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-10
Revised February 10,199
Instructions on back
Submit to Appropriate District Offic
State Lease - 6 Copie
Fee Lease - 5 Copie
☐ AMENDED REPORT

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

1 Operator Name and Address	2 OGRID Number
TEXACO EXPLORATION & PRODUCTION INC. 205 E. Bender, HOBBS, NM 88240	022351 3 API Number 30 025 32159

4 Property Code	5 Property Name	6 Well No.
10960	HARRISON, B. F. - B -	18

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
D	9	23-SO	37-EA		990	NORTH	660	WEST	LEA

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
E/C	9	23S	37E		1715'/525'	N/N	330/1825	W/W	LEA

9 Proposed Pool 1	10 Proposed Pool 2
TEAGUE UPPER PADDOCK	

11 Work Type Code	12 WellType Code	13 Rotary or C.T.	14 Lease Type Code	15 Ground Level Elevation
Deepen/Re-entry P	O	R	P	GR-3319', KB-3331'
16 Multiple	**17 Proposed Depth**	**18 Formation**	**19 Contractor**	**20 Spud Date**
No	5400'	PADDOCK		5/15/00

21 Proposed Casing and Cement Program

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
12 1/4	8 5/8	24#	1180'	CL-C 650 SX CIRC. 15	
7 7/8	5 1/2	15.5#, 17#	5000'	CL-H 1225 SX, TOC BY	
				1300'	

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

TEXACO INTENDS TO DEEPEN THIS WELL TO 5400', LOG AND DRILL TWO HORIZONTAL LATERALS. THE INTENDED PROPOSED WORK, AND OVERVIEW IS ATTACHED.

Permit Expires 1 Year From Approval
Date Unless Drilling Underway
Horizontal

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.

Signature J. Denise Leake

Printed Name J. Denise Leake

Title Engineering Assistant

Date 4/17/00 Telephone 397-0405

OIL CONSERVATION DIVISION

Approved By: ORIGINAL SIGNED BY CHRIS WILLIAMS DISTRICT I SUPERVISOR

Title:

Approval Date: Expiration Date:

Conditions of Approval:
Attached ☐

DeSoto/Nichols 3-94 ver 1.10

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

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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Santa Fe, New Mexico 87504-2088

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Submit to Appropriate District Offic
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Fee Lease - 3 Copie
☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30 025 32159		TEAGUE UPPER PADDOCK

4 Property Code	5 Property Name	6 Well No.
10960	HARRISON, B. F. - B -	18

7 OGRID Number	8 Operator Name	9 Elevation
022351	TEXACO EXPLORATION & PRODUCTION INC.	GR-3319', KB-3331'

10 Surface Location

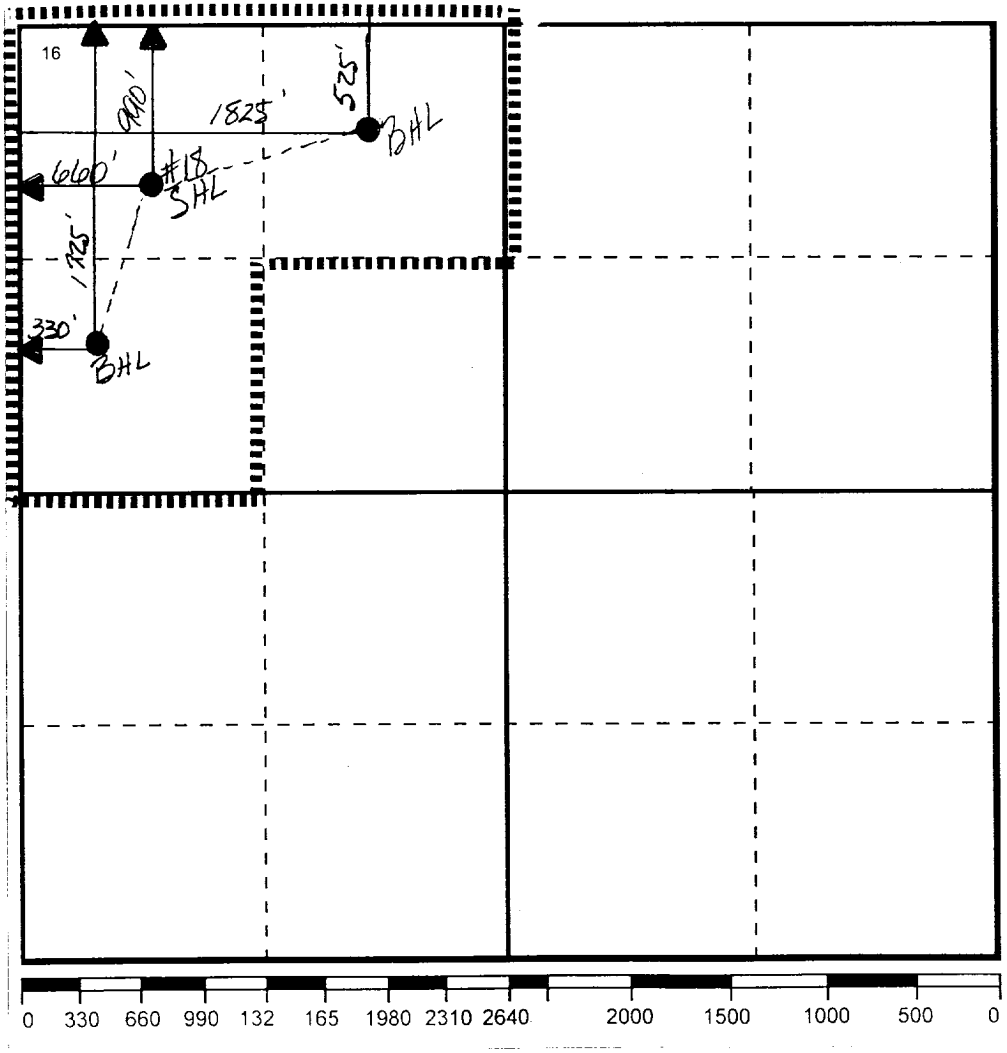
Ul or lot no	Section	Township	Range	Lot.Idn	Feet From The	North/South Line	Feet From The	East/West Line	County
D	9	23-SO	37-EA		990	NORTH	660	WEST	LEA

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
E/C	9	23S	37E		1715'/525'	N/N	330'/1825'	W/W	LEA

12 Dedicated Acre	13 Joint or Infill	14 Consolidation Code	15 Order No.
120	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



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

Positio: Engineering Assistant

Date: 4/17/00

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.

