District I
P.O. Box 1980, Hobbs, NM 88240
District II
P.O. Drawer DD, Artesia, NM 88211
District III
1000 Rio Brazos Rd, Aztec, NM 87410

Denny G. Foust
DEPUTY OIL & GAS INSPECTOR
JUN 23 1998

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SUBMIT 1 COPY TO APPROPRIATE DISTRICT OFFICE AND 1 COPY TO SANTA FE OFFICE

(Revised 3/9/94)

Approved

PIT REMEDIATION AND CLOSURE REPORT

Operator: Conoco, Inc **Telephone:** 915-686-5453

Address: 10 Destra Drive, Suite 100W, Midland, TX 79705-4500

Facility Or: Well Name Twin Mounds 30-2

Location: Unit or Qtr/Qtr D Sec 30 T30N R14W County San Juan

Pit Type: Separator X Dehydrator ____ Other ____

Land Type: BLM X, State ____, Fee ____, Other ____

Pit Location: (Attach diagram) Pit dimensions: length 25', width 25', depth 4'

Reference: wellhead X, other ____

Footage from reference: 190'

Direction from reference: 3 Degrees ____ East North X of X West South ____

Depth To Ground Water: (Vertical distance from contaminants to seasonal high water elevation of ground water)	Less than 50 feet 50 feet to 99 feet Greater than 100 feet 0	(20 points) (10 points) (0 points)
Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources)	Yes No 0	(20 points) (0 points)
Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)	Less than 200 feet 200 feet to 1000 feet Greater than 1000 feet 0	(20 points) (10 points) (0 points)

RANKING SCORE (TOTAL POINTS): 0

Date Remediation Started: ____ **Date Completed:** _____

Remediation Method: (Check all appropriate sections) Excavation **X** Approx. cubic yards 190 ,

Landfarmed _____ Insitu Bioremediation **X**

Other _____

Remediation Location: (ie. landfarmed onsite, name and location of offsite facility) Onsite X Offsite _____

Excavated soils blended with uncontaminated soils and placed back into excavation.

General Description Of Remedial Action: Pit was excavated to bedrock (sandstone)on July 29,1997, approximately 8' below pit bottom. Risk Evaluation form attached. Five samples were taken from the bottom of the excavation. One sample from each sidewall and one sample from the center of excavation on bedrock. The center sample was submitted for TPH laboratory analysis, TPH was 1728.0 ppm. Soils in excavated pit sidewall appeared clean in appearance with no odor or discoloration. Excavated soils were blended with clean soil and placed back into the excavated site during site rehabilitation (July 29,1997). Blended soils re-sampled on August 22,1997 at a depth of four feet below ground surface. PID reading on blended soils 147.0 ppm, TPH was 1640.0 ppm.

Ground Water Encountered: No X Yes ____ Depth _____

Final Pit:
Closure Sampling:
(if multiple samples, attach sample results and diagram of sample locations and depths)

Sample location: center bottom of the excavated site
Blended soils sample location: approximate center of former pit

Sample depth Eight feet below original pit bottom at bedrock.
Blended soils sample depth: at four feet BGS.
Sample date 7-29-1997 Sample time 1249 hours
Blended soils 8-22-1997 Sample time 0920

Sample Results		Blended soils
Benzene (ppm)	2.9	0.026
Total BTEX (ppm)	65.0	0.997
Field headspace (ppm)	832.0	147.0
TPH(ppm)	1728.0	1644.0

Ground Water Sample: Yes ____ No X (If yes, attach sample results)

I HEREBY CERTIFY THAT THE INFORMATION ABOVE IS TRUE AND COMPLETE TO THE BEST OF MY KNOWLEDGE AND BELIEF
DATE

SIGNATURE Shirley L. Ebert PRINTED NAME AND TITLE Shirley L. EBERT SHEAR Specialist

Operator: Conoco
Location Name: Twin Mounds 30-2
Pit:
Location:Unit D, Sec. 30, T30N, R14W
Risk Ranking: 0

RATIONAL FOR RISK-BASED CLOSURE OF PRODUCTION PITS LOCATED OUTSIDE OF THE VULNERABLE ZONE IN SAN JUAN BASIN

This production pit location was ranked according to the criteria in the New Mexico Oil Conservation Division's Unlined Surface Impoundment Closure Guidelines and received a ranking score of zero. The estimated depth to groundwater is greater than 100-feet beneath ground surface (bgs), the pit is not in a well head protection area, and there is no surface water bodies within 1,000 horizontal feet of the pit location.

The primary source, discharge to pit has been removed. There has been no discharge to the pit for at least four (4) years and the pit has been closed for at least one year.

