

**A PIT CLOSURE PLAN MUST
BE APPROVED PRIOR TO THE
COMMENCEMENT OF
CLOSURE OPERATIONS.**

Energy Minerals and Natural Resources

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

As a condition of approval, if during
pit construction water is
encountered or if water seeps in pits
after construction the OCD MUST
BE CONTACTED IMMEDIATELY!

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address V-F Petroleum, Inc. P.O. Box 1889 Midland, TX 79702		² OGRID Number 24010	
³ Property Code 34591		⁴ API Number 30-015-33913	
⁵ Property Name Sweet "16" State		⁶ Well No. 1	
⁷ Proposed Pool Dos Hermanos Morrow		⁸ Proposed Pool 2 OCD-ARTEZIA	

RECEIVED

APR 03 2006

7 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	16	20-S	30-E		1695	North	2570	East	Eddy

8 Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	16	20-S	30-E		1650	South	1650	East	Eddy

Additional Well Information

¹¹ Work Type Code N	¹² Well Type Code G	¹³ Cable/Rotary R	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation 3200
¹⁶ Multiple No	¹⁷ Proposed Depth 12,800'	¹⁸ Formation Morrow	¹⁹ Contractor Patterson/Timber Sharp	²⁰ Spud Date May 8, 2006
Depth to Groundwater <100 ft <50'		Distance from nearest fresh water well <1000 ft		Distance from nearest surface water 1000 ft.
Pit: Liner: Synthetic X 12 mils thick Clay ☐ Pit Volume: 10,000 + bbls		Drilling Method: Rotary directional drill		
Closed-Loop System ☐ 20 Points		Fresh Water X Brine X Diesel/Oil-based ☐ Gas/Air ☐		

21 Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
26"	20"	94#	400'	500 sx "C"	Circ.. to surface
17 1/2"	13 3/8"	48#	1,850'	1,000 sx "C"	Circ. to surface
12 1/4"	9 5/8"	40#	3,525'	1,200 sx "C"	Circ. to surface
8 3/4"	5 1/2"	17#	12,800'	500 sx "H"	TOC 8,800'

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

The well will be drilled to a vertical depth of 5,200' where it will be directional deviated at 1.5%/100' and drilled to the proposed BHL.

Proposed BOP Control Equipment: A 13 5/8" 5,000 psi wp Shaffer Type LWS Double Gate BOP will be installed on the 13 3/8" casing. Casing and BOP will be tested before drilling out with the 17 1/2".

This application is being resubmitted. Previous approval was February 2, 2005.

NOTIFY OCD TO WITNESS
ALL CASING STRINGS

R-111-P

To be circulated to surface

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCD guidelines X, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

OIL CONSERVATION DIVISION

Approved by:

George R. Smith
District II Supervisor

Printed name: George R. Smith *George R. Smith*

Title:

Title: Agent

Approval Date:

APR 06 2006

Expiration Date:

APR 06 2007

E-mail Address:

Date: March 31, 2006

Phone (505) 623-4940

Conditions of Appr

CEMENT TO COVER ALL
OIL, GAS AND WATER
BEARING ZONES

See Attached STIPS.

District I
1825 N. French Dr. Hobbs, NM 88240

District II
811 South First, Artesia, NM 88210

District III
1000 N. Brazos Rd., Aztec NM 87410

District IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, N M 87505

Form C-102

Revised March 17, 1999
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code 76080	Pool Name Dos Hermanos Morrow
Property Code	Property Name SWEET 16 STATE	Well Number 1
OGRD No. 24010	Operation Name V F PETROLEUM INC.	Elevation 3200

Surface Location

UL or Lot No. C	Section 16	Township 20-S	Range 30-E	Lot Idn.	Feet from the 1695	North/South line NORTH	Feet from the 2570	East/West line EAST	County EDDY
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Bottom Hole Location If Different From Surface

UL or Lot No. J	Section 16	Township 20-S	Range 30-E	Lot Idn.	Feet from the 1660	North/South line SOUTH	Feet from the 1660	East/West line EAST	County EDDY
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Dedicated Acres 640	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTEREST HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	OPERATOR CERTIFICATION I HEREBY CERTIFY THAT THE INFORMATION SHOWN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.	
	Signature <i>George R. Smith</i>	
	Printed Name George R. Smith	
	Title agent	
	SURVEYOR CERTIFICATION I HEREBY CERTIFY THAT THE WELL LOCATION SHOWN ON THIS PLAT WAS PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION, AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.	
	Date of Survey JANUARY 22, 2005	
	Signature and Seal of Professional Surveyor 	
	Certificate Number 5412	

