

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

Form C-101

Revised February 10, 1994

Instructions on back

Submit to Appropriate District Office

State Lease - 6 Copies

Fee Lease - 5 Copies

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ 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
		³ API Number 30-025-31810
⁴ Property Code 011125	⁵ Property Name VACUUM GLORIETA WEST UNIT	⁶ Well No. 93

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
K	36	17-S	34-E		1723	SOUTH	1575	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
K/L	34/36	17S/17S	34E/34E		2187' / 1584	S/S	1762' / 585'	W/W	LEA / LEA
⁹ Proposed Pool 1 Vacuum Glorieta unitized interval					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 3998' GR
¹⁶ Multiple No	¹⁷ Proposed Depth 5910' TVD	¹⁸ Formation Paddock	¹⁹ Contractor Unknown	²⁰ Spud Date 8/30/98

²¹ Proposed Casing and Cement Program

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	SACKS OF CEMENT	EST. TOP
No change					

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.

Objective: Texaco intends on drilling dual lateral horizontal intervals from the existing vertical injection well.

1. Blow down injection well and kill if nec. TOH w/ injection tubing and lay down.
2. Set a permanent packer at 5833'. TIH with latch, and re-entry whipstock (window will be from 5819'-5826'). KOP = 5830'.
3. Drill a short radius curve with a 4-3/4" drill bit to a MD of 5952' and TVD 5910'.
4. Drill a 500' horizontal interval with azimuth of 22 degrees.
5. Retrieve whipstock. TIH with latch, space-out assembly, and whipstock (Window will be from 5779'-5786'). KOP = 5790'.
6. Drill a short radius curve using a 4-3/4" drill bit to a MD of 5976' and TVD = 5910'.
7. Drill a 1000' horizontal lateral interval with an azimuth of 262 degrees.
8. TOH with drilling equipment.
9. Rig up coiled tubing unit. Acid treat horizontal lateral with 15% HCL
10. RIH with production equipment. Return well to production. Place well on test.

Part of 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>Darrell J. Carriger</i>			
Printed Name Darrell J. Carriger		Approved By:	
Title Prod. Engineer		Title:	
Date 4/27/98		Approval Date: 4/27/98	Expiration Date:
Telephone 397-0426		Conditions of Approval: Attached ☐	

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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-102

Revised February 10, 1994

Instructions on back

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State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-025-31810	² Pool Code 62160	³ Pool Name VACUUM GLORIETA
⁴ Property Code 011125	⁵ Property Name VACUUM GLORIETA WEST UNIT	⁶ Well No. 93
⁷ OGRID Number 022351	⁸ Operator Name TEXACO EXPLORATION & PRODUCTION INC.	⁹ Elevation 3998' GR

