District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒
Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: Duncan Oil Telephone: (303) 759-3303 e-mail address: sfallin@duncanoil.com
Address: 1777 South Harrison Street – Penthouse One, Denver, Colorado,80210
Facility or well name: N. Hogback 12 No. 4 API #: 3004521003 U/L or Qtr/Qtr A Sec 12 T 29N R 17W
County: San Juan Latitude 36° 44.850' Longitude -108° 34.639' NAD: 1927 ☒ 1983 ☐
Surface Owner: Federal ☐ State ☐ Private ☐ Indian ☒

Pit	**Below-grade tank**
Type: Drilling ☐ Production ☒ Disposal ☐ Workover ☐ Emergency ☐ Lined ☐ Unlined ☒ Liner type: Synthetic ☐ Thickness ____mil Clay ☐ Pit Volume ____bbl	Volume: ____bbl Type of fluid: Construction material: Double-walled, with leak detection? Yes ☐ If not, explain why not.

JAN 2006
RECEIVED
OIL CONS. DIV.
DIST. 3

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) (0 points)	20
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	(20 points) (0 points)	0
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) (0 points)	20
	Ranking Score (Total Points)		40

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☐ offsite ☒ If offsite, name of facility Envirotech Landfarm #2 . (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☒ If yes, show depth below ground surface 10 ft. and attach sample results.
(5) Attach soil sample results and a diagram of sample locations and excavations.

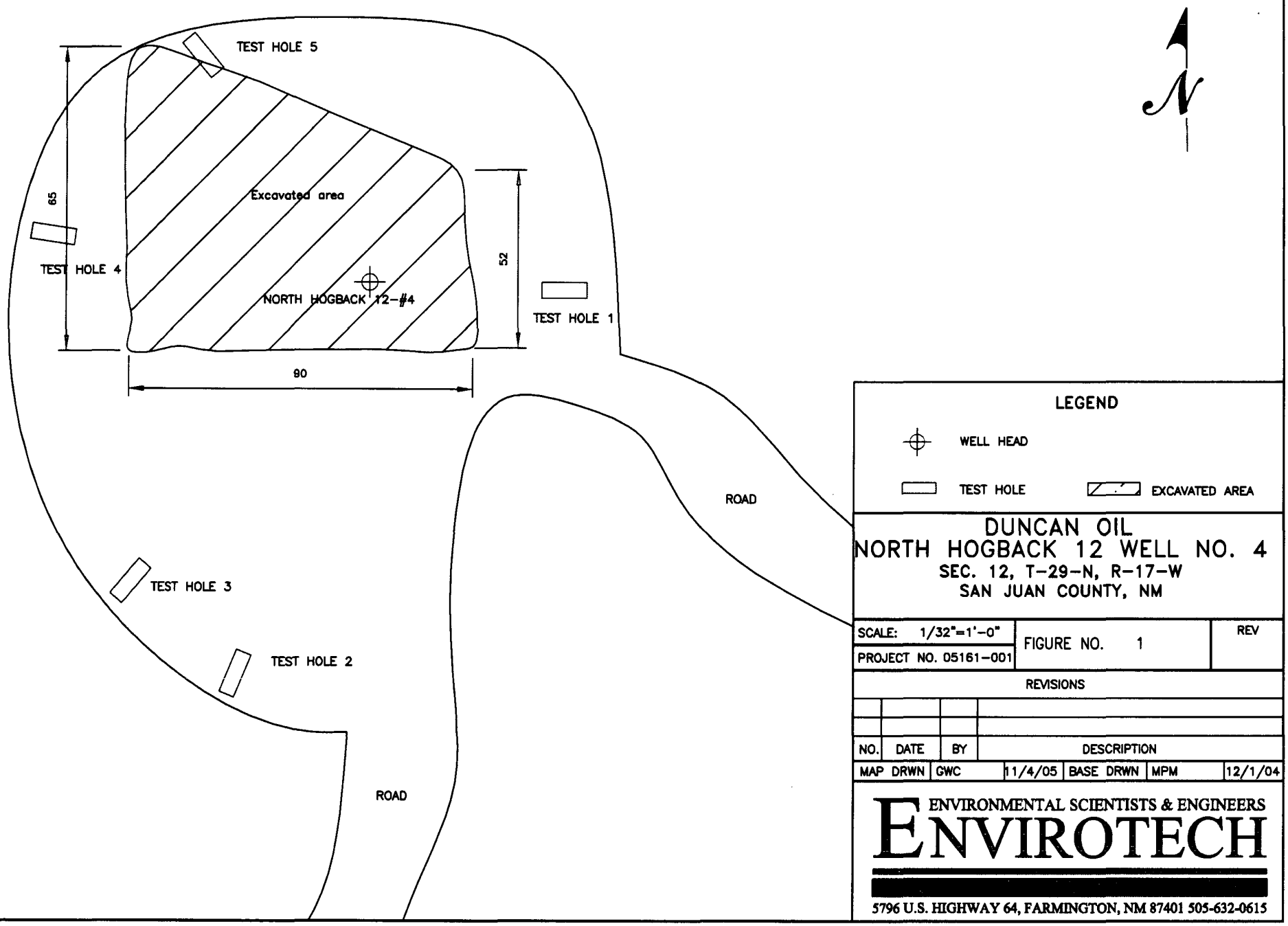
Additional Comments:
Approximately 480 cubic yards of contaminated soil was excavated from the North Hogback 12-#4 well.
Documentation of BTEX analysis via USEPA Method 8021B is attached for the ground water sample.
Documentation of TPH and OVM results are also attached for the soil samples

