

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980
DISTRICT II
P.O. Box Drawer DD, Artesia, NM 88211-0719
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV
P.O. Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

Form C-101
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies
☒ AMENDED REPORT

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

¹ Operator Name and Address TEXACO EXPLORATION & PRODUCTION INC. 205 E. Bender, HOBBS, NM 88240		² OGRID Number 022351
⁴ Property Code 011045	⁵ Property Name NEW MEXICO -L- STATE	³ API Number 3002531992
		⁶ Well No. 12

7 Surface Location									
UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
H	1	18S	34E		1880	NORTH	660	EAST	LEA

⁸ Proposed Bottom Hole Location If Different From Surface									
UI or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
A	1	18S	34E		400	NORTH	1200	EAST	LEA
⁹ Proposed Pool 1 VACUUM DRINKARD					¹⁰ Proposed Pool 2				

¹¹ Work Type Code P	¹² WellType Code O	¹³ Rotary or C.T. ROTARY	¹⁴ Lease Type Code S	¹⁵ Ground Level Elevation GR-3983', KB-3997'
¹⁶ Multiple No	¹⁷ Proposed Depth 7800 TVD	¹⁸ Formation VAC DRINKARD	¹⁹ Contractor UNKNOWN	²⁰ Spud Date 6/1/99

²¹ Proposed Casing and Cement Program					
SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
11	8 5/8	24#	1476'	CL-C 650 SX CIR. 112	
7 7/8	5 1/2	15.5 & 17#	8000'	CL-H 1925 SX, CIRC. 2	
				TOP OF CMT TS @ 180	
				DV TOOL @ 5022'	

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.
TEXACO INTENDS TO DRILL A SINGLE HORIZONTAL RE-ENTRY IN THE DRINKARD FORMATION IN THE VACUUM FIELD.
THE INTENDED PROCEDURE IS ATTACHED.

Permit Expires 1 Year From Approval
Date Unless ~~Drilling~~ Underway
Plug-Back

²³ I hereby certify that the rules and regulations of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature <i>J. Denise Leake</i>		Approved By: <i>J. Denise Leake</i>	
Printed Name J. Denise Leake		Title:	
Title Engineering Assistant		Approval Date: MAR 25 1999	Expiration Date:
Date 3/22/99	Telephone 397-0405	Conditions of Approval: Attached ☐	

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OIL CONSERVATION DIVISION

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Form C-102
Revised February 10, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 3002531992	² Pool Code 62110	³ Pool Name VACUUM DRINKARD
⁴ Property Code 011045	⁵ Property Name NEW MEXICO -L- STATE	⁶ Well No. 12
⁷ OGRID Number 022351	⁸ Operator Name TEXACO EXPLORATION & PRODUCTION INC.	⁹ Elevation GR-3983', KB-3997'

