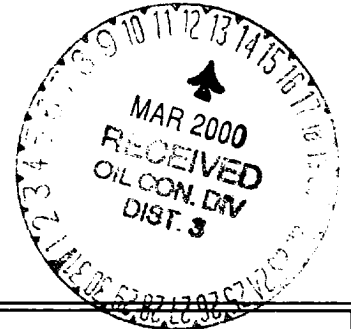


State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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



PIT REMEDIATION AND CLOSURE REPORT

Operator: Dugan Petroleum (Williams Field Services) Telephone: (801) 584-6361
Address: P.O. Box 58900, Salt Lake City, Utah 84158-0900
WellName: SHERMAN #2 PC (86945)
Location: Unit or Qtr/Qtr Sec E Sec ³ T 29N R 5W County Rio Arriba
PitType Dehydrator
LandType: BLM

Pit Location: Pit dimensions: length 16 ft., width 17 ft., depth 14 ft.
(Attach diagram)

Reference: Wellhead

Footage from reference: 62 ft.

Direction from reference: 100 Degrees East of North

Depth To Ground Water:	Less than 50 feet	(20 points)
(Vertical distance from	50 feet to 99 feet	(10 points)
contaminants to seasonal	Greater than 100 feet	(0 points) <u>20</u>
high water elevation of		
ground water)		

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

Distance To Surface Water:	Less than 200 feet	(20 points)
(Horizontal distance to perennial	200 feet to 1,000 feet	(10 points)
lakes, ponds, rivers, streams, creeks,	Greater than 1,000 feet	(0 points) <u>0</u>
irrigation canals and ditches)		

Ranking Score (TOTAL POINTS): 20

Date Remediation Started: 9/17/98

Date Completed: 9/17/98

Remediation Method: Excavation ☒

Approx. Cubic Yard 140

(check all appropriate sections)

Landfarmed ☒Insitu Bioremediation ☐

Other

Landfarmed soil after mechanical aeration. LF Headspace 0ppm

Remediation Location:

Onsite ☒ Offsite

(ie. landfarmed onsite, name and location of offsite facility)

General Description Of Remedial Action:

The pit was excavated to remove gross petroleum contamination. The excavated material was mechanically aerated and placed into an onsite landfarm. Returned to site 2/15/00 and advanced sampling probe to 16' to collect sample. Results: TPH: ND BTEX: ND

Ground Water Encountered: No

Final Pit:

Sample location SHERMANEDWARDS#2PCV-EXFL01

Closure Sampling:

(if multiple samples, attach sample results and diagram of sample locations and depths)

Two samples were collected, one sample from the excavation bottom and the second sample was made up of 4 points from each excavation wall.

Sample depth 14 feet

Sample date 9/18/98

Sample time 10:00

Sample Result

Benzene (ppm) <0.050

Total BTEX (ppm) <0.050

Field Headspace (ppm)

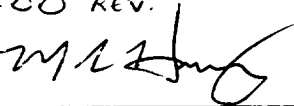
TPH (ppm) 16.6

Ground Water Sample: No

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

DATE 3-7-00 REV.

SIGNATURE



PRINTED NAME Mark Harvey for Williams Field Services
AND TITLE

86945

Weather SUNNY ~ 75°

Sec 3 T 29N R 5W UL

County RIO ARIDA

Ⓢ N

Y N

Reference Wellhead X Other _____

Direction: 78 Degrees ~~X~~ E N ~~X~~

of

Final Pit Dimensions 16' x 17' x 14'



Start _____
 @ 2' _____
 @ 4' _____
 @ 6' _____
 @ 8' _____
 @ _____
 @ 14' _____

Soil Description: SILTY SAND
" "
" " W/ COBBLES
" "
" "
" " W/ CLAY + ROCK
SILTY SAND W/ CLAY + ROCK

Well Proximity To: Residence, Domestic Water Well, Stock Well _____

Arroyo, Wash, Lake, Stream Stock Pond ~ 400 Yds South

Estimated or Known Distance to Ground Water 15-25'

Source of Backfill (if other than processed material) _____

Samples collected:	Type	Progress: Verification:	ID <u>SHERMAN EDWARDS #2 PC-U-EXT-01 soil</u> / water
		Progress: Verification:	ID <u>SHERMAN EDWARDS #2 PC-U-EXT-01 soil</u> / water
		Progress: Verification:	ID _____ soil / water

Sample sent to Lab Via: Courier Hand Carried Other _____ Preservative: ICE Other _____



Comments: DUAL LOCATED W/ LINE DRIP LOCATED ON WELL PAD —
LOCATED IN LA JARA CANYON ~ 150 YDS FROM WASH — OIL STANDING AT
SURFACE — EXCAVATE TO 5' WHERE STAINING SLIGHT — ENCOUNTER DARK
COLORLED SAND @ ~ 10' CUT Laterally TIL MOSTLY REMOVED — FLOOR HAS
NO TO SLIGHT HYDROCARBON ODOR @ 12' — PIT GENERALLY CLEAN W/
SLIGHT AMOUNT OF STAINING ON RIGHT WALL (AGAINST METER RUN) —
CUT TERRACE + BERM — RAMP — SHROD + LF

