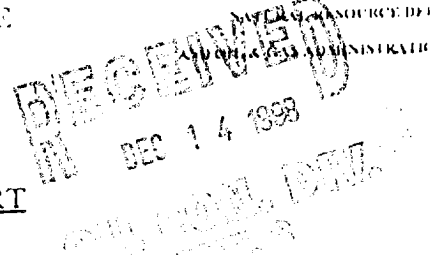


Denny L. Trust
DEPUTY OIL & GAS INSPECTOR

FEB 11 1999

JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528



Approved

PIT REMEDIATION AND CLOSURE REPORT

Operator: Marathon Oil Co. Telephone: 505-326-2783
Address: P.O. Box 1439 Farmington, N.M. 87499
Facility or Well Name: Jicarilla Apache #12
Location: Unit or Qtr/Qtr Sec A Sec 33 126N 5W County Rio Arriba
Pit Type: Separator ☒ Dehydrator ☐ Other ☐
Land Type: Jicarilla Apache

Pit Location: Pit dimensions Length 45' width 30' depth 10'
(Attach diagram)
Reference: wellhead ☒ other ☐
Footage from reference: 144'
Direction from reference: _____ Degrees X East North _____
_____ of _____
_____ West South _____

Depth To Groundwater: (Vertical distance from contaminants to seasonal high water elevation of groundwater)
Less than 50 feet (20 points)
50 feet to 99 feet (10 points)
Greater than 100 feet (0 points) 0

Distance to an Ephemeral Stream (Downgradient dry wash greater than ten feet in width)
Less than 100 feet (10 points)
Greater than 100 feet (0 points) 10

Distance to Nearest Lake, Playa, or Watering Pond (Downgradient lakes, playas and livestock or wildlife watering ponds)
Less than 100 feet (10 points)
Greater than 100 feet (0 points) 0

Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or: less than 1000 feet from all other water sources)
Yes (20 points)
No (0 points) 0

Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches)
Less than 100 feet (20 points)
100 feet to 1000 feet (10 points)
Greater than 1000 feet (0 points) 0

RANKING SCORE (TOTAL POINTS): 10

Date Remediation Started: 9-27-96 Date Completed: 10-20-96

Remediation Method: Excavation X Approx. cubic yards 500
(Check all appropriate sections) Landfilled X In situ Bioremediation _____

Other _____

Remediation Location: Onsite X Offsite _____
(i.e. landfilled on-site, name and location of off-site facility)

General Description of Remedial Action: Spread on location for natural bio remediation

Groundwater Encountered: No X Yes _____ Depth _____

Final Pit: Sample location each side wall. Rock on bottom
Closure Sampling: _____
(if multiple samples attach sample results and diagram of sample locations and depths) Sample depth 10'
Sample date 9-27-96 Sample time 1:00 p.m.

Sample Results

Soil Benzene (ppm)	_____	Water Benzene (ppb)	_____
Total BTXN (ppm)	<u>1.5</u>	Toluene (ppb)	_____
Field Headspace (ppm)	<u>3.2</u>	Ethylbenzene (ppb)	_____
TPH (ppm)	<u>10</u>	Total Nylenes (ppb)	_____

Groundwater Sample: Yes _____ No _____ (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 10-7-96 PRINTED NAME GARY W. Donaghey
SIGNATURE Gary W. Donaghey AND TITLE Product

AFTER REVIEW OF THE PIT CLOSURE INFORMATION, PIT CLOSURE IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES ✓ NO _____ (REASON) Spray / Close

SIGNED: David J. [unclear] DATE: 10/16/96

ENVIROTECH LABS

~~ENVIRONMENTAL PRACTICES~~

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

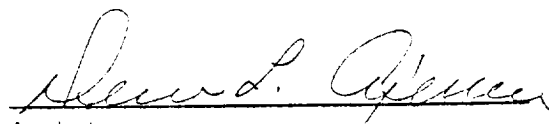
Client:	Marathon Oil Company	Project #:	95047
Sample ID:	Jicarilla #12 S.P.	Date Reported:	10-01-96
Laboratory Number:	A311	Date Sampled:	09-27-96
Chain of Custody No:	4938	Date Received:	09-30-96
Sample Matrix:	Soil	Date Extracted:	09-30-96
Preservative:	Cool	Date Analyzed:	09-30-96
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

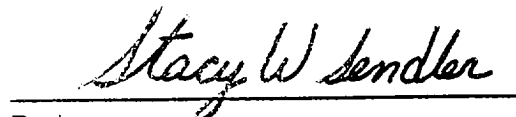
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1.7	0.2
Diesel Range (C10 - C28)	8.3	0.1
Total Petroleum Hydrocarbons	10.0	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: Jicarilla.


