

APD resubmitted:

Previously approved: Oct. 22, 2003

Extended to: Oct. 22, 2005

Oct. 22, 2003

Oct. 22, 2005

N.M. Oil Cons. DIV-Dist. 2

1301 W. Grand Avenue

Artesia, NM 88210

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: ☒ DRILL

☐ REENTER

R-111-POTASH

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other

☐ Single Zone

☐ Multiple Zone

2. Name of Operator

V-F Petroleum, Inc.

24010

3a. Address

P.O. Box 1889 Midland, TX 79702

3b. Phone No. (include area code)

432-683-3344

76080

4. Location of Well (Report location clearly and in accordance with any State requirements. *)

At surface 1450' FSL & 660' FWL

At proposed prod. zone 950' FNL & 760' FWL

SUBJECT TO LIKE
APPROVAL BY STATE

14. Distance in miles and direction from nearest town or post office*

20 miles east of Carlsbad, NM

15. Distance from proposed*

location to nearest
property or lease line, ft.

(Also to nearest drig. unit line, if any) 660' (760")

16. No. of Acres in lease

280

17. Spacing Unit dedicated to this well

640

18. Distance from proposed location*

to nearest well, drilling, completed,
applied for, on this lease, ft.

100'

19. Proposed Depth

12,300'

20. BLM/BIA Bond No. on file

NM-2246

21. Elevations (Show whether DF, KDB, RT, GL, etc.)

3268' GL

22. Approximate date work will start*

January 15, 2006

23. Estimated duration

6 weeks

24. Attachments

CAPTAN CONTROLLED WATER BASIN

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan.

3. A Surface Use Plan (if the location is on National Forest System Lands, the
SUPO shall be filed with the appropriate Forest Service Office).

4. Bond to cover the operations unless covered by an existing bond on file (see
Item 20 above).

5. Operator certification.

6. Such other site specific information and/or plans as may be required by the
authorized officer.

25. Signature

George R. Smith

Name (Printed/Typed)

George R. Smith

Date

9/30/05

Title

Agent for: V-F Petroleum, Inc.

Approved by (Signature)

Janice L. Gansley

Name (Printed/Typed)

Janice L. Gansley

Date

NOV - 9 2005

Title

ACTING STATE DIRECTOR

Office

NM STATE OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct
operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR 1 YEAR

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United
States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

*(Instructions on reverse)

S-h 29.5

R-Order 11692

Lease Responsibility Statement: V-F Petroleum, Inc. accepts all applicable terms, conditions, stipulations, and restrictions
concerning operations conducted on the leased land or portion thereof.

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

George R. Smith, agent

District I
1623 N. French Dr., Hobbs, NM 88240
District II
911 South First, Arivaca, NM 88210
District III
1900 Rio Grande 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, NM 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		Pool Name Dos Hermanos Morrow	
Property Code	HALE FEDERAL COM			Property Name	Well Number 3
OCRID No.	V-F PETROLEUM INC.			Operator Name	Elevation 3268.

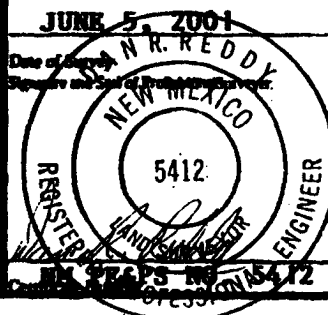
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot No.	Feet from the	North/South line	Feet from the	East/West line	County
L	22	20-S	30-E		1450	SOUTH	660	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot No.	Feet from the	North/South line	Feet from the	East/West line	County
D	22	20-S	30-E		950	NORTH	760	West	Eddy
Dedicated Acres 640		Joint or Infill		Consolidation Code Com		Order No.			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

¹⁶ 760' 950' NM-06784 Bottom Hole Location					¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.	
					Signature <u>George R. Smith</u> George R. Smith, agent For:	
					Printed Name <u>V-F Petroleum, Inc.</u> Title <u>June 27, 2001</u> Date	
NM-06360 660' 1450'					¹⁸ 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 belief.	
					JUNE 5, 2001 Date of Survey	
					Signature and Seal of Professional Engineer 	

APPLICATION FOR DRILLING

V-F PETROLEUM, INC.