Soil Shipped to: ON-SITE LF

Prepared by: M. L. Hays

QWAL LABORATORIES, INC.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 8402596

SENT WILLIAMS FIELD SERVICE
TO: 295 CHIPETA WAY
SALT LAKE CITY, UTAH 84158
MARK HARVEY

DATE REPORTED: 02/23/00
DATE COLLECTED: 02/15/00
DATE RECEIVED: 02/18/00

PROJECT: WFS/NM-PITS

86945

Reference Fraction: 8402596-01A
Sample ID: SHERM#2 PC-EX-RS-01(86945)
Sample Date Collected: 02/15/00 11:00:00

Sample Matrix: SOIL

TEST	METHOD	RESULT	UNITS	PQL	ANALYZED	BY
TPH-DRO	SW846-8015D	ND	MG/KG	2	02/22/00	BEM
BTEX	OA1/8021B			3.0		
BENZENE		ND	MG/KG	0.050	02/21/00	KKL
TOLUENE		ND	MG/KG	0.050	02/21/00	KKL
ETHYLBENZENE		ND	MG/KG	0.050	02/21/00	KKL
TOTAL XYLENES		ND	MG/KG	0.050	02/21/00	KKL
BFB (SURROGATE)		116	125	75		
QA/QC PACKAGE LEVEL	NONE	DONE	SU			

ND=NONE DETECTED

PQL=PRACTICAL QUANTITATION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY: TKOESTER

TERRY KOESTER
LABORATORY DIRECTOR

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 9809684

SENT WILLIAMS FIELD SERVICE-MS4JI
TO: P.O. BOX 58900
SALT LAKE CITY, UTAH 84108
MARK HARVEY
PROJECT: CRZ DISTRICT 98

DATE REPORTED: 09/28/98
DATE COLLECTED: 09/18/98
DATE RECEIVED: 09/22/98

Reference Fraction: 9809684-07A

Sample ID: SHERMANEDWARDS#2PCV-EXFL01 / 86945

Sample Matrix: SOIL

Sample Date Collected: 09/18/98 10:00:00

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	BY
TPH	SW846-8015	16.6	MG/KG	2.0	09/25/98	SKW
BTEX	SW846 8021			3.0		
BENZENE		ND	MG/KG	0.050	09/23/98	JLO
TOLUENE		ND	MG/KG	0.050	09/23/98	JLO
ETHYLBENZENE		ND	MG/KG	0.050	09/23/98	JLO
TOTAL XYLENES		ND	MG/KG	0.050	09/23/98	JLO
BFB (SURROGATE)		121	125	75		

NONE DETECTED

DL=DETECTION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:


TERRY KOESTER
LABORATORY DIRECTOR

Q W A L L A B O R A T O R I E S, I N C.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 9809684

SENT WILLIAMS FIELD SERVICE-MS4JI
TO: P.O. BOX 58900
SALT LAKE CITY, UTAH 84108
MARK HARVEY

DATE REPORTED: 09/28/98
DATE COLLECTED: 09/18/98
DATE RECEIVED: 09/22/98

PROJECT: CRZ DISTRICT 98

Reference Fraction: 9809684-08A

Sample ID: SHERMANEDWARDS#2PCV-EXWA01

Sample Matrix: SOIL

Sample Date Collected: 09/18/98 10:00:00

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	BY
TPH	SW846-8015	ND	MG/KG	2.0	09/25/98	SKW
BTEX	SW846 8021			3.0		
BENZENE		ND	MG/KG	0.050	09/23/98	JLO
TOLUENE		ND	MG/KG	0.050	09/23/98	JLO
ETHYLBENZENE		ND	MG/KG	0.050	09/23/98	JLO
TOTAL XYLENES		ND	MG/KG	0.050	09/23/98	JLO
BFB (SURROGATE)		99	125	75		

:NONE DETECTED

DL=DETECTION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:


TERRY KOESTER
LABORATORY DIRECTOR

QWAL LABORATORIES, INC.

2911 ROTARY TERRACE, P.O. BOX 562/PITTSBURG, KS 66762/(316)232-1970

LABORATORY REPORT:

REFERENCE #: 9811174

SENT WILLIAMS FIELD SERVICE
TO: 295 CHIPETA WAY
SALT LAKE CITY, UTAH 84158
MARK HARVEY

DATE REPORTED: 11/12/98
DATE COLLECTED: 11/04/98
DATE RECEIVED: 11/06/98

PROJECT: CRZ PITS '98

86945

Reference Fraction: 9811174-02A
Sample ID: SHERMAN #2 PC-V-LF-02
Sample Date Collected: 11/04/98 17:25:00

Sample Matrix: SOIL

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	BY
TPH	SW846-8015	17.8	MG/KG	2.0	11/10/98	SKW

ND-NONE DETECTED
DL-DETECTION LIMIT
SU-STANDARD UNITS
B-DETECTED IN METHOD BLANK

APPROVED BY:


TERRY KOESTER
LABORATORY DIRECTOR