3R - 93

GENERAL CORRESPONDENCE

YEAR(S):

2001 - 1996

ON SITE
TECHNOLOGIES, LTD.

February 27, 2001

MAY – 1 2001

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

RE: Pit Remediation & Closure Reports

On behalf of Conoco ***On Site Technologies Limited Partnership***, is submitting the enclosed Pit Remediation & Closure Reports.

LOCATION NAME	LEGAL DESCRIPTION	RECOMMENDATION
San Juan 28-7#126	Unit M, S 1, T27N, R7W	Pit Remediation & Closure Report
San Juan 28-7#219	Unit N, S 20, T28N, R7W	Pit Remediation & Closure Report
San Juan 28-7#19	Unit G, S 25, T28N, R7W	Pit Remediation & Closure Report
San Juan 28-7#47	Unit A, S 20, T28N, R7W	Pit Remediation & Closure Report

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

Thank you for your time and considerations.

Respectfully submitted,

Lawrence "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

PO Box 2606
Farmington, NM 87499

505-325-5667 FAX: 505-327-1496

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

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

ON SITE
TECHNOLOGIES, LTD.

SEP - 1 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

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.

ON SITE
TECHNOLOGIES, LTD.

RECEIVED
FEB 19 1999
ENVIRONMENTAL BUREAU
OIL CONSERVATION DIVISION

Letter of Transmittal

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

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

June 5, 1998

CERTIFIED MAIL
RETURN RECEIPT NO. Z-235-437-284

Ms. Shirley Ebert
Conoco, Inc.
3315 Bloomfield Hwy.
Farmington, New Mexico 87401

RE: GROUND WATER INVESTIGATIONS
SAN JUAN BASIN PIT CLOSURES

Dear Ms. Ebert:

The New Mexico Oil Conservation Division (OCD) has completed a review of Conoco, Inc.'s (Conoco) February 4, 1998 "CONOCO'S 1997 ANNUAL GROUNDWATER REPORT" which was received by the OCD on February 27, 1998. This document, which was submitted on behalf of Conoco by their consultant On Site Technologies, Ltd., contains the results of Conoco's investigation, remediation and monitoring at 12 unlined oil and gas production pit sites with resulting ground water contamination.

Upon a review of the above referenced documents, the OCD has the following comments and requirements:

1. The data in the reports for the sites listed below show that the complete extent of ground water contamination has not been determined. The OCD requires that Conoco complete the definition of the extent of ground water contamination at these sites pursuant to Conoco's prior approved ground water investigation and remediation plan for the San Juan Basin.

-	Farmington B Com #1	Unit H, Sec. 12, T29N, R12W.
-	Farmington C Com #1	Unit L, Sec. 15, T29N, R13W.
-	Farmington Com #1	Unit P, Sec. 11, T29N, R13W.
-	Nell-Hall #1	Unit M, Sec. 07, T30N, R11W.
-	Salmon #1	Unit P, Sec. 30, T29N, R11W.

2. The ground water metals data for the site listed below shows that the concentrations of barium, chromium and lead in ground water are above the New Mexico Water Quality Control Commission (WQCC) ground water standards. The OCD requires that Conoco conduct additional metals sampling at this site

-	Farmington Com #1	Unit P, Sec. 11, T29N, R13W.

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.

On Site Technologies, Ltd.

RECEIVED

FEB 27 1998

Environmental Bureau
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

ANNUAL SUMMARY

PIT CLOSURES
AND
GROUND WATER IMPACT UPDATES

STATE OF NEW MEXICO
1996

RECEIVED

MAY 2 0 1997

Environmental Bureau
Oil Conservation Division

Each site filed under seperate case files

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

ON SITE
TECHNOLOGIES, LTD.

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

Michael K. Lane, P.E.
Senior Engineer

Enclosures: Table 1 & Listed Attachments

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

file: 41303.doc

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

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
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
Nell Hall #1	June 14, 97 June 28, 96 July 12, 96 Apr. 1, 97	Lab Reports & QA/QC (IML) Lab Reports & QA/QC (IML) Lab Reports & QA/QC (IML) Letter regarding no water (On Site)	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".
SJ 28-7 #19	Mar. 12, 96 July 17, 96 Mar. 19, 97 Apr. 21, 97	Lab Reports & QA/QC (IML) Lab Reports & QA/QC (IML) Lab Reports & QA/QC (On Site) Lab Reports & QA/QC (On Site)	Continue ground water monitoring for four additional quarters.
SJ 28-7 #47	Mar. 12, 96 Apr. 15, 96 July 17, 96 Mar. 19, 97 Apr. 21, 97	Lab Reports & QA/QC (IML) Lab Reports & QA/QC (IML) Lab Reports & QA/QC (IML) Lab Reports & QA/QC (On Site) Lab Reports & QA/QC (On Site)	Continue ground water monitoring for four additional quarters.
SJ 28-7 #126	Mar. 12, 96 July 17, 96 Mar. 26, 97	Lab Reports & QA/QC (IML) Lab Reports & QA/QC (IML) Lab Reports & QA/QC (On Site)	Continue ground water monitoring for an additional quarter.
SJ 28-7 #219	Mar. 12, 96 July 17, 96 Mar. 26, 97	Lab Reports & QA/QC (IML) Lab Reports & QA/QC (IML) Lab Reports & QA/QC (On Site)	Continue ground water monitoring for two additional quarters.