Hale Federal Com., Well No. 3

Surface: 1450' FSL & 660' FWL, Sec. 22-T20S-R30E

Production: 950' FNL & 760' FWL, Sec. 22-T20S-R30E

Eddy County, New Mexico

Lease No.: NM-06784

(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, V-F Petroleum, Inc. submits the following items of pertinent information in accordance with BLM requirements:

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	425'	Wolfcamp Limestone	10,293'
Yates	1,778'	Middle Strawn Limestone	10,953'
Capitan Reef	2,319'	Atoka	11,243'
Delaware	3,653'	Morrow	11,688'
Bone Spring	6,450'	Lower Morrow	12,168'
Wolfcamp	10,124'	T.D	12,300'

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
20"	20"	94.0#	H-40	ST&C	400'	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	1,745'	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	3,600'	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	12,300'	750 sx "H" returned to 8,000' for TOC.

NOTE: Deviation Requirements: Commencing at 4,500': Kick off and build angle at 3.0 degrees per 100 feet. Drill and build curve section at 19 degrees to 9500'. Natural drop section to near vertical at 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' - 400': Fresh water mud:	8.6 - 9.2 ppg	32 - 40	No W/L control
400' - 1745': Brine water mud	10.0 - 10.1 ppg	28 - 29	No W/L control
1745' - 3600': Fresh water mud:	10.0 - 10.1 ppg	28 - 29	No W/L control
3600' - 10,600': Brine water mud:	8.3 - 8.4 ppg	28 - 29	No W/L control
10,600' - 12,300': 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.

Hale Federal Com., Well No. 3

Page 2

8. Testing, Logging, and Coring Program:

Drill Stem Tests: None.

Logging: T.D. to 3900': GR-DNL-DLL

3900' 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 = 5412 and Surface Pressure = 2706 with a temperature of 183°.

10. H₂S: None expected.

11. Anticipated starting date: January 15 2006

Anticipated completion of drilling operations: Approximately 35 - 45 days.

MULTI POINT SURFACE USE AND OPERATIONS PLAN

V-F PETROLEUM INC.

Hale Federal Com., Well No. 3

Surface: 1450' FSL & 660' FWL, Sec. 22-T20S-R30E

Production: 950' FNL & 760' FWL, Sec. 22-T20S-R30E

Eddy County, New Mexico

Lease No.: NM-06784

(Development Well)

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction activities and operations plan, to be followed in rehabilitating the surface environmental effects associated with the operations.

1. EXISTING ROADS:

- A. Exhibit "A" is a portion of a USGS/BLM Topo map showing the location of the proposed well as staked. The well site location is approximately 20 road miles northeast of Carlsbad, New Mexico. Traveling east from Carlsbad there will be approximately 17 miles of paved highway and 2.8 miles of gravel ranch/oilfield roads.
- B. Directions: Travel east from Carlsbad, NM on U.S. Highway 62/180 for approximately 17 miles between MM#54 & 55, .27 mile east of the NM Highway 31 turnoff. Turn north, at a V-F Petroleum sign, onto a good gravel road paralleling a power line. Continue north for 1.6 miles; then NE for .5 mile; then north for .4 mile to a bend in the road 500 feet south of the Hale Fed. Com., Well No. 2 well pad. The start of the proposed access road is staked at this bend on the west side and will run north for 600 feet parallel to a two-track road beside a PNM gas pipeline. The proposed access road will then turn west for approximately 380 feet to the southeast corner of the proposed well site.