V-F Petroleum
Sweet '16 State #1
Section 16, T20S R30E
Eddy County, New Mexico

PLANE OF VERTICAL SECTION 134/11

SURFACE LOCATION

1695' FNL

2570' FEL

Section 16, T20S R30E

Dip Angle: 17°

Magnetic Field Strength: 0.17

US State Plane Coordinate System 1927

New Mexico Eastern Zone

Corrected to GRID North

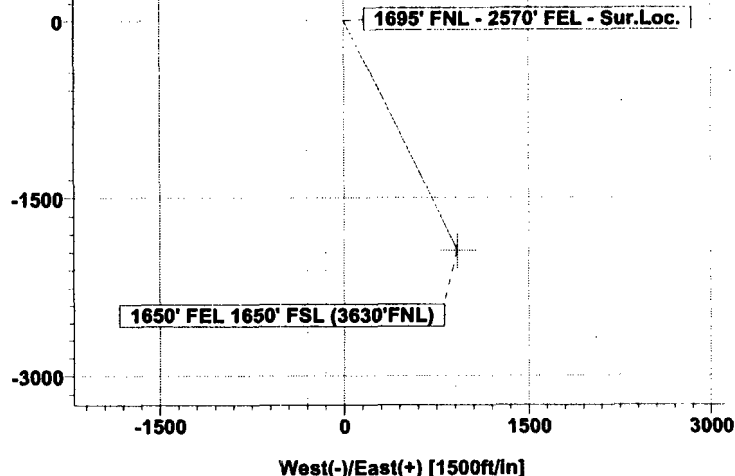
Magnetic Declination: 11°

Convergence: 11°

Total GCM Correction: 22°

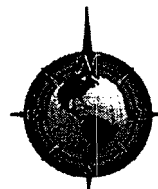
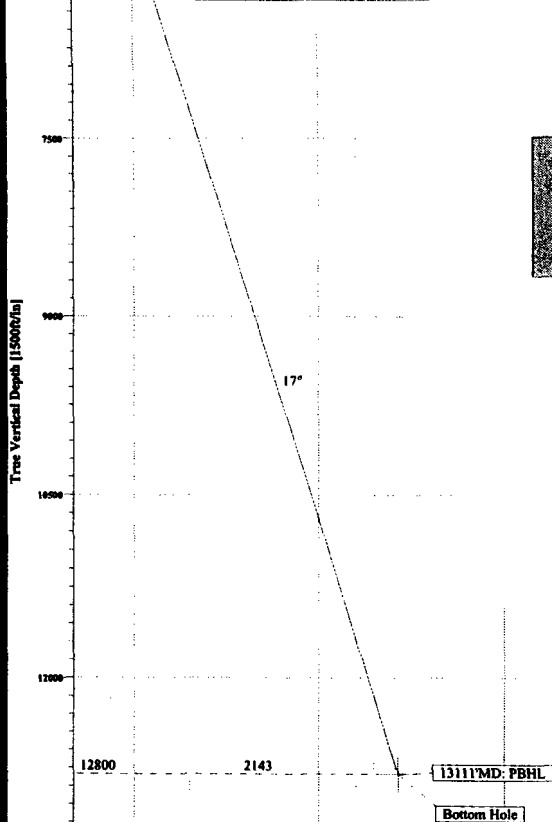
MEASUREMENTS BASED ON A SQUARE MILE SECTION

South(-)/North(+) [1500ft/in]



5200 MD: KOP - Begin Build @ 1.5/100 MD

6313 166 6330 MD: End of Build w/16.95' Incl.



SECTION DETAILS			
MD	INCL	DEPTH	REMARKS
5200	0.00	12150	KOP
6330	16.95	12166	End of Build
13111	16.95	12214	PBHL

ANNOTATIONS			
1	5200	0.00	KOP
2	6330	16.95	End of Build
3	13111	16.95	PBHL
4	12800	2143	Bottom Hole



LEAM Drilling Systems, Inc.

Well Planning Report

Company: V-F Petroleum
Field: New Mexico
Site: Sweet '16'
Well: Q4105
Wellpath: Plan

Date: 1/28/2005 Time: 09:56:39 Page: 1
Co-ordinate(NE) Reference: Site: Sweet '16', Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,154.57Azi)
Survey Calculation Method: Minimum Curvature Db: Adapti

Field: New Mexico

Map System: US State Plane Coordinate System 1927
Geo Datum: NAD27 (Clarke 1866)
Sys Datum: Mean Sea Level

Map Zone: New Mexico, Eastern Zone
Coordinate System: Site Centre
Geomagnetic Model: igrf2000

Site: Sweet '16'
Eddy County, NM
Section 16 T20S R30E

Site Position: Northing: ft Latitude:
From: Lease Line Easting: ft Longitude:
Position Uncertainty: 0.0 ft North Reference: Grid
Ground Level: 0.0 ft Grid Convergence: 0.00 deg

Well: Q4105

Slot Name:

Well Position: +N/-S 0.0 ft Northing: 0.00 ft Latitude: 30 59 24.512 N
+E/-W 0.0 ft Easting: 0.00 ft Longitude: 105 55 44.137 W
Position Uncertainty: 0.0 ft