'NEW MEXICO PIT DATA
'CONOCO INC.

TYPES OF PITS	
SEP: Separator Pit	BDP: Blowdown Pit
DHP: Dehydrator Pit	FGP: Fiberglass Tank Pit
CSP: CompressorScrubberPit	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 REMED-IATION 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'X18'X3'		X			03/18/96		03/26/96
7	Jicarilla No. 3	Contract #12	Unit D, Sec. 31-26N-4W	SEP	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		08/05/96
12	Jicarilla No. 13	Contract #12	Unit G, Sec. 31-26N-4W	TDP	18' x 16' x 4'		X			Unknown		08/07/96
13	Jicarilla No. 14	Contract #12	Unit P, Sec. 31-26N-4W	SEP	19' x 18' x 3'		X			Unknown		08/15/96
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			06/26/96		07/25/96
19	Jicarilla A No. 8	Contract # 105	Unit E, Sec 23-26N-4W	SEP	20'x20'x3'		X			05/15/96		05/22/96
20	Jicarilla A No. 9	Contract # 105	Unit C, Sec 14-26N-4W	TDP	10'x10'x5'		X			06/11/96		06/26/96
21	Jicarilla A No. 10	Contract # 105	Unit D, Sec 23-26N-4W	SEP	16'x16'x4'		X			05/08/96		05/15/96
22	Jicarilla A No. 13	Contract # 105	Unit E, Sec 13-26N-4W	TDP	16'x16'x4'		X			Unknown		07/25/96
23	Jicarilla B No. 2	Contract # 106	Unit K, Sec 25-26N-4W	BDP	15'x25'x3'		X			06/06/96		06/26/96
24	Jicarilla B No. 8	Contract # 106	Unit K, Sec 25-26N-4W	SEP	10'x15'x3'		X			05/22/96		05/31/96
25	Jicarilla B No. 9	Contract # 106	Unit K, Sec 26-26N-4W	SEP	15'x15'x2'		X			06/10/96		08/15/96
26	Jicarilla B No. 9A	Contract # 106	Unit D, Sec 26-26N-4W	SEP	18'x18'x3'		X			03/27/96		03/29/96
27	Jicarilla B No. 13	Contract # 106	Unit M, Sec 36-26N-4W	SEP	16'x16'x4'		X			03/29/96		03/29/96
28	Jicarilla B No. 15	Contract # 106	Unit J, Sec 36-26N-4W	SEP	12'x12'x2'		X			04/04/96		04/15/96
29	Jicarilla D No. 11	Contract # 100	Unit A, Sec 29-26N-3W	TDP	12'x14'x4'		X			04/09/96		04/15/96
30	Jicarilla D No. 17	Contract # 100	Unit D, Sec 29-26N-3W	TDP	16'x18'x3'		X			04/12/96		04/15/96
31	Jicarilla D No. 18	Contract # 100	Unit A, Sec 30-26N-3W	SEP	15'x15'x2'		X			07/29/96		08/15/96
32	Jicarilla E No. 6	Contract # 104	Unit B, Sec 21-26N-4W	TDP	18'x18'x3'		X			06/05/96		06/21/96
33	Jicarilla E No. 8	Contract # 104	Unit C, Sec 15-26N-4W	TDP	10'x10'x3'		X			03/25/96		06/05/96
34	Jicarilla E No. 14	Contract # 104	Unit D, Sec 15-26N-4W	CSP	10'x12'x3'		X			Unknown		09/24/96
35	Jicarilla K No. 12E	Contract No. 145	Unit M, Sec 02-25N-5W	SEP	12'x14'x3'		X			08/26/96		09/03/96
36	Jicarilla K No. 15	Contract No. 145	Unit I, Sec 01-25N-5W	SEP	14'x16'x2'		X			Unknown		10/02/96
37	Jicarilla K No. 22	Contract No. 145	Unit M, Sec 02-25N-5W	SEP	12'x14'x4'		X			Unknown		09/24/96
38	Jicarilla K No. 22A	Contract No. 145	Unit O, Sec 02-25N-5W	SEP	10'x10'x01'		X			Unknown		

