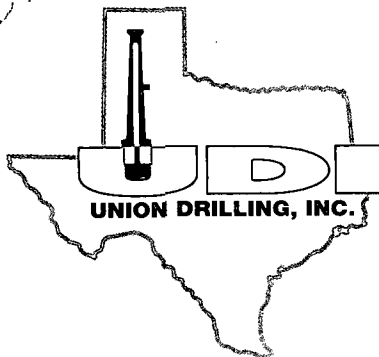


Well Name & Number: Bolivar "BRD" Federal Com #1H

API Number: 30-015-40742

Location: 1980 FSL & 330 FEL, Lot I, Sec. 33, Township 24S, Range 27E, Eddy County, New Mexico

Operator: Yates Petroleum Corporation

Drilling Contractor: Union Drilling, Inc.

The undersigned hereby certifies that he is an authorized representative of the drilling Contractor who drilled the above described well and that deviation survey tests were conducted and he obtained the following results:

RECORD OF INCLINATION

*11. Measured Depth (feet)	12. Course Length (Hundreds of feet)	*13. Angle of Inclination (Degrees)	14. Displacement per Hundred Feet (Sine of Angle X100)	15. Course Displacement (feet)	16. Accumulative Displacement (feet)
444	444	.7	1.22	5.42	5.42
1259	815	.4	0.70	5.69	11.11
2209	950	2.4	4.19	39.79	50.90
3167	958	.2	0.35	3.34	54.25
4117	950	.4	0.70	6.63	60.88
5066	949	1.1	1.92	18.22	79.10
6015	949	1.8	3.14	29.81	108.91
6775	760	.5	0.87	6.63	115.54
7147	372	6.2	10.82	40.23	155.78
DIRECTIONAL					
TOOK OVER					

Drilling Contractor: Union Drilling, Inc.

By:

Jackie Loveless

Title: Operations Manager

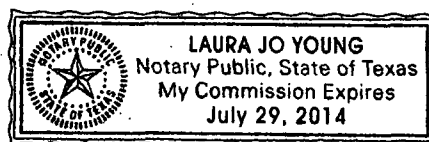
Subscribed and sworn to before me this 9th Day of April, 2013.

Laura Jo Young
Notary Public

My Commission Expires: July 29, 2014

COUNTY OF TAYLOR)

STATE OF TEXAS)





Job Number: SVMO-130156
 Company: Yates Petroleum Corporation
 Lease/Well: BOLIVAR BRD FEDERAL COM 1H
 Location: Eddy County, NM
 Rig Name: Sidewinder #223
 RKB: 25'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.60°
 Grid: East To Grid North
 File name: F:\SURVEY\2013SU~1\YATES\MO\BOLIVA~1\1H.SVY
 Date/Time: 18-Mar-13 / 15:31
 Curve Name: Surface - 346' M.D. (Rate Gyro)



WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane .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		Dogleg Severity Deg/100
							Distance FT	Direction Deg	
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.41	48.70	100.00	.24	.27	.24	.36	48.70	.41
200.00	.60	55.58	200.00	.77	.97	.77	1.24	51.61	.20
300.00	.59	70.26	299.99	1.24	1.89	1.24	2.26	56.72	.15
Last Survey Depth Recorded									
346.00	.45	96.34	345.99	1.30	2.29	1.30	2.63	60.44	.59

Yates Petroleum

Eddy, NM (NAD-83)
Bolivar BRD Federal Com
#1H

OH

Design: OH

Survey Report - Geographic

01 April, 2013



Survey Report - Geographic



Company:	Yates Petroleum	Local Co-ordinate Reference:	Well #1H
Project:	Eddy, NM (NAD-83)	TVD Reference:	WELL @ 3278.0usft (Sidewinder #223 - 25' KB)
Site:	Bolivar BRD Federal Com	MD Reference:	WELL @ 3278.0usft (Sidewinder #223 - 25' KB)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Houston R5000 Database