DeSoto/Nichols 3/94 ver 1.10

ORBONYX

B.F. Harrison No. 18H

Project Team: North Hobbs
FRSID: (pending) Drill Estimate: (pending)

Class
Project Owne

UTILITIES

Select Project
Project Status

PRE-RELEASE

Project Information
Well Team
Site Information
Formations
Well Logs Desired
Req. Cost Estimate
Land Data
Right-of-Way
WI Owners
Production Calls
FRSID Request
AFE

E-Mail this Notebook

-POST DRILL-

Final Well Status
Production Calls

WebWITS Drill Site Information

Certify Note: Data on this document has not yet been certified to be accurate or complete.

Submit Reset
View for Printing (use the "back" button to return)

WebWITS Project ID: 9AT25139

Proceed to Permit	Permit Date	Proceed to Stake	Stake Date	Estimated D

Bottom Hole Location(s)

330 ft. FWL and 1715 ft. FNL; Section 9, T23S-R37E (1st Lateral-sw).
525 ft. FNL and 1825 ft. FWL; Section 9, T23S-R37E (2nd Lateral-ne).

Maximum Well Surface Location Change			
0	Feet North	0	Feet South
0	Feet East	0	Feet West

Permitting Exception Noted:	NA
Nearest Well, Name and Location:	This is a re-entry for the purpose of drilling 2 horizontal lateral.
Nearest Well (same formation):	Texaco B.F. Harrison "B" No.8, 500' north of proposed location.

Well is located 8 Mile(s) S from Eunice, NM (ne
town in the county of the well site).

Remarks:

HORIZONTAL RE-ENTRY. APPROXIMATELY 1500' OF HORIZONTAL LATERAL THRU GLORIETA-UPPER PADDOCK. GOR=

Scientific Drilling Inc.
Planning Report

Company:	Texaco E & P, Inc.	**Date:** 04/06/2000 **Time:** 13:30:15 **Page:** 1	
Field:	Teague (Upper Paddock)	**Co-ordinate(NE) Reference:**	Site: Lea County, New Mexico, Grid North
Site:	Lea County, New Mexico	**Vertical (TVD) Reference:**	SITE 0.0 above Mean Sea Level
Well:	B. F. Harrison "B" #18H	**Section (VS) Reference:**	Site (0.0E,0.0N,200.0Azi)
Wellpath:	Upper Lateral	**Plan:**	Plan #3

Field: Teague (Upper Paddock)

Map System:	US State Plane Coordinate System 1927	**Map Zone:**	New Mexico, Eastern Zone
Ellipsoid:	Clarke - 1866	**North Reference:**	Grid
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	IGRF95

Site: Lea County, New Mexico

Site Position:		**Northing:**	ft	**Latitude:**	
From:	Local Only	**Easting:**	ft	**Longitude:**	
Position Uncertainty:	0.0 ft			**Magnetic Declination:**	0.00 deg
Water Depth:	0.0 ft			**Grid Convergence:**	deg

Well: B. F. Harrison "B" #18H

Well Position:	+N/-S	0.0 ft	**Northing:**	ft	**Latitude:**	
From Slot:	+E/-W	0.0 ft	**Easting :**	ft	**Longitude:**	
Position Uncertainty:		0.0 ft				

Wellpath:	Upper Lateral			**Drilled From:**	Surface
				Tie-on Depth:	ft
Vertical Section:	+N/-S	0.0 ft		**V.Section Direction:**	200.00 deg
From:	Site +E/-W	0.0 ft			
Measured Depth Reference:	SITE	0.0 ft		**Above System Datum:**	Mean Sea Level

Plan:	Plan #3	**Date Composed:**	04/06/2000
		Version:	1
Principal:	Yes	**Locked:**	No

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
4500.0	0.00	200.00	4500.0	0.0	0.0	0.00	0.00	0.00	0.00	
4940.0	0.00	200.00	4940.0	0.0	0.0	0.00	0.00	0.00	200.00	
5193.4	87.95	200.00	5105.0	-149.6	-54.4	34.70	34.70	0.00	200.00	
5206.4	87.30	200.00	5105.5	-161.7	-58.9	5.00	-5.00	-0.03	-179.65	
5380.5	87.30	200.00	5113.7	-325.2	-118.4	0.00	0.00	0.00	0.00	
5434.5	90.00	200.00	5115.0	-375.9	-136.8	5.00	5.00	0.00	0.04	SW Midpoint
5834.5	91.43	200.00	5110.0	-751.8	-273.6	0.36	0.36	0.00	0.00	SW Toe

Section 1 : Start Hold

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	TFO deg
4500.0	0.00	200.00	4500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4600.0	0.00	200.00	4600.0	0.0	0.0	0.0	0.00	0.00	0.00	200.00
4700.0	0.00	200.00	4700.0	0.0	0.0	0.0	0.00	0.00	0.00	200.00
4800.0	0.00	200.00	4800.0	0.0	0.0	0.0	0.00	0.00	0.00	200.00
4900.0	0.00	200.00	4900.0	0.0	0.0	0.0	0.00	0.00	0.00	200.00
4940.0	0.00	200.00	4940.0	0.0	0.0	0.0	0.00	0.00	0.00	200.00

Section 2 : Start Build 34.70

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	TFO deg
4950.0	3.47	200.00	4950.0	-0.3	-0.1	0.3	34.70	34.70	0.00	0.00
4960.0	6.94	200.00	4960.0	-1.1	-0.4	1.2	34.70	34.70	0.00	0.00
4970.0	10.41	200.00	4969.8	-2.6	-0.9	2.7	34.70	34.70	0.00	0.00
4980.0	13.88	200.00	4979.6	-4.5	-1.6	4.8	34.70	34.70	0.00	0.00
4990.0	17.35	200.00	4989.2	-7.1	-2.6	7.5	34.70	34.70	0.00	0.00
5000.0	20.82	200.00	4998.7	-10.1	-3.7	10.8	34.70	34.70	0.00	0.00
5010.0	24.29	200.00	5007.9	-13.7	-5.0	14.6	34.70	34.70	0.00	0.00
5020.0	27.76	200.00	5016.9	-17.9	-6.5	19.0	34.70	34.70	0.00	0.00
5030.0	31.23	200.00	5025.6	-22.5	-8.2	23.9	34.70	34.70	0.00	0.00

Scientific Drilling Inc.
Planning Report

Company:	Texaco E & P, Inc.	**Date:**	04/06/2000	**Time:** 13:30:15	**Page:** 2
Field:	Teague (Upper Paddock)	**Co-ordinate(NE) Reference:**	Site: Lea County, New Mexico, Grid North		
Site:	Lea County, New Mexico	**Vertical (TVD) Reference:**	SITE 0.0 above Mean Sea Level		
Well:	B. F. Harrison "B" #18H	**Section (VS) Reference:**	Site (0.0E,0.0N,200.0Azi)		
Wellpath:	Upper Lateral	**Plan:**	Plan #3		