¹⁰ Surface Location

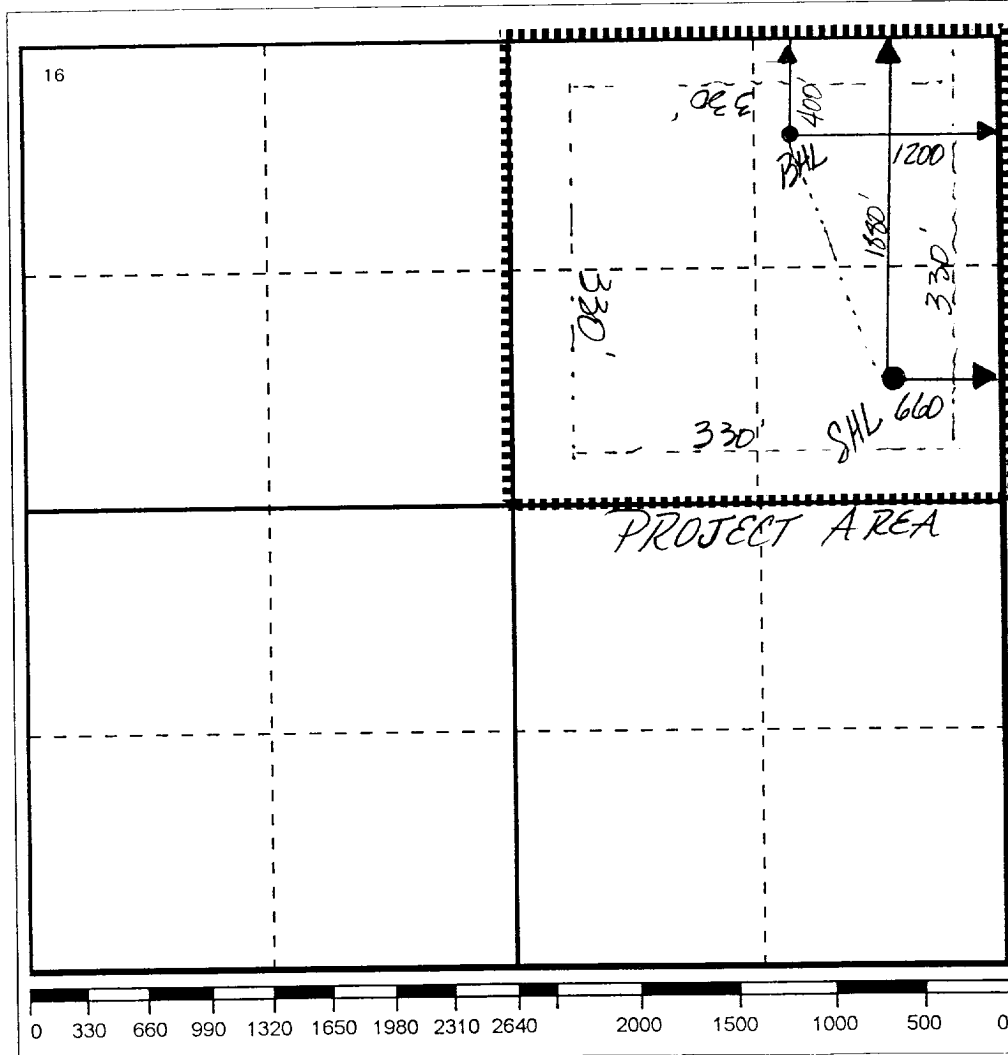
Ul or lot no.	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
H	1	18S	34E		1880	NORTH	660	EAST	LEA

¹¹ 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
A	1	18S	34E		400	NORTH	1200	EAST	LEA

¹² PROJECT AREA 160	¹³ Joint or Infill No	¹⁴ Consolidation Code	¹⁵ Order No.
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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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature

J. Denise Leake

Printed Name

J. Denise Leake

Position

Engineering Assistant

Date

3/22/99

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 knowledge and belief.

Date Surveyed

Signature & Seal of
Professional Surveyor

Certificate No.

OVERVIEW

The New Mexico "L" State # 12 well was drilled in mid 1993 as a conventional test of the Drinkard formation. The well potential for 539 BOPD, 20 BWPD and 350 MCFD from Drinkard perforations 7540'-7546', 7550'-7555', 7560'-7563', 7582'-7588', 7592'-7602', 7604'-7614', 7622'-7650', 7664'-7672', 7683'-7688', 7691'-7698', 7702', 7704'-7756', 7764'-7772', 7774'-7784', 7794'-7818', 7833', 7836', 7840'-7844, 7852'-7856', 7862'-7866', 7879', 7886', 7906'-7910', 7925' and 7931'. Successful horizontal laterals have been drilled in the Glorieta and San Andres formations in the Vacuum Field. It is proposed to employ this technology on the subject well and drill a single +/- 1575 foot horizontal lateral (azimuth 340 degrees) in the Drinkard formation. The basic well plan is as follows:

- a) Lay down rods, pump and tubing. Move pumping unit out of the way. TIH with a casing scraper and run to +/- 7600'. TOOH.
- b) TIH and set a CIBP at +/- 7510'. TIH with a 3 degree bottom set whipstock (top of window +/- 7499', bottom of window +/- 7506').
- c) Drill a short radius curve using a 4-3/4" bit to a measured depth of +/- 7971' (TVD +/- 7800'). The final angle will be 90 degrees from vertical.
- d) Drill +/- 1575' horizontal section (azimuth 340 degrees).
- e) Acid frac the horizontal lateral in the well. Place well on pump.