Wellpath: Plan

Current Datum: SITE Height 0.0 ft
Magnetic Data: 7/21/2004
Field Strength: 0 nT
Vertical Section: Depth From (TVD) +N/-S
ft ft
0.0 0.0
Drilled From: Surface
Tie-on Depth: 0.0 ft
Above System Datum: Mean Sea Level
Declination: 0.00 deg
Mag Dip Angle: 0.00 deg
+E/-W Direction
ft deg
0.0 154.57

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
5200.0	0.00	154.57	5200.0	0.0	0.0	0.00	0.00	0.00	0.00	
6329.9	16.95	154.57	6313.5	-149.8	71.2	1.50	1.50	0.00	154.57	
13110.9	16.95	154.57	12800.0	-1935.0	920.0	0.00	0.00	0.00	0.00	Bottom Hole

Survey

MD ft	Incl deg	Azim deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
5200.0	0.00	154.57	5200.0	0.0	0.0	0.0	0.00	0.00	0.00	
5300.0	1.50	154.57	5300.0	-1.2	0.6	1.3	1.50	1.50	0.00	
5400.0	3.00	154.57	5399.9	-4.7	2.2	5.2	1.50	1.50	0.00	
5500.0	4.50	154.57	5499.7	-10.6	5.1	11.8	1.50	1.50	0.00	
5600.0	6.00	154.57	5599.3	-18.9	9.0	20.9	1.50	1.50	0.00	
5700.0	7.50	154.57	5698.6	-29.5	14.0	32.7	1.50	1.50	0.00	
5800.0	9.00	154.57	5797.5	-42.5	20.2	47.0	1.50	1.50	0.00	
5900.0	10.50	154.57	5896.1	-57.8	27.5	64.0	1.50	1.50	0.00	
6000.0	12.00	154.57	5994.2	-75.4	35.8	83.5	1.50	1.50	0.00	
6100.0	13.50	154.57	6091.7	-95.3	45.3	105.5	1.50	1.50	0.00	
6200.0	15.00	154.57	6188.6	-117.5	55.9	130.2	1.50	1.50	0.00	
6300.0	16.50	154.57	6284.9	-142.1	67.5	157.3	1.50	1.50	0.00	
6329.9	16.95	154.57	6313.5	-149.8	71.2	165.9	1.50	1.50	0.00	
6400.0	16.95	154.57	6380.5	-168.3	80.0	186.3	0.00	0.00	0.00	
6500.0	16.95	154.57	6476.2	-194.6	92.5	215.5	0.00	0.00	0.00	
6600.0	16.95	154.57	6571.9	-220.9	105.0	244.6	0.00	0.00	0.00	
6700.0	16.95	154.57	6667.5	-247.3	117.6	273.8	0.00	0.00	0.00	
6800.0	16.95	154.57	6763.2	-273.6	130.1	302.9	0.00	0.00	0.00	
6900.0	16.95	154.57	6858.8	-299.9	142.6	332.1	0.00	0.00	0.00	
7000.0	16.95	154.57	6954.5	-326.2	155.1	361.2	0.00	0.00	0.00	
7100.0	16.95	154.57	7050.1	-352.6	167.6	390.4	0.00	0.00	0.00	

LEAM Drilling Systems, Inc.

Well Planning Report

Company: V-F Petroleum
Field: New Mexico
Site: Sweet '16'
Well: Q4105
Wellpath: Plan

Date: 1/28/2005
Co-ordinate(NE) Reference: Site: Sweet '16', Grid North
Vertical (TVD) Reference: SITE 0.0
Section (VS) Reference: Well (0.00N,0.00E,154.57Azi)
Survey Calculation Method: Minimum Curvature **Db:** Adapti