Section 2 : Start Build 34.70

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	TFO deg
5040.0	34.70	200.00	5034.0	-27.6	-10.0	29.4	34.70	34.70	0.00	0.00
5050.0	38.17	200.00	5042.0	-33.2	-12.1	35.3	34.70	34.70	0.00	0.00
5060.0	41.64	200.00	5049.7	-39.2	-14.3	41.7	34.70	34.70	0.00	0.00
5070.0	45.11	200.00	5057.0	-45.7	-16.6	48.6	34.70	34.70	0.00	0.00
5080.0	48.58	200.00	5063.8	-52.5	-19.1	55.9	34.70	34.70	0.00	0.00
5090.0	52.05	200.00	5070.2	-59.7	-21.7	63.6	34.70	34.70	0.00	0.00
5100.0	55.52	200.00	5076.1	-67.3	-24.5	71.6	34.70	34.70	0.00	0.00
5110.0	58.99	200.00	5081.5	-75.2	-27.4	80.1	34.70	34.70	0.00	0.00
5120.0	62.46	200.00	5086.4	-83.4	-30.4	88.8	34.70	34.70	0.00	0.00
5130.0	65.93	200.00	5090.8	-91.9	-33.4	97.8	34.70	34.70	0.00	0.00
5140.0	69.40	200.00	5094.6	-100.6	-36.6	107.0	34.70	34.70	0.00	0.00
5150.0	72.88	200.00	5097.8	-109.5	-39.8	116.5	34.70	34.70	0.00	0.00
5160.0	76.35	200.00	5100.4	-118.5	-43.1	126.1	34.70	34.70	0.00	0.00
5170.0	79.82	200.00	5102.5	-127.7	-46.5	135.9	34.70	34.70	0.00	0.00
5180.0	83.29	200.00	5104.0	-137.0	-49.9	145.8	34.70	34.70	0.00	0.00
5190.0	86.76	200.00	5104.8	-146.4	-53.3	155.8	34.70	34.70	0.00	0.00
5193.4	87.95	200.00	5105.0	-149.6	-54.4	159.2	34.70	34.70	0.00	0.00

Section 3 : Start DLS 5.00 TFO -179.65

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	TFO deg
5206.4	87.30	200.00	5105.5	-161.7	-58.9	172.1	5.00	-5.00	-0.03	-179.65

Section 4 : Start Hold

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	TFO deg
5300.0	87.30	200.00	5109.9	-249.6	-90.8	265.6	0.00	0.00	0.00	0.00
5380.5	87.30	200.00	5113.7	-325.2	-118.4	346.1	0.00	0.00	0.00	0.00

Section 5 : Start DLS 5.00 TFO 0.04

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	TFO deg
5400.0	88.28	200.00	5114.5	-343.5	-125.0	365.5	5.00	5.00	0.00	0.04
5434.5	90.00	200.00	5115.0	-375.9	-136.8	400.0	5.00	5.00	0.00	0.04

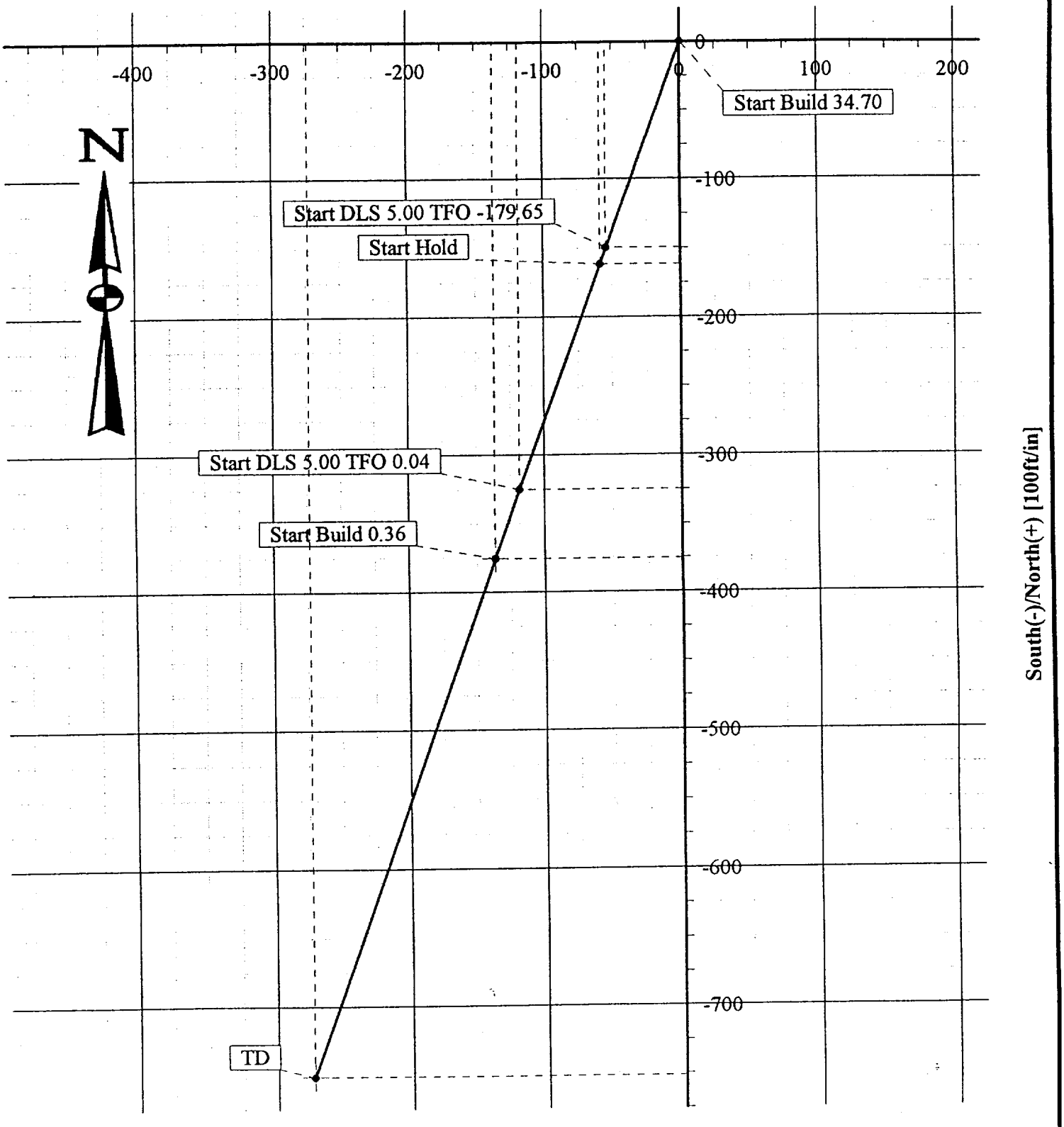
Section 6 : Start Build 0.36

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	TFO deg
5500.0	90.23	200.00	5114.9	-437.5	-159.2	465.5	0.36	0.36	0.00	0.00
5600.0	90.59	200.00	5114.1	-531.4	-193.4	565.5	0.36	0.36	0.00	0.00
5700.0	90.95	200.00	5112.8	-625.4	-227.6	665.5	0.36	0.36	0.00	0.00
5800.0	91.31	200.00	5110.8	-719.3	-261.8	765.5	0.36	0.36	0.00	0.00
5834.5	91.43	200.00	5110.0	-751.8	-273.6	800.0	0.36	0.36	0.00	0.00

Scientific Drilling

Texaco E & P, Inc.

