



Job Number: SVMO-140090
 Company: OXY USA, Inc.
 Lease/Well: Rogers 23 Fee 4
 Location: Eddy County, NM
 Rig Name: Savanna #415
 RKB: 14'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.70°
 Grid: East To Grid North
 File name: S:\2014SU~1\OXY\MO\ROGERS\23FEE4.SVY
 Date/Time: 27-Jan-14 / 16:03
 Curve Name: Surface - 855' M.D. (Rate Gyro)

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .00
 Vertical Section Referenced to Wellhead
 Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from
 Surface MD to 855' MD is, to the best of
 our knowledge a true and accurate account of
 the well bore.
James Gally 1/27/14
 MS Energy Services Date

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	CLOSURE		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.76	351.75	100.00	.66	-.10	.66	.66	351.75	.76
200.00	.74	354.35	199.99	1.96	-.25	1.96	1.97	352.60	.04
300.00	.95	291.20	299.98	2.90	-1.09	2.90	3.10	339.38	.90
400.00	1.35	278.16	399.96	3.36	-3.03	3.36	4.53	318.00	.48
500.00	1.52	272.22	499.93	3.58	-5.52	3.58	6.58	302.99	.23
600.00	2.02	275.97	599.88	3.82	-8.60	3.82	9.41	293.94	.51
700.00	1.96	268.28	699.82	3.95	-12.06	3.95	12.69	288.13	.27
800.00	1.95	267.74	799.76	3.83	-15.47	3.83	15.94	283.91	.02
Last Survey Depth Recorded									
855.00	1.83	265.24	854.73	3.72	-17.28	3.72	17.68	282.15	.26

30 05 40858

Schlumberger

Schlumberger Technology Corporation
1325 S Dairy Ashford, Rm 5012
Houston, TX 77077
281-285-6262

Date: January 30, 2014

State of New Mexico
Oil Conservation Division
District 2 - ARTESIA
811 S. First St.
Artesia, NM 88210

Attention: T.C. Shaffert

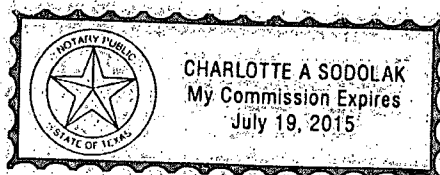
Company Name: Oxy USA Inc.
Well Name: Rogers 23 Fee 4
County: Eddy
State: New Mexico
API number: 30-015-40858

Enclosed please find the original copy of the Continuous Direction Survey performed by Schlumberger Wireline & Testing and Data Services, divisions of Schlumberger Technology Corporation (P-5 No. 754900). The Continuous Directional Survey was calculated from GPIT Survey data, and processed by Elizabeth Rosborough, PetroTechnical Services located in DS-Houston. Information required by your office is as follows:

<u>Name & Title of Surveyor</u>	<u>Drainhole Number</u>	<u>Surveyed Depths</u>	<u>Dates Performed</u>	<u>Type of Survey</u>
Elizabeth Rosborough Geology Tech	1	0 ft - 4013 ft	Jan. 30, 2014	GPIT

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address or call (281) 285-6262.

Elizabeth Rosborough
Elizabeth Rosborough
Geology Tech
Enclosures



Charlotte A. Sodolak
Feb. 3, 2014

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Rogers "23" Fee 4

General Information:

Company Name: Oxy USA Inc.
Field: Yeso
Well: Rogers "23" Fee 4
County: Eddy
State: New Mexico
Surface Location: 1650' FNL & 2310' FEL
Latitude: 32.735933 deg N
Longitude: 104.35099 deg W
API Number: 30-015-440858
Logging Engineer: M. Preston/Leonid Grachev
Processed By: Elizabeth Rosborough
Service Order Number: CSJ2-00019
Job Number: DSP-2014-03031
Date Logged: 29-Jan-2014
Date Processed: 30-Jan-2014

Bottom Hole Location:

Measured Depth	True Vertical Depth	North/South Drift	East/West Drift	Closure Distance	Closure Direction
Ft	Ft	Ft	Ft	Ft	Deg
4013.00	4012.57	15.55	-45.89	48.45	288.72