Page: 2

Survey

MD ft	Incl deg	Azlm deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
7200.0	16.95	154.57	7145.8	-378.9	180.1	419.5	0.00	0.00	0.00	
7300.0	16.95	154.57	7241.5	-405.2	192.7	448.7	0.00	0.00	0.00	
7400.0	16.95	154.57	7337.1	-431.5	205.2	477.8	0.00	0.00	0.00	
7500.0	16.95	154.57	7432.8	-457.9	217.7	507.0	0.00	0.00	0.00	
7600.0	16.95	154.57	7528.4	-484.2	230.2	536.1	0.00	0.00	0.00	
7700.0	16.95	154.57	7624.1	-510.5	242.7	565.3	0.00	0.00	0.00	
7800.0	16.95	154.57	7719.7	-536.8	255.2	594.4	0.00	0.00	0.00	
7900.0	16.95	154.57	7815.4	-563.2	267.8	623.6	0.00	0.00	0.00	
8000.0	16.95	154.57	7911.1	-589.5	280.3	652.7	0.00	0.00	0.00	
8100.0	16.95	154.57	8006.7	-615.8	292.8	681.9	0.00	0.00	0.00	
8200.0	16.95	154.57	8102.4	-642.2	305.3	711.0	0.00	0.00	0.00	
8300.0	16.95	154.57	8198.0	-668.5	317.8	740.2	0.00	0.00	0.00	
8400.0	16.95	154.57	8293.7	-694.8	330.3	769.3	0.00	0.00	0.00	
8500.0	16.95	154.57	8389.3	-721.1	342.9	798.5	0.00	0.00	0.00	
8600.0	16.95	154.57	8485.0	-747.5	355.4	827.6	0.00	0.00	0.00	
8700.0	16.95	154.57	8580.7	-773.8	367.9	856.8	0.00	0.00	0.00	
8800.0	16.95	154.57	8676.3	-800.1	380.4	885.9	0.00	0.00	0.00	
8900.0	16.95	154.57	8772.0	-826.4	392.9	915.1	0.00	0.00	0.00	
9000.0	16.95	154.57	8867.6	-852.8	405.4	944.2	0.00	0.00	0.00	
9100.0	16.95	154.57	8963.3	-879.1	418.0	973.4	0.00	0.00	0.00	
9200.0	16.95	154.57	9058.9	-905.4	430.5	1002.5	0.00	0.00	0.00	
9300.0	16.95	154.57	9154.6	-931.7	443.0	1031.7	0.00	0.00	0.00	
9400.0	16.95	154.57	9250.3	-958.1	455.5	1060.8	0.00	0.00	0.00	
9500.0	16.95	154.57	9345.9	-984.4	468.0	1090.0	0.00	0.00	0.00	
9600.0	16.95	154.57	9441.6	-1010.7	480.5	1119.1	0.00	0.00	0.00	
9700.0	16.95	154.57	9537.2	-1037.0	493.1	1148.3	0.00	0.00	0.00	
9800.0	16.95	154.57	9632.9	-1063.4	505.6	1177.4	0.00	0.00	0.00	
9900.0	16.95	154.57	9728.5	-1089.7	518.1	1206.6	0.00	0.00	0.00	
10000.0	16.95	154.57	9824.2	-1116.0	530.6	1235.7	0.00	0.00	0.00	
10100.0	16.95	154.57	9919.9	-1142.3	543.1	1264.9	0.00	0.00	0.00	
10200.0	16.95	154.57	10015.5	-1168.7	555.6	1294.0	0.00	0.00	0.00	
10300.0	16.95	154.57	10111.2	-1195.0	568.2	1323.2	0.00	0.00	0.00	
10400.0	16.95	154.57	10206.8	-1221.3	580.7	1352.3	0.00	0.00	0.00	
10500.0	16.95	154.57	10302.5	-1247.7	593.2	1381.5	0.00	0.00	0.00	
10600.0	16.95	154.57	10398.1	-1274.0	605.7	1410.6	0.00	0.00	0.00	
10700.0	16.95	154.57	10493.8	-1300.3	618.2	1439.8	0.00	0.00	0.00	
10800.0	16.95	154.57	10589.5	-1326.6	630.7	1468.9	0.00	0.00	0.00	
10900.0	16.95	154.57	10685.1	-1353.0	643.3	1498.1	0.00	0.00	0.00	
11000.0	16.95	154.57	10780.8	-1379.3	655.8	1527.2	0.00	0.00	0.00	
11100.0	16.95	154.57	10876.4	-1405.6	668.3	1556.4	0.00	0.00	0.00	
11200.0	16.95	154.57	10972.1	-1431.9	680.8	1585.5	0.00	0.00	0.00	
11300.0	16.95	154.57	11067.7	-1458.3	693.3	1614.7	0.00	0.00	0.00	
11400.0	16.95	154.57	11163.4	-1484.6	705.8	1643.8	0.00	0.00	0.00	
11500.0	16.95	154.57	11259.1	-1510.9	718.4	1673.0	0.00	0.00	0.00	
11600.0	16.95	154.57	11354.7	-1537.2	730.9	1702.1	0.00	0.00	0.00	
11700.0	16.95	154.57	11450.4	-1563.6	743.4	1731.3	0.00	0.00	0.00	
11800.0	16.95	154.57	11546.0	-1589.9	755.9	1760.4	0.00	0.00	0.00	
11900.0	16.95	154.57	11641.7	-1616.2	768.4	1789.6	0.00	0.00	0.00	
12000.0	16.95	154.57	11737.3	-1642.5	781.0	1818.7	0.00	0.00	0.00	
12100.0	16.95	154.57	11833.0	-1668.9	793.5	1847.9	0.00	0.00	0.00	
12200.0	16.95	154.57	11928.7	-1695.2	806.0	1877.0	0.00	0.00	0.00	
12300.0	16.95	154.57	12024.3	-1721.5	818.5	1906.2	0.00	0.00	0.00	
12400.0	16.95	154.57	12120.0	-1747.8	831.0	1935.3	0.00	0.00	0.00	

Well Planning Report

Date: 1/28/2005 **Time:** 09:56:39 **Page:** 3

Co-ordinate(NE) Reference: Site: Sweet '16', Grid North

Vertical (TVD) Reference: SITE 0.0

Section (VS) Reference: Well (0.00N,0.00E,154.57Azi)

