

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Risk
bedrock
RECEIVED
DEC - 6 1999

PIT REMEDIATION AND CLOSURE REPORT

OIL CON. DIV.
DIST. 3

Operator: Burlington Resources (Williams Field Services) Telephone: (801) 584-6361
Address: P.O. Box 58900, Salt Lake City, Utah 84158-0900
WellName: SJ 27-4 UNIT #56 (87327)
Location: Unit or Qtr/Qtr Sec L Sec 21 T 27N R 4W County Rio Arriba
PitType Dehydrator
LandType: Forest

Pit Location: Pit dimensions: length 20 ft., width 16 ft., depth 9 ft.
(Attach diagram)

Reference: Wellhead

Footage from reference: 56 ft.

Direction from reference: 104 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)	0
high water elevation of			
ground water)			

Wellhead Protection Area:	Yes	(20 points)	
(Less than 200 feet from a private	No	(0 points)	0
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)	0
irrigation canals and ditches)			

Ranking Score (TOTAL POINTS): 0

Date Remediation Started: 8/26/98

Date Completed: 8/26/98

Remediation Method: Excavation ☒

Approx. Cubic Yard 100

(check all appropriate sections)

Landfarmed ☒

Insitu Bioremediation

Other LF Headspace 34 ppm

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 placed into an onsite landfarm.

Ground Water Encountered: No

Final Pit:

Sample location 27-4#56 V-EXFL-01

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 9 feet

Sample date 8/28/98

Sample time 9:10

Sample Result

Benzene (ppm) <0.050

Total BTEX (ppm) <0.050

Field Headspace (ppm)

TPH (ppm) 467

Ground Water Sample: No

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

DATE 10-11-99

SIGNATURE

PRINTED NAME Mark Harvey for Williams Field Services
AND TITLE P.C.



Environmental Services
P.O. Box 58900
Salt Lake City, UT 84158-0900

Pit Closure and Retirement Addendum- Risk Assessment

Any residual contamination remaining at the San Juan 27-4 #56 poses low risk to human health and the environment. This conclusion is based in part on the information below:

Toxicity Information

Toxicity values for TPH have not been established due to the variability of the chemical makeup of TPH. Normally, the toxicity is based on the toxicity of the particular constituents of concern which may be present and are evaluated based on health-based standards. The most common constituents examined include benzene, ethylbenzene, toluene, and xylene.

In the absence of constituents of concern or when the concentrations of the constituents of concern are negligible, the acceptable level of TPH is established by considering the following:

- No liquid product should remain in the soil
- The TPH should not harm vegetation
- The TPH concentrations should not create an odor nuisance
- Hydrocarbon vapors which may emanate from the impacted soil should not generate harmful or explosive vapors
- Site monitoring should indicate that TPH levels are stable or declining

While residual TPH and / or BTEX contamination may exist at this site, excavation activities were suspended based on encountering bedrock or production equipment which limited continued safe excavation. Based on the analysis of the soil confirmation sample and the site conditions, closure of this site is warranted for the following reasons:

1. Soils which exhibited high levels of TPH and BTEX have been removed.
2. Residual TPH concentrations are below levels which would be problematic based on the criteria above.
3. Discharge has been eliminated and a steel tank installed to prevent any future release to soils.
4. Depth to groundwater is estimated at greater than 100'.
5. Vertical migration of contamination is limited due to bedrock and/or the low vertical hydraulic conductivity of underlying soils.
6. TPH concentrations will not increase and are likely to degrade over time in-situ.

Since there are no nearby receptors or domestic water sources, this site poses little risk to human health and the environment. Closure is justified based on the relatively low total petroleum hydrocarbon (TPH) concentration and the fact that benzene, toluene, ethylbenzene, and xylene meet applicable closure criteria. Additional information may be found in the Technical Background Document titled: *Risk Based Closure of Unlined Surface Impoundment Sites, San Juan Basin, New Mexico.*

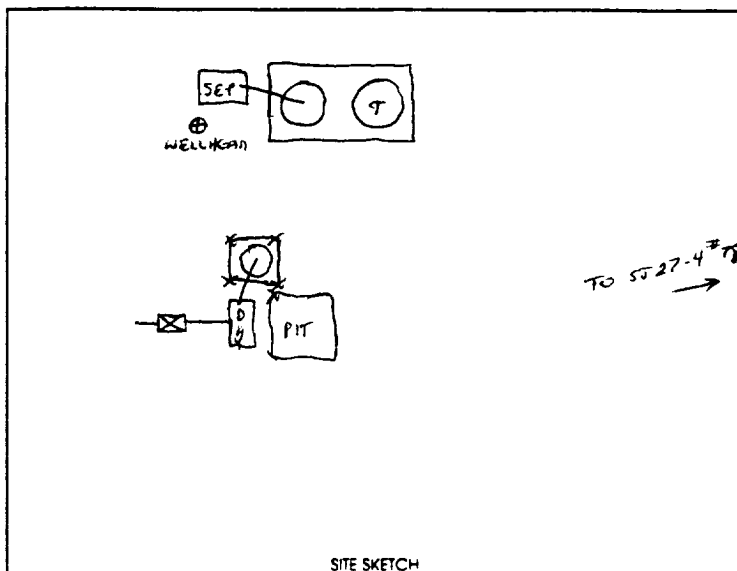
Weather _____

County RIO ARriba

Line Marking Evident? ☒ Y ☐ N

Direction: 104 Degrees ~~X~~ E N ~~X~~
of
W S

Final Pit Dimensions 20' x 16' x 9'