39	Tribal No. 2	Fed. 6090001150	Unit L, Sec. 9-26N-3W	SEP	30' x 24' x 6'		X			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'			X		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		03/22/96		03/29/96
3	AXI Apache N No.14A	Contract #121	Unit K, Sec. 1-25N-4W	SEP	19'x19'x3'			X		Unknown		03/22/96
4	AXI Apache N No. 12	Contract #121	Unit C, Sec. 11-25N-4W	SEP	20' x 18' 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'x16'x3'			X		04/19/96		04/22/96
8	Jicarilla D No. 13	Contract # 100	Unit A, Sec 32-26N-3W	TDP	15'x15'x2'			X		04/16/96		04/22/96
9	Jicarilla D No. 13A	Contract # 100	Unit P, Sec 32-26N-3W	SEP	20'x20'x2'			X		04/15/96		04/22/96
10	Jicarilla D No. 19	Contract # 100	Unit I, Sec 31-26N-3W	TDP	25'x28'x2'			X		04/25/96		05/03/96
11	Jicarilla D No. 20	Contract # 100	Unit N, Sec 31-26N-3W	TDP	20'x30'x4'			X		04/25/96		05/03/96

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Michael K. Lane*	Date:	28-Apr-97
Company:	*On Site Technologies, Ltd. c/o Conoco*	COC No.:	*6321*
Address:	*612 E. Murray Drive*	Sample No.:	*14293*
City, State	*Farmington, NM 87401*	Job No.:	*2-1000*

Project Name:	***Conoco - San Juan 28-7 #19***				
Project Location:	***Monitor Well***				
Sampled by:	ML	Date:	21-Apr-97	Time:	13:50
Analyzed by:	DC	Date:	26-Apr-97		
Sample Matrix:	*Liquid*				

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene	168.2	ug/L	0.2	ug/L
Toluene	119.6	ug/L	0.2	ug/L
Ethylbenzene	3.7	ug/L	0.2	ug/L
m,p-Xylene	11.4	ug/L	0.2	ug/L
o-Xylene	15.6	ug/L	0.2	ug/L
TOTAL	318.5	ug/L		

ND - Not Detected at Limit of Quantitation

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

Approved By:
Date: 4/28/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 26-Apr-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	18.1	10	15%
Toluene	ppb	20.0	18.8	6	15%
Ethylbenzene	ppb	20.0	19.0	5	15%
m,p-Xylene	ppb	40.0	36.9	8	15%
o-Xylene	ppb	20.0	19.0	5	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	86	84	(39-150)	2	20%
Toluene	89	87	(46-148)	1	20%
Ethylbenzene	90	89	(32-160)	1	20%
m,p-Xylene	89	88	(35-145)	1	20%
o-Xylene	86	85	(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)	
14293-6321	99				
					(PW)
					4/28/97

S1: Flourobenzene

CHAIN OF CUSTODY RECORD

321

ON SITE TECHNOLOGIES, LTD.

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

Date: 4·21·97

Page 1 of 1

Purchase Order No.: | Job No. 2-1358

SEND INVOICE TO
Name c/o Michael Lane - On Site
Company Conoco | Dept.
Address
City, State, Zip

REPORT RESULTS TO
Name Michael Lane | Title Sampler
Company On Site
Mailing Address
City, State, Zip
Telephone No. | Telefax No.

Sampling Location: San Juan 28-7 #19

Sampler: Michael Lane

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	ANALYSIS REQUESTED: BTEX	LAB ID
Monitor Well	4/21	1350	Water	H_2SO_4	2	✓	14293-16321

Relinquished by: Heidi Reese | Date/Time 4/21/97 : 1650 | Received by: Heidi Reese | Date/Time 4/21/97 1700
Relinquished by: | Date/Time | Received by: | Date/Time
Relinquished by: | Date/Time | Received by: | Date/Time

Method of Shipment:
Authorized by: Heidi Reese (Client Signature Must Accompany Request) Date 4/21/97

Rush	24-48 Hours	10 Working Days	Special Instructions:

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

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Micheal Lane*	Date:	31-Mar-97
Company:	*On Site Technologies, Ltd. c/o Conoco*	COC No.:	*5099*
Address:	*612 E. Murray Drive*	Sample No.:	*14046*
City, State:	*Farmington, NM 87401*	Job No.:	*4-1358*

Project Name:	***Conoco - 28-7 #19***				
Project Location:	***MW-1***				
Sampled by:	HR	Date:	26-Mar-97	Time:	15:30
Analyzed by:	DC	Date:	27-Mar-97		
Sample Matrix:	*Liquid*				

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	48.1	ug/L	0.2	ug/L
Toluene	25.9	ug/L	0.2	ug/L
Ethylbenzene	1.0	ug/L	0.2	ug/L
m,p-Xylene	2.1	ug/L	0.2	ug/L
o-Xylene	2.5	ug/L	0.2	ug/L
TOTAL	79.6	ug/L		

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

Approved By:

Date: 3/31/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 27-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	19.7	2	15%
Ethylbenzene	ppb	20.0	20.0	0	15%
m,p-Xylene	ppb	40.0	38.5	4	15%
o-Xylene	ppb	20.0	22.8	14	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	%RSD	Limit
Benzene	87	85	(39-150)	1	20%
Toluene	93	91	(46-148)	1	20%
Ethylbenzene	94	92	(32-160)	1	20%
m,p-Xylene	91	89	(35-145)	1	20%
o-Xylene	94	92	(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)	
14046-5099	93				

S1: Flourobenzene

ON SITE TECHNOLOGIES, LTD.

