>ug/kg</i>

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: *[Signature]*
 Date: *2/18/97*

OFF: (505) 325-5667



LAB: (505) 325-1556

ANALYTICAL REPORT

Attn: *Michael Lane*
Company: *On Site Technologies, Ltd. c/o Conoco*
Address: *612 E. Murray Drive*
City, State: *Farmington, NM 87401*

Date: *26-Mar-97*
COC No.: *5060*
Sample No.: *13999*
Job No.: *4-1303-5*

Project Name: *Conoco - Shepherd & Kelsey #1E*
Project Location: *Separator Pit Excavation - MW*
Sampled by: *ML* Date: *20-Mar-97* Time: *10:20*
Analyzed by: *DC* Date: *24-Mar-97*
Sample Matrix: *Liquid*

<i>Parameter</i>	<i>Result</i>	<i>Unit of Measure</i>	<i>Detection Limit</i>	<i>Unit of Measure</i>
<i>Benzene</i>	<i>50.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Toluene</i>	<i>10.2</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>Ethylbenzene</i>	<i>6.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>m,p-Xylene</i>	<i>40.6</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>o-Xylene</i>	<i>3.3</i>	<i>ug/L</i>	<i>0.2</i>	<i>ug/L</i>
<i>TOTAL</i>	<i>110.7</i>	<i>ug/L</i>		

Method - SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography

Approved By: *DC*
Date: *3/26/97*

P.O. BOX 2606 • FARMINGTON, NM 87499



QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 30-Sep-96

Internal QC No.: 0486-QC
Surrogate QC No.: 0488-QC
Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	19.9	1	15%
Toluene	ppb	20.0	19.6	2	15%
Ethylbenzene	ppb	20.0	19.7	1	15%
m,p-Xylene	ppb	40.0	37.9	5	15%
o-Xylene	ppb	20.0	18.7	7	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	109	111	(39-150)	1	20%
Toluene	80	83	(46-148)	1	20%
Ethylbenzene	102	104	(32-160)	1	20%
m,p-Xylene	88	90	(35-145)	1	20%
o-Xylene	92	94	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
12389-4484	97				

S1: Fluorobenzene

pe

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 12-Nov-96

Internal QC No.: 0515-QC
Surrogate QC No.: 0516-QC
Reference Standard QC No.: 0417-QC

Method Blank

Analyte	Result	Units of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Analyte	Units of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	19.8	1	15%
Toluene	ppb	20.0	19.9	1	15%
Ethylbenzene	ppb	20.0	19.9	1	15%
m,p-Xylene	ppb	40.0	39.5	1	15%
o-Xylene	ppb	20.0	19.6	2	15%

Matrix Spike

Analyte	1- Percent Recovered	2- Percent Recovered	Limit	%RSD	Limit
Benzene	99	98	(39-150)	1	20%
Toluene	102	101	(46-148)	1	20%
Ethylbenzene	104	102	(32-160)	1	20%
m,p-Xylene	102	101	(35-145)	1	20%
o-Xylene	102	102	(35-145)	0	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
S1: Fluorobenzene			S1: Fluorobenzene		
12815-6182	97				
12816-6182	90				
12817-6182	118				

(12)



QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 13-Nov-96

Internal QC No.: 0515-QC
Surrogate QC No.: 0516-QC
Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	20.0	0	15%
Toluene	ppb	20.0	20.6	3	15%
Ethylbenzene	ppb	20.0	21.0	5	15%
m,p-Xylene	ppb	40.0	41.3	3	15%
o-Xylene	ppb	20.0	20.9	4	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	99	98	(39-150)	1	20%
Toluene	102	101	(46-148)	1	20%
Ethylbenzene	104	102	(32-160)	1	20%
m,p-Xylene	102	101	(35-145)	1	20%
o-Xylene	102	102	(35-145)	0	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
12818-6182	97				
12819-6182	98				
12820-6182	97				

S1: Fluorobenzene

②



QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 15-Nov-96

Internal QC No.: 0515-QC
Surrogate QC No.: 0516-QC
Reference Standard QC No.: 0417-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	19.5	2	15%
Toluene	ppb	20.0	20.2	1	15%
Ethylbenzene	ppb	20.0	20.4	2	15%
m,p-Xylene	ppb	40.0	40.2	0	15%
o-Xylene	ppb	20.0	20.1	0	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	118	110	(39-150)	5	20%
Toluene	120	112	(46-148)	5	20%
Ethylbenzene	122	113	(32-160)	5	20%
m,p-Xylene	118	110	(35-145)	5	20%
o-Xylene	115	107	(35-145)	5	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
12821-6182	97				

S1: Fluorobenzene

(17c)

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 14-Feb-97

Internal QC No.: 0527-STD
Surrogate QC No.: 0528-STD
Reference Standard QC No.: 0417-QC

Method Blank

Analyte	Result	Units of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Analyte	Units of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	19.8	1	15%
Toluene	ppb	20.0	20.5	3	15%
Ethylbenzene	ppb	20.0	20.9	5	15%
m,p-Xylene	ppb	40.0	40.6	1	15%
o-Xylene	ppb	20.0	20.6	3	15%