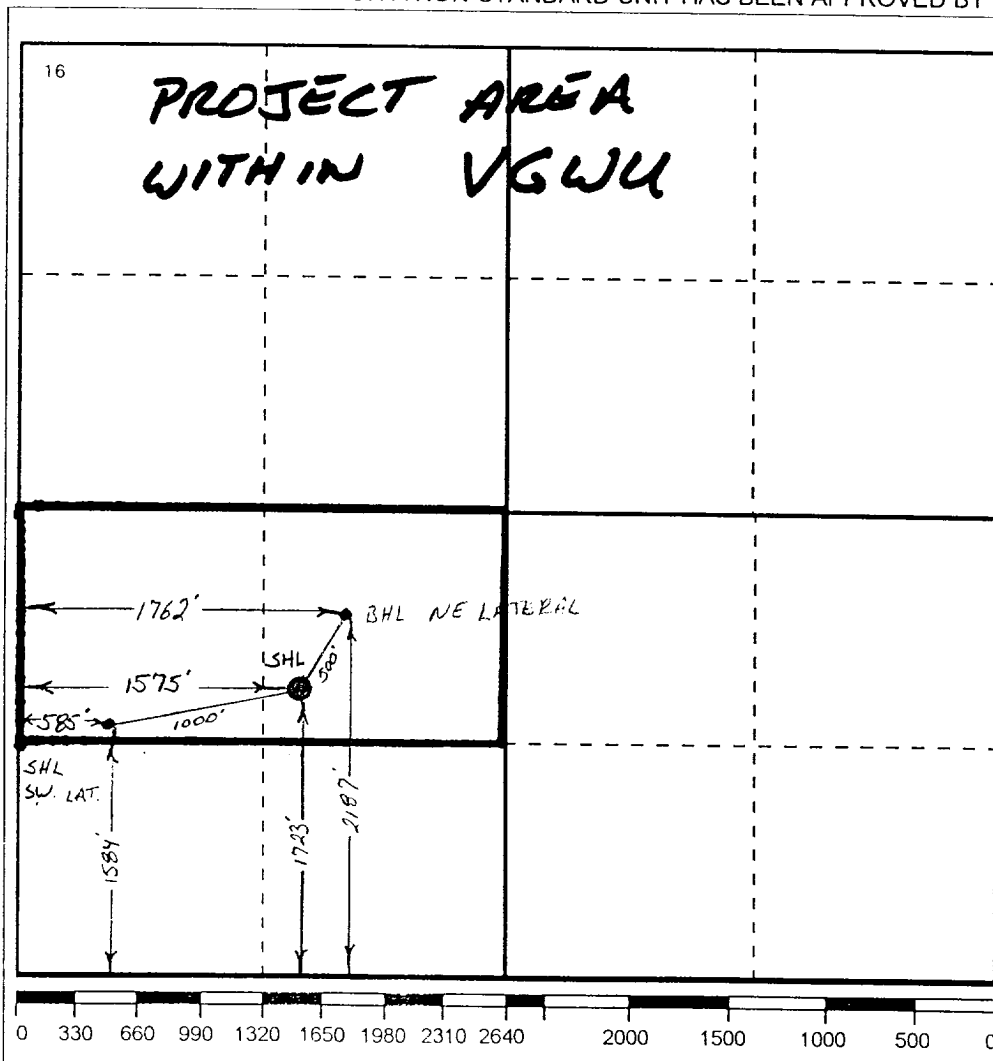
¹⁰ Surface Location

UI or lot no. K	Section 36	Township 17-S	Range 34-E	Lot.Idn	Feet From The 1723	North/South Line SOUTH	Feet From The 1575	East/West Line WEST	County LEA
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¹¹ Bottom Hole Location If Different From Surface

UI or lot no. K/L	Section 36/36	Township 17S/17S	Range 34E/34E	Lot.Idn	Feet From The 2187/1584	North/South Line S/S	Feet From The 1762/1585	East/West Line W/W	County LEA/LEA
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¹² Dedicated Acres 80	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 DIVISION¹⁷ OPERATOR CERTIFICATIONI hereby certify that the information
contained herein is true and complete to the
best of my knowledge and belief