CHAIN OF CUSTODY RECORD

0099

Date: 3/16/11

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.:	Job No.		
SEND INVOICE TO: Name		REPORT RESULTS TO: Name	Title
Company	Dept.	Company	
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	Telefax No.

Sampling Location:

Sampler:

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	BTEX	LAB ID

ANALYSIS REQUESTED

Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: _____ Date _____
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:

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

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Conoco, Inc.

Project ID:	Not Given	Report Date:	07/26/96
Sample ID:	28-7 #19 MW1	Date Sampled:	07/17/96
Lab ID:	0396G01348	Date Received:	07/17/96
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	7/18-25/96

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	0.4	0.2
Toluene	0.3	0.2
Ethylbenzene	0.7	0.2
m,p-Xylenes	0.8	0.2
o-Xylene	ND	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	93.4%	75 -125%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

conoco

Environmental Sample Chain of Custody and Log

Research and Engineering

Project Number

Type or Print Data

Facility Name	Telephone Number	Transporter Name	Telephone Number
Conoco	(505) 324-5813		( ) -
Facility Address		**Transporter Address**	
3315 Bloomfield Hwy			
Facility Supervisor		**Method of Shipping**	
John Coy			
Process Producing Sample	**Special Shipping Instructions**		
Employee(s) Sampling	**Remarks**		
Neal Goates / Brent Dunagan			
Other Employee(s) Handling			

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	No.	Analysis Req. ▶ Preservative	BTEX - Wtr	Soil TPH	
28-7 #47 MW1	7-16-96	9:30am	Wtr.	40mL	Glss	1	HCl 1:1	1		
28-7 #72A - LF	7-16-96	9:45am	soil	8 oz	Glss	1	none		1	
28-7 #72 - LF	7-16-96	10:00am	soil	8 oz	Glss	1	none		1	
28-7 #19 - ~~F~~MW1	7-16-96	1100 am	Wtr	40 mL	Glss	1	HCl 1:1	1		
28-7 #167 Pit 1	7-16-96	100 pm	soil	8 oz	Glss	1	none		1	
28-7 #167 pit 2	7-16-96	105 pm	soil	8 oz	Glss	1	none		1	
28-7 #167 pit 3	7-16-96	110 pm	soil	8 oz	Glss	1	none		1	
28-7 #202 pit 2	7-16-96	145pm	soil	8 oz	Glss	1	none		1	
28-7 #202 pit 1	7-16-96	140pm	soil	8 oz	Glss	1	none		1	
28-7 #67 Pit 1	7-16-96	130pm	soil	8 oz	Glss	1	none		1	
28-7 #170 pit 1	7-16-96	230pm	soil	8 oz	Glss	1	none		1	
28-7 #170 pit 2	7-16-96	236pm	soil	8 oz	Glss	1	none		1	
28-7 #122 pit 1	7-16-96	300pm	soil	8 oz	Glss	1	none		1	
28-7 #173 pit 1	7-16-96	330pm	soil	8 oz	Glss	1	none		1	
28-7 #173 pit 2	7-16-96	335pm	soil	8 oz	Glss	1	none		1	conf + intact
28-7 #173 pit 3	7-16-96	340pm	soil	8 oz	Glss	1	none		1	
28-7 #196 pit 1	7-16-96	430pm	soil	8 oz	Glss	1	none		1	
28-7 #196 pit 2	7-16-96	436pm	soil	8 oz	Glss	1	none		1	
28-7 #126 MW1	7-16-96	545pm	Wtr.	40 mL	Glss	1	HCl 1:1	1		

Signatures

Bottles Relinquished by	Date/Time	Bottles Received by	Date/Time	Condition of Samples Upon Arrival at Final Destination
[signature]	7/17/96 8:30am	Chris Raymer	7-17-96 0830	
Relinquished by	Date/Time	Received by	Date/Time	
Relinquished by	Date/Time	Received by	Date/Time	Signature / Date
Relinquished by	Date/Time	Received by	Date/Time	Temp. of Samples on Arrival (Temp. sensitive analysis only)
Relinquished by	Date/Time	Received by	Date/Time	
Relinquished by	Date/Time	Received by	Date/Time	Signature / Date

5-157 X3, 10-91

ANALYZING LAB COPY

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

TOTAL PETROLEUM HYDROCARBONS
Quality Assurance/Quality Control

Client:	**Conoco, Inc.**	Date Reported:	07/26/96
Project:	Not Given	Date Sampled:	07/16/96
Matrix:	Soil	Date Received:	07/17/96
Condition:	Intact/Cool	Date Extracted:	07/19/96
		Date Analyzed:	07/19/96

Duplicate Analysis

Lab ID	Sample Result	Duplicate Result	Units	% Difference
0396G01350	822	784	mg/Kg	4.8%

Method Blank Analysis

Lab ID	Result	Units	Detection Limit
Method Blank	ND	mg/Kg	20

Spike Analysis

Lab ID	Found Conc. mg/Kg	Sample Conc. mg/Kg	Spike Amount mg/Kg	Percent ecover	Acceptance Limits
0396G01350	975	883	200	77%	70-130%

Known Analysis

Lab ID	Found Conc. mg/Kg	Known Conc. mg/Kg	Percent ecover	Acceptance Limits
QC	20.1	20.6	98%	70-130%

References:

Method 418.1: Petroleum Hydrocarbons, Total Recoverable, USEPA Chemical Analysis of Water and Waste, 1978.