Matrix Spike

Analyte	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	83	79	(39-150)	3	20%
Toluene	90	79	(46-148)	8	20%
Ethylbenzene	82	78	(32-160)	4	20%
m,p-Xylene	77	73	(35-145)	3	20%
o-Xylene	77	74	(35-145)	3	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovery	(70-130)		Limit Percent Recovery	(70-130)	
S1: Fluorobenzene			S1: Fluorobenzene		
13686-5009	94				
13687-5009	80				

(17)

OFF: (505) 325-5667



LAB: (505) 325-1556

QUALITY ASSURANCE REPORT
for EPA Method 8020

Date Analyzed: 24-Mar-97

Internal QC No.: 0527-STD

Surrogate QC No.: 0528-STD

Reference Standard QC No.: 0529/30-QC

Method Blank

Parameter	Result	Unit of Measure
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	Unit of Measure	True Value	Analyzed Value	% Diff	Limit
Benzene	ppb	20.0	18.6	7	15%
Toluene	ppb	20.0	19.4	3	15%
Ethylbenzene	ppb	20.0	19.8	1	15%
m,p-Xylene	ppb	40.0	38.2	4	15%
o-Xylene	ppb	20.0	19.5	2	15%

Matrix Spike

Parameter	1 - Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	89	88	(39-150)	1	20%
Toluene	92	92	(46-148)	0	20%
Ethylbenzene	94	94	(32-160)	0	20%
m,p-Xylene	90	90	(35-145)	0	20%
o-Xylene	93	93	(35-145)	0	20%

Surrogate Recoveries

Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered	Laboratory Identification	S1 Percent Recovered	S2 Percent Recovered
Limit Percent Recovered	(70-130)		Limit Percent Recovered	(70-130)	
13998-5060	96				
13999-5060	93				

S1: Fluorobenzene

(Handwritten signature)
3/26/97

CHAIN OF CUSTODY RECORD

6182



657 W. Maple • P. O. Box 2606 • Farmington NM 87499
 LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: Nov. 11, 96

Page 1 of 1

Purchase Order No.:		Job No. <u>4-103</u>			
Name: <u>Michael Lane, On Site Technology</u>		Title: <u>Sam</u>			
Company: <u>On Site Tech.</u>		Mailing Address:			
Address:		City, State, Zip:			
City, State, Zip:		Telephone No.:			
City, State, Zip:		Telefax No.:			
Sampling Location: <u>The name of house 1E</u>		ANALYSIS REQUESTED			
Reason for test: <u>to determine if there is any lead contamination</u>					
Sampler: <u>Michael Lane</u>					
SAMPLE IDENTIFICATION				RESULTS TO REPORT	Number of Containers
DATE	SAMPLE TIME			MATRIX	PRES.
<u>11/11</u>	<u>1030</u>			<u>Soil</u>	<u>N</u>
<u>11/11</u>	<u>1045</u>			<u>Soil</u>	<u>N</u>
<u>11/11</u>	<u>1050</u>			<u>Soil</u>	<u>N</u>
<u>11/11</u>	<u>1107</u>			<u>White</u>	<u>A.S.2</u>
<u>11/11</u>	<u>1105</u>			<u>White</u>	<u>"</u>
<u>11/11</u>	<u>1110</u>	<u>White</u>	<u>"</u>		
<u>11/11</u>	<u>1115</u>	<u>White</u>	<u>"</u>		
Date/Time <u>11/11/96, 10:30</u>		Received by: <u>[Signature]</u>	Date/Time <u>11/11/96, 10:30</u>		
Date/Time		Received by:	Date/Time		
Date/Time		Received by:	Date/Time		
Method of Shipment:		Rush	10 Working Days		
Authorized by: _____		Special Instructions:			
(Client Signature Must Accompany Request)		Date: _____			

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

CHAIN OF CUSTODY RECORD

5060



657 W. Maple • P. O. Box 2606 • Farmington NM 87499
 LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 3/20/97

Page 1 of 1

Purchase Order No.:		Job No. 4-120000	
SEND INVOICE TO		Name: Michelle Lane	
Company: [blank]		Dept.:	
Address:		City, State, Zip:	
Sampling Location: [blank]		Telephone No.:	
Sampler: Michelle Lane		Title: [blank]	
SAMPLE IDENTIFICATION		REPORT RESULTS TO	
DATE	SAMPLE TIME	MATRIX	PRES.
3/20	11:00	LHR	H/C
"	12:00	LHR	H/C
Number of Containers		ANALYSIS REQUESTED	
2		[blank]	
LAB ID		LAB ID	
13995-5260		13999-5660	
Relinquished by: [Signature]		Received by: [Signature]	
Date/Time: 3/20/97 12:15		Date/Time: 3/20/97 12:15	
Relinquished by: [Signature]		Received by: [Signature]	
Date/Time: [blank]		Date/Time: [blank]	
Method of Shipment:		Rush	
Authorized by: [Signature]		24-48 Hours	
(Client Signature Must Accompany Request)		10 Working Days	
Date: 3/20/97		Special Instructions:	

Distribution: White - On Site Yellow

Pink - Sampler Goldstrod - Client