Signature

Printed Name

Darrell J. Carriger

Position

Prod. Engineer

Date

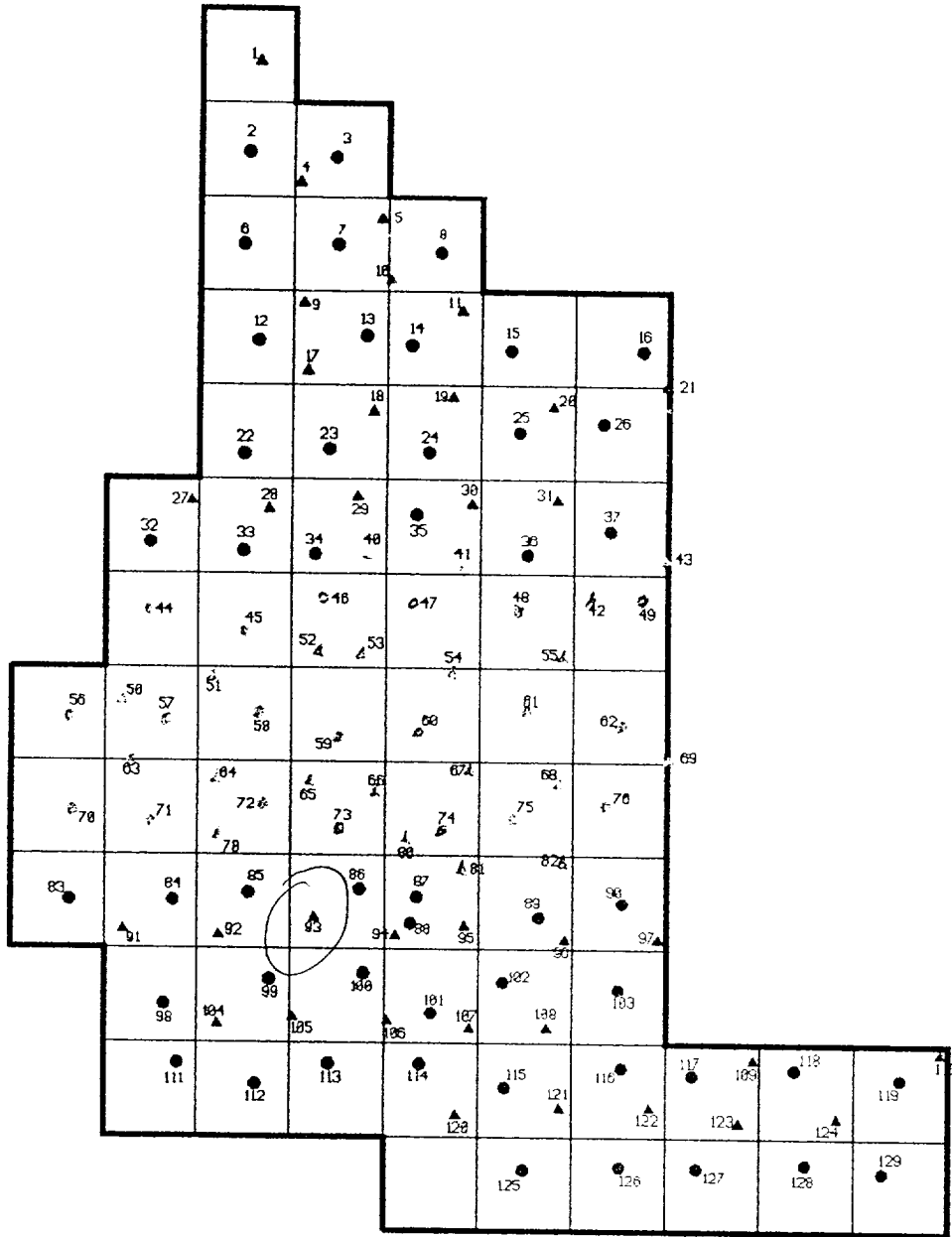
¹⁸ SURVEYOR CERTIFICATIONI hereby certify that the well location shown
on this plat was plotted from field notes of
actual surveys made by me or under my
supervision, and that the same is true and
correct to the best of my knowledge and
belief.

Date Surveyed

Signature & Seal of
Professional Surveyor

Certificate No.

PROJECT AREA



TEXACO EXPLORATION AND PRODUCTION

VACUUM GLORIETA WEST UNIT

Date: 4/27/98 BY: DARRELL J. CARRIGER



Job Number:

Company: TEXACO E&P

Lease/Well: VGWU #93

Location: LEA COUNTY

Rig Name: YALE E. KEY #119

RKB:

G.L. or M.S.L.:

State/Country: NEW MEXICO

Declination: 9.11549

Grid:

File name: D:\DATA\TEXACO~1\VGWU\VGWU_93\VGWU93.SVY

Date/Time: 23-Mar-98 / 13:39

Curve Name: NORTHEAST (LOWER) LATERAL (REV.0)

PHOENIX DRILLING SERVICES, INC.