Schlumberger

GEOFRAME PROCESSED INTERPRETATION

Certified Directional Survey

0' MD - 4013' MD

*A Mark of Schlumberger

Using the following logs: GPIT-F

COMPANY: Oxy USA Inc.
WELL: Rogers "23" Fee 4
FIELD: Yeso
County: Eddy
State: New Mexico
COUNTRY: USA
Date Logged: 29-Jan-2014 Date Processed: 30-Jan-2014
Well Location: 1650' FNL & 2310' FEL

Elevations: KB: 3328.4ft DF: 3327.4ft GL: 3314.4ft
API Number: 30-015-40858 Job Number: DSP-2014-03031

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The well name, location and borehole reference data were furnished by the customer.

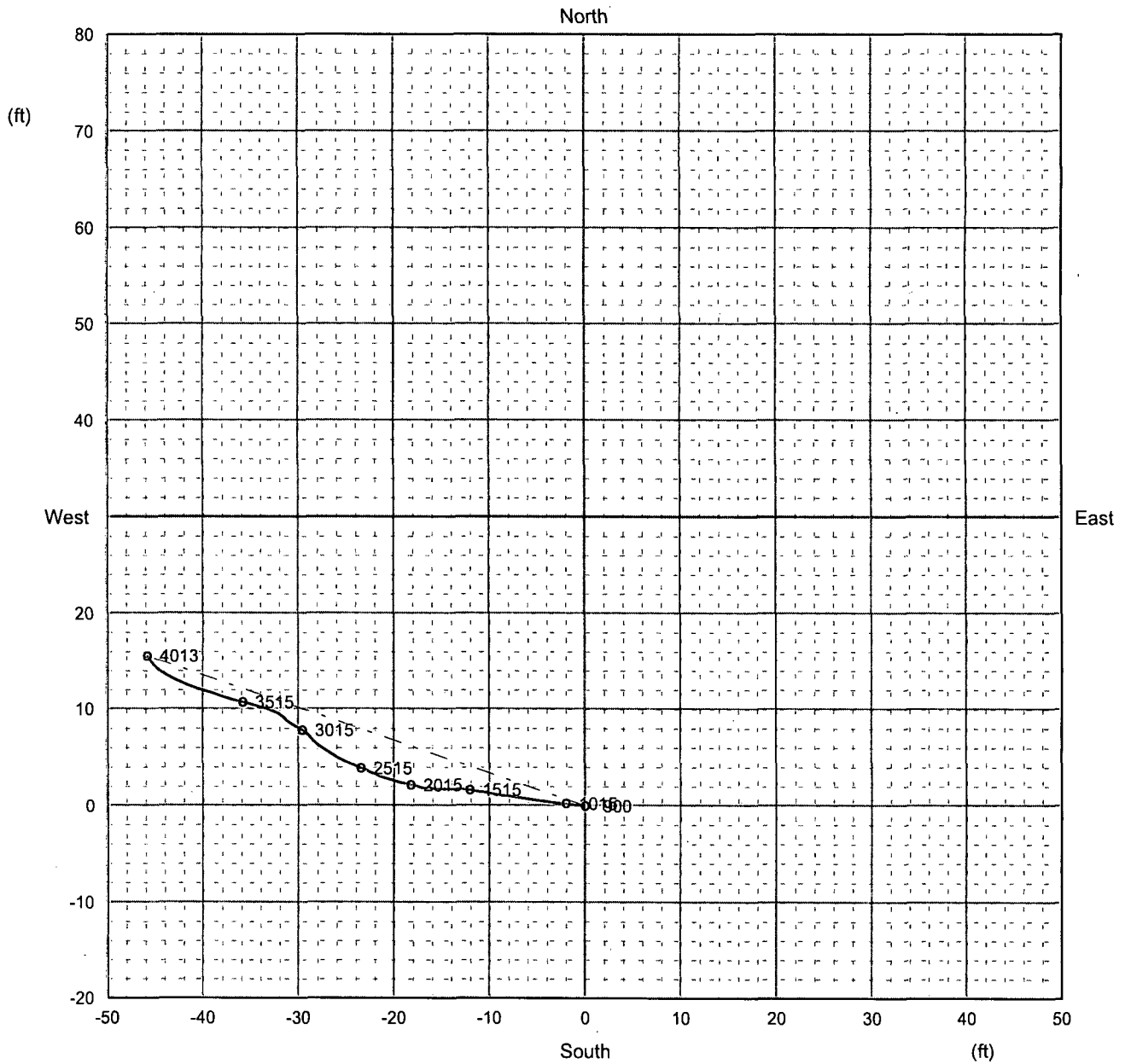
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretations made by any of our officers, agents or employees. These interpretations are also subject to Clause 4 of our General Terms and Conditions as set out in our current Price Schedule.