Analyst


Review

ENVIROTECH LABS

EPA METHOD 8020 AROMATIC VOLATILE ORGANICS

Client:	Marathon Oil Co.	Project #:	95047
Sample ID:	Jicarilla #12 S.P.	Date Reported:	10-01-96
Laboratory Number:	A611	Date Sampled:	09-27-96
Chain of Custody:	4938	Date Received:	09-30-96
Sample Matrix:	Soil	Date Analyzed:	09-30-96
Preservative:	Cool	Date Extracted:	09-30-96
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	665	11.7
Toluene	555	11.1
Ethylbenzene	55.2	10.1
p,m-Xylene	185	14.4
o-Xylene	60.1	6.9
Total BTEX	1,520	1.5 ppm

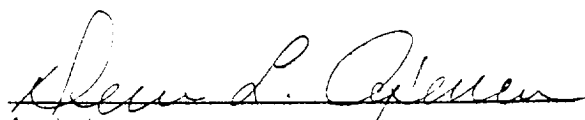
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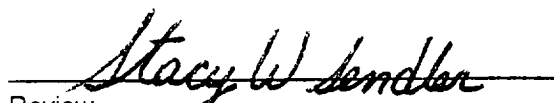
Surrogate Recoveries:	Parameter	Percent Recovery
	Trifluorotoluene	97 %
	Bromofluorobenzene	100 %

References: Method 5030. Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Method 8020. Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, Sept. 1994.

Comments: Jicarilla.


Analyst

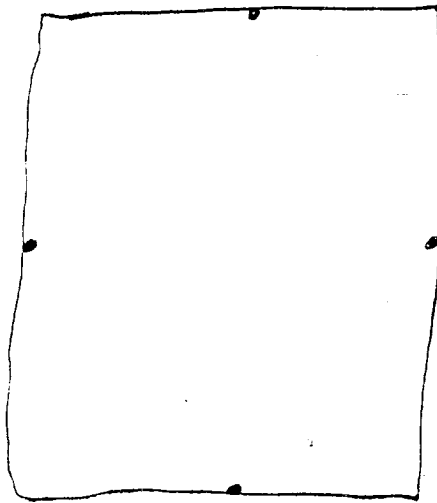

Review

NOTES/REMARQUES/NOTAS

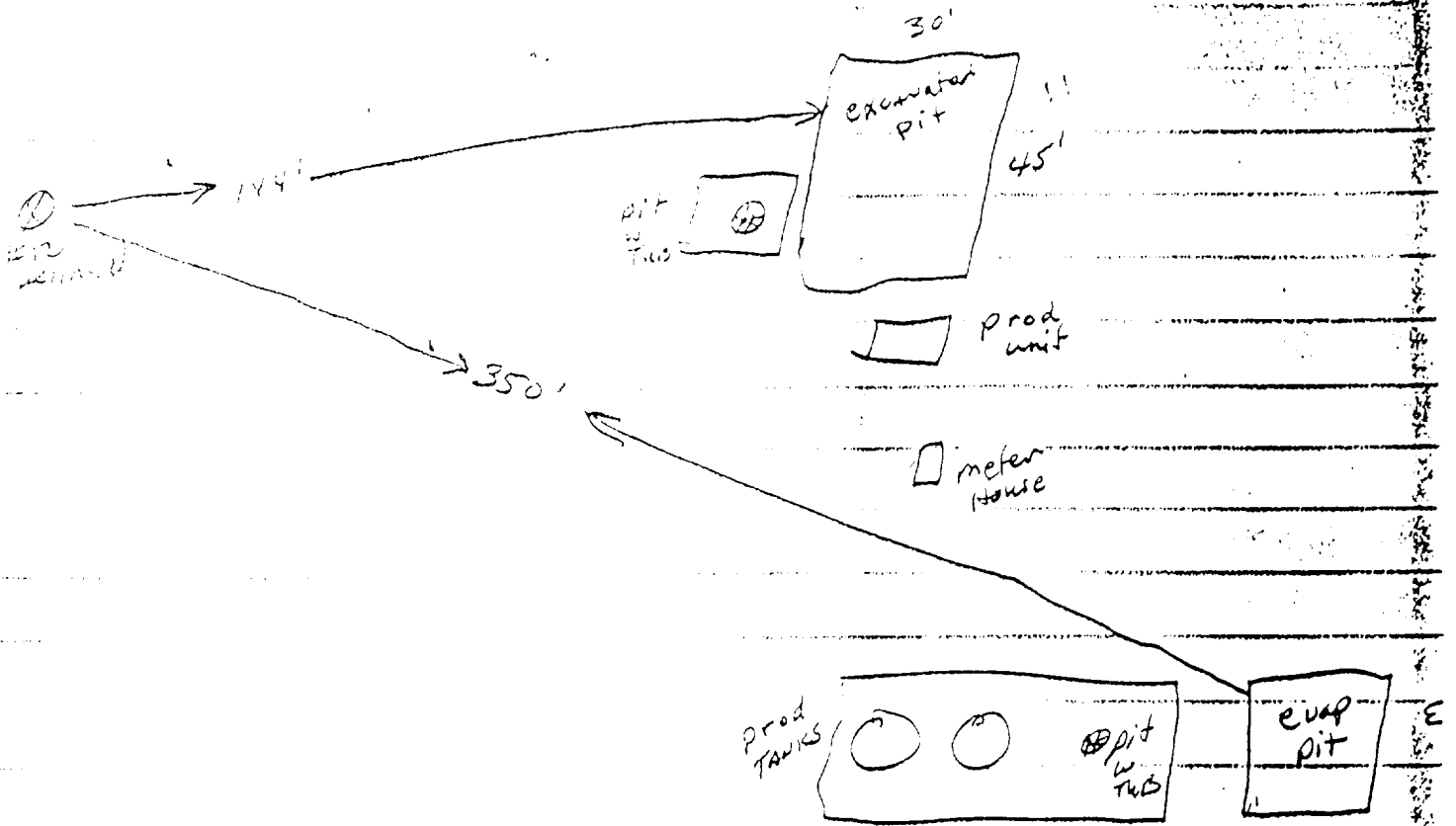
Jicarilla #12 separator pit
 5' - 475.
 10' 1:00 p.m.