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane 22.00

Vertical Section Referenced to Wellhead

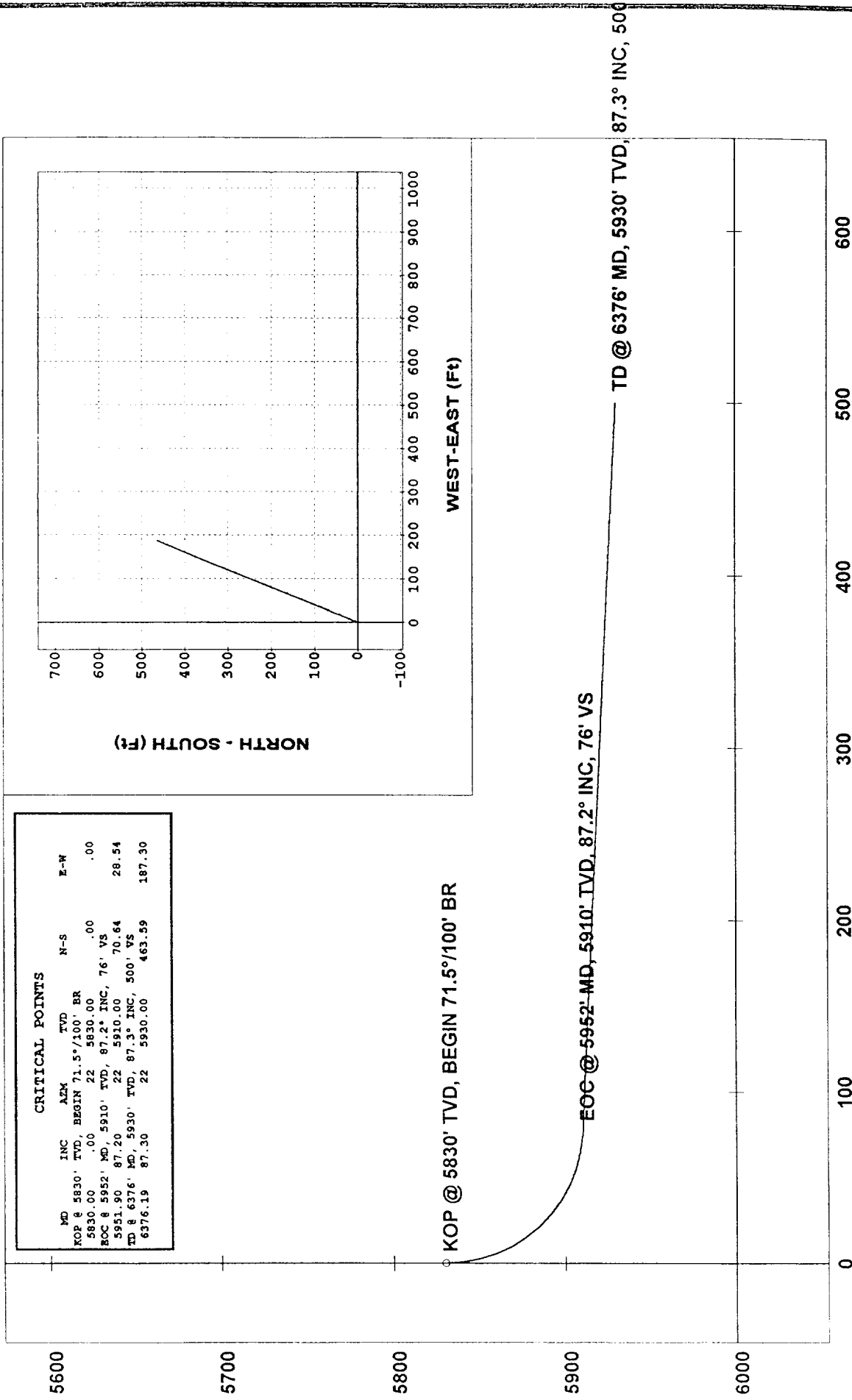
Rectangular Coordinates Referenced to Wellhead

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
KOP @ 5830' TVD, BEGIN 71.5°/100' BR									
5830.00	.00	22.00	5830.00	.00	.00	.00	.00	.00	.00
5840.00	7.15	22.00	5839.97	.58	.23	.62	.62	22.00	71.53
5850.00	14.31	22.00	5849.79	2.30	.93	2.48	2.48	22.00	71.53
5860.00	21.46	22.00	5859.30	5.15	2.08	5.55	5.55	22.00	71.53
5870.00	28.61	22.00	5868.36	9.07	3.66	9.78	9.78	22.00	71.53
5880.00	35.77	22.00	5876.82	14.01	5.66	15.11	15.11	22.00	71.53
5890.00	42.92	22.00	5884.54	19.88	8.03	21.44	21.44	22.00	71.53
5900.00	50.07	22.00	5891.42	26.60	10.75	28.69	28.69	22.00	71.53
5910.00	57.23	22.00	5897.36	34.06	14.46	36.74	36.74	22.00	71.53
5920.00	64.38	22.00	5902.22	42.15	17.03	45.46	45.46	22.00	71.53