Each pit was back filled with clean soil and graded in a manner to divert precipitation away from excavated area. Minimal infiltration of rainfall is expected. Any rainfall that does infiltrate the ground surface must migrate through clean backfill before reaching the residual hydrocarbons.

There is no source material at the ground surface, so direct contact with livestock and populous is not likely.

In general, outside of the vulnerable area and alluvial valleys, bedrock material is generally encountered within twenty (20) feet of the ground surface. Bedrock material in the San Juan Basin consists of interbedded sandstones, shales and clays. According to Freeze and Cherry, 1979, the hydraulic conductivity of the bedrock material are as follows:

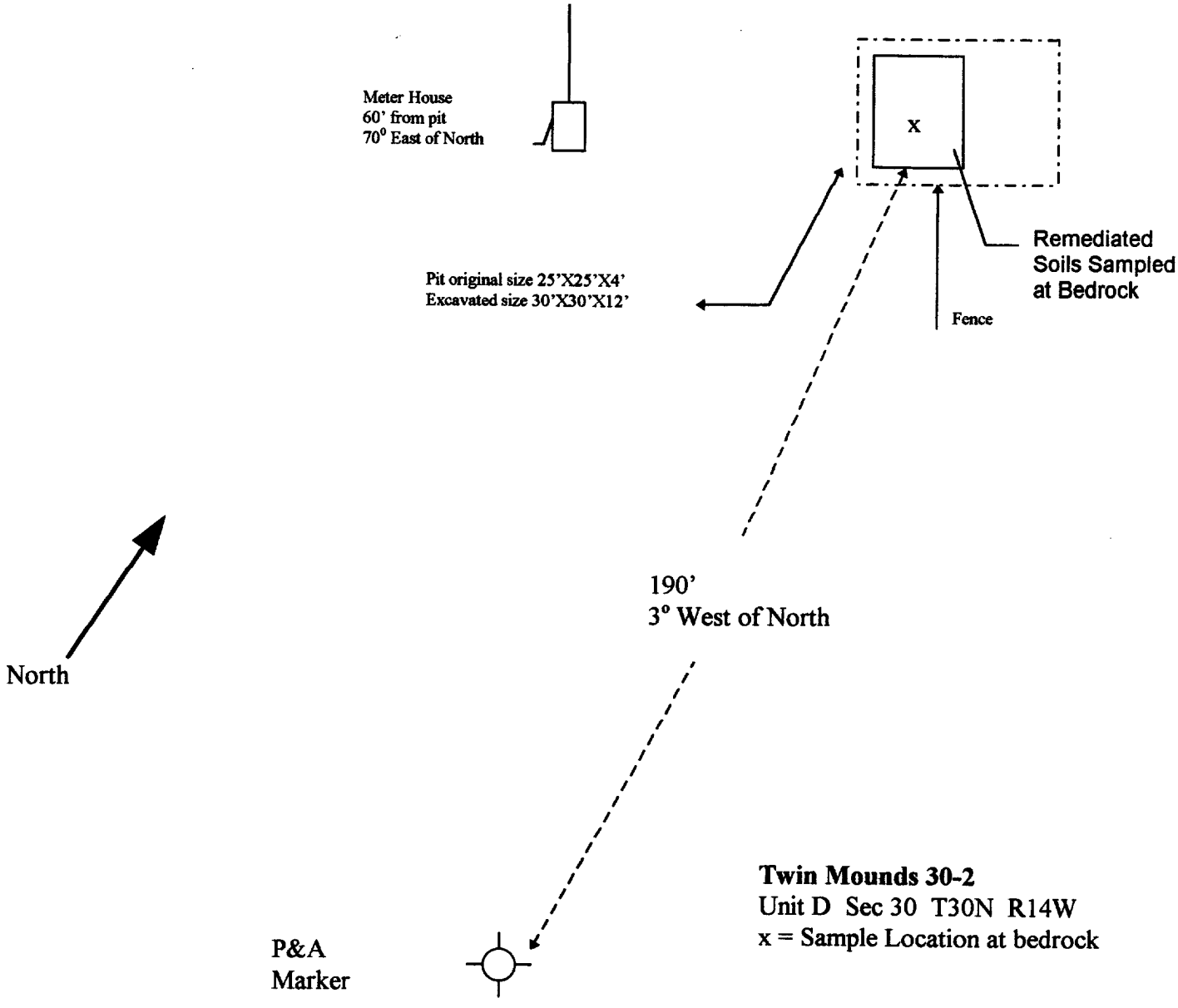
Sandstone	10^{-9} to 10^{-13} cm/sec
Shale	10^{-12} to 10^{-16} cm/sec
Clay	10^{-12} to 10^{-15} cm/sec

Based on this information, the residual hydrocarbons should not migrate to groundwater.