Project	Eddy, NM (NAD-83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Bolivar BRD Federal Com		
Site Position:		Northing:	426,286.16 usft
From:	Map	Easting:	586,302.89 usft
Position Uncertainty:	2.0 usft	Slot Radius:	8-3/4 "
		Latitude:	32° 10' 18.679 N
		Longitude:	104° 11' 16.823 W
		Grid Convergence:	0.08 °

Well	#1H		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 10' 18.679 N
		Longitude:	104° 11' 16.823 W
		Ground Level:	3,253.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	2/22/2013	7.66
			Dip Angle
			(°)
			Field Strength
			(nT)
			59.99
			48,349

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			269.85

Survey Program	Date	4/1/2013		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
100.0	346.0	Survey #1 - MS Gyro1 (OH)	CB-GYRO-MS	Camera based gyro multishot
444.0	12,002.0	Survey #2 - Crescent1 (OH)	MWD	MWD - Standard
12,063.0	12,063.0	Survey #3 - PTB (OH)	BLIND	Blind drilling, where no tool is applied

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map		
Depth	(°)	(°)	Depth	(usft)	(usft)	Northing	Easting	Latitude	Longitude
(usft)			(usft)			(usft)	(usft)		
0.0	0.00	0.00	0.0	0.0	0.0	426,286.16	586,302.89	32° 10' 18.679 N	104° 11' 16.823 W
100.0	0.41	48.70	100.0	0.2	0.3	426,286.40	586,303.16	32° 10' 18.681 N	104° 11' 16.820 W
200.0	0.60	55.58	200.0	0.8	1.0	426,286.93	586,303.86	32° 10' 18.686 N	104° 11' 16.812 W
300.0	0.59	70.26	300.0	1.2	1.9	426,287.40	586,304.78	32° 10' 18.691 N	104° 11' 16.801 W
346.0	0.45	96.34	346.0	1.3	2.3	426,287.46	586,305.18	32° 10' 18.691 N	104° 11' 16.797 W
444.0	0.70	115.50	444.0	1.0	3.2	426,287.16	586,306.10	32° 10' 18.688 N	104° 11' 16.786 W
596.0	0.50	136.90	596.0	0.1	4.5	426,286.28	586,307.40	32° 10' 18.680 N	104° 11' 16.771 W
686.0	0.50	119.00	686.0	-0.4	5.1	426,285.80	586,308.01	32° 10' 18.675 N	104° 11' 16.764 W
879.0	0.50	135.20	879.0	-1.4	6.4	426,284.79	586,309.34	32° 10' 18.665 N	104° 11' 16.748 W
1,069.0	0.20	107.10	1,069.0	-2.1	7.3	426,284.11	586,310.24	32° 10' 18.658 N	104° 11' 16.738 W

Survey Report - Geographic



Company:	Yates Petroleum	Local Co-ordinate Reference:	Well #1H
Project:	Eddy NM (NAD-83)	TVD Reference:	WELL @ 3278.0usft (Sidewinder #223 - 25' KB)
Site:	Bolivar BRD Federal Com	MD Reference:	WELL @ 3278.0usft (Sidewinder #223 - 25' KB)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Houston R5000 Database