Survey Calculation Method: Minimum Curvature Db: Adapti

Survey

MD ft	Incl deg	Azlm deg	TVD ft	N/S ft	E/W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Comment
12500.0	16.95	154.57	12215.6	-1774.2	843.5	1964.5	0.00	0.00	0.00	
12600.0	16.95	154.57	12311.3	-1800.5	856.1	1993.6	0.00	0.00	0.00	
12700.0	16.95	154.57	12406.9	-1826.8	868.6	2022.8	0.00	0.00	0.00	
12800.0	16.95	154.57	12502.6	-1853.2	881.1	2051.9	0.00	0.00	0.00	
12900.0	16.95	154.57	12598.3	-1879.5	893.6	2081.1	0.00	0.00	0.00	
13000.0	16.95	154.57	12693.9	-1905.8	906.1	2110.2	0.00	0.00	0.00	
13100.0	16.95	154.57	12789.6	-1932.1	918.6	2139.4	0.00	0.00	0.00	
13110.9	16.95	154.57	12800.0	-1935.0	920.0	2142.6	0.00	0.00	0.00	

Annotation

MD ft	TVD ft	
5200.0	5200.0	5200'MD: KOP - Begin Build @ 1.5'/100'MD
5200.0	5200.0	1695' FNL - 2570' FEL - Surface Location
6329.9	6313.5	6330'MD: End of Build w/16.95' Incl.
13110.9	12800.0	13111'MD: PBHL
13110.9	12800.0	1650' FEL 1650' FSL (3630'FNL)

Casing Points

MD	TVD	Diameter	Hole Size	Name

Targets

Name	Description Dip.	Dir.	TVD	+N/-S	+E/-W	Map Northing	Map Easting	← Latitude → Deg Min Sec	← Longitude → Deg Min Sec

APPLICATION FOR DRILLING

V-F PETROLEUM, INC.

Sweet "16" State, Well No. 1

Surface: 1695' FNL & 2570' FEL, Sec. 16-T20S-R30E

Production: 1650' FSL & 1650' FEL, Sec. 16-T20S-R30E

Eddy County, New Mexico

(Development Well)

In conjunction with Form C-101, Application for Permit to Drill subject well, V-F Petroleum, Inc. submits the following items of pertinent information in accordance with NMOCD request:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.
2. The estimated tops of geologic markers are as follows:

Rustler	80'	Wolfcamp Limestone	10,293'
Yates	1,755'	Middle Strawn Limestone	10,953'
Capitan Reef	2,282'	Atoka	11,243'
Delaware	3,578'	Morrow	11,688'
Bone Spring	6,450'	Lower Morrow	12,168'
Wolfcamp	10,124'	T.D	12,800'

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water between 100' - 300'.

Oil: None expected.

Gas: Possible in the Strawn below 10,953', Atoka below 11,243' and the Morrow below 11,688'.

4. Proposed Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH	QUANTITY OF CEMENT
26"	20"	94.0#	H-40	ST&C	200'	Circ. 550 sx HL & 150 "C" to surface.
17 1/2"	13 3/8"	48.0#	H-40	ST&C	750'	
17 1/2"	13 3/8"	54.5#	K-55	ST&C	2,260'	Circ. 1000 sx HL & 150 "C" to surface
12 1/4"	9 5/8"	36.0#	K-55	ST&C	1,950'	
12 1/4"	9 5/8"	40.0#	K-55	ST&C	3,525'	Circ. 900 sx HL & 300 "C" to surface.
8 3/4"	5 1/2"	17.0#	N-80	LT&C	6,150'	
8 3/4"	5 1/2"	20.0#	N-80	LT&C	12,800'	750 sx "H" returned to 8,800' for TOC.

NOTE: Deviation Requirements: Commencing at 5,200': Kick off and build angle at 1.5 degrees per 100 feet. Drill and build curve section to 17.00 degrees to T.D. See Exhibit "F".

5. Proposed Control Equipment: A 12" 5000 psi wp Shaffer Type LWS Double Gate BOP will be installed on the 13 3/8" casing. Casing and BOP will be tested according to Onshore Oil & Gas Order #2, not to exceed maximum surface estimated pressures of 2800 psi wp, before drilling out with 12 1/4" and will be tested regularly. See Exhibit "E".

6. MUD PROGRAM:	MUD WEIGHT	VIS.	W/L CONTROL
0' - 200': Fresh water mud:	8.6 - 9.2 ppg	32 - 40	No W/L control
200' - 2260': Brine water mud	10.0 - 10.1 ppg	28 - 29	No W/L control
2260' - 3550': Fresh water mud:	10.0 - 10.1 ppg	28 - 29	No W/L control
3550' - 10,600': Brine water mud:	8.3 - 8.4 ppg	28 - 29	No W/L control
10,600' - 12,800': Cut Brine mud:	9.8 - 10.0 ppg	36 - 40	W/L cont. 12 - to 6 cc in Morrow

7. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock, and stabbing valve.