Field Recording:	Location: Roswell	Software Version: 20C0-999	Engineer: Mark Preston/Leonid G
Office Recording:	ICS Center: Houston	Baseline:	Log Analyst: E. Rosborough
Mud and Borehole Measurements:			
Rm @ Measured Temperature: 0.067ohm.m @ 64degF	BHT:	95degF	Bitsize: 7.875in
Rmf @ Measured Temperature: 0.06ohm.m @ 64degF	Type Fluid in Hole:		Salt Brine
Rmc @ Measured Temperature: 0.09ohm.m @ 64degF	Mud Density:	9.4lbm/gal	

Remarks:

0' MD - 900' MD in Casing...Assumed Vertical
GPIT Data Good at 965' MD
Grid Convergence Angle = 0.351 deg

Rogers "23" Fee 4



Projection on Horizontal Plane

Horizontal scale 1 in : 16 ft

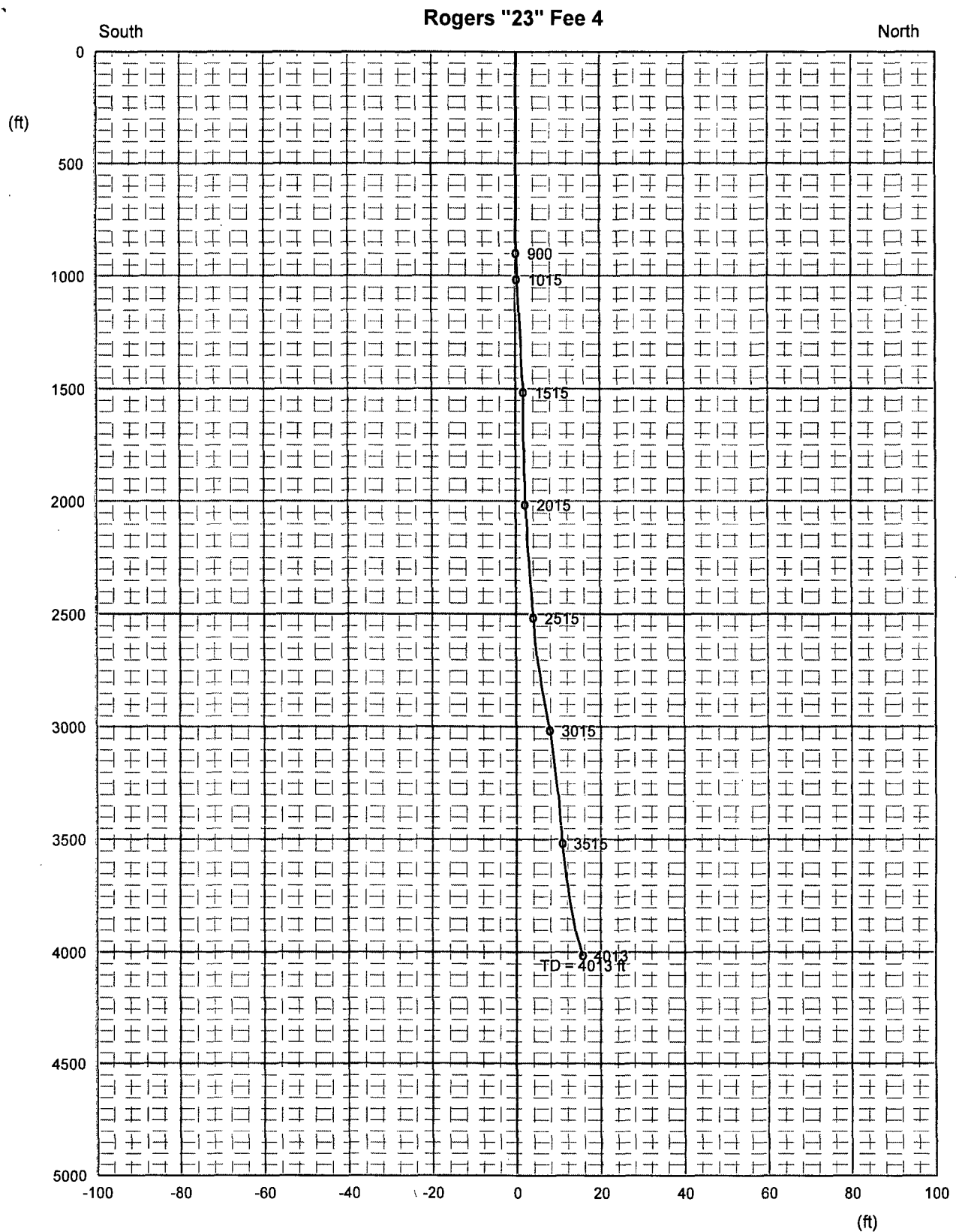
Minimum Curvature Method

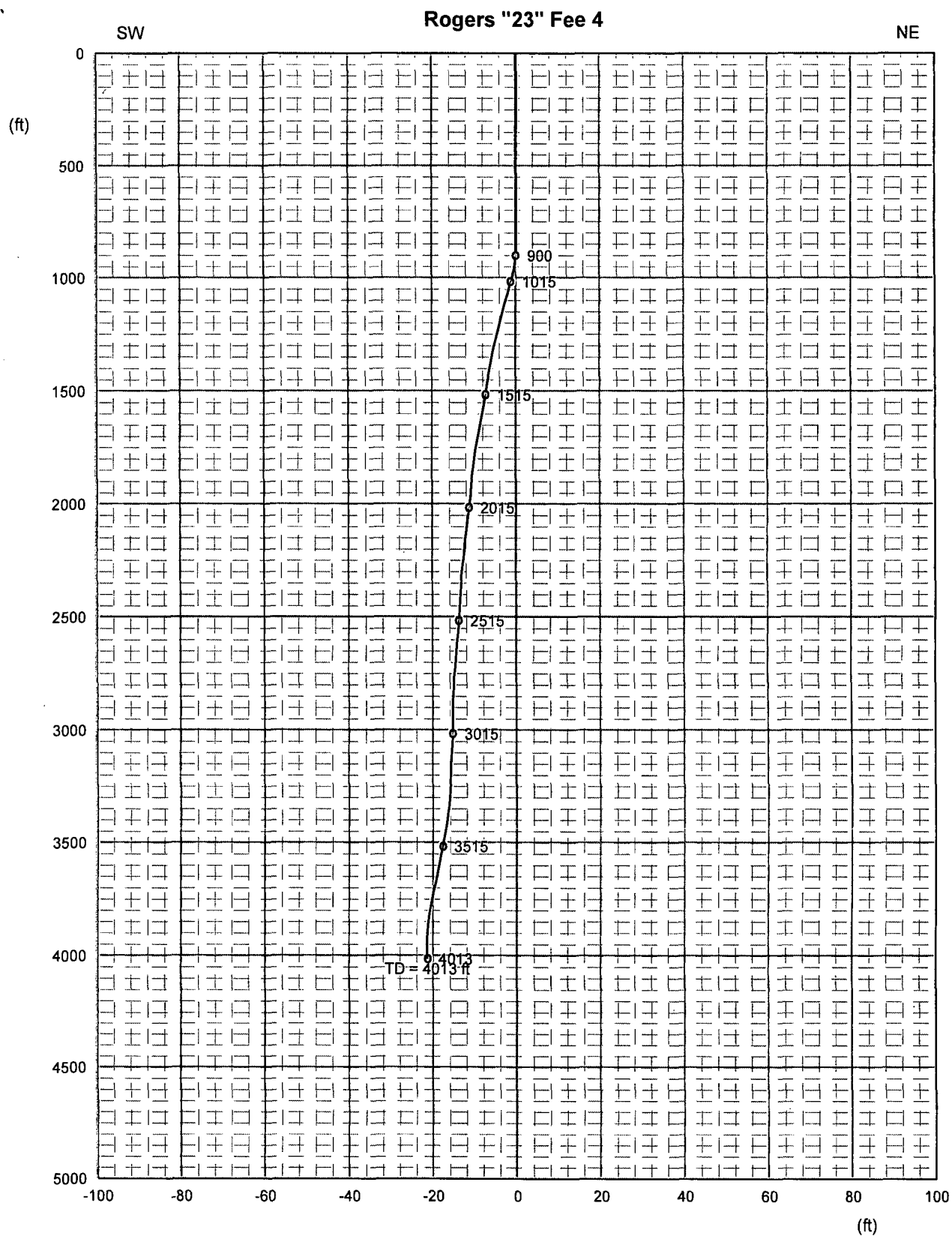