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
1,259.0	0.40	335.10	1,259.0	-1.6	7.4	426,284.61	586,310.28	32° 10' 18.663 N	104° 11' 16.737 W
1,449.0	0.50	348.00	1,449.0	-0.1	6.9	426,286.03	586,309.82	32° 10' 18.677 N	104° 11' 16.743 W
1,639.0	2.00	80.00	1,638.9	1.2	10.0	426,287.41	586,312.92	32° 10' 18.691 N	104° 11' 16.707 W
1,829.0	3.40	79.40	1,828.7	2.9	18.8	426,289.02	586,321.72	32° 10' 18.707 N	104° 11' 16.604 W
1,924.0	3.80	83.80	1,923.5	3.7	24.7	426,289.88	586,327.62	32° 10' 18.715 N	104° 11' 16.535 W
2,019.0	4.00	89.10	2,018.3	4.1	31.2	426,290.27	586,334.06	32° 10' 18.719 N	104° 11' 16.461 W
2,114.0	3.30	84.70	2,113.1	4.4	37.2	426,290.58	586,340.10	32° 10' 18.722 N	104° 11' 16.390 W
2,209.0	2.40	86.90	2,208.0	4.8	41.9	426,290.94	586,344.81	32° 10' 18.725 N	104° 11' 16.335 W
2,304.0	1.80	87.50	2,302.9	4.9	45.4	426,291.11	586,348.28	32° 10' 18.727 N	104° 11' 16.295 W
2,323.0	1.70	92.40	2,321.9	4.9	46.0	426,291.11	586,348.86	32° 10' 18.727 N	104° 11' 16.288 W
2,407.0	1.80	99.30	2,405.9	4.7	48.5	426,290.85	586,351.41	32° 10' 18.724 N	104° 11' 16.259 W
2,597.0	1.80	104.60	2,595.8	3.4	54.3	426,289.61	586,357.24	32° 10' 18.712 N	104° 11' 16.191 W
2,787.0	1.20	106.40	2,785.7	2.1	59.1	426,288.30	586,362.04	32° 10' 18.699 N	104° 11' 16.135 W
2,977.0	0.40	97.90	2,975.7	1.5	61.7	426,287.65	586,364.60	32° 10' 18.692 N	104° 11' 16.105 W
3,167.0	0.20	48.40	3,165.7	1.6	62.6	426,287.78	586,365.51	32° 10' 18.694 N	104° 11' 16.095 W
3,357.0	0.00	20.20	3,355.7	1.8	62.9	426,288.00	586,365.76	32° 10' 18.696 N	104° 11' 16.092 W
3,547.0	0.20	87.40	3,545.7	1.8	63.2	426,288.01	586,366.09	32° 10' 18.696 N	104° 11' 16.088 W
3,737.0	0.50	279.00	3,735.7	2.0	62.7	426,288.16	586,365.60	32° 10' 18.697 N	104° 11' 16.094 W
3,927.0	0.40	260.00	3,925.7	2.0	61.2	426,288.17	586,364.13	32° 10' 18.698 N	104° 11' 16.111 W
4,117.0	0.40	260.40	4,115.7	1.8	59.9	426,287.94	586,362.82	32° 10' 18.695 N	104° 11' 16.126 W
4,306.0	0.70	237.20	4,304.7	1.0	58.3	426,287.21	586,361.20	32° 10' 18.688 N	104° 11' 16.145 W
4,496.0	0.70	238.60	4,494.6	-0.2	56.3	426,285.98	586,359.23	32° 10' 18.676 N	104° 11' 16.168 W
4,686.0	0.90	234.90	4,684.6	-1.7	54.1	426,284.51	586,357.02	32° 10' 18.662 N	104° 11' 16.193 W
4,876.0	0.70	231.30	4,874.6	-3.2	52.0	426,282.93	586,354.90	32° 10' 18.646 N	104° 11' 16.218 W
5,066.0	1.10	222.60	5,064.6	-5.3	49.9	426,280.86	586,352.76	32° 10' 18.625 N	104° 11' 16.243 W
5,255.0	1.10	225.50	5,253.6	-7.9	47.3	426,278.25	586,350.23	32° 10' 18.600 N	104° 11' 16.273 W
5,446.0	1.20	221.20	5,444.5	-10.7	44.7	426,275.46	586,347.61	32° 10' 18.572 N	104° 11' 16.303 W