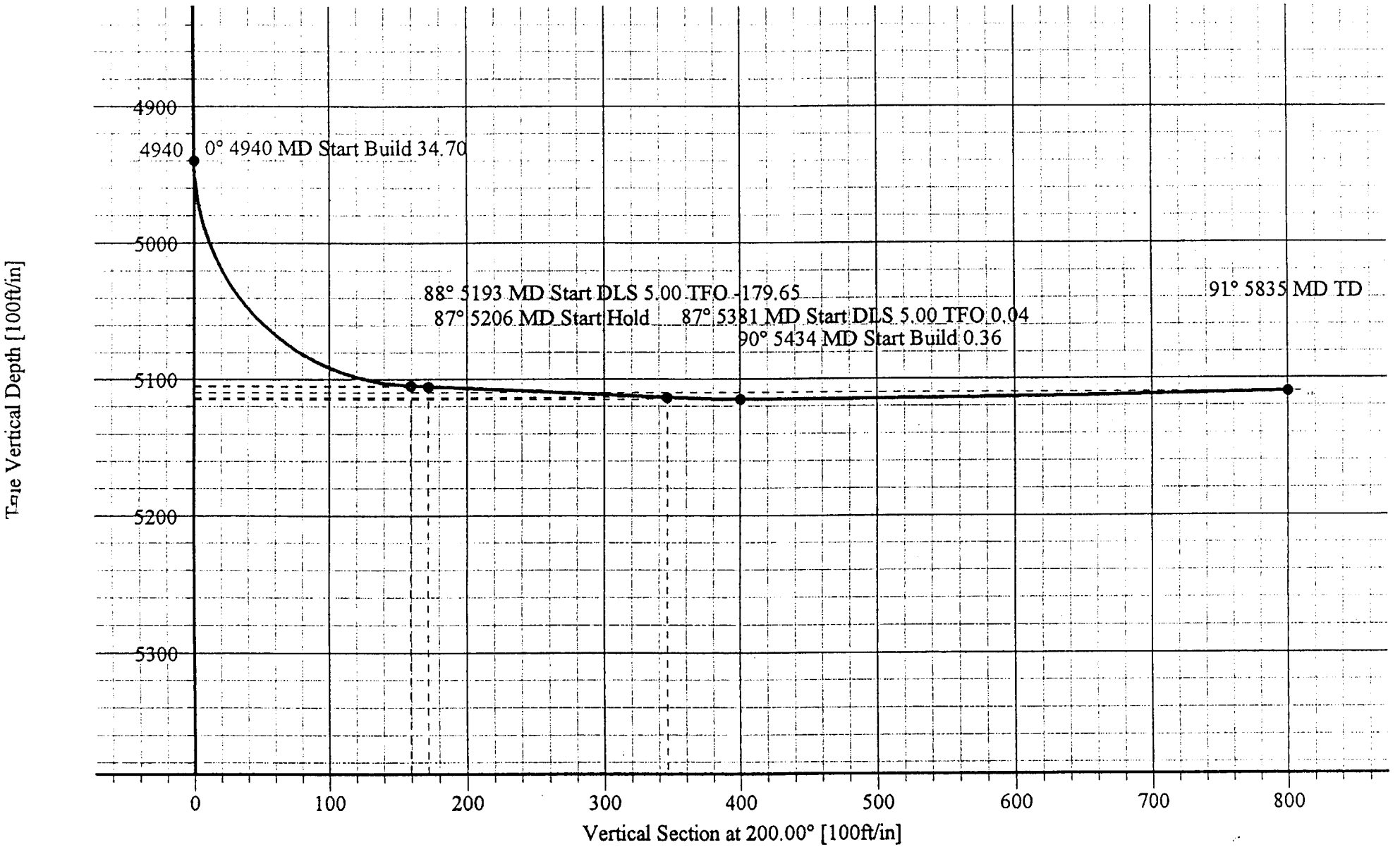
Field: Teague (Upper Paddock)
Site: Lea County, New Mexico
Well: B. F. Harrison "B" #18H
Wellpath: Upper Lateral
Plan: Plan #3



Scientific Drilling

Texaco E & P, Inc.

Field: Teague (Upper Paddock)
Site: Lea County, New Mexico
Well: B. F. Harrison "B" #18H
Wellpath: Upper Lateral
Plan: Plan #3



Scientific Drilling Inc.
Planning Report

Company:	Texaco E & P, Inc.	**Date:**	04/06/2000	**Time:** 14:22:43	**Page:** 1
Field:	Teague (Upper Paddock)	**Co-ordinate(NE) Reference:**	Site: Lea County, New Mexico, Grid North		
Site:	Lea County, New Mexico	**Vertical (TVD) Reference:**	SITE 0.0 above Mean Sea Level		
Well:	B. F. Harrison "B" #18H	**Section (VS) Reference:**	Site (0.0E,0.0N,70.0Azi)		
Wellpath:	Lower Lateral NE	**Plan:**	Plan #1		

Field: Teague (Upper Paddock)

Map System:	US State Plane Coordinate System 1927	**Map Zone:**	New Mexico, Eastern Zone
Ellipsoid:	Clarke - 1866	**North Reference:**	Grid
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	igrf2000

Site: Lea County, New Mexico

Site Position:		**Northing:**	ft	**Latitude:**	
From:	Local Only	**Easting:**	ft	**Longitude:**	
Position Uncertainty:	0.0 ft			**Magnetic Declination:**	0.00 deg
Water Depth:	0.0 ft			**Grid Convergence:**	deg

Well: B. F. Harrison "B" #18H

Well Position:	+N/-S	0.0 ft	**Northing:**	ft	**Latitude:**	
From Slot:	+E/-W	0.0 ft	**Easting :**	ft	**Longitude:**	
Position Uncertainty:		0.0 ft				

Wellpath: Lower Lateral NE

				Drilled From:	Upper Lateral
				Tie-on Depth:	5008.4 ft
Vertical Section:	+N/-S	0.0 ft		**V.Section Direction:**	70.00 deg
From:	Site +E/-W	0.0 ft			
Measured Depth Reference:	SITE	0.0 ft		**Above System Datum:**	Mean Sea Level