LOST IN HOLE INSURANCE FOR THE DOWNHOLE MOTOR AND MWD IS INCLUDED WITH THE DAILY RATE FROM DIAMONDBACK DRILLING.

PROPOSED WORK

PRODUCTION HOLE:

1. TIH with a casing scraper to +/- 7600'. TOOH. TIH with a CIBP and set at +/- 7510'. TOOH. TIH with a 3 degree bottom set retrievable whipstock, starting mill, orienting sub and drill pipe. Stop at a point 5-10' above the CIBP. reciprocate pipe and rig up a wireline to run the gyro. Take a gyro reading and determine the direction of the whipstock face. Rotate the pipe as needed to achieve the required direction. Reciprocate and lower the pipe to within one foot of the CIBP and take another gyro reading. Rotate pipe again if needed to achieve the required direction (340 degrees). This step may need to be repeated several times until confident the whipstock is oriented in the correct direction.
2. Lower the drill pipe to set the whipstock. The weight indicator will jump indicating the lower plunger shear pin is sheared and the whipstock is set. Continue setting down to shear the starting mill bolt. The weight indicator will jump again indicating the bolt is sheared. Milling operations may now commence.
3. Pick up the power swivel and begin circulating. Pick up the drill pipe until the starting mill has cleared the whipstock and start rotation. Lower the drill pipe slowly until the torque gauge suggest the starting mill is contacting the casing. Adjust weight and speed until satisfied with the penetration rate. Mill to a predetermined depth that will assure the setting lug is completely removed and a cutout in the casing has been initiated. TOOH.
4. TIH with the metal muncher window mill, string mill and the watermellon mill. Resume milling operations and mill until the complete assembly has cleared the casing. Pick up and lower the string several times without rotation to assure a good clean window has been obtained. Circulate the hole clean. TOOH.
5. Inspect the mill on the surface. If extreme wear is evident, consideration should be given to repeating the above step.

HORIZONTAL PRODUCTION HOLE:

1. Rig up Diamondback Drilling Company. Adjust plan to target as necessary. Trip in the hole with Diamondback Drilling's curve building assembly. This will be a 4-3/4" insert, 3-3/4" PDM, float sub/orienter combo, 2-flexable monel collars, 2-7/8" 8.7 #/ft P-110 (PH-6) tubing in the horizontal hole and 2-7/8" AOH drill pipe in the vertical hole.
2. Build curve to estimated target depths and angles as follows:

True Vertical Depth	7800'
Measured Depth	7971'
Final Angle	90 degrees
Target Azimuth	340 degrees
Build Rate	19.1 degrees/100'