5,636.0	1.60	214.50	5,634.5	-14.4	41.9	426,271.78	586,344.80	32° 10' 18.536 N	104° 11' 16.336 W
5,825.0	0.90	199.90	5,823.4	-18.0	39.9	426,268.21	586,342.80	32° 10' 18.500 N	104° 11' 16.359 W
6,015.0	1.80	174.60	6,013.4	-22.3	39.7	426,263.84	586,342.57	32° 10' 18.457 N	104° 11' 16.362 W
6,205.0	3.00	204.80	6,203.2	-29.8	37.9	426,256.35	586,340.77	32° 10' 18.383 N	104° 11' 16.383 W
6,300.0	3.20	217.10	6,298.1	-34.2	35.2	426,251.98	586,338.12	32° 10' 18.340 N	104° 11' 16.414 W
6,395.0	2.50	224.30	6,392.9	-37.8	32.2	426,248.38	586,335.08	32° 10' 18.304 N	104° 11' 16.449 W
6,490.0	1.80	242.20	6,487.9	-40.0	29.4	426,246.20	586,332.31	32° 10' 18.283 N	104° 11' 16.482 W
6,585.0	0.70	296.20	6,582.9	-40.4	27.6	426,245.76	586,330.47	32° 10' 18.278 N	104° 11' 16.503 W
6,680.0	0.70	333.30	6,677.8	-39.6	26.8	426,246.54	586,329.69	32° 10' 18.286 N	104° 11' 16.512 W
6,775.0	0.50	323.30	6,772.8	-38.8	26.3	426,247.39	586,329.18	32° 10' 18.295 N	104° 11' 16.518 W
6,870.0	0.70	281.60	6,867.8	-38.3	25.5	426,247.84	586,328.36	32° 10' 18.299 N	104° 11' 16.527 W
7,060.0	1.60	268.30	7,057.8	-38.2	21.7	426,247.99	586,324.57	32° 10' 18.301 N	104° 11' 16.572 W
7,083.0	1.80	268.40	7,080.8	-38.2	21.0	426,247.97	586,323.89	32° 10' 18.300 N	104° 11' 16.579 W
KOP - 7083.0' MD, 7080.8' TVD, -20.9' VS									
7,115.0	2.60	266.20	7,112.8	-38.3	19.8	426,247.91	586,322.67	32° 10' 18.300 N	104° 11' 16.594 W
7,147.0	6.20	267.40	7,144.7	-38.4	17.3	426,247.79	586,320.21	32° 10' 18.299 N	104° 11' 16.622 W
7,178.0	9.90	269.00	7,175.4	-38.5	13.0	426,247.66	586,315.88	32° 10' 18.297 N	104° 11' 16.673 W
7,210.0	13.20	270.20	7,206.7	-38.5	6.6	426,247.63	586,309.47	32° 10' 18.297 N	104° 11' 16.747 W
7,236.6	15.94	271.40	7,232.4	-38.4	-0.1	426,247.73	586,302.78	32° 10' 18.298 N	104° 11' 16.825 W
Cross into 330' Lease - 7236.6' MD, 7232.4' TVD, 15.94' INC, 0.2' VS									
7,242.0	16.50	271.60	7,237.6	-38.4	-1.6	426,247.77	586,301.27	32° 10' 18.299 N	104° 11' 16.843 W
7,273.0	19.90	271.80	7,267.1	-38.1	-11.3	426,248.06	586,291.60	32° 10' 18.302 N	104° 11' 16.955 W
7,305.0	23.60	271.40	7,296.8	-37.8	-23.1	426,248.38	586,279.74	32° 10' 18.305 N	104° 11' 17.093 W
7,337.0	27.30	271.30	7,325.7	-37.5	-36.9	426,248.71	586,266.00	32° 10' 18.308 N	104° 11' 17.253 W
7,368.0	31.70	271.60	7,352.7	-37.1	-52.2	426,249.10	586,250.74	32° 10' 18.312 N	104° 11' 17.431 W
7,400.0	36.20	271.80	7,379.2	-36.5	-70.0	426,249.63	586,232.88	32° 10' 18.318 N	104° 11' 17.638 W
7,432.0	39.20	272.30	7,404.5	-35.8	-89.6	426,250.33	586,213.33	32° 10' 18.325 N	104° 11' 17.866 W
7,463.0	42.10	272.80	7,428.0	-34.9	-109.7	426,251.23	586,193.16	32° 10' 18.334 N	104° 11' 18.101 W