Tie In Location

Measured Depth	900.00	ft
True Vertical Depth	900.00	ft
Distance North	0.00	ft
Distance East	0.00	ft

Bottom Hole Location

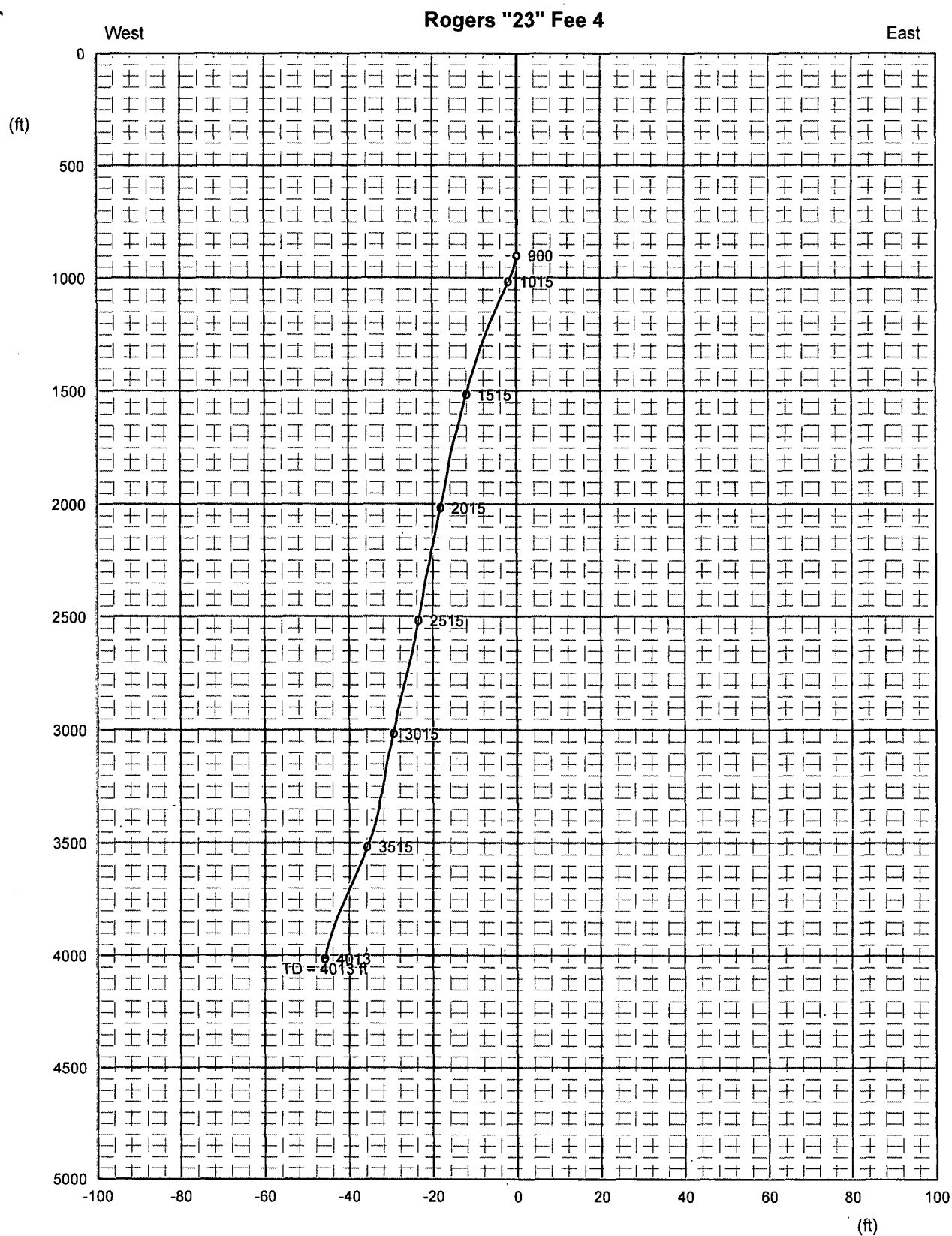
Measured Depth	4013.00	ft
True Vertical Depth	4012.57	ft
Distance North	15.55	ft
Distance East	-45.89	ft
Closure Distance	48.45	ft
Closure Direction	288.72	deg