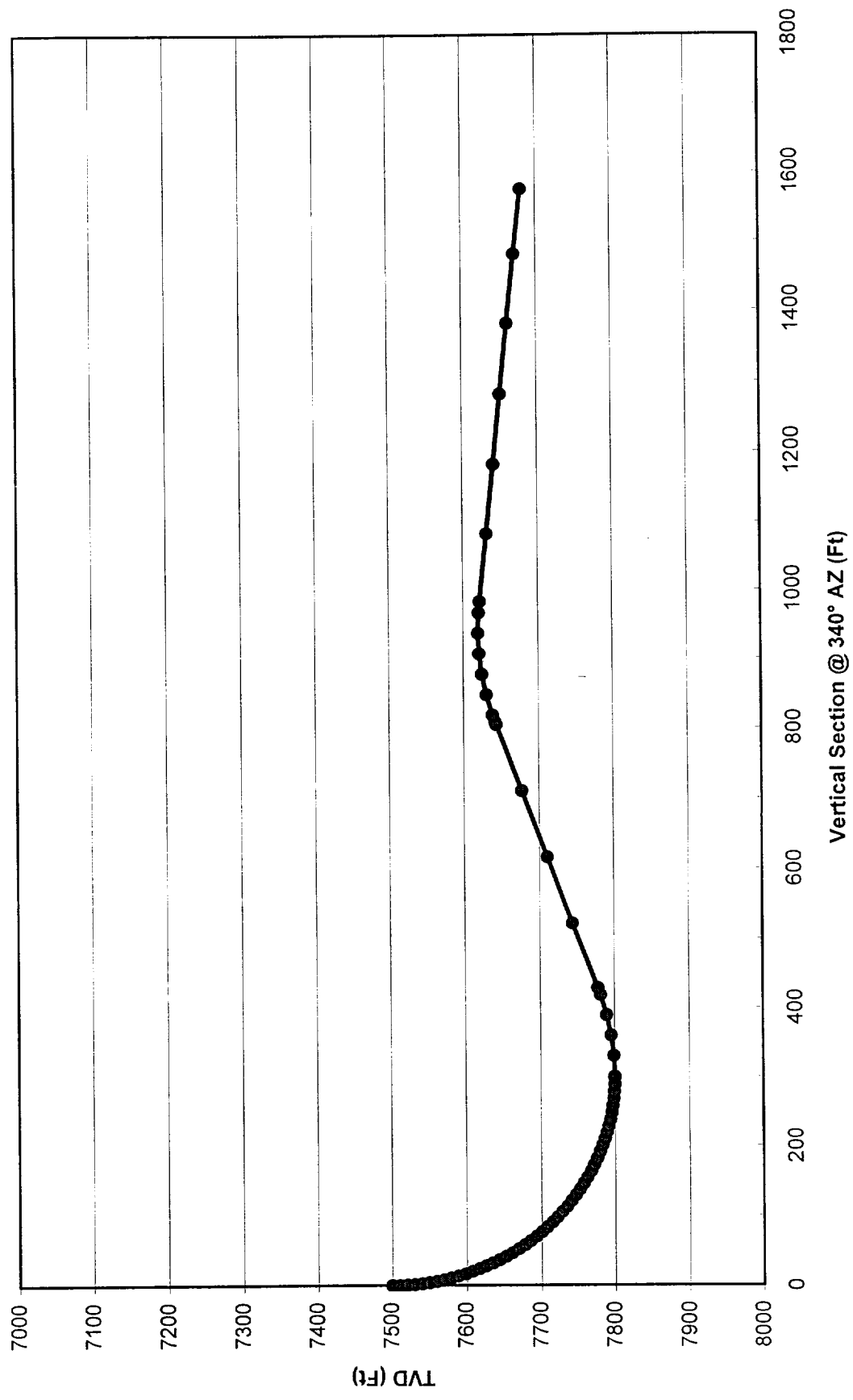
Drill the curve sliding as necessary to stay on target. It is recommended that after each slide, the bit be pulled back and washed through the slide. Once the curve is built, rotate through the curve section noting tight spots and fill. Make at least one short trip prior to tripping out of the hole.

3. Trip in the hole with Diamondback Drilling's lateral assembly. This will be a 4-3/4" insert or PDC bit, 3-3/4" articulated motor, float sub/orienting combo, 2 - flexible monel collars, 2-7/8" 8.7 #/ft P-110 (PH-6) tubing in the horizontal hole and 2-7/8" AOH drill pipe in the vertical hole.
4. Drill +/- 1575' of horizontal hole per the attached Diamondback well plan.
5. Continue drilling the horizontal section per the Texaco Engineer recommendations.
6. Trip out of the hole with the drilling assembly. TIH with drill pipe and set a retrievable bridge plug for 5-1/2", 15.5 #/ft casing at +/- 6000'. Test plug to 1000 psi.
7. Lay down the drill pipe.
8. Nipple down the BOP stack. Install a manual 3000 psig BOP equipped with blind rams and 2-7/8" pipe rams. Release the rig. Rig down and move out rotary tools.