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
5930.00	71.53	22.00	5905.97	50.74	20.50	54.73	54.73	22.00	71.53
5940.00	78.69	22.00	5908.54	59.70	24.12	64.38	64.38	22.00	71.53
5950.00	85.84	22.00	5909.88	68.88	27.83	74.29	74.29	22.00	71.53
EOC @ 5952' MD, 5910' TVD, 87.2° INC, 76' VS									
5951.90	87.20	22.00	5910.00	70.64	28.54	76.18	76.18	22.00	71.53
5952.72	87.30	22.00	5910.04	71.39	28.85	77.00	77.00	22.00	12.00
6052.72	87.30	22.00	5914.75	164.01	66.26	176.89	176.89	22.00	.00
6152.72	87.30	22.00	5919.47	256.62	103.68	276.78	276.78	22.00	.00
6252.72	87.30	22.00	5924.18	349.24	141.10	376.67	376.67	22.00	.00
6352.72	87.30	22.00	5928.89	441.86	178.52	476.56	476.56	22.00	.00
TD @ 6376' MD, 5930' TVD, 87.3° INC, 500' VS									
6376.19	87.30	22.00	5930.00	463.59	187.30	500.00	500.00	22.00	.00

Company: TEXACO E&P
 Lease/Well: VGWU #93
 Location: LEA COUNTY
 Rig Name: YALE E. KEY #119
 State/Country: NEW MEXICO
 Declination: 9.11549

Grid:
 File name: D:\DATA\TEXACO~1\VGWU\VGWU_93\VGWU93.SVY
 Date/Time: 23-Mar-98 / 13:40





Job Number:

Company: TEXACO E&P

Lease/Well: VGWU #93

Location: LEA COUNTY

Rig Name: YALE E. KEY #119

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File name: D:\DATA\TEXACO~1\VGWU\VGWU_93\VGWU93.SVY

Date/Time: 23-Mar-98 / 13:40

Curve Name: SOUTHWEST (UPPER) LATERAL (REV.0)

PHOENIX DRILLING SERVICES, INC.

WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method

Vertical Section Plane 262.00

Vertical Section Referenced to Wellhead

Rectangular Coordinates Referenced to Wellhead

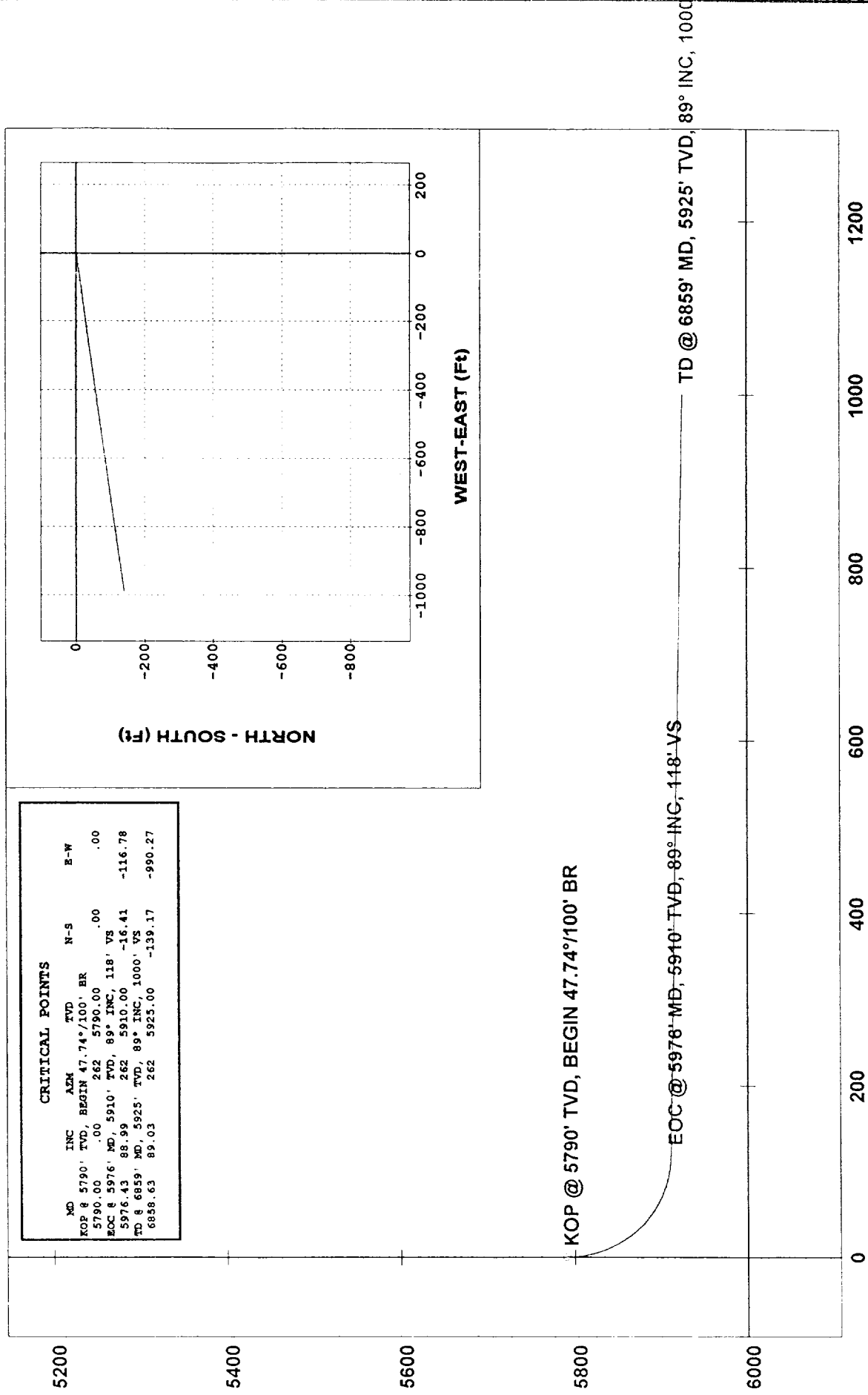
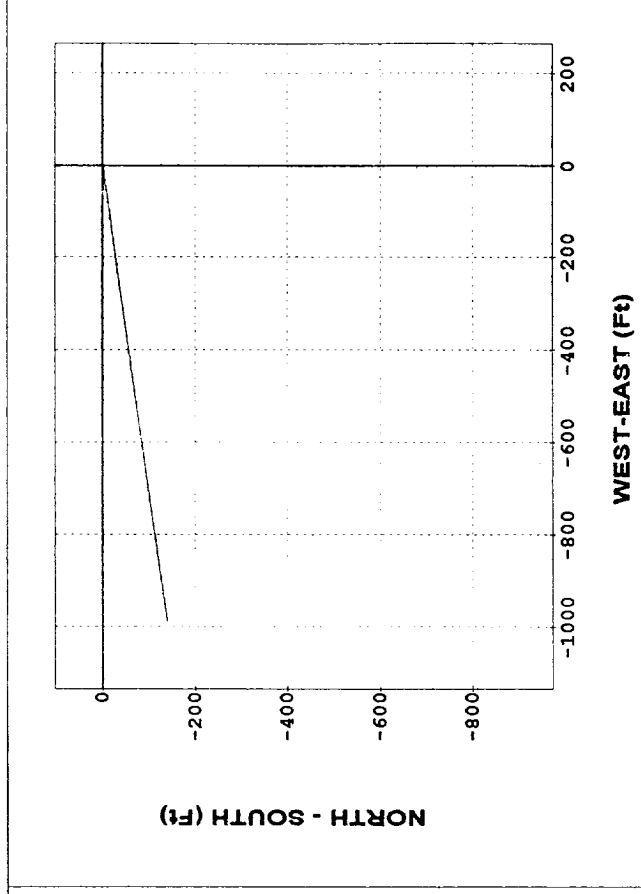
Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
KOP @ 5790' TVD, BEGIN 47.74°/100' BR									
5790.00	.00	262.00	5790.00	.00	.00	.00	.00	.00	.00
5800.00	4.77	262.00	5799.99	-.06	-.41	.42	.42	262.00	47.74
5810.00	9.55	262.00	5809.91	-.23	-1.65	1.66	1.66	262.00	47.74
5820.00	14.32	262.00	5819.69	-.52	-3.69	3.73	3.73	262.00	47.74
5830.00	19.10	262.00	5829.26	-.92	-6.54	6.60	6.60	262.00	47.74
5840.00	23.87	262.00	5838.57	-1.43	-10.17	10.27	10.27	262.00	47.74
5850.00	28.64	262.00	5847.53	-2.04	-14.55	14.69	14.69	262.00	47.74
5860.00	33.42	262.00	5856.10	-2.76	-19.65	19.84	19.84	262.00	47.74
5870.00	38.19	262.00	5864.21	-3.58	-25.44	25.69	25.69	262.00	47.74
5880.00	42.97	262.00	5871.80	-4.48	-31.88	32.19	32.19	262.00	47.74