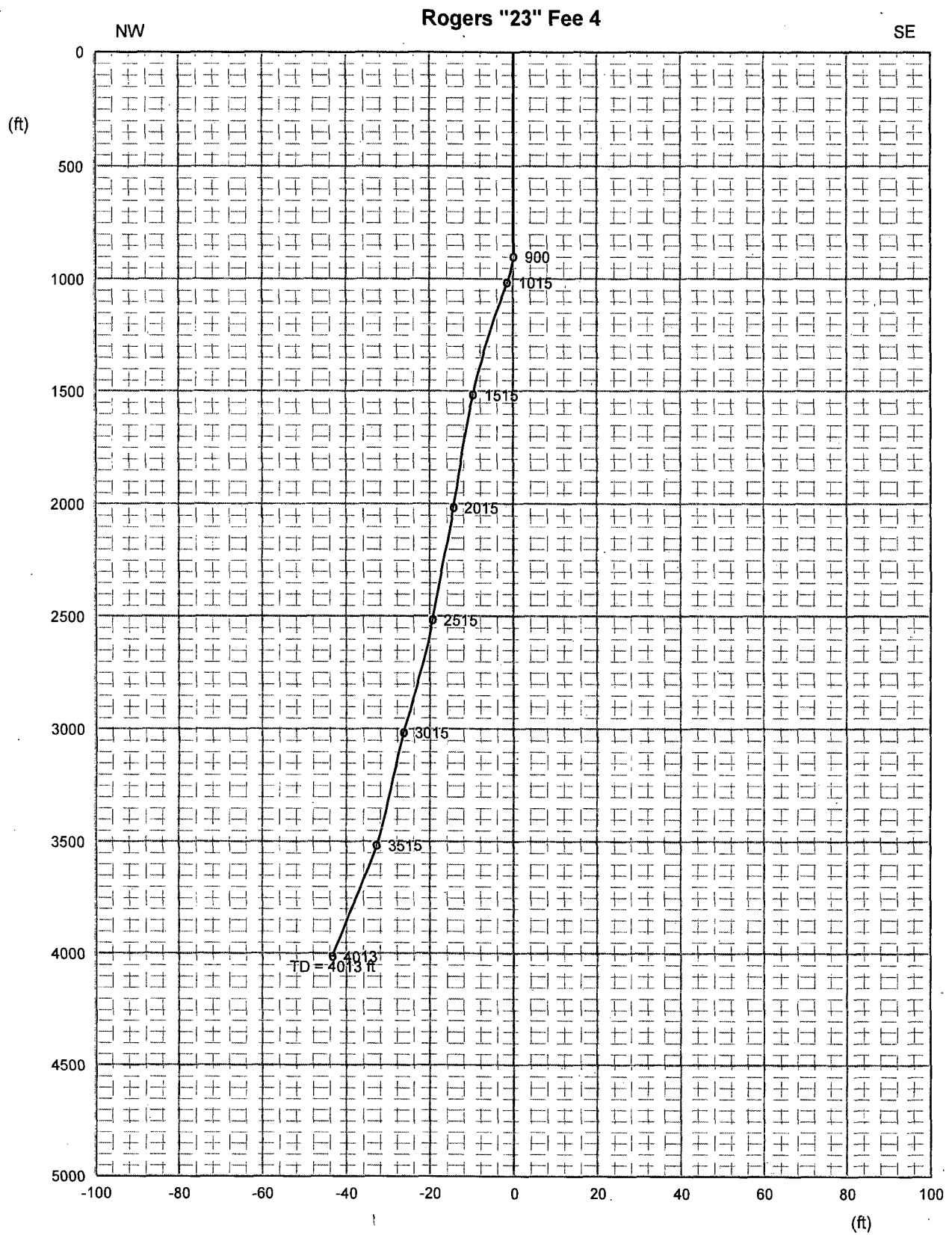
Projection on Vertical Plane

Vertical scale 1 in : 625 , Horizontal scale 1 in : 33 ft



Projection on Vertical Plane

Vertical scale 1 in : 625 , Horizontal scale 1 in : 33 ft



Projection on Vertical Plane

Vertical scale 1 in : 625 , Horizontal scale 1 in : 33 ft

MD (ft)	TVD (ft)	DEVI (deg)	AZIM (deg)	DX (ft)	DY (ft)
0.00	0.00	0.00	0.00	0.00	0.00
900.00	900.00	0.00	0.00	0.00	0.00
965.00	964.99	1.44	276.19	-0.81	0.09
1015.00	1014.98	1.37	274.84	-2.03	0.21
1065.00	1064.96	1.40	276.30	-3.23	0.32
1115.00	1114.95	1.37	277.94	-4.43	0.47
1165.00	1164.93	1.37	278.73	-5.62	0.65
1215.00	1214.92	1.27	278.45	-6.76	0.82
1265.00	1264.91	1.15	278.13	-7.80	0.97
1315.00	1314.90	1.11	278.18	-8.78	1.11
1365.00	1364.89	0.99	278.83	-9.68	1.25
1415.00	1414.88	0.95	279.56	-10.52	1.38
1465.00	1464.88	0.92	280.61	-11.33	1.53
1515.00	1514.87	0.90	278.92	-12.11	1.66
1565.00	1564.87	0.81	273.27	-12.85	1.74
1615.00	1614.86	0.78	267.37	-13.54	1.75
1665.00	1664.86	0.83	270.46	-14.25	1.73
1715.00	1714.85	0.76	271.68	-14.95	1.75