2. PLANNED ACCESS ROAD:

- A. Length and Width: The proposed access road will be constructed to a width of 12 feet and will be approximately 1000 feet in length. The proposed access road is color red on Exhibit "A".
- B. Construction: The proposed access road will be constructed by grading and topping with compacted caliche and will be properly drained.
- C. Turnouts. One turnout will be required at the midpoint, increasing the width to 20 feet for passing.
- D. Culverts: None required.
- E. Cuts and Fills: None required except the leveling of small dunes and basins.
- F. Gates, Cattle guards: None required.
- G. Off Lease R/W: None required.

3. LOCATION OF EXISTING WELLS:

- A. Existing wells within a two-mile radius are shown on Exhibit "C".

4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES;

- A. There are gas production facilities on the lease at this time. The Hale Fed. Com., #2 is located 1650' FSL & 1800' FWL, Sec. 22-T20S-R30E and is a producing gas well.
- B. If the well proves to be commercial, the necessary production facilities, gas production-process equipment and tank battery, if required, will be installed on the drilling pad. A 4" O.D. grade J55 steel line, 250# psi, to carry a maximum pressure of 125# psi, will run on the surface parallel to the proposed access road, to the PNM pipeline, if PNM can handle the gas. A Sundry Report will be submitted for a gas pipeline when the access location is determined if the PNM line is not feasible.

5. LOCATION AND TYPE OF WATER SUPPLY:

- A. It is planned to drill the proposed well with fresh water that will be obtained from private or commercial sources and will be transported over the existing and proposed access roads.

6. SOURCE OF CONSTRUCTION MATERIALS:

- A. Caliche for surfacing the proposed access road and well site pad will be obtained on location, if available, or from an approved Federal pit location in the NE $\frac{1}{4}$ NW $\frac{1}{4}$ of Section 27-T20S-R30E. No surface materials will be disturbed except those necessary for actual grading and leveling of the drill site and access road.

7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock and wildlife from entering the area.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or a separate disposal application will be submitted to the BLM for approval.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering and will be removed for deposit in an approved sanitary landfill within 30 days after finishing drilling and/or completion operations.

8. ANCILLARY FACILITIES:

- A. None required.

9. WELL SITE LAYOUT:

- A. Exhibit "D" shows the relative location and dimensions of the well pad, reserve pits, and major rig components.
- B. Mat Size: 175' X 290', plus 120' X 110' reserve pits. The pits will be on the northeast.
- C. Cut & Fill: A 3 - 4 foot cut on the northwest with fill to the south and east.
- D. The surface will be topped with compacted caliche and the reserve pits will be plastic lined.

10. PLANS FOR RESTORATION OF THE SURFACE:

- A. After completion of drilling and/or completion operations, all equipment and other material not required for operations will be removed. Pits will be filled and the location cleaned of all trash and junk to leave the well site in an aesthetically pleasing a condition as possible
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled and leveled as soon as they are dry enough to work after abandonment.

11. OTHER INFORMATION:

- A. Topography: The proposed well site and access road is located on the south side of an east/west running hill. The location has a southeasterly slope of 3 - 4% from an elevation of 3268'.
- B. Soil: The topsoil at the well site is a moderately dark brown colored, calcareous soil with caliche outcrops with caliche possible below four feet. The soil is of the Pajarito-Dune land complex soils series.
- C. Flora and Fauna: The vegetation cover is a sparse to fair grass cover of three-awn, grama, dropseed and other miscellaneous native grasses along with plants of mesquite, yucca, creosote bush, sage, shinnery oak brush, broomweed, cacti and miscellaneous weeds and wildflowers. The wildlife consists of rabbits, coyotes, rattlesnakes, lizards, dove, quail and other wildlife typical of the semi-arid desert land.
- D. Ponds and Streams: None except potash disposal ponds 1 - 1.5 miles to the south.
- E. Residences and Other Structures: None, but existing oil field facilities.
- F. Land Use: Cattle grazing and potash mines.
- G. Surface Ownership: The proposed well site and access road are on Federal surface.
- H. There is no evidence of archaeological, historical or cultural sites on the proposed 500' X 500' site. Archaeological Survey Consultants, P. O. Box D, Roswell, NM 88202, have conducted an archaeological survey and their report was submitted to the appropriate government agencies on June 8, 2001.