Plan: Plan #1

		Date Composed:	04/06/2000
		Version:	1
Principal:	Yes	**Locked:**	No

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
4500.0	0.00	70.00	4500.0	0.0	0.0	0.00	0.00	0.00	0.00	
4980.0	0.00	70.00	4980.0	0.0	0.0	0.00	0.00	0.00	70.00	
5173.8	88.80	70.00	5105.0	41.9	115.0	45.83	45.83	0.00	70.00	
5174.4	88.83	70.00	5105.0	42.1	115.7	5.00	4.95	-0.68	-7.81	
5653.1	88.83	70.00	5114.8	205.8	565.4	0.00	0.00	0.00	0.00	
5676.5	90.00	70.01	5115.0	213.8	587.3	5.00	5.00	0.04	0.48	Midpoint NE
6301.5	91.28	70.01	5108.0	427.5	1174.6	0.21	0.21	0.00	0.00	Toe NE

Section 1 : Start Hold

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	TFO deg
4500.0	0.00	70.00	4500.0	0.0	0.0	0.0	0.00	0.00	0.00	0.00
4600.0	0.00	70.00	4600.0	0.0	0.0	0.0	0.00	0.00	0.00	70.00
4700.0	0.00	70.00	4700.0	0.0	0.0	0.0	0.00	0.00	0.00	70.00
4800.0	0.00	70.00	4800.0	0.0	0.0	0.0	0.00	0.00	0.00	70.00
4900.0	0.00	70.00	4900.0	0.0	0.0	0.0	0.00	0.00	0.00	70.00
4980.0	0.00	70.00	4980.0	0.0	0.0	0.0	0.00	0.00	0.00	70.00

Section 2 : Start Build 45.83

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	TFO deg
4990.0	4.58	70.00	4990.0	0.1	0.4	0.4	45.83	45.83	0.00	0.00
5000.0	9.17	70.00	4999.9	0.5	1.5	1.6	45.83	45.83	0.00	0.00
5010.0	13.75	70.00	5009.7	1.2	3.4	3.6	45.83	45.83	0.00	0.00
5020.0	18.33	70.00	5019.3	2.2	6.0	6.3	45.83	45.83	0.00	0.00
5030.0	22.91	70.00	5028.7	3.4	9.3	9.9	45.83	45.83	0.00	0.00
5040.0	27.50	70.00	5037.7	4.8	13.3	14.1	45.83	45.83	0.00	0.00
5050.0	32.08	70.00	5046.4	6.5	17.9	19.1	45.83	45.83	0.00	0.00
5060.0	36.66	70.00	5054.7	8.5	23.2	24.7	45.83	45.83	0.00	0.00
5070.0	41.24	70.00	5062.4	10.6	29.1	31.0	45.83	45.83	0.00	0.00

Scientific Drilling Inc.
Planning Report

Company:	Texaco E & P, Inc.	**Date:**	04/06/2000	**Time:**	14:22:43 **Page:** 2
Field:	Teague (Upper Paddock)	**Co-ordinate(NE) Reference:**	Site: Lea County, New Mexico, Grid North		
Site:	Lea County, New Mexico	**Vertical (TVD) Reference:**	SITE 0.0 above Mean Sea Level		
Well:	B. F. Harrison "B" #18H	**Section (VS) Reference:**	Site (0.0E,0.0N,70.0Azi)		
Wellpath:	Lower Lateral NE	**Plan:**	Plan #1		

Section 2 : Start Build 45.83

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	TFO deg
5080.0	45.83	70.00	5069.7	13.0	35.6	37.9	45.83	45.83	0.00	0.00
5090.0	50.41	70.00	5076.3	15.5	42.6	45.3	45.83	45.83	0.00	0.00
5100.0	54.99	70.00	5082.4	18.2	50.1	53.3	45.83	45.83	0.00	0.00
5110.0	59.57	70.00	5087.8	21.1	58.0	61.7	45.83	45.83	0.00	0.00
5120.0	64.16	70.00	5092.5	24.1	66.3	70.5	45.83	45.83	0.00	0.00
5130.0	68.74	70.00	5096.5	27.3	74.9	79.7	45.83	45.83	0.00	0.00
5140.0	73.32	70.00	5099.8	30.5	83.8	89.1	45.83	45.83	0.00	0.00
5150.0	77.91	70.00	5102.3	33.8	92.9	98.8	45.83	45.83	0.00	0.00
5160.0	82.49	70.00	5104.0	37.2	102.1	108.7	45.83	45.83	0.00	0.00
5170.0	87.07	70.00	5104.9	40.6	111.5	118.6	45.83	45.83	0.00	0.00
5173.8	88.80	70.00	5105.0	41.9	115.0	122.4	45.83	45.83	0.00	0.00

Section 3 : Start DLS 5.00 TFO -7.81

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	TFO deg
5174.4	88.83	70.00	5105.0	42.1	115.7	123.1	5.00	4.95	-0.68	-7.81

Section 4 : Start Hold

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	TFO deg
5200.0	88.83	70.00	5105.5	50.8	139.7	148.6	0.00	0.00	0.00	0.00
5300.0	88.83	70.00	5107.6	85.0	233.6	248.6	0.00	0.00	0.00	0.00
5400.0	88.83	70.00	5109.6	119.2	327.6	348.6	0.00	0.00	0.00	0.00
5500.0	88.83	70.00	5111.6	153.4	421.5	448.6	0.00	0.00	0.00	0.00
5600.0	88.83	70.00	5113.7	187.6	515.5	548.5	0.00	0.00	0.00	0.00
5653.1	88.83	70.00	5114.8	205.8	565.4	601.7	0.00	0.00	0.00	0.00

Section 5 : Start DLS 5.00 TFO 0.48

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	TFO deg
5676.5	90.00	70.01	5115.0	213.8	587.3	625.0	5.00	5.00	0.04	0.48