Survey Report - Geographic



Company:	Yates Petroleum	Local Co-ordinate Reference:	Well #1H
Project:	Eddy NM (NAD-83)	TVD Reference:	WELL @ 3278.0usft (Sidewinder #223 -25' KB)
Site:	Bolivar BRD Federal Com	MD Reference:	WELL @ 3278.0usft (Sidewinder #223 -25' KB)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Houston R5000 Database

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
7,495.0	44.00	273.40	7,451.4	-33.7	-131.5	426,252.41	586,171.35	32° 10' 18.346 N	104° 11' 18.354 W
7,527.0	47.00	272.70	7,473.8	-32.5	-154.3	426,253.63	586,148.56	32° 10' 18.359 N	104° 11' 18.619 W
7,558.0	50.90	271.40	7,494.2	-31.7	-177.7	426,254.45	586,125.20	32° 10' 18.367 N	104° 11' 18.891 W
7,590.0	53.80	269.80	7,513.7	-31.5	-203.0	426,254.71	586,099.87	32° 10' 18.370 N	104° 11' 19.186 W
7,621.0	56.50	269.30	7,531.4	-31.7	-228.5	426,254.51	586,074.43	32° 10' 18.368 N	104° 11' 19.482 W
7,653.0	59.80	269.70	7,548.3	-31.9	-255.6	426,254.27	586,047.26	32° 10' 18.366 N	104° 11' 19.798 W
7,685.0	63.30	270.20	7,563.6	-31.9	-283.8	426,254.25	586,019.12	32° 10' 18.367 N	104° 11' 20.125 W
7,716.0	66.00	270.70	7,576.8	-31.7	-311.8	426,254.47	585,991.11	32° 10' 18.369 N	104° 11' 20.451 W
7,748.0	69.00	271.30	7,589.1	-31.2	-341.3	426,254.99	585,961.56	32° 10' 18.375 N	104° 11' 20.795 W
7,780.0	71.80	271.60	7,599.8	-30.4	-371.5	426,255.75	585,931.42	32° 10' 18.383 N	104° 11' 21.146 W
7,811.0	74.40	272.00	7,608.8	-29.5	-401.1	426,256.69	585,901.78	32° 10' 18.392 N	104° 11' 21.491 W
7,843.0	78.10	272.00	7,616.4	-28.4	-432.2	426,257.77	585,870.72	32° 10' 18.403 N	104° 11' 21.852 W
7,875.0	80.90	271.30	7,622.3	-27.5	-463.6	426,258.68	585,839.27	32° 10' 18.413 N	104° 11' 22.218 W
7,906.0	84.10	271.10	7,626.3	-26.8	-494.3	426,259.32	585,808.55	32° 10' 18.420 N	104° 11' 22.575 W
7,944.0	89.60	269.80	7,628.4	-26.5	-532.3	426,259.62	585,770.62	32° 10' 18.423 N	104° 11' 23.017 W
8,039.0	91.00	270.40	7,627.9	-26.4	-627.3	426,259.78	585,675.63	32° 10' 18.426 N	104° 11' 24.122 W
EOC: 8039.0' MD: 7627.9' TVD: 91.00' INC: 627.3' VS:									
8,133.0	89.60	270.00	7,627.4	-26.1	-721.3	426,260.11	585,581.63	32° 10' 18.430 N	104° 11' 25.216 W
8,228.0	90.10	270.50	7,627.7	-25.6	-816.3	426,260.52	585,486.63	32° 10' 18.436 N	104° 11' 26.321 W
8,323.0	90.60	270.50	7,627.1	-24.8	-911.3	426,261.35	585,391.64	32° 10' 18.445 N	104° 11' 27.426 W