12. OPERATOR'S REPRESENTATIVE:

- A. The field representative responsible for assuring compliance with the approved surface use and operations plan is as follows:

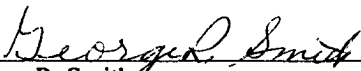
Tom Beall
V-F Petroleum Inc.
P.O. Box 1889
Midland, TX 79702
Office Phone: (432) 687-0008

Jerry Gahr
V-F Petroleum, Inc.
P.O. Box 1889
Midland, TX 79702
Office Phone: (432) 683-3344

13. CERTIFICATION:

I hereby certify that I have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by V-F Petroleum Inc. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

September 29, 2005



George R. Smith
Agent for: V-F Petroleum Inc.

TIMBER//SHARP DRILLING

B.O.P. Equipment Intended for use on Rig # 24
Well To Be drilled for IM32/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 OK)

BOP Type Shaffer LWS

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

BOP Size: 13⁵/₈ " - 5000 PSI

Rotating Head Type Smith

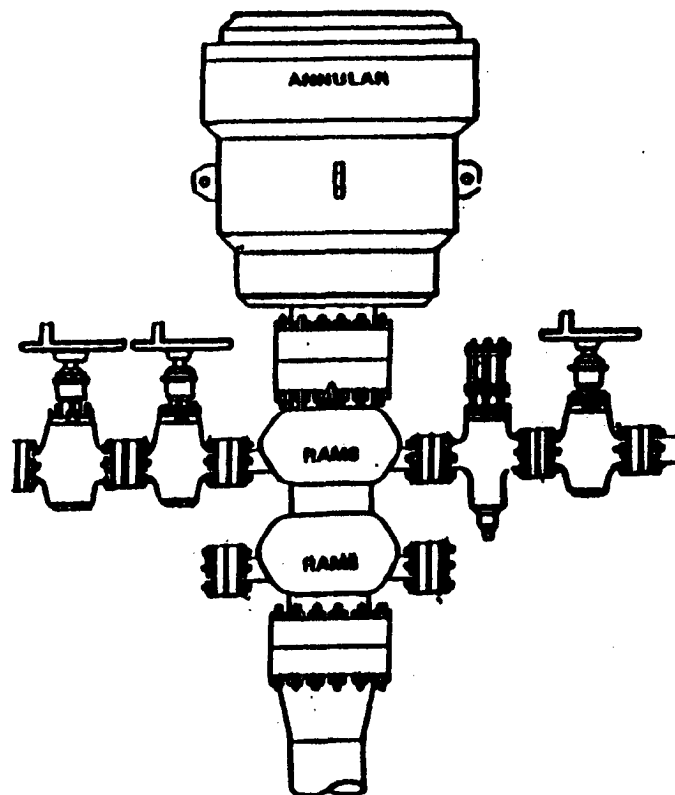
Rot-Head Furnished By Imbe

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 Thrust / 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

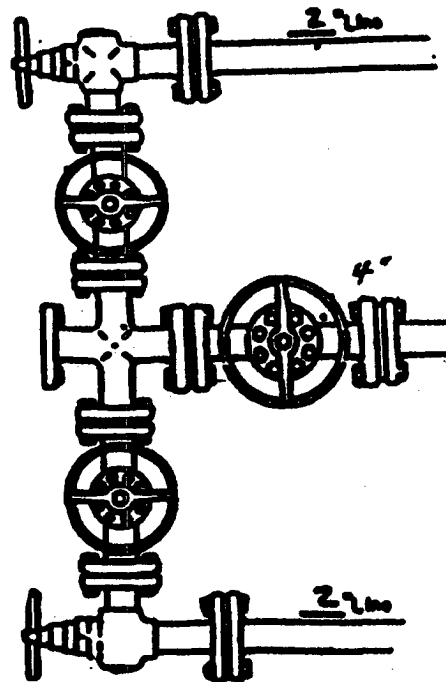


EXHIBIT "E"
V-F PETROLEUM, INC.
Hale Federal Com., Well No. 3
BOP Specifications

V-F Petroleum Inc.
Elwyn C. Hale #3

slot #1

Eddy County New Mexico

PROPOSAL LISTING

by
Baker Hughes INTEQ

Your ref : Rev 2
Our ref : prop2655
Licence :