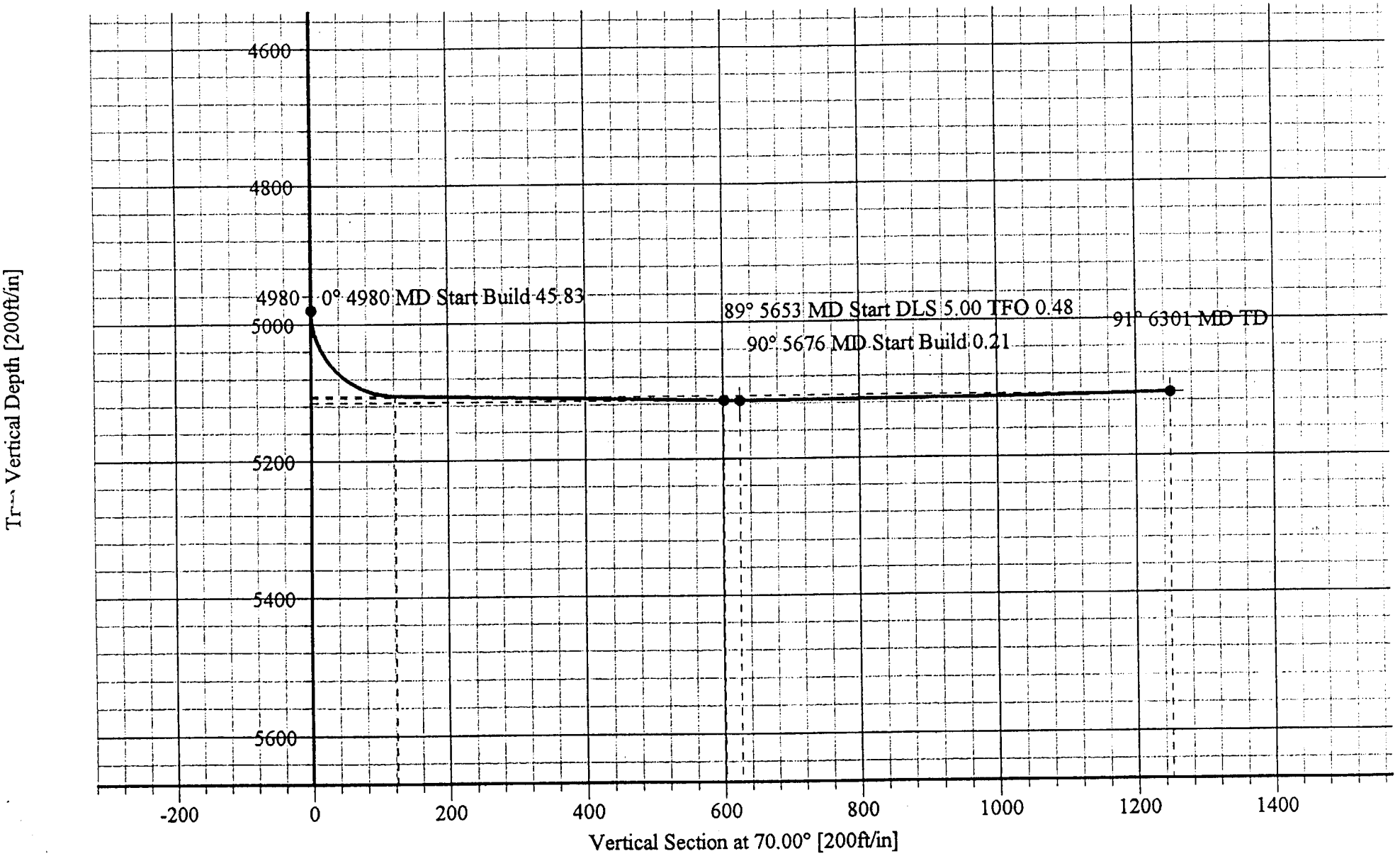
Section 6 : Start Build 0.21

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	TFO deg
5700.0	90.05	70.01	5115.0	221.8	609.4	648.5	0.21	0.21	0.00	0.00
5800.0	90.25	70.01	5114.7	256.0	703.4	748.5	0.21	0.21	0.00	0.00
5900.0	90.46	70.01	5114.1	290.2	797.4	848.5	0.21	0.21	0.00	0.00
6000.0	90.66	70.01	5113.1	324.4	891.3	948.5	0.21	0.21	0.00	0.00
6100.0	90.87	70.01	5111.8	358.6	985.3	1048.5	0.21	0.21	0.00	0.00
6200.0	91.08	70.01	5110.1	392.8	1079.2	1148.5	0.21	0.21	0.00	0.00
6301.5	91.28	70.01	5108.0	427.5	1174.6	1250.0	0.21	0.21	0.00	0.00

Scientific Drilling

Texaco E & P, Inc.

Field: Teague (Upper Paddock)
Site: Lea County, New Mexico
Well: B. F. Harrison "B" #18H
Wellpath: Lower Lateral NE
Plan: Plan #1



Scientific Drilling

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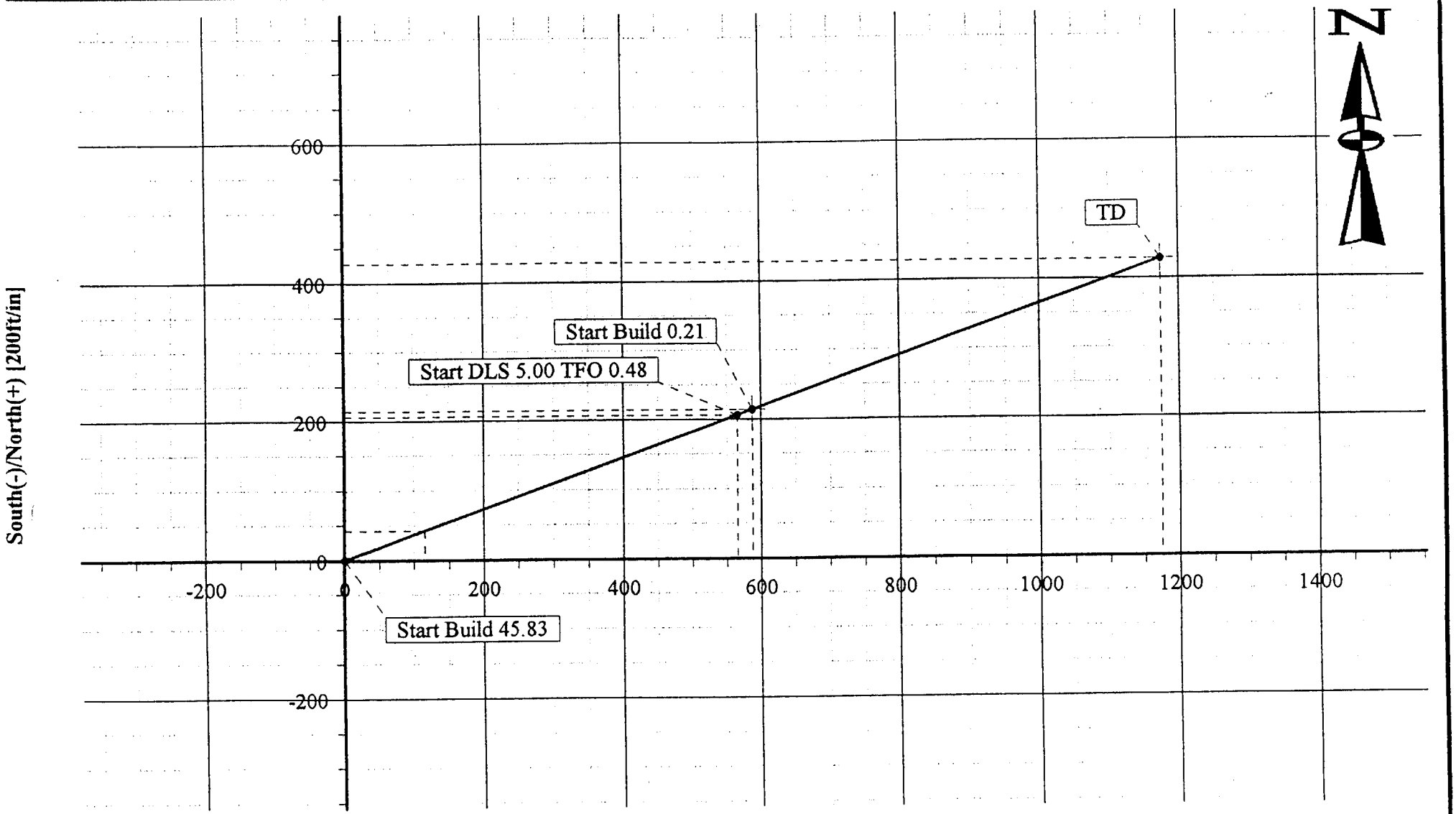