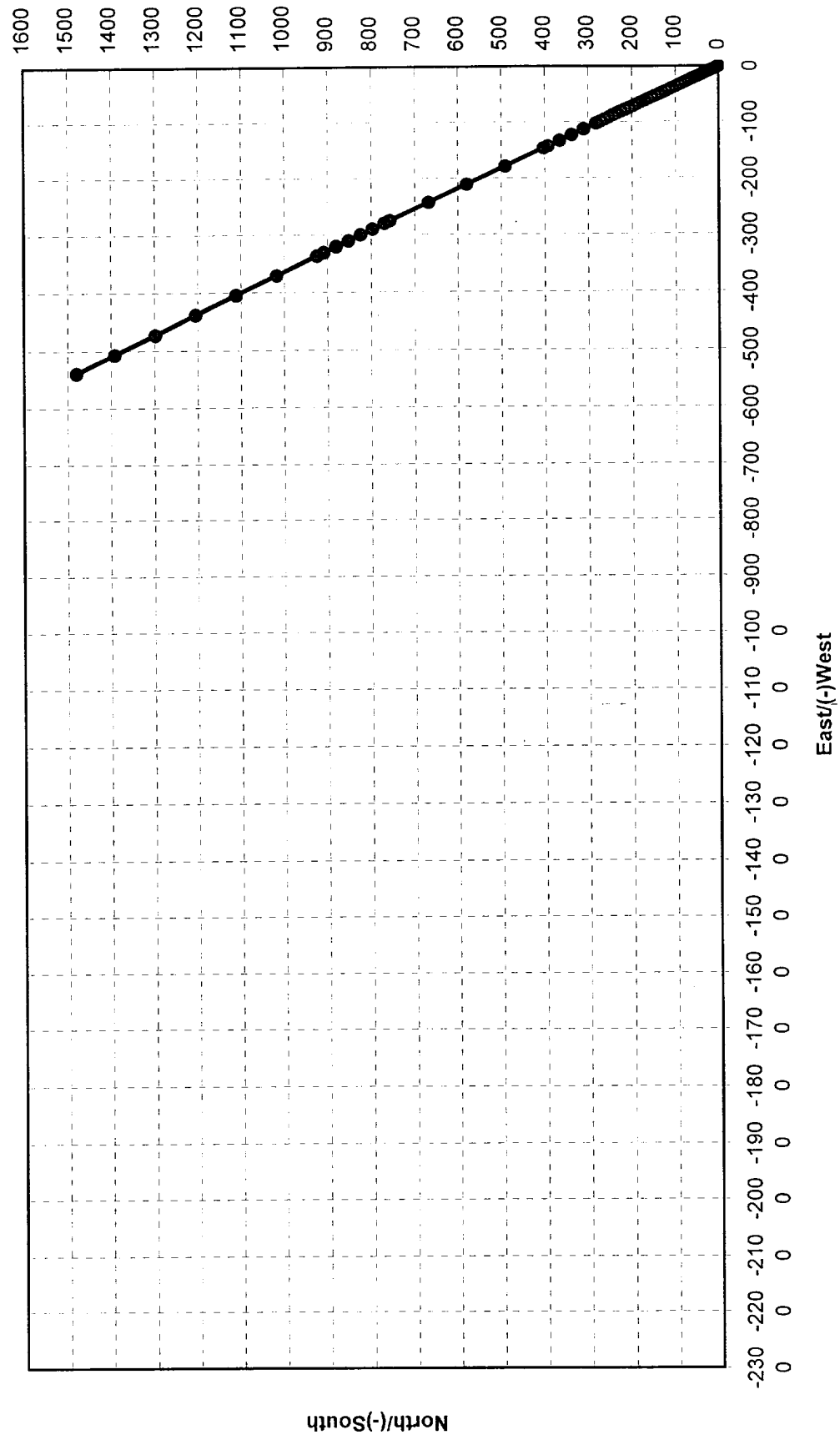
COMPLETION PROCEDURE:

1. Back drag the location and set pulling unit anchors.
2. Move in and rig up a pulling unit.
3. Trip in the hole with a retrieving head on 2-7/8" tubing. Retrieve the plug. Trip out of the hole and lay down the plug. TIH with tubing and ported subs to within 400 foot of the end of the lateral. Use a bent joint to orient into the lateral.
4. Rig up Dowell. Acid frac the horizontal lateral with 100,000 gallons of 15% HCL and gelled water spacers. The acid frac will be done down tubing using ported subs.
5. Flow back immediately. Flow/swab test.
6. Place on pump.

New Mexico "L" State No. 12
TVD vs. VS



Nem Mexico "L" State No. 12
Plan View



TEXACO E&P
NEW MEXICO "L" STATE NO.12
PROPOSAL (REV.0) - 1014/98

SubSea Offset: 3997'

VS Direction: 340°

MD	INC	AZ	N/(-)S	E/(-)W	TVD	VS	DLS
7500.00	0.00	340.00	0.00	0.00	7500.00	0.00	0.00
7510.00	1.91	340.00	0.16	-0.06	7510.00	0.17	19.10
7520.00	3.82	340.00	0.63	-0.23	7519.99	0.67	19.10
7530.00	5.73	340.00	1.41	-0.51	7529.95	1.50	19.10
7540.00	7.64	340.00	2.50	-0.91	7539.88	2.66	19.10
7550.00	9.55	340.00	3.91	-1.42	7549.77	4.16	19.10
7560.00	11.46	340.00	5.62	-2.05	7559.60	5.98	19.10
7570.00	13.37	340.00	7.64	-2.78	7569.37	8.13	19.10
7580.00	15.28	340.00	9.96	-3.63	7579.06	10.60	19.10
7590.00	17.19	340.00	12.59	-4.58	7588.66	13.40	19.10
7600.00	19.10	340.00	15.52	-5.65	7598.16	16.51	19.10
7610.00	21.01	340.00	18.74	-6.82	7607.55	19.94	19.10
7620.00	22.92	340.00	22.25	-8.10	7616.83	23.68	19.10
7630.00	24.83	340.00	26.06	-9.48	7625.97	27.73	19.10
7640.00	26.74	340.00	30.14	-10.97	7634.97	32.08	19.10
7650.00	28.65	340.00	34.51	-12.56	7643.83	36.73	19.10
7660.00	30.56	340.00	39.15	-14.25	7652.52	41.66	19.10
7670.00	32.47	340.00	44.06	-16.04	7661.05	46.89	19.10
7680.00	34.38	340.00	49.24	-17.92	7669.39	52.40	19.10
7690.00	36.29	340.00	54.67	-19.90	7677.55	58.18	19.10
7700.00	38.20	340.00	60.36	-21.97	7685.51	64.23	19.10
7710.00	40.11	340.00	66.29	-24.13	7693.27	70.55	19.10
7720.00	42.02	340.00	72.47	-26.38	7700.80	77.12	19.10
7730.00	43.93	340.00	78.87	-28.71	7708.12	83.93	19.10
7740.00	45.84	340.00	85.50	-31.12	7715.21	90.99	19.10
7750.00	47.75	340.00	92.35	-33.61	7722.05	98.28	19.10
7760.00	49.66	340.00	99.41	-36.18	7728.65	105.79	19.10
7770.00	51.57	340.00	106.67	-38.83	7735.00	113.52	19.10
7780.00	53.48	340.00	114.13	-41.54	7741.08	121.45	19.10
7790.00	55.39	340.00	121.77	-44.32	7746.90	129.59	19.10
7800.00	57.30	340.00	129.59	-47.17	7752.44	137.91	19.10
7810.00	59.21	340.00	137.58	-50.08	7757.70	146.41	19.10
7820.00	61.12	340.00	145.73	-53.04	7762.68	155.09	19.10
7830.00	63.03	340.00	154.04	-56.06	7767.36	163.92	19.10
7840.00	64.94	340.00	162.48	-59.14	7771.75	172.91	19.10
7850.00	66.85	340.00	171.06	-62.26	7775.83	182.03	19.10
7860.00	68.75	340.00	179.76	-65.43	7779.61	191.29	19.10
7870.00	70.66	340.00	188.57	-68.63	7783.08	200.67	19.10
7880.00	72.57	340.00	197.49	-71.88	7786.23	210.16	19.10
7890.00	74.48	340.00	206.50	-75.16	7789.07	219.75	19.10
7900.00	76.39	340.00	215.59	-78.47	7791.58	229.43	19.10