Date printed 22-Jun-2001
Data created 28-Dec-2000
Last revised 22-Jun-2001

Field is centred on 0.000 0.000 0.00000 N
Structure is centred on n32 30 0.000 w104 15 0.000 E

Slot location is n32 30 0.000 w104 15 0.000
Slot Grid coordinates are N 545622.902 E 525691.711
Slot local coordinates are 0.00 N 0.00 E

Projection type Mercator - New Mexico East (3001), Spheroid: Clarke - 1960

Reference North is True North

EXHIBIT "F"

V-F PETROLEUM, INC.

Hale Federal Com., Well No. 3

Directional Drilling Program

Surface: 1450' FSL & 660' FWL, Sec. 22-T20S-R30E

Production: 950 FNL & 760' FWL, Sec. 22-T20S-R30E

V-F Petroleum Inc.
Elwyn C. Hale #1, slot #1
Eddy County New Mexico

PROPOSED LIFTING Page 1
Well ref: No. 2
Last revised: 22-Jun-2001

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	RECTANGULAR COORDINATES		Dogleg Deg/100ft	Vert Sect	
3900.00	0.00	1.99	3900.00	0.00 N	0.00 E	0.00	0.00	
4000.00	0.00	1.99	4000.00	0.00 N	0.00 E	0.00	0.00	KOP/Build 2.5 deg/100
4100.00	2.50	1.99	4099.97	2.18 N	0.08 E	2.50	2.18	
4200.00	5.00	1.99	4199.74	8.72 N	0.30 E	2.50	8.72	
4300.00	7.50	1.99	4299.14	19.60 N	0.68 E	2.50	19.61	
4400.00	10.00	1.99	4397.97	34.80 N	1.21 E	2.50	34.82	
4500.00	12.50	1.99	4496.04	54.29 N	1.89 E	2.50	54.11	
4600.00	15.00	1.99	4593.17	78.05 N	2.71 E	2.50	78.00	
4700.00	17.50	1.99	4689.16	106.01 N	3.58 E	2.50	106.07	
4800.00	20.00	1.99	4783.85	138.13 N	4.80 E	2.50	138.21	
4900.00	22.50	1.99	4877.04	174.35 N	6.05 E	2.50	174.46	
5000.00	25.00	1.99	4968.57	214.60 N	7.45 E	2.50	214.73	
5100.00	27.50	1.99	5058.25	258.80 N	8.99 E	2.50	259.95	
5200.00	30.00	1.99	5145.91	306.86 N	10.66 E	2.50	307.05	
5284.28	32.11	1.99	5218.11	350.31 N	12.17 E	2.50	350.52	ECC/Hold 32.11 deg Inc.
5500.00	32.11	1.99	5400.84	464.90 N	16.15 E	0.00	465.19	
6000.00	32.11	1.99	5824.37	730.49 N	25.37 E	0.00	730.91	
6500.00	32.11	1.99	6247.90	996.03 N	34.59 E	0.00	996.68	
7000.00	32.11	1.99	6671.43	1261.67 N	43.82 E	0.00	1262.43	
7298.82	32.11	1.99	6924.54	1420.40 N	49.33 E	0.00	1421.25	KOP #2/Drp 32.11 deg/100