Method 3550: Ultrasonic Extraction of Non-Volatile and Semi-Volatile Organic Compounds from Solids, USEPA SW-846, Rev. 1, July 1992.

Analyst: _____ Reviewed: _____

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

TOTAL PETROLEUM HYDROCARBONS
Quality Assurance/Quality Control

Client:	**Conoco, Inc.**	Date Reported:	07/26/96
Project:	Not Given	Date Sampled:	07/16/96
Matrix:	Soil	Date Received:	07/17/96
Condition:	Intact/Cool	Date Extracted:	07/19/96
		Date Analyzed:	07/19/96

Duplicate Analysis

Lab ID	Sample Result	Duplicate Result	Units	% Difference
0396G01360	324	311	mg/Kg	4.0%

Method Blank Analysis

Lab ID	Result	Units	Detection Limit
Method Blank	ND	mg/Kg	20

Spike Analysis

Lab ID	Found Conc. mg/Kg	Sample Conc. mg/Kg	Spike Amount mg/Kg	Percent ecover	Acceptance Limits
0396G01360	516	324	250	77%	70-130%

Known Analysis

Lab ID	Found Conc. mg/Kg	Known Conc. mg/Kg	Percent ecover	Acceptance Limits
QC	20.1	20.6	98%	70-130%

References:

Method 418.1: Petroleum Hydrocarbons, Total Recoverable, USEPA Chemical Analysis of Water and Waste, 1978.

Method 3550: Ultrasonic Extraction of Non-Volatile and Semi-Volatile Organic Compounds from Solids, USEPA SW-846, Rev. 1, July 1992.

Analyst: dt

Reviewed: DB

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

Quality Control / Quality Assurance

Known Analysis
BTEX

Client: **Conoco, Inc.**
Project: Not Given

Date Reported: 07/26/96
Date Analyzed: 07/18/96

Known Analysis

Parameter	Found Concentration (ppb)	Known Concentration (ppb)	Percent Recovery	Acceptance Limits
Benzene	6.5	6.0	**108%**	70-130%
Toluene	7.3	6.0	**121%**	70-130%
Ethylbenzene	6.6	6.0	**110%**	70-130%
m+p-Xylene	11.6	12.0	**97%**	70-130%
o-Xylene	7.1	6.0	**118%**	70-130%

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Bromofluorobenzene	82.5%	75-125%

Reference: Method 5030, Purge and Trap: Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Reported by _____

Reviewed by _____

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Method Blank Analysis

Sample Matrix: Water
Lab ID: Method Blank

Report Date: 07/26/96
Date Analyzed: 07/18/96

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	ND	0.2
Toluene	ND	0.2
Ethylbenzene	ND	0.2
m,p-Xylenes	ND	0.2
o-Xylene	ND	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	96.5%	75-125%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Matrix Spike Analysis

Lab ID: 0396G01343
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 07/26/96
Date Analyzed: 07/18-25/96

Target Analyte	Spiked Sample Result in ppb	Sample result in ppb	Spike Added (ppb)	% Recovery	Acceptance Limits (%)
Benzene	168	4.54	150	109%	70-130
Toluene	194	9.47	150	123%	70-130
Ethylbenzene	173	ND	150	115%	70-130
m,p-Xylenes	299	ND	300	99.7%	70-130
o-Xylene	181	2.00	150	119%	70-130

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Bromofluorobenzene	106.4%	75 -125%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS
QUALITY CONTROL REPORT

Duplicate Analysis

Lab ID: 0396G01343
Sample Matrix: Water
Condition: Cool/Intact

Report Date: 07/26/96
Date Analyzed: 07/18-25/96

Target Analyte	Duplicate Concentration (ppb)	Original Concentration (ppb)	% Difference
Benzene	4.8	5.6	15.4
Toluene	8.7	10.1	14.9
Ethylbenzene	ND	ND	NA
m,p-Xylenes	ND	1.2	NA
o-Xylene	2.0	2.3	14.0

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.