Natural process (bioremediation) are degrading the residual hydrocarbon to carbon dioxide and water and will continue until source is gone, therefore minimizing any impact to the environment.

Based on the above information, it is highly unlikely that any source material will impact groundwater or ever find an exposure pathway to effect human health,therefore

Conoco Inc. requests closure of this pit location.



Twin Mounds 30-2
Unit D Sec 30 T30N R14W
x = Sample Location at bedrock

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Larry Trujillo*	Date:	4-Aug-97
Company:	*On Site Technologies, Ltd. c/o Conoco*	COC No.:	*6661*
Address:	*612 E. Murray Drive*	Sample No.:	*15509*
City, State:	*Farmington, NM 87401*	Job No.:	*4-1355*

Project Name:	***Conoco, Inc. - Twin Mounds 30-2***				
Project Location:	***Center of Pit; S-6 @ 12'***				
Sampled by:	LT	Date:	29-Jul-97	Time:	12:49
Analyzed by:	DC/HR	GRO Date:	31-Jul-97		
Sample Matrix:	*Soil*	DRO Date:	31-Jul-97		

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Gasoline Range Organics (C5 - C9)	576	mg/kg	50	mg/kg
Diesel Range Organics (C10 - C28)	1152	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

GRO QC No.: 0537-STD

DRO QC No.: 0548-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
Gasoline Range (C5 - C9)	ND	ppb	1,351	1,276	5.7	15%
Diesel Range (C10 - C28)	ND	ppm	200	192	4.3	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Gasoline Range (C5-C9)	82	75	(80-120)	9	20%
Diesel Range (C10-C28)	86	88	(84-118)	3	20%

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

Approved by:

Date: 8/4/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Larry Trujillo*	Date:	31-Jul-97
Company:	*On Site Technologies, Ltd. c/o Conoco*	COC No.:	*6661*
Address:	*612 E. Murray Drive*	Sample No.:	*15509*
City, State:	*Farmington, NM 87401*	Job No.:	*4-1355*

Project Name:	***Conoco, Inc. - Twin Mounds 30-2***				
Project Location:	***Center of Pit; S-6 @ 12'***				
Sampled by:	LT	Date:	29-Jul-97	Time:	12:49
Analyzed by:	HR	Date:	30-Jul-97		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene	2953	ug/kg	250	ug/kg
Toluene	19481	ug/kg	250	ug/kg
Ethylbenzene	11842	ug/kg	250	ug/kg
m,p-Xylene	25310	ug/kg	250	ug/kg
o-Xylene	5391	ug/kg	250	ug/kg
TOTAL	64976	ug/kg		

ND - Not Detected at Limit of Quantitation

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

Approved by:
Date: 7/31/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 30-Jul-97

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

Method Blank

Analyte	*Result*	*Units of Measure*
Average Amount of All Analytes In Blank	<1.0	ppb

Calibration Check

Analyte	*Units of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Benzene	ppb	20.0	18.4	8	15%
Toluene	ppb	20.0	20.0	0	15%
Ethylbenzene	ppb	20.0	20.6	3	15%
m,p-Xylene	ppb	40.0	39.7	1	15%
o-Xylene	ppb	20.0	20.6	3	15%

Matrix Spike

Analyte	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Benzene	85	76	(39-150)	8	20%
Toluene	97	83	(46-148)	11	20%
Ethylbenzene	90	77	(32-160)	10	20%
m,p-Xylene	81	67	(35-145)	13	20%
o-Xylene	100	87	(35-145)	9	20%

Surrogate Recoveries

Laboratory Identification	*S1 Percent Recovered*	*S2 Percent Recovered*
Limit Percent Recovery	(70-130)	
15509-6661	99	
	LMC	(DC)
	9/5/97	7/31/97

S1: Flourobenzene

CHAIN OF CUSTODY RECORD

6661

ON SITE TECHNOLOGIES, LTD.

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

Date: 7/29/91

Page 1 of 1

Purchase Order No.:	Job No. 4-1-25		
SEND INVOICE TO: Name	Conoco	REPORT RESULTS TO: Name	Larry Tuggle, II. Title
Company	Dept.	Company	Conoco
Address		Mailing Address	
City, State, Zip		City, State, Zip	
		Telephone No.	Telefax No.
Sampling Location:	Tubin Mounds 30-2		
Sampler:	Larry Tuggle, II.		