7349.99	31.20	1.99	6967.96	1447.46 N	50.27 E	0.60	1448.33	
7449.99	31.20	1.99	7053.22	1499.68 N	52.38 E	0.60	1500.58	
7549.99	30.60	1.99	7139.03	1561.00 N	53.86 E	0.60	1551.94	
7649.99	30.00	1.99	7225.37	1601.42 N	55.62 E	0.60	1602.39	
7749.99	29.40	1.99	7312.23	1650.94 N	57.33 E	0.60	1651.93	
7849.99	28.80	1.99	7399.61	1699.54 N	59.02 E	0.60	1700.57	
7949.99	28.20	1.99	7487.49	1747.23 N	60.68 E	0.60	1748.25	
8049.99	27.60	1.99	7575.86	1791.99 N	62.30 E	0.60	1795.08	
8149.99	27.00	1.99	7664.72	1839.83 N	63.89 E	0.60	1840.94	
8249.99	26.40	1.99	7754.06	1884.74 N	65.45 E	0.60	1885.97	
8349.99	25.80	1.99	7843.86	1928.70 N	66.98 E	0.60	1929.87	
8449.99	25.20	1.99	7934.17	1971.73 N	68.48 E	0.60	1972.92	
8549.99	24.60	1.99	8024.83	2013.81 N	69.94 E	0.60	2015.02	
8649.99	24.00	1.99	8115.96	2054.93 N	71.36 E	0.60	2056.17	
8749.99	23.40	1.99	8207.53	2095.10 N	72.76 E	0.60	2096.37	
8849.99	22.80	1.99	8299.51	2134.31 N	74.12 E	0.60	2135.60	
8949.99	22.20	1.99	8391.90	2172.56 N	75.45 E	0.60	2173.87	
9049.99	21.60	1.99	8484.68	2209.83 N	76.74 E	0.60	2211.17	
9149.99	21.00	1.99	8577.85	2246.14 N	78.01 E	0.60	2247.49	
9249.99	20.40	1.99	8671.40	2281.46 N	79.23 E	0.60	2282.84	
9349.99	19.80	1.99	8765.30	2315.81 N	80.42 E	0.60	2317.20	
9449.99	19.20	1.99	8859.57	2349.17 N	81.58 E	0.60	2350.58	
9549.99	18.60	1.99	8954.18	2381.54 N	82.71 E	0.60	2382.98	
9649.99	18.00	1.99	9049.12	2412.92 N	83.80 E	0.60	2414.38	
9749.99	17.40	1.99	9144.38	2443.31 N	84.85 E	0.60	2444.78	
9849.99	16.80	1.99	9239.96	2472.69 N	85.87 E	0.60	2474.19	
9949.99	16.20	1.99	9335.84	2501.08 N	86.86 E	0.60	2502.58	
10049.99	15.60	1.99	9432.02	2528.46 N	87.81 E	0.60	2529.98	
10149.99	15.00	1.99	9528.47	2554.81 N	88.73 E	0.60	2556.37	
10249.99	14.40	1.99	9625.20	2580.19 N	89.61 E	0.60	2581.74	

All data is in feet unless otherwise stated
Coordinates from slot #1 and IVD from rotary table.
Bottom hole distance is 2881.75 on azimuth 1.99 degrees from wellhead.
Vertical section is from wellhead on azimuth 1.99 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