7910.00	78.30	340.00	224.76	-81.81	7793.77	239.19	19.10
7920.00	80.21	340.00	233.99	-85.17	7795.63	249.01	19.10
7930.00	82.12	340.00	243.28	-88.55	7797.17	258.89	19.10
7940.00	84.03	340.00	252.61	-91.94	7798.38	268.82	19.10
7950.00	85.94	340.00	261.97	-95.35	7799.25	278.78	19.10
7960.00	87.85	340.00	271.35	-98.76	7799.79	288.76	19.10
7970.00	89.76	340.00	280.74	-102.18	7800.00	298.76	19.10
7971.24	90.00	340.00	281.91	-102.61	7800.00	300.00	19.10
8001.24	94.50	340.00	310.07	-112.86	7798.82	329.97	15.00
8031.24	99.00	340.00	338.06	-123.04	7795.30	359.75	15.00
8061.24	103.50	340.00	365.70	-133.10	7789.45	389.17	15.00
8091.24	108.00	340.00	392.83	-142.98	7781.30	418.04	15.00
8102.05	109.62	340.00	402.44	-146.48	7777.82	428.27	15.00
8202.05	109.62	340.00	490.95	-178.69	7744.24	522.46	0.00
8302.05	109.62	340.00	579.47	-210.91	7710.66	616.65	0.00
8402.05	109.62	340.00	667.98	-243.12	7677.08	710.85	0.00
8502.05	109.62	340.00	756.49	-275.34	7643.50	805.04	0.00
8506.11	109.60	340.00	760.08	-276.65	7642.13	808.86	0.52
8516.78	108.00	340.00	769.57	-280.10	7638.70	818.96	15.00
8546.78	103.50	340.00	796.70	-289.98	7630.55	847.83	15.00
8576.78	99.00	340.00	824.34	-300.04	7624.70	877.25	15.00
8606.78	94.50	340.00	852.33	-310.22	7621.18	907.03	15.00
8636.78	90.00	340.00	880.49	-320.47	7620.00	937.00	15.00
8666.78	86.40	340.00	908.66	-330.73	7620.94	966.98	12.00
8683.23	84.43	340.00	924.08	-336.34	7622.26	983.38	12.00
8783.23	84.43	340.00	1017.60	-370.38	7631.97	1082.91	0.00
8883.23	84.43	340.00	1111.13	-404.42	7641.69	1182.43	0.00
8983.23	84.43	340.00	1204.65	-438.46	7651.40	1281.96	0.00
9083.23	84.43	340.00	1298.17	-472.50	7661.11	1381.49	0.00
9183.23	84.43	340.00	1391.70	-506.54	7670.83	1481.02	0.00
9277.66	84.43	340.00	1480.02	-538.68	7680.00	1575.00	0.00