Quality Control:	Surrogate	Percent Recovery	Acceptance Limits
	Bromofluorobenzene	82.8%	75 -125%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inorganics Laboratory
11183 BH 90 College Station, Texas 77845
Phone (409) 776-8945 Fax (409) 774-4705

Organics Labor
3304 Longmire Drive College Station, Texas 7
Phone (409) 774-4999 Fax (409) 696-

AROMATIC VOLATILE ORGANICS

Client:	CONOCO		
Project Name:	NA	Report Date:	03/20/96
Sample ID:	SJ 28-7 #19	Date Sampled:	03/12/96
Sample Number:	039600352 / 0696G00468	Date Received:	03/20/96
Sample Matrix:	Water	Date Extracted:	03/20/96
Preservative:	Cool, HCl	Date Analyzed:	03/20/96
Condition:	Intact, pH < 2	Time Analyzed:	12:44 PM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	0.014	0.01
Toluene	0.012	0.01
Ethylbenzene	0.011	0.01
p,m-xylene	0.078	0.01
o-xylene	ND	0.01

ND - Analyte not detected at stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
a,a,a-Trifluorotoluene	106%	75 - 125%
Bromofluorobenzene	103%	70 - 120%

Reference:

Method 5030A, Purge and Trap.
Method 8020A, Aromatic Volatile Organics.
SW-846, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, Final Update II, September 1994.

Comments:

Elevated detection limits due to high levels of other compounds.

Analyst

Review

conoco

Environmental Sample Chain of Custody and L
Research and Engineering

No. 177

Project Number

Facility Name: CONOCO INC.	Telephone Number: (505) 324-5813	Transporter Name: CONOCO INC.	Telephone Number: ( ) -
Facility Address: 3315 BLOOMFIELD HWY FARMINGTON, NM 87401		Transporter Address: SAME	
Facility Supervisor: C. J Coy		Method of Shipping: HAND DELIVER	
Process Producing Sample: WATER BTEX	Special Shipping Instructions: —		
Employee(s) Sampling: CJ Coy	Remarks: —		
Other Employee(s) Handling: —			

Sample I.D. No. and Description	Date	Time	Sample Type	Total Volume	Containers Type	Containers No.	Analysis Req. ▶ Preservative	WTR BTEX	
1) SJ28-7 #219	3/12/96	11:05AM	WTR-BTEX		GLASS	1	1:1 HCL	1	
2) SJ28-7 #47	3/12/96	12:45PM	WTR-BTEX		"	"	"	1	Broken when shipped TOCS
3) SJ28-7 #19	3/12/96	2:25PM	WTR-BTEX		"	"	"	1	
4) SJ28-7 #126	3/12/96	4:[illegible]PM	WTR BTEX		"	"	"	1	

Bottles Relinquished by: Carl J Coy	Date/Time: 3/13/96 11:00AM	Bottles Received by: Anna Schaerer	Date/Time: 3/13/96 1100	Condition of Samples Upon Arrival at Final Destination
Relinquished by	Date/Time	Received by	Date/Time	
Relinquished by	Date/Time	Received by	Date/Time	Signature / Date
Relinquished by	Date/Time	Received by	Date/Time	Temp. of Samples on Arrival (Temp. sensitive analysis only)
Relinquished by	Date/Time	Received by	Date/Time	
Relinquished by	Date/Time	Received by	Date/Time	Signature / Date

5-157 X3, 10-91

ANALYZING LAB COPY

imL

Inter Mountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 Fax (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0962

QUALITY CONTROL REPORT - METHOD BLANK
VOLATILE AROMATIC HYDROCARBONS

Sample Number MB0320
Sample Matrix: Water

Report Date: 03/20/96
Date Analyzed: 03/20/96
Time Analyzed: 10:04 AM

Analyte	Concentration (mg/L)	Detection Limit (mg/L)
Benzene	ND	0.001
Toluene	ND	0.001
Ethylbenzene	ND	0.001
p,m-xylene	ND	0.001
o-xylene	ND	0.001

ND - Analyte not detected at stated detection limit

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
a,a,a-Trifluorotoluene	102%	75 - 125%
Bromofluorobenzene	99%	70 - 120%

Reference: Method 5030A, Purge and Trap.
Method 8020A, Aromatic Volatile Organics.
SW-846, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, Final Update II, September 1994.

Comments:

Analyst

Ramona R. Dennis
Review

imL

Intermountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 Fax (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0962

QUALITY CONTROL REPORT - BLANK SPIKE
VOLATILE AROMATIC HYDROCARBONS

Sample Number: Blank Spike
Sample Matrix: Water

Report Date: 03/20/96
Date Extracted: 03/20/96
Date Analyzed: 03/20/96
Time Analyzed: 2:34 PM

Analyte	Spike Added ppb	Sample Result ppb	Spike Result ppb	Percent Recovery	Accept-ance Limit
Benzene	0.020	ND	0.021	105%	39-150%
Toluene	0.020	ND	0.021	104%	46-148%
Ethylbenzene	0.020	ND	0.020	102%	32-160%
m-Xylene	0.020	ND	0.021	104%	50-150%
o-Xylene	0.020	ND	0.020	102%	50-150%

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
a,a,a-Trifluorotoluene	100%	75 - 125%
Bromofluorobenzene	105%	70 - 120%

Reference: Method 5030A, Purge and Trap.
Method 8020A, Aromatic Volatile Organics.
SW-846, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, Final Update II, September 1994.

Comments:

Analyst

Review

imd

Intermountain Laboratories, Inc.