V-F Petroleum Inc.
Elwyn C. Hale #3 Slot #1
Eddy County New Mexico

PROPOSAL LISTING Page 2
Form ref : Rev 2
Last revised : 22-Jun 2001

Measured Depth	Inclin. Degrees	Azimuth Degrees	True Vert Depth	RECTANGULAR COORDINATES	Dogleg Deg/100ft	Vert Sect
10349.99	13.80	1.99	9722.19	2604.53 N	90.45 E	0.60 2606.10
10449.99	13.20	1.99	9819.42	2627.96 N	91.26 E	0.60 2629.46
10549.99	12.60	1.99	9916.90	2650.18 N	92.04 E	0.60 2651.77
10635.05	12.09	1.99	10000.00	2668.35 N	92.67 E	0.60 2669.96 Penetration Slowness
10649.99	12.00	1.99	10014.60	2671.47 N	92.78 E	0.60 2673.08
10749.99	11.40	1.99	10112.53	2691.73 N	93.49 E	0.60 2693.35
10849.99	10.80	1.99	10210.65	2710.97 N	94.15 E	0.60 2712.61
10949.99	10.20	1.99	10308.98	2729.19 N	94.78 E	0.60 2730.83
11049.99	9.60	1.99	10407.49	2746.37 N	95.38 E	0.60 2748.02
11149.99	9.00	1.99	10506.17	2762.52 N	95.94 E	0.60 2764.16
11249.99	8.40	1.99	10605.02	2777.64 N	96.45 E	0.60 2779.31
11349.99	7.80	1.99	10704.03	2791.72 N	96.95 E	0.60 2793.40
11449.99	7.20	1.99	10803.17	2804.76 N	97.41 E	0.60 2806.45
11549.99	6.60	1.99	10902.44	2816.77 N	97.82 E	0.60 2818.47
11649.99	6.00	1.99	11001.84	2827.73 N	98.20 E	0.60 2829.44
11749.99	5.40	1.99	11101.35	2837.66 N	98.55 E	0.60 2839.37
11849.99	4.80	1.99	11200.95	2846.54 N	98.86 E	0.60 2848.26
11949.99	4.20	1.99	11300.64	2854.39 N	99.13 E	0.60 2856.11
12049.99	3.60	1.99	11400.41	2861.19 N	99.36 E	0.60 2862.91
12149.99	3.00	1.99	11500.24	2866.94 N	99.56 E	0.60 2868.66
12249.99	2.40	1.99	11600.13	2871.64 N	99.73 E	0.60 2873.37
12349.99	1.80	1.99	11700.06	2875.31 N	99.86 E	0.60 2877.04
12449.99	1.20	1.99	11800.03	2877.92 N	99.95 E	0.60 2879.66
12549.99	0.60	1.99	11900.02	2879.49 N	100.00 E	0.50 2881.23
12649.97	0.00	1.99	12000.00	2880.01 N	100.02 E	0.60 2881.75 PBML/TO

All data is in feet unless otherwise stated.
Coordinates from slot #1 and TVD from rotary table
Bottom hole distance is 2881.75 on azimuth 1.99 degrees from wellhead
Vertical section is from wellhead on azimuth 1.99 degrees.
Calculation uses the minimum curvature method.
Presented by Baker Hughes INTEQ

Location : Tandy County New Mexico

491 492 493 494 495

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED
DATE 08-11-2009 BY 60322 UCBAW/SJS

10-10-1964

DOI: 10.1002/for.1007



**BAKER
HUGHES**

INTEQ

1 of 20 pages

Donellene Brown - 1201 Ave. B, Suite 400, St. Louis, MO 63103-1493

Fig. 215. $\times 100$ (a). 1294.87 Ma, 1.65060 g, 2861.25 μm .

FORM NO. 005 4-0000 B

Vertical Section (feet) -

Azimuth 199 with reference 200 2 0 00 E true dip 21

North (feet)

Jun. 22 '01 14:31

FUEL PRODUCTS INC

FAX 915-687-0000

P. 6

Jun-22-01 13:30 Baker Hughes INTEQ

915 694 5648

P.05

V-F Petroleum Inc.
Elwyn C. Hale #3 slot #1
Eddy County New Mexico

PROPOSAL LISTING Page 1
Your ref. Rev 2
Last revised : 22-Jun-2001

Comments in wellpath			
MD	TVD	Rectangular Coords	Comment
4000.00	4000.00	0.00 N	0.00 E KOP/Build 2.5 deg/100
5284.29	5218.11	350.31 N	12.17 E EOC/hold 32.11 deg Inc.
7298.82	6924.54	1420.40 N	49.33 E KOP #2/Drop 60 deg/100
10635.05	10000.00	2668.35 N	92.67 E Penetrate Strawn
12649.97	12000.00	2880.01 N	100.02 E P3HL/TO