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Date: 1/4/06
Printed Name/Title Steve Fallin – Production Manager Signature Steve Fallin

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

DEPUTY OIL & GAS INSPECTOR, DIST. #3
Approval:
Printed Name/Title _____ Signature Denny Foust Date: JAN 0 9 2006



LEGEND

WELL HEAD

TEST HOLE

EXCAVATED AREA

DUNCAN OIL
NORTH HOGBACK 12 WELL NO. 4
SEC. 12, T-29-N, R-17-W
SAN JUAN COUNTY, NM

SCALE: 1/32"=1'-0"	FIGURE NO. 1	REV
PROJECT NO. 05161-001		

REVISIONS

NO.	DATE	BY	DESCRIPTION

MAP DRWN	GWC	11/4/05	BASE DRWN	MPM	12/1/04

ENVIRONMENTAL SCIENTISTS & ENGINEERS
ENVIROTECH
5796 U.S. HIGHWAY 64, FARMINGTON, NM 87401 505-632-0615

CLIENT: Duncan Oil

ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS
5796 U.S. HIGHWAY 64-3014
FARMINGTON, NEW MEXICO 87401
PHONE: (505) 632-0615

LOCATION NO: _____
C.O.C. NO: _____

FIELD REPORT: CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: N. Hogback 12 WELL #: 4 PIT:
QUAD/UNIT: SEC: 12 TWP: 29 RNG: 16 PM: NMPM CNTY: SJ ST: NM
QTR/FOOTAGE: CONTRACTOR:

DATE STARTED: 11/2/05
DATE FINISHED: 11/8/05
ENVIRONMENTAL SPECIALIST: GWC

EXCAVATION APPROX. 90 FT. x 60 FT. x 6 FT. DEEP. CUBIC YARDAGE: 1170
DISPOSAL FACILITY: Envirotech Landfarm # 2 REMEDIATION METHOD: Landfarm
LAND USE: Flood Plain LEASE: FORMATION:

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 0 FT. _____ FROM WELLHEAD.
DEPTH TO GROUNDWATER: <10' NEAREST WATER SOURCE: >1000 NEAREST SURFACE WATER: ~~<1000~~ <200
NMOCD RANKING SCORE: 40 NMOCD TPH CLOSURE STD: 100 PPM

CHECK ONE:
X PIT ABANDONED
___ STEEL TANK INSTALLED

SOIL AND EXCAVATION DESCRIPTION:

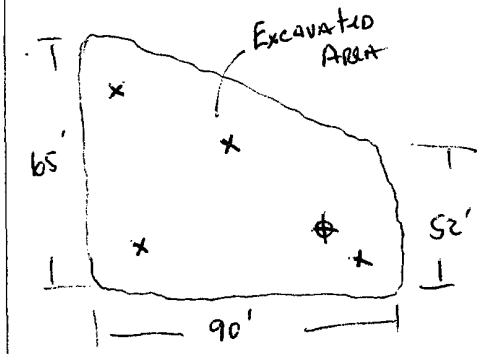
Approximately 1170 cubic yards of contaminated soil was removed from around the N. Hogback 12-#4 P+A marker. The soil was hauled to Envirotech's NMOCD permitted landfarm

FIELD 418.1 CALCULATIONS

TIME	SAMPLE I.D.	LAB No:	WEIGHT (g)	mL. FREON	DILUTION	READING	CALC. ppm
	SEE Method 418.1	Analysis	logs				

SCALE
0 FT

PIT PERIMETER



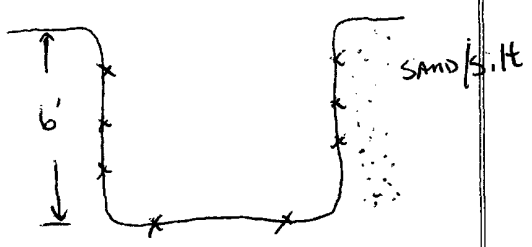
OVM RESULTS

SAMPLE ID	FIELD HEADSPACE PID (ppm)
1	
2	
3	
4	
5	

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME

PIT PROFILE



TRAVEL NOTES: CALLOUT: _____ ONSITE: _____

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-001
Sample ID:	N. Hogback 12-#4	Date Reported:	11-03-05
Chain of Custody:	15014	Date Sampled:	11-02-05
Laboratory Number:	34877	Date Received:	11-02-05
Sample Matrix:	Water	Date Analyzed:	11-03-05
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	**83.5**	**1**	**0.2**
Toluene	**327**	**1**	**0.2**
Ethylbenzene	**1,270**	**1**	**0.2**
p,m-Xylene	**1,250**	**1**	**0.2**
o-Xylene	**575**	**1**	**0.1**
Total BTEX	**3,510**		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	**99 %**
	1,4-difluorobenzene	**99 %**
	4-bromochlorobenzene	**99 %**

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: **Groundwater Hogback.**

Christine M Walters
Analyst

Mary Bruce
Review

796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505 • 632 • 0615 • Fax 505 • 632 • 1865

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	5	Date Reported:	11/8/2005
Sample ID:	Composite of Bottom @ 6 feet BGS	Date Sampled:	11/7/2005
Sample Matrix:	Soil	Date Analyzed:	11/7/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**36.0**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **North Hogback 12-#4**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

Review

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ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	10	Date Reported:	11/9/2005
Sample ID:	Composit Sample of South Wall	Date Sampled:	11/8/2005
Sample Matrix:	Soil	Date Analyzed:	11/8/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**96.0**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **North Hogback 12-#4**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

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ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	11	Date Reported:	11/9/2005
Sample ID:	Composit Sample of West Wall	Date Sampled:	11/8/2005
Sample Matrix:	Soil	Date Analyzed:	11/8/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**92.0**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **North Hogback 12-#4**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

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ENVIROTECH INC.
PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	8	Date Reported:	11/8/2005
Sample ID:	Composit Sample of East Wall	Date Sampled:	11/7/2005
Sample Matrix:	Soil	Date Analyzed:	11/7/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**44.0**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **North Hogback 12-#4**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

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ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 418.1
TOTAL PETROLEUM HYDROCARBONS

Client:	Duncan Oil	Project #:	05161-001
Sample No.:	7	Date Reported:	11/8/2005
Sample ID:	Composit Sample of North Wall	Date Sampled:	11/7/2005
Sample Matrix:	Soil	Date Analyzed:	11/7/2005
Preservative:	Cool	Analysis Needed:	TPH-418.1
Condition:	Cool and Intact		

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	**92.0**	**5.0**

ND = Parameter not detected at the stated detection limit.

References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: **North Hogback 12-#4**

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

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