OVERVIEW

The B.F. Harrison "B" 18 is currently shut-in with perforations in the San Andres formation. The well has three sets of perforations from 4860'-4874', 4868'-4738' and 3896'-3994'. There are two CIBPs at 4840' and 4650', each capped with 30' of cement. This well was drilled in 1993. It has 5-1/2" 15.5# and 17# J-55 casing set at 5000'. It is proposed to deepen the well to 5400', log and drill two horizontal laterals. The first lateral will be a +/-1321 foot lateral at 70 degrees and the second lateral will be a +/-894 foot lateral at 200 degrees. The basic well plan is as follows:

a) TOOH with the production equipment. Run a casing scraper to 3900'. Set a 5-1/2" cement retainer at +/-3800'. Squeeze perforations at 3896'-3902', 3926'-3940', 3960', 3964'-3970', 3982' and 3986'-3994' (3896'-3994' gross).

b) TIH and drill out cement to PBTD of 4620'. Pressure test squeeze to 1300 psi. Resqueeze, if test does not hold.

c) Drill out 30' cement cap and CIBP at 4650'. Clean out to cement cap at 4810'. Test injectivity of perforations from 4686'-4694', 4700'-4704', 4711'-4714', 4721'-4723', and 4734'-4738' (4686'-4738' gross).

d) TOOH. Set a 5-1/2" cement retainer at +/-4600'. Squeeze perforations.

e) TIH and drill out cement to PBTD of 4810'. Pressure test squeeze to 1300 psi. Resqueeze, if test does not hold.

f) Drill out 30' cement cap and CIBP at 4840'. Clean out to PBTD at 4962'. Test injectivity of perforations from 4860'-4874'.

g) TOOH. Set a 5-1/2" cement retainer at +/-4750'. Squeeze perforations.

h) TIH and drill out cement to PBTD of 4962'. Pressure test squeeze to 1300 psi. Resqueeze, if test does not hold.

i) Drill out casing shoe and drill new formation to 5400'.

j) Log well to determine exact well path location. Log casing for collars.

k) TIH with a CIBP and set at 4986' and pressure test to 1000 psi. TIH with a 3 degree bottom trip whipstock (top of window +/-4974', bottom of window +/-4980').

l) Drill a short radius curve (45.83°/100 feet) using a 4-3/4" bit to a measured depth of +/-5174' (TVD +/-5105') with a 70 degree azimuth. The final angle will be 88.83 degrees from vertical. Drill +/-1128' horizontal section. The end point will be +/-6301' MD, +/-5108' TVD and +/-1250' vertical section.

m) Log lateral with a TDT log. Retrieve whipstock

n) Stimulate lateral with 15% HCl and ported subs. Place well on test.

o) TIH with a CIBP and set at 4946' and pressure test to 1000 psi. TIH with a 3 degree bottom trip whipstock (top of window +/-4934', bottom of window +/-4940').

p) Drill a short radius curve (34.7°/100 feet) using a 4-3/4" bit to a measured depth of +/-5193' (TVD +/-5105') with a 200 degree azimuth. The final angle will be 87.3 degrees from vertical. Drill +/-641' horizontal section. The end point will be +/-5835' MD, +/-5110' TVD and +/-800' vertical section.

q) Log lateral with a TDT log. Retrieve whipstock

r) Stimulate lateral with 15% HCl and ported subs. Place well on test.

s) TIH with sand line drill and drill out CIBP at 4946'.

t) Place well on production.

50% LOST IN HOLE INSURANCE FOR THE DOWNHOLE MOTOR AND MWD IS INCLUDED WITH THE DAILY RATE FROM SCIENTIFIC DRILLING.

PROPOSED WORK

PRODUCTION HOLE #1:

7. TOOH with production equipment. TIH with casing scraper to 3900'. Set a 5-1/2" cement retainer at 3800'. Establish injection rate. Squeeze perforations 3896'–3994' gross with 150 sacks of Class "H" cement containing 0.3% D156 fluid loss and 0.4% D65 dispersant followed by 100 sacks of Class "H" neat cement (15.6 ppg). Pump at less than 2 BPM, slowing to 0.5 BPM at the end of the job (no hesitation). TOOH. TIH and drill out cement to PBTD of 4620'. Pressure test the squeeze to 1300 psi.

8. Drill out 30' cement cap and CIBP at 4650'. Clean out to cement cap at 4810'. Pump into open perforations to establish injection rate.

9. TOOH. Set a 5-1/2" cement retainer at 4600'. Establish injection rate. Squeeze perforations 4686'–4738' gross with 150 sacks of Class "H" cement containing 0.3% D156 fluid loss and 0.4% D65 dispersant followed by 100 sacks of Class "H" neat cement (15.6 ppg). Pump at less than 2 BPM, slowing to 0.5 BPM at the end of the job (no hesitation). TOOH. TIH and drill out cement to PBTD of 4810'. Pressure test the squeeze to 1300 psi.

10. Drill out 30' cement cap and CIBP at 4840'. Clean out to PBTD at 4962'. Pump into open perforations to establish injection rate.

11. TOOH. Set a 5-1/2" cement retainer at 4750'. Establish injection rate. Squeeze perforations 4860'–4874' with 150 sacks of Class "H" cement containing 0.3% D156 fluid loss and 0.4% D65 dispersant followed by 100 sacks of Class "H" neat cement (15.6 ppg). Pump at less than 2 BPM, slowing to 0.5 BPM at the end of the job (no hesitation). TOOH. TIH and drill out cement to PBTD of 4962'. Pressure test the squeeze to 1300 psi.

12. Drill out casing shoe and drill new formation to 5400'.

13. Log well with Platform Express from TD to 5000'. Log well for casing collars to be used when setting CIBPs and Whipstocks.

14. TIH with a CIBP and set at 4986' and pressure test to 1000 psi. TOOH.

15. TIH with drill pipe. Strap the pipe going in the hole. This measurement will be used when setting the whipstock. Accuracy is very important. Check the strap with the wire line measurement. TOOH.