V-F PETROLEUM, Inc.

Sweet "16" State, Well No. 1

Page 2

8. Testing, Logging, and Coring Program:

Drill Stem Tests: None.

Logging: T.D. to 3525': GR-DNL-DLL

3525' to Surface: GR-

Coring: None planned

9. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated maximum BHP = 5632 and Surface Pressure = 2816 with a temperature of 188°.

10. H₂S: None expected. None in two wells drilled in Sec. 21-T20S-R30E.

11. Anticipated starting date: May 8, 2006

Anticipated completion of drilling operations: Approximately 40-50 days.

TIMBER//SHARP DRILLING

B.O.P. Equipment Intended for use on Rig # 24

Well To Be drilled for Timber/Sharp

* All B.O.P equipment is H2S Trim *

* All Accumulators are Kookey Type-80 : Dual Power Electric/Air *

* Choke Manifold: * See sheet 2

4" Valves : Cameron F/FC, Shaffer DB Hydraulic

2" Check Valve: Cameron Type R

2" Valves : Cameron or Shaffer

Annular Shaffer Type: Spherical

Annular PSI: 3000

(If Shaffer: Spherical , If Hydril: Type GK)

BOP Type Shaffer LWS

(If Shaffer: LWS or SL, If Cameron: Type U)

BOP Size: 13 5/8 " - 5000 PSI

Rotating Head Type Smith

Rot-Head Furnished By Timber

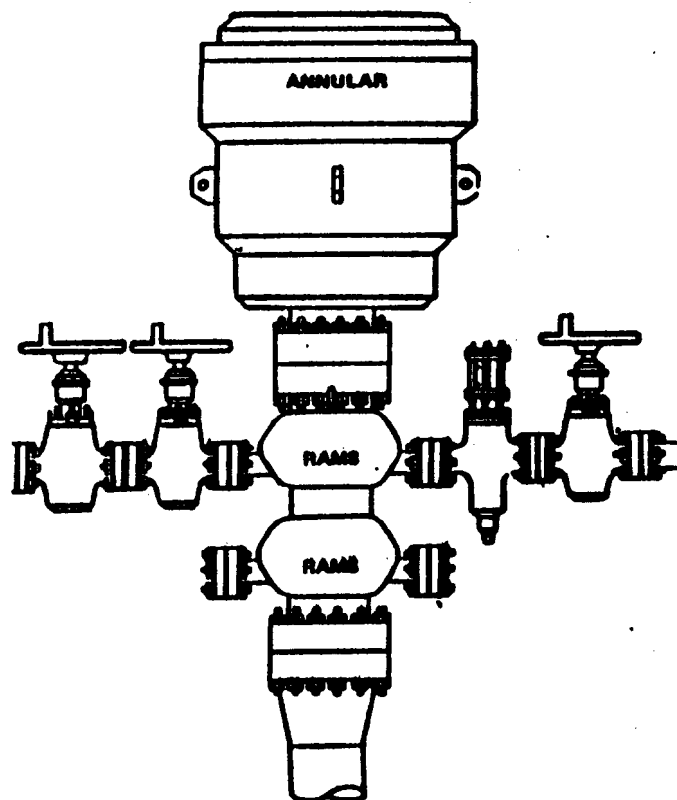
Rams in top gate: 4 1/2" pipe

Rams in bottom: Blinds

Side Outlets used:

Bottom X Top

4" Valves on Tee



B.O.P. Equipment Intended for use on Rig # 24

Well To Be drilled for Timber/Sharp

* All Valves (H2S) *

Choke Manifold:

Pressure Rating 3,000 or 5,000 (as Req.)

1 - 4" Valves

2 - 2" Valves

2 - 2" Adjustable Chokes

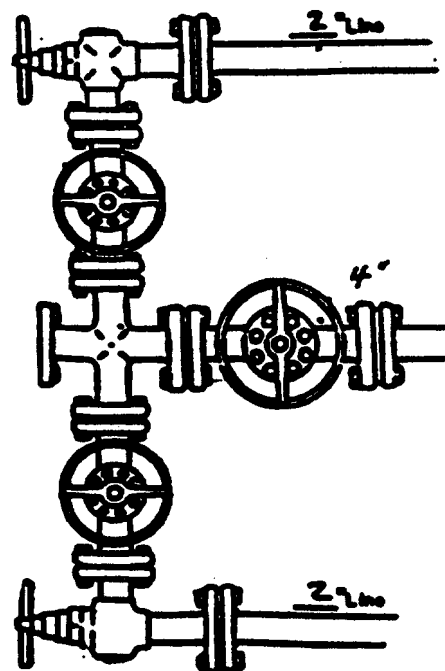
Valve Types Used:

Cameron - F or FC

Shaffer - B Floseal

WKM type 2

Chokes - Cameron H2 or TC unbolt





January 27, 2005

Oil Conservation Division
1301 West Grand Avenue
Artesia, NM 88210

Attention: Mr. Tim Gum

Re: Sweet "16" State No. 2
1,670' FNL and 2,061' FE
Section 16, T20S-R30E
Eddy County, New Mexico

Dear Tim:

V-F Petroleum Inc. has submitted an APD within one mile of a potash lease. The nearest lease is held by Intrepid Potash - NM, LLC. In accordance with the State of New Mexico, Energy, Minerals and Natural Resources Department Oil Conservation Commission Order R-111-P, Intrepid Potash has no objections to the proposed location of the Sweet "16" State No. 2 well.