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	8015 TPH	BTEX 8020	LAB ID
S-4 @ 12' Center of Pit	7/29/91	10:17	Soil		1	✓	✓	[illegible]

ANALYSIS REQUESTED

Relinquished by: Larry Tuggle	Date/Time 7/29/91 1:47	Received by: [illegible]	Date/Time [illegible]
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:	Rush	24-48 Hours	10 Working Days	Special Instructions:
Authorized by: _____ Date _____ (Client Signature Must Accompany Request)				

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:	*Larry Trujillo*	Date:	2-Sep-97
Company:	*On Site Technologies, Ltd. c/o Conoco*	COC No.:	*6720*
Address:	*612 E. Murray Drive*	Sample No.:	*15894*
City, State:	*Farmington, NM 87401*	Job No.:	*4-1355*

Project Name:	***Conoco, Inc. - Twin Mounds 30-2***				
Project Location:	***S-1; 4' BGS***				
Sampled by:	LT	Date:	22-Aug-97	Time:	9:24
Analyzed by:	DC/HR	GRO Date:	28-Aug-97		
Sample Matrix:	*Soil*	DRO Date:	29-Aug-97		

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Gasoline Range Organics (C5 - C9)	15.0	mg/kg	0.5	mg/kg
Diesel Range Organics (C10 - C28)	1599	mg/kg	5	mg/kg

ND - Not Detected at Limit of Quantitation

Quality Assurance Report

GRO QC No.: 0537-STD

DRO QC No.: 0548-STD

Continuing Calibration Verification

Parameter	Method Blank	Unit of Measure	True Value	Analyzed Value	RPD	RPD Limit
Gasoline Range (C5 - C9)	ND	ppb	1,801	1,752	2.8	15%
Diesel Range (C10 - C28)	ND	ppm	200	197	1.5	15%

Matrix Spike

Parameter	1- Percent Recovered	2 - Percent Recovered	Limit	RPD	RPD Limit
Gasoline Range (C5-C9)	91	101	(80-120)	10	20%
Diesel Range (C10-C28)	80	81	(75-125)	1	20%

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

Approved by:

Date: 9/2/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Larry Trujillo*	Date:	2-Sep-97
Company:	*On Site Technologies, Ltd. c/o Conoco, Inc.*	COC No.:	*6720*
Address:	*612 E. Murray Drive*	Sample No.:	*15894*
City, State:	*Farmington, NM 87401*	Job No.:	*4-1355*

Project Name:	***Conoco, Inc. - Twin Mounds 30-2***				
Project Location:	***S-1; 4' BGS***				
Sampled by:	LT	Date:	22-Aug-97	Time:	9:24
Analyzed by:	DC	Date:	26-Aug-97		
Sample Matrix:	*Soil*				

Laboratory Analysis

Parameter	Results as Received	Unit of Measure	Limit of Quantitation	Unit of Measure
Benzene	26	ug/kg	2	ug/kg
Toluene	58	ug/kg	2	ug/kg
Ethylbenzene	376	ug/kg	2	ug/kg
m,p-Xylene	510	ug/kg	2	ug/kg
o-Xylene	27	ug/kg	2	ug/kg
TOTAL	997	ug/kg		

ND - Not Detected at Limit of Quantitation

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

Approved by: DaG
Date: 9/2/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 26-Aug-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	< 1.0	ppb

Calibration Check

Parameter	*Unit of Measure*	*True Value*	*Analyzed Value*	*RPD*	*Limit*
Benzene	ppb	60.0	61.6	3	15%
Toluene	ppb	60.0	64.7	8	15%
Ethylbenzene	ppb	60.0	64.4	7	15%
m,p-Xylene	ppb	120.0	122.9	2	15%
o-Xylene	ppb	60.0	61.7	3	15%

Matrix Spike

Parameter	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*RPD*	*Limit*
Benzene	83	80	(39-150)	4	20%
Toluene	72	70	(46-148)	3	20%
Ethylbenzene	76	76	(32-160)	1	20%
m,p-Xylene	73	72	(35-145)	1	20%
o-Xylene	89	88	(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)	
15894-6720	106				
				9/3/97	9/2/97

S1: Flourobenzene

ON SITE TECHNOLOGIES, LTD.

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

CHAIN OF CUSTODY RECORD

6720

Date: 8-22-97

Page 1 of 1

Purchase Order No.:	Job No. 4-[illegible]
SEND INVOICE TO Name	Larry Trujillo
Company	Conoco
Dept.	
Address	
City, State, Zip	
Sampling Location:	[illegible] Mounds - 30-2
Sampler:	Larry Trujillo

REPORT RESULTS TO	
Name	Larry Trujillo
Title	
Company	Conoco
Mailing Address	
City, State, Zip	
Telephone No.	
Telefax No.	

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	TPH 8015 (mod)	BTEX 8020							LAB ID
[illegible]	[illegible]	0924	Soil		1	✓	✓							15894-6720

Relinquished by: [signature]	Date/Time [illegible]	Received by: [signature]	Date/Time 8/22/97 1021
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