Targets associated with this wellpath

Target name	Geographic location	T.V.D.	Rectangular Coordinates	Revised
Strawn		10000.00	1000.58N 85.42E	28-Dec-2000
Morrow		12000.00	2880.00N 100.00E	28-Dec-2000

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: V-F PETROLEUM, INC.
Well Name & No. 3 - HALE FEDERAL COM
Location: 1450' FSL & 660' FWL - SEC 22 - T2oS - R3oE - EDDY COUNTY (SHL)
950' FNL & 760' FWL - SEC 22 - T2oS - R3oE - EDDY COUNTY (BHL)
Lease: NM-06784

I. DRILLING OPERATIONS REQUIREMENTS:

1. The Bureau of Land Management (BLM) is to be notified at the Roswell Field Office, 2909 West Second St., Roswell NM 88201, (505) 627-0272 for wells in Chaves and Roosevelt Counties; the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 234-5909 or (505) 361-2822 (After hours) - for wells in Eddy County; and the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612 for wells in Lea County, in sufficient time for a representative to witness:

A. Spudding

B. Cementing casing: 20 inch 13-3/8 inch 9-5/8 inch 5-1/2 inch

C. BOP tests

2 Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Submit a Sundry Notice (Form 3160-5, one original and five copies) for each casing string, describing the casing and cementing operations. Include pertinent information such as; spud date, hole size, casing (size, weight, grade and thread type), cement (type, quantity and top), water zones and problems or hazards encountered. The Sundry shall be submitted within 15 days of completion of each casing string. The reports may be combined into the same Sundry if they fall within the same 15 day time frame.

4. The API No. assigned to the well by NMOCD shall be included on the subsequent report of setting the first casing string.

5. A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales.

6. Gamma-Ray/Neutron logs shall be run from the base of the Salado Formation to the surface; cable speed not to exceed 30 feet per minute.

II. CASING:

1. The 20 inch surface casing shall be set at 400 feet, below usable water and cement circulated to the surface. If cement does not circulate to the surface the appropriate BLM office shall be notified and a temperature survey or cement bond log shall be run to verify the top of the cement. Remedial cementing shall be completed prior to drilling out that string.

2. The minimum required fill of cement behind the 13-3/8 inch salt protection casing is circulate cement to the surface.

3. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is circulate cement to the surface.

4. The minimum required fill of cement behind the 5-1/2 inch production casing is circulate cement to the surface.

5. Whenever a casing string is cemented in the R-111-P Potash Area, cement shall be allowed to stand a minimum of twelve (12) hours under pressure and a total of twenty-four (24) hours before drilling the plug or initiating tests.

(ORIG. SGD.) LES BABYAI

III. PRESSURE CONTROL:

1. All BOP systems and related equipment shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2. The BOP and related equipment shall be installed and operational before drilling below the 13-3/8 inch casing shoe and shall be tested as described in Onshore Order No. 2. Any equipment failing to test satisfactorily shall be repaired or replaced.

2. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling the surface and intermediate casing strings shall be 2000 psi. Minimum working pressure of the blowout preventer and related equipment (BOPE) required for drilling below the 9-5/8 inch casing shall be 5000 psi.

3. The appropriate BLM office shall be notified in sufficient time for a representative to witness the tests.

- The tests shall be done by an independent service company.
- The results of the test shall be reported to the appropriate BLM office.
- Testing fluid must be water or an appropriate clear liquid suitable for sub-freezing temperatures. Use of drilling mud for testing is not permitted since it can mask small leaks.
- Testing must be done in a safe workman-like manner. Hard line connections shall be required.
- BOPE must be tested prior to drilling into the Wolfcamp Formation by an independent service company.

IV. DRILLING MUD:

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp Formation, and shall be used until production casing is run and cemented. Monitoring equipment shall consist of the following:

1. Recording pit level indicator to indicate volume gains and losses.
2. Mud measuring device for accurately determining the mud volumes necessary to fill the hole during trips.
3. Flow-sensor on the flow line to warn of abnormal mud returns from the well.