Inorganics Laboratory
11183 SH 30 College Station, Texas 77845
Phone (409) 776-8945 Fax (409) 774-4705

Organics Laboratory
3304 Longmire Drive College Station, Texas 77845
Phone (409) 774-4999 Fax (409) 696-0962

QUALITY CONTROL REPORT - BLANK SPIKE DUPLICATE
VOLATILE AROMATIC HYDROCARBONS

Sample Number: Blank Spike Duplicate
Sample Matrix: Water

Report Date: 03/20/96
Date Extracted: 03/20/96
Date Analyzed: 03/20/96
Time Analyzed: 3:15 PM

Analyte	Spike Recovery (%)	Duplicate Recovery (%)	Percent Difference
Benzene	105%	109%	3%
Toluene	104%	108%	4%
Ethylbenzene	102%	107%	4%
m-Xylene	104%	109%	4%
o-Xylene	102%	107%	4%

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
a,a,a-Trifluorotoluene	101%	75 - 125%
Bromofluorobenzene	102%	70 - 120%

Reference: Method 5030A, Purge and Trap.
Method 8020A, Aromatic Volatile Organics.
SW-846, Test Methods for Evaluating Solid Waste, United States Environmental Protection Agency, Final Update II, September 1994.

Comments:

Analyst

Ramona R. Dennis
Review

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

January 31, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-269-269-243

Mr. Neal Goates
Conoco Inc.
10 Desta Drive, Suite 100W
Midland, Texas 79705-4500

RE: GROUND WATER CONTAMINATION ASSESSMENT
SAN JUAN 28-7 UNIT
WELLS #219, #47, #[redacted], #126

Dear Mr. Goates:

The New Mexico Oil Conservation Division (OCD) has completed a review of the following Conoco documents:

- October 15, 1996 "GROUNDWATER ASSESSMENT PROPOSAL, SAN JUAN 28-7 WELLS #219 (S20, TNW28 R7W UNIT A), #47 (S20 TNW28 R7W UNIT A), #19 (S25, TNW28,R7W UNIT G), #126 (S1 TNW28 R7W UNIT M)".

- Undated "CONOCO SAN JUAN 28-7 LEASE, WELLS 219, 19, 47, 126" which was received by the OCD on September 16, 1996.

These documents contain the results of Conoco's investigation of the extent of contamination resulting from disposal of production wastes in unlined pits at Conoco's San Juan 28-7 Unit wells #219 (Unit N, Sec. 20, T28N, R07W), #47 (Unit A, Sec. 20, T28N, R07W), #19 (Unit G, Sec. 25, T28N, R07W) and #126 (Unit M, Sec. 01, T27N, R7W). The documents also contain recommendations for ground water quality monitoring of the existing monitor wells until New Mexico Water Quality Control Commission (WQCC) ground water standards are met and installation of no further monitor wells based upon the results of a risk assessment.

The OCD's review of the above referenced documents is addressed below.

A. Based upon the current non-detectable concentrations of petroleum compounds at the San Juan 28-7 Unit wells #219, #19 and #126, Conoco's recommendations for these sites are approved with the following conditions:

   1. All ground water sampling and analysis will be conducted using EPA approved methods.

2. While site monitoring is ongoing, Conoco will submit a separate annual report for each site to the OCD by April 1 or each year. The reports will contain:

   a. A description of the monitoring activities during the past year including conclusions and recommendations.

   b. A summary of past and present analytical results of all ground water monitoring for each site including copies of the laboratory analyses and associated quality assurance/quality control data.

3. Ground water quality monitoring will not be considered complete until water quality samples from the monitor wells are shown to be below WQCC standards for four (4) consecutive quarters.

4. Upon completion of ground water actions, Conoco will submit to the OCD for approval final pit closure reports for each site which will contain the results of all remedial actions and monitoring.

Please be advised that OCD approval does not relieve Conoco of liability if implementation of the recommendations fails to adequately monitor ground water contamination at the sites. In addition, OCD approval does not relieve Conoco of responsibility for compliance with any other federal, state, tribal or local laws and/or regulations.

B. Due to concentrations of benzene in ground water in excess of WQCC standards at the San Juan Unit 28-7 well #47, the OCD defers approval of Conoco's recommendations for this site until Conoco provides the OCD with actual field data which verifies the model results. The field verification data will be submitted to the OCD by March 28, 1997.

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

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec District Office
Bill Liess, BLM Farmington District

Midland Division
Exploration Production

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

October 15, 1996

William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Olson:

GOUNDWATER ASSESSMENT PROPOSAL, SAN JUAN 28-7 WELLS #219 (S20, TNW28 R7W UNIT A), #47 (S20 TNW28 R7W UNIT A), #19 (S25, TNW28, R7W UNIT G), #126 (S1 TNW28 R7W Unit M).