N - 3.2
 S - 2.4
 E - 2.7
 W - 3.6
 B - Rock

N
 30'



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#12

JICARILLA APACHE TRIBE
ENVIRONMENTAL PROTECTION OFFICE
P.O. BOX 507
DULCE, NEW MEXICO 87528

SUBMIT 1 COPY TO
NATURAL RESOURCE DEPT
AND OIL & GAS ADMINISTRATION

ON-SITE SOIL REMEDIATION REPORT

Operator: Marathon Oil Co. Telephone: 505-326-2783
Address: P.O. Box 1439 Farmington NM 87499
Facility or Well Name: Jicarilla Apache #12
Location: Unit or Qtr/Qtr Sec A Sec 33 T 26N R 5W County Rio Arriba
Land Type: Jicarilla Apache

Date Remediation Started: 9-27-96 Date Completed: 31 OCT 97
Remediation Method: Landfarmed ☒ Approx. cubic yards 500
Composted ☐
Other ☐

		Final Closure Sampling:	
Depth To Groundwater:	(pts.) <u>0</u>	Sampling Date: <u>9-24-97</u>	Time: _____
Distance to an Ephemeral Stream	(pts.) <u>10</u>	Sample Results:	
Distance to Nearest Lake, Playa, or Watering Pond	(pts.) <u>0</u>	Field Headspace (ppm) <u>0.3</u>	
Wellhead Protection Area:	(pts.) <u>0</u>	TPH (ppm) <u>208</u>	Method <u>8015 Mod</u>
Distance To Surface Water:	(pts.) <u>0</u>	Other _____	
RANKING SCORE (TOTAL POINTS): <u>10</u>			

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

DATE 10-14-97 PRINTED NAME Gary W. Donaghey
SIGNATURE Gary W. Donaghey AND TITLE Production Supervisor

AFTER REVIEW OF THE SOIL REMEDIATION INFORMATION, ON-SITE REMEDIATION IS APPROVED IN ACCORDANCE TO THE JICARILLA APACHE TRIBE PIT CLOSURE ORDINANCE.

APPROVED: YES ☒ NO ☐ (REASON) _____

SIGNED: [Signature] DATE: 10-15-97

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

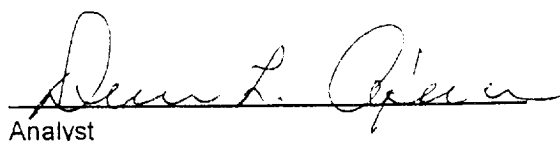
Client:	Marathon Oil Co.	Project #:	95047
Sample ID:	Jicarilla 12	Date Reported:	09-26-97
Laboratory Number:	C158	Date Sampled:	09-24-97
Chain of Custody No:	5464	Date Received:	09-25-97
Sample Matrix:	Soil	Date Extracted:	09-25-97
Preservative:	Cool	Date Analyzed:	09-26-97
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

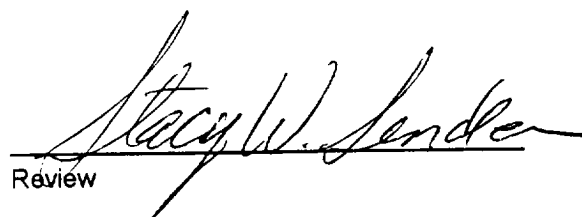
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	2.8	0.2
Diesel Range (C10 - C28)	205	0.1
Total Petroleum Hydrocarbons	208	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, July 1992.

Comments: **Jicarilla.**


Analyst


Review

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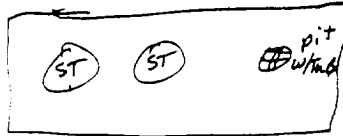
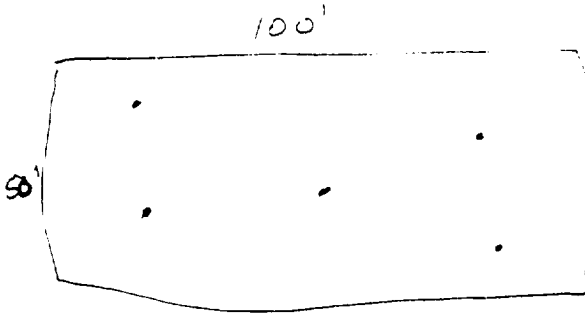
#12
Well Head

pit
w/ tub

capped
pit

prod.
unit

meter
house



capped
pit