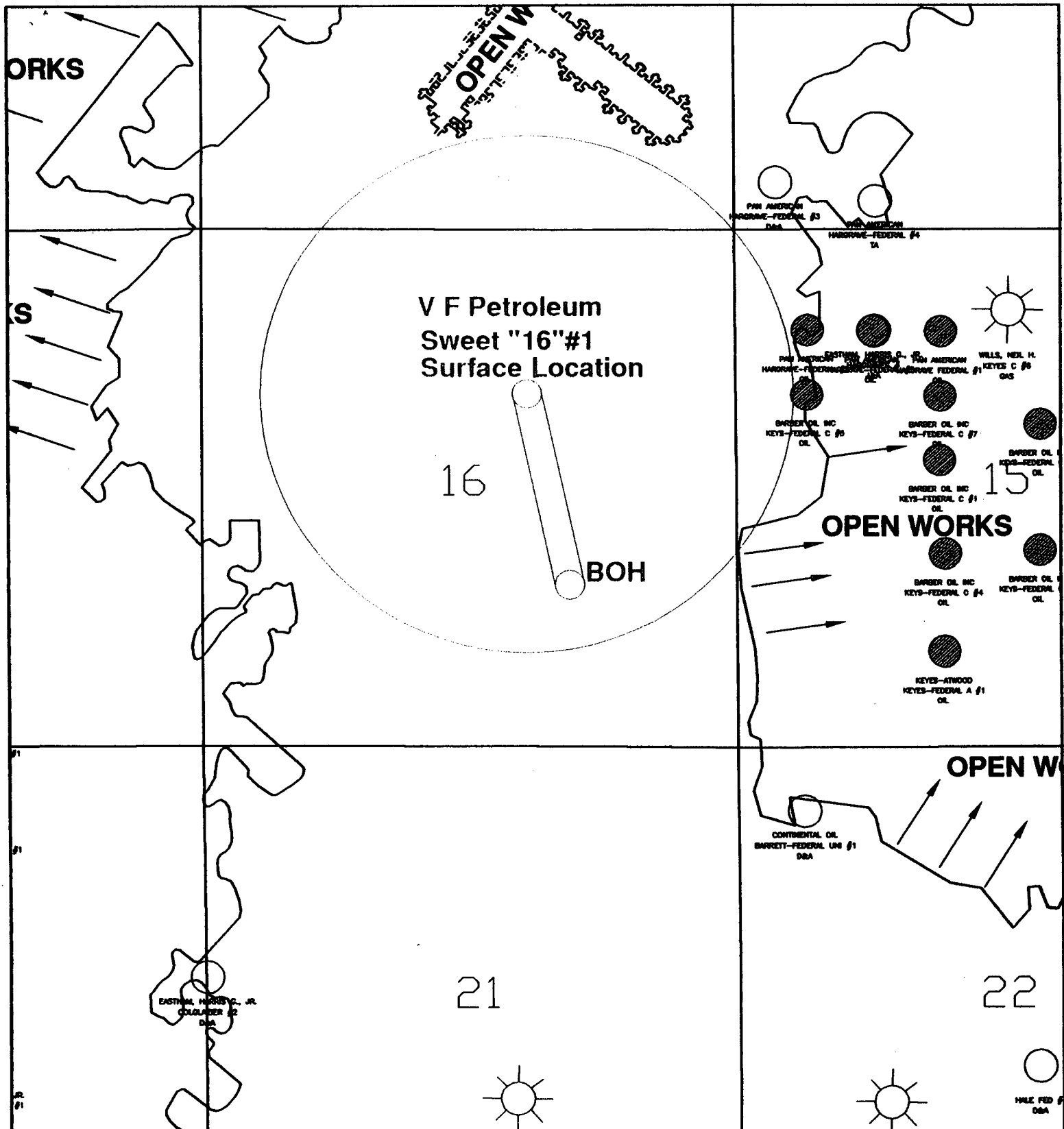
Sincerely,

Thomas A. McGuire
Senior Mine Engineer

cc: Mr. George Smith
Agent for V-F Petroleum
P.O. Box 458
Roswell, NM 88201

P.O. BOX 101 • 35 MILES EAST HIGHWAY 62-186 • CARLSBAD, NEW MEXICO • 88220

PHONE: (505) 234-3814 • FAX: (505) 887-0929



AREA: EDDY COUNTY , NEW MEXICO		INTREPID POTASH - NM, LLC	
TITLE:		CARLSBAD, NEW MEXICO	
APD LOCATION ENERGY ADMIN. SERVICES CO. FOR V-F PETROLEUM T20S-R30E SECTION 16	SWEET "16" STATE #1 SURFACE LOCATION: 1,970' FNL & 2,061' FEL BOTTOM HOLE LOCATION: 1,660' FEL & 1,660' FEL	DRAWING No. WELLS2004.DWG	
SCALE: 1"=1,320'	DATE: 12-05-2004	DRAWN BY: T. MCGUIRE	CHECKED BY: SHEET OF