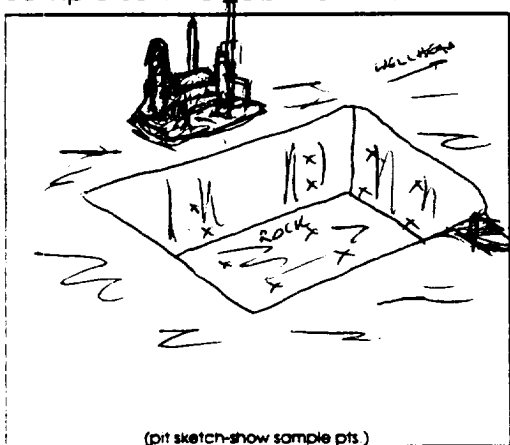
Organic Vapor Readings: Start _____ Soil Description: CLAYEY SILT
 @ 2' _____
 @ 4' _____
 @ 6' _____
 @ 8' _____
 @ 9' _____
 @ _____

Well Proximity To: Residence, Domestic Water Well, Stock Well NONE
Arroyo, Wash, Lake, Stream WASH ~ 300 Yds WEST
Estimated or Known Distance to Ground Water >100'

Source of Backfill (if other than processed material) _____

Samples collected:	Type	Progress: Verification:	ID	<u>27-4[#]56-V-EXWA-01</u>	soil / water
		Progress: Verification:	ID	<u>27-4[#]56-V-EXFL-01</u>	soil / water
		Progress: Verification:	ID	_____	soil / water

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



Comments: SITE IS ADJACENT TO SJ 27-4 # 78 - BOTH JUST BEFORE
SJ 27-4 # 145 (DEAD END) - EXCAVATE + MIX SOIL - SOME MODERATE
TO HEAVILY STAINED SOIL TO 4' - ROCK ON NORTH WALL + DEHY ON WEST WALL
PREVENT EXCAVATION IN THOSE DIRECTIONS - WALLS HAVE SLIGHT TO MODERATE
STAINING - FLOOR BEDROCK

Soil Shipped to: ON-SITE LF
Prepared by: M. J. [Signature]

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 #: 9809139

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

DATE REPORTED: 09/08/98
DATE COLLECTED: 08/28/98
DATE RECEIVED: 09/02/98

PROJECT: 98 PIT REMEDIATION (CRZ)

Reference Fraction: 9809139-39A

Sample ID: CRZ/27-4#56 V-EKWA-01 / 87327

Sample Date Collected: 08/28/98 09:10:00

Sample Matrix: SOIL

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	BY
TPH	SW846-8015	2900	MG/KG	40.0	09/08/98	SKW
BTEX	SW846 8021			3.0		
BENZENE		ND	MG/KG	0.050	09/06/98	JLO
TOLUENE		ND	MG/KG	0.050	09/06/98	JLO
ETHYLBENZENE		ND	MG/KG	0.050	09/06/98	JLO
TOTAL XYLENES		0.138	MG/KG	0.050	09/06/98	JLO
BFB (SURROGATE)		77	125	75		

ND-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 #: 9809139

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

DATE REPORTED: 09/08/98
DATE COLLECTED: 08/28/98
DATE RECEIVED: 09/02/98

Reference Fraction: 9809139-40A

Sample ID: CRZ/27-4#56 V-EXFL-01 / 87327

Sample Matrix: SOIL

Sample Date Collected: 08/28/98 09:10:00

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	BY
TPH	SW846-8015	467	MG/KG	2.0	09/08/98	SKW
BTEX	SW846 8021			3.0		
BENZENE		ND	MG/KG	0.050	09/06/98	JLO
TOLUENE		ND	MG/KG	0.050	09/06/98	JLO
ETHYLBENZENE		ND	MG/KG	0.050	09/06/98	JLO
TOTAL XYLENES		ND	MG/KG	0.050	09/06/98	JLO
BFB (SURROGATE)		78	125	75		

ND-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 #: 9809965

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

DATE REPORTED: 10/06/98
DATE COLLECTED: 09/24/98
DATE RECEIVED: 09/30/98

PROJECT: PIT REMEDIATION 98

Reference Fraction: 9809965-25A

Sample ID: 27-4 #56-V-LF-01 / 87327

Sample Matrix: SOIL

Sample Date Collected: 09/24/98 09:35:00

TEST	METHOD	RESULT	UNITS	DL	ANALYZED	BY
TPH	SW846-8015	4210	MG/KG	40.0	10/03/98	SKW
BTEX	SW846 8021			3.0		
BENZENE		ND	MG/KG	0.050	10/04/98	JLO
TOLUENE		ND	MG/KG	0.050	10/04/98	JLO
ETHYLBENZENE		ND	MG/KG	0.050	10/04/98	JLO
TOTAL XYLENES		0.943	MG/KG	0.050	10/04/98	JLO
BFB (SURROGATE)		77	125	75		

ND=NONE DETECTED

DL=DETECTION LIMIT

SU=STANDARD UNITS

B=DETECTED IN METHOD BLANK

APPROVED BY:


TERRY KOESTER
LABORATORY DIRECTOR