1765.00	1764.85	0.70	276.17	-15.59	1.79
1815.00	1814.84	0.63	271.79	-16.17	1.83
1865.00	1864.84	0.62	276.72	-16.71	1.87
1915.00	1914.84	0.58	282.24	-17.23	1.96
1965.00	1964.84	0.61	282.80	-17.73	2.07
2015.00	2014.83	0.62	281.33	-18.26	2.18
2065.00	2064.83	0.64	282.93	-18.79	2.29
2115.00	2114.83	0.65	283.61	-19.34	2.42
2165.00	2164.82	0.70	284.80	-19.91	2.57
2215.00	2214.82	0.71	288.03	-20.50	2.74
2265.00	2264.82	0.67	286.59	-21.07	2.92
2315.00	2314.81	0.62	290.38	-21.61	3.10
2365.00	2364.81	0.60	294.12	-22.10	3.30
2415.00	2414.81	0.57	294.41	-22.57	3.51
2465.00	2464.80	0.62	294.60	-23.04	3.72
2515.00	2514.80	0.61	291.70	-23.53	3.93
2565.00	2564.80	0.69	292.68	-24.06	4.15
2615.00	2614.79	0.74	293.32	-24.63	4.39
2665.00	2664.79	0.82	296.90	-25.25	4.68
2715.00	2714.78	0.86	300.79	-25.89	5.04
2765.00	2764.78	0.91	301.78	-26.55	5.44
2815.00	2814.77	0.92	301.08	-27.23	5.86
2865.00	2864.77	0.88	305.10	-27.89	6.28
2915.00	2914.76	0.86	314.54	-28.47	6.77
2965.00	2964.75	0.89	315.78	-29.01	7.31
3015.00	3014.75	0.88	304.00	-29.60	7.81