INTRODUCTION

This letter is the follow up recommendation after the meeting between Conoco and the NMOCD held on September 16, 1996. Please disregard previous letter dated October 1. During the course of pit assessment work in the expanded vulnerable area Conoco identified groundwater contamination at these sites. Please note that the site investigation went beyond NMOCD's proposed scope of phase II assessment in determining vertical extent of the contamination outlined in **Section II SOIL AND WATER REMEDIATION LEVELS subheading A SOILS part 2b** Recommended Remediation Level.

RECOMMENDATION

Please attach this letter with the risk assessment work completed for the subject properties. Based on the risk analysis output, Conoco recommends that no additional monitoring wells will be needed. The Tier 1 lookup table values indicates that wells 219, 19, and 126 are below the Risk-Based Screening Level for Benzene. In addition, Tier II modeling for well 47 clearly demonstrates that off-site transport is not a concern and concentration of Benzene for anticipated use of area would not be a future health threat for residential use of the property. Conoco will utilized our existing monitor wells located adjacent and down gradient of the original pit locations for progress toward natural biodegradation. We will sample the monitor wells for BTEX content on an annual basis and forward the results with our annual pit closure progress report. The sites will seek individual approval for closure when the BTEX analysis results are below the MCL for each constituent of concern for a minimum of two sample events within the frequency of one full year. The soil within the pit area will be delineated and remediated using the current approved methods for pit closure (OVM screening, excavation, surface remediation, analytical based closure).

WORK SUMMARY

With the assistance of Western Technologies boring crew and geologist, our Conoco representative organized the task of determine the subsurface vertical extent of the soil contamination by the use of a geoprobe adjacent and down gradient from the unlined surface impoundment and sampled with a calibrated PID meter in accordance with Sections V-IX. The subjects soil contamination surpassed the closure guidelines of 100 ppm and also exceeded the vertical limits of the geoprobe at 40'. It was

decided by our site supervisor to continue the borings with a hollow stem auger regardless of formation changes (sandstone) until such drilling was impeded, OVM readings were extensively below 100 ppm, or groundwater was encountered. The monitor wells were completed according to OCD requirements and adequately purged for water analysis. The analysis concluded that BTEX readings exceeded the closure standard set by the New Mexico WQCC. The attached logs define the PID readings corrected for Benzene and complete analysis accompany the risk assessment report.

Sincerely,

Neal Goates
Environmental Specialist

cc: Denny Foust, OCD Aztec Office
John Coy, Conoco Farmington

Midland Division
Exploration Production

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

96 00 17 10 52

October 1, 1996

William C. Olson
Environmental Bureau
New Mexico Oil Conservation Division
2040 S. Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Olson:

GOUNDWATER ASSESSMENT PROPOSAL, SAN JUAN 28-7 WELLS #219 (S20, TNW28 R7W UNIT A), #47 (S20 TNW28 R7W UNIT A)#19 (S25, TNW28, R7W UNIT G), #126 (S1 TNW28 R7W Unit M).

INTRODUCTION

This letter is the follow up recommendation after the meeting between Conoco and the NMOCD held on September 16, 1996. During the course of pit assessment work in the expanded vulnerable area Conoco identified groundwater contamination at these sites. Please note that the site investigation went beyond NMOCD's proposed scope of phase II assessment in determining vertical extent of the contamination outlined in **Section II SOIL AND WATER REMEDIATION LEVELS subheading A SOILS part 2b** Recommended Remediation Level.

RECOMMENDATION

Please attach this letter with the risk assessment work completed for the subject properties. Conoco will utilized our existing monitor wells located adjacent and down gradient of the original pit locations for progress toward natural biodegradation. We will sample the monitor wells for BTEX content on an annual basis and forward the results with our annual pit closure progress report. The sites will seek individual approval for closure when the BTEX analysis results are below the MCL for each constituent of concern for a minimum of two sample events within the frequency of one full year. The soil within the pit area will be delineated and remediated using the current approved methods for pit closure (OVM screening, excavation, surface remediation, analytical based closure).

WORK SUMMARY

With the assistance of Western Technologies boring crew and geologist, our Conoco representative

organized the task of determine the subsurface vertical extent of the soil contamination by the use of a geoprobe adjacent and down gradient from the unlined surface impoundment and sampled with a calibrated PID meter in accordance with Sections V-IX. The subjects soil contamination surpassed the closure guidelines of 100 ppm and also exceeded the vertical limits of the geoprobe at 40'. It was

decided by our site supervisor to continue the borings with a hollow stem auger regardless of formation changes (sandstone) until such drilling was impeded, OVM readings were extensively below 100 ppm, or groundwater was encountered. The monitor wells were completed according to OCD requirements and adequately purged for water analysis. The analysis concluded that BTEX readings exceeded the closure standard set by the New Mexico WQCC. The attached logs define the PID readings corrected for Benzene and complete analysis accompany the risk assessment report.

Sincerely,

Neal Goates

Neal Goates
Environmental Specialist

cc: Denny Foust, OCD Aztec Office
John Coy, Conoco Farmington

CONOCO

SAN JUAN 28-7 LEASE

WELLS 219, 19, 47, 126

Report filed in San Juan 28-7 Well #47 Ground Water file Case