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE Distance FT	Direction Deg	Dogleg Severity Deg/100
5890.00	47.74	262.00	5878.82	-5.47	-38.92	39.31	39.31	262.00	47.74
5900.00	52.51	262.00	5885.23	-6.54	-46.52	46.98	46.98	262.00	47.74
5910.00	57.29	262.00	5890.98	-7.68	-54.62	55.16	55.16	262.00	47.74
5920.00	62.06	262.00	5896.03	-8.88	-63.17	63.79	63.79	262.00	47.74
5930.00	66.84	262.00	5900.34	-10.13	-72.10	72.81	72.81	262.00	47.74
5940.00	71.61	262.00	5903.89	-11.43	-81.35	82.15	82.15	262.00	47.74
5950.00	76.38	262.00	5906.64	-12.77	-90.87	91.76	91.76	262.00	47.74
5960.00	81.16	262.00	5908.59	-14.14	-100.58	101.57	101.57	262.00	47.74
5970.00	85.93	262.00	5909.72	-15.52	-110.42	111.50	111.50	262.00	47.74
EOC @ 5976' MD, 5910' TVD, 89° INC, 118° VS									
5976.43	88.99	262.00	5910.00	-16.41	-116.78	117.92	117.92	262.00	47.53
5976.75	89.03	262.00	5910.01	-16.46	-117.10	118.25	118.25	262.00	12.00
6076.75	89.03	262.00	5911.71	-30.37	-216.11	218.23	218.23	262.00	.00
6176.75	89.03	262.00	5913.41	-44.29	-315.12	318.22	318.22	262.00	.00
6276.75	89.03	262.00	5915.11	-58.20	-414.13	418.20	418.20	262.00	.00
6376.75	89.03	262.00	5916.81	-72.12	-513.15	518.19	518.19	262.00	.00
6476.75	89.03	262.00	5918.51	-86.03	-612.16	618.18	618.18	262.00	.00
6576.75	89.03	262.00	5920.21	-99.95	-711.17	718.16	718.16	262.00	.00
6676.75	89.03	262.00	5921.91	-113.86	-810.18	818.15	818.15	262.00	.00
6776.75	89.03	262.00	5923.61	-127.78	-909.20	918.13	918.13	262.00	.00
TD @ 6859' MD, 5925' TVD, 89° INC, 1000' VS									
6858.63	89.03	262.00	5925.00	-139.17	-990.27	1000.00	1000.00	262.00	.00

Company: TEXACO E&P
 Lease/Well: VGWU #93
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CRITICAL POINTS				
MD	INC	AZM	TVD	N-S
KOP @ 5790'	TVD, BEGIN 47.74°/100' BR			
5790.00	.00	262	5790.00	.00
EOC @ 5976'	MD, 5910' TVD, 89° INC, 118' VS			
5976.43	88.99	262	5910.00	-16.41
TD @ 6859'	MD, 5925' TVD, 89° INC, 1000' VS			
6858.63	89.03	262	5925.00	-139.17
				-990.27



-- SOUTHWEST (UPPER) LATERAL (REV.0)

VERTICAL SECTION (Ft) @ 262.00°