16. TIH with bottom set retrievable whipstock, starting mill, orientation sub and drill pipe. Stop at a point 5-10' above the RBP and run a gyro. Take a gyro reading to determine the direction of the whipstock face. Rotate the pipe as needed to achieve the required direction (azimuth 70 degrees). Lower the pipe to within one foot of the RBP and take another gyro reading. Rotate pipe again, if necessary, to obtain the required direction. This step may need to be made several times until confident the whipstock is oriented in the proper direction. Pull the gyro to surface, recording the orientation of the wellbore.

17. Lower the drill pipe to set the whipstock. The weight indicator will jump indicating the plunger shear pin is sheared and the whipstock is set. Continue setting down to shear the starting mill bolt. The weight indicator will jump, indicating the bolt is sheared.

18. 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 cut out in the casing has been initiated. TOOH.

19. TIH with the metal muncher window mill, string mill and the watermelon 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.

20. Inspect the mill on the surface. If extreme wear is evident, consideration should be given to repeating the above step.

HORIZONTAL PRODUCTION HOLE #1:

1. Rig up Scientific Drilling Company. Adjust plan to target as necessary. Trip in the hole with Scientific Drilling's curve building assembly. This will be a 4-3/4" insert bit, 3-3/4" PDM, float sub/orienter combo, 2-flexible monel collars and 2-7/8" AOH drill pipe.

2. Build curve to estimated target depths and angles as follows:

True Vertical Depth	5105'
Measured Depth	5174'
Final Angle	88.83 degrees
Target Azimuth	70 degrees
Build Rate	45.83 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 Scientific Drilling's lateral assembly. This will be a 4-3/4" insert bit, 3-3/4" articulated motor, float sub/orienter combo, 2 - flexible monel collars and 2-7/8" AOH drill pipe.

4. Drill +/-1127' of horizontal hole per the attached Scientific well plan.

5. Continue drilling the horizontal section per the Texaco Geologist (Joe Villalobos 915-688-4876, home 915-683-6770) recommendations.

6. Trip out of the hole with the drilling assembly.

7. Log lateral with a TDT log. Retrieve whipstock.

8. Set a wireline set, tubing retrievable bridge plug for 5-1/2" casing at +/- 4920'. Test plug to 1000 psi.

9. Lay down the drill pipe.

10. 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:

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 ported subs and a packer and acidize the lateral. Use a bent joint to orient into the lateral.

4. Flow back immediately.

5. Place on production.

PRODUCTION HOLE #2:

1. TOOH with production equipment

2. TIH with a CIBP and set at 4946' and pressure test to 1000 psi. TOOH.

3. TIH with drill pipe. Strap the pipe going in the hole. This measurement will be used when setting the whipstock. Accuracy is very important. Check the strap with the wire line measurement. TOOH.

4. TIH with bottom set retrievable whipstock, starting mill, orientation sub and drill pipe. Stop at a point 5-10' above the RBP and run a gyro. Take a gyro reading to determine the direction of the whipstock face. Rotate the pipe as needed to achieve the required direction (azimuth 200 degrees). Lower the pipe to within one foot of the RBP and take another gyro reading. Rotate pipe again, if necessary, to obtain the required direction. This step may need to be made several times until confident the whipstock is oriented in the proper direction. Pull the gyro to surface, recording the orientation of the wellbore.

5. Lower the drill pipe to set the whipstock. The weight indicator will jump indicating the plunger shear pin is sheared and the whipstock is set. Continue setting down to shear the starting mill bolt. The weight indicator will jump, indicating the bolt is sheared.

6. 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 cut out in the casing has been initiated. TOOH.

7. TIH with the metal muncher window mill, string mill and the watermelon 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.

8. Inspect the mill on the surface. If extreme wear is evident, consideration should be given to repeating the above step.

HORIZONTAL PRODUCTION HOLE #2:

1. Rig up Scientific Drilling Company. Adjust plan to target as necessary. Trip in the hole with Scientific Drilling's curve building assembly. This will be a 4-3/4" insert bit, 3-3/4" PDM, float sub/orienter combo, 2-flexible monel collars and 2-7/8" AOH drill pipe.

2. Build curve to estimated target depths and angles as follows:

True Vertical Depth	5105'
Measured Depth	5193'
Final Angle	87.3 degrees
Target Azimuth	200 degrees
Build Rate	34.7 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.

11. Trip in the hole with Scientific Drilling's lateral assembly. This will be a 4-3/4" insert bit, 3-3/4" articulated motor, float sub/orienter combo, 2 - flexible monel collars and 2-7/8" AOH drill pipe.

12. Drill +/-641' of horizontal hole per the attached Scientific well plan.

13. Continue drilling the horizontal section per the Texaco Geologist (Joe Villalobos 915-688-4876, home 915-683-6770) recommendations.

14. Trip out of the hole with the drilling assembly.

15. Log lateral with a TDT log. Retrieve whipstock.

16. Set a wireline set, tubing retrievable bridge plug for 5-1/2" casing at +/- 4880'. Test plug to 1000 psi.

17. Lay down the drill pipe.

18. 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 #2:

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 ported subs and a packer and acidize the lateral. Use a bent joint to orient into the lateral.

4. Flow back immediately.

5. Place on production.

6. TIH with sand line drill and drill out CIBP at 4946'

7. Place well on production.

POTENTIAL PROBLEMS:

Horizontal Production hole:

a) Loss circulation material and/or other plugging agents are not to be used in this portion of the hole.

b) The horizontal lateral will be drilled with fresh water.

c) No hydrogen sulfide is expected, but H2S detection equipment is to be installed.

MUD PROGRAM:

Interval	Type	Weight	Viscosity	Remarks
Curve	Fresh Water	8.4 ppg	35	Raise visc. with starch and gel
Horizontal	Fresh Water	8.4-9.0 ppg	28-29	Circulate reserve

EVALUATION PROGRAM

Coring:

No cores are anticipated.

Mud Loggers:

A mud logger will be rigged from the start of the curve to total depth. Contact Joe Villalobos 915-688-4876 for the name of the mud logger.

Open Hole Logs:

The following open hole logs will be run in the vertical section of the well:

Run 1: PLEXP from TD to 5000'

Run 2: Gyro from 5908'- surface for determination of bottom hole location (Scientific Drilling responsibility).

The guidance system in the curve and horizontal sections of the hole will consist of a MWD system.

Horizontal Hole Logs:

TDT logs will be run in each lateral.

CASING PROPERTIES

	DEPTH	BURST Rated	BURST (75%)	COLLAPSE Rated	COLLAPSE (75%)	TEST PRESSURE
5-1/2", 15.5#, J-55	930-5000'	4810	3607	4040	3030	1000
5-1/2", 17#, J-55	0-930'	5320	3990	4910	3683	1000

Current PBTD is 4620'.