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

February 3, 2005
V-F Petroleum, Inc.
P.O. Box 1889
Midland, TX 79702
Attn Mr. George Smith/Tom Beall

**RE: V-F Petroleum Inc., Surface hole located in Unit G (1695' FNL & 2570' FEL) of Section 16,
Township 20 South Range 30 East Eddy County, New Mexico.**

Dear Mr. George Smith and Mr. Tom Beall,

In regards to conditions for approval (in part) for the above captioned well, the New Mexico Oil Conservation Divisions' (NMOCD) will require the following:

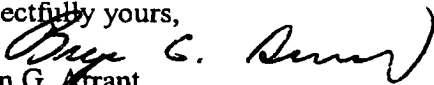
This is for V-F Petroleum, Inc. to take samples from the flow line of the drilling mud every 100' in order to determine the chloride levels from the 13 3/8" casing setting depth at a projected depth of @ 1850' to the projected 9 5/8" casing setting depth of @ 3700'.

The results of this data are to be submitted to the NMOCD.

In addition for conditions of approval of said well, please be aware that the NMOCD will require that the Capitan Reef be drilled with a fresh water mud.

Please call our office if you have any questions regarding this matter.

Respectfully yours,


Bryan G. Arant

PES

CC: Tim Gum-District Supervisor-Artesia
Well File



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

RECEIVED

FEB 04 2005

OCD-ARTESIA

February 3, 2005

New Mexico State Land Office

310 Old Santa Fe Trail

Santa Fe, NM 87504-1148

Attn: Joe Mraz or To Whom It May Concern

RE: APPLICATION FOR PERMIT TO DRILL IN POTASH AREA

OPERATOR: V-F Petroleum, Inc.

LEASE NAME: Sweet '16' State #1

LOCATION: SEC. 16 TOWNSHIP 20 SOUTH, RANGE 30 EAST,

Surface location: 1695' FNL & 2570' FEL

Bottom hole location: 1650' FSL & 1650' FEL

EDDY COUNTY, NM, NMPM

PROPOSED DEPTH: 12,800'

Dear Mr. Mraz or To Whom It May Concern,

The application for permit to drill identified above has been filed with this office of the New Mexico Oil Conservation Division. Pursuit to the provisions of Oil Conservation Division Order R-111-P, please advise this office whether or not this application is within an established Life-of-Mine Reserve area filed with and approved by your office. If not, please advise whether it is within the buffer zone established by this order.

Thank you for your assistance.

Sincerely,

Bryan G. Arrant

PES, District II Artesia NMOCD

In LMR

Yes _____

No X

In Buffer Zone

Yes X

No _____

Jm
2-2-05
10:15A

Comments:

Signature: *Bryan G. Arrant*

Date: 2/2/05



NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

BILL RICHARDSON

Governor

Joanna Prukop

Cabinet Secretary

Mark E. Fesmire, P.E.

Director

Oil Conservation Division

30 - 015 - 33913

February 3, 2005
Bureau of Land Management
620 East Greene St.
Carlsbad, NM 88220-6292
Attn: Craig Cranston or To Whom It May Concern

RE: APPLICATION FOR PERMIT TO DRILL IN POTASH AREA

OPERATOR: V-F Petroleum, Inc.
LEASE NAME: Sweet '16' State #1
LOCATION: SEC. 16 TOWNSHIP 20 SOUTH, RANGE 30 EAST,
Surface location: 1695' FNL & 2570' FEL
Bottom hole location: 1605' FSL & 1650' FEL
EDDY COUNTY, NM, NMPM

RECEIVED

MAR 15 2005

OOD-ARTESIA

PROPOSED DEPTH: 12,800'

Dear Mr. Cranston or To Whom It May Concern,

The application for permit to drill identified above has been filed with this office of the New Mexico Oil Conservation Division. Pursuit to the provisions of Oil Conservation Division Order R-111-P, please advise this office whether or not this application is within an established Life-of-Mine Reserve area filed with and approved by your office. If not, please advise whether it is within the buffer zone established by this order.

Thank you for your assistance.

Sincerely,

Bryan G. Arrant
PES, District II Artesia NMOCD

In LMR Yes ☒ No ☐
In Buffer Zone Yes ☐ No ☐

Comments:

2,380 ft. From Open Mine Warnings
Craig Cranston BLM 3-12-05