8,418.0	89.90	271.10	7,626.7	-23.5	-1,006.2	426,262.68	585,296.65	32° 10' 18.459 N	104° 11' 28.531 W
8,513.0	89.60	271.60	7,627.1	-21.2	-1,101.2	426,264.92	585,201.68	32° 10' 18.483 N	104° 11' 29.636 W
8,608.0	89.60	271.30	7,627.7	-18.8	-1,196.2	426,267.32	585,106.71	32° 10' 18.508 N	104° 11' 30.741 W
8,703.0	89.60	271.60	7,628.4	-16.4	-1,291.1	426,269.73	585,011.74	32° 10' 18.533 N	104° 11' 31.846 W
8,798.0	89.40	272.10	7,629.2	-13.4	-1,386.1	426,272.79	584,916.80	32° 10' 18.565 N	104° 11' 32.951 W
8,893.0	89.20	271.10	7,630.4	-10.7	-1,481.0	426,275.45	584,821.84	32° 10' 18.592 N	104° 11' 34.056 W
8,988.0	89.40	271.40	7,631.6	-8.6	-1,576.0	426,277.52	584,726.87	32° 10' 18.614 N	104° 11' 35.160 W
9,083.0	89.40	270.90	7,632.6	-6.7	-1,671.0	426,279.42	584,631.90	32° 10' 18.634 N	104° 11' 36.265 W
9,178.0	89.60	270.90	7,633.4	-5.2	-1,766.0	426,280.92	584,536.91	32° 10' 18.650 N	104° 11' 37.371 W
9,273.0	89.20	271.30	7,634.4	-3.4	-1,861.0	426,282.74	584,441.94	32° 10' 18.669 N	104° 11' 38.476 W
9,368.0	89.00	270.70	7,635.9	-1.8	-1,955.9	426,284.40	584,346.96	32° 10' 18.687 N	104° 11' 39.581 W
9,463.0	89.60	271.10	7,637.0	-0.3	-2,050.9	426,285.89	584,251.98	32° 10' 18.703 N	104° 11' 40.686 W
9,558.0	89.60	270.20	7,637.7	0.8	-2,145.9	426,286.97	584,156.99	32° 10' 18.715 N	104° 11' 41.791 W
9,653.0	90.80	270.70	7,637.4	1.5	-2,240.9	426,287.71	584,062.00	32° 10' 18.723 N	104° 11' 42.896 W
9,748.0	91.30	270.50	7,635.6	2.5	-2,335.9	426,288.71	583,967.02	32° 10' 18.734 N	104° 11' 44.001 W
9,843.0	91.70	271.30	7,633.1	4.0	-2,430.8	426,290.20	583,872.06	32° 10' 18.750 N	104° 11' 45.106 W
9,938.0	91.30	270.70	7,630.6	5.7	-2,525.8	426,291.86	583,777.11	32° 10' 18.768 N	104° 11' 46.211 W
10,033.0	90.80	269.70	7,628.9	6.0	-2,620.8	426,292.19	583,682.13	32° 10' 18.772 N	104° 11' 47.316 W
10,128.0	93.30	270.90	7,625.5	6.5	-2,715.7	426,292.68	583,587.20	32° 10' 18.778 N	104° 11' 48.420 W
10,223.0	92.40	269.50	7,620.8	6.9	-2,810.6	426,293.02	583,492.32	32° 10' 18.783 N	104° 11' 49.524 W
10,318.0	91.30	269.30	7,617.7	5.9	-2,905.5	426,292.02	583,397.38	32° 10' 18.774 N	104° 11' 50.629 W
10,413.0	93.30	268.60	7,613.9	4.1	-3,000.4	426,290.28	583,302.48	32° 10' 18.758 N	104° 11' 51.733 W
10,508.0	94.10	269.10	7,607.8	2.2	-3,095.2	426,288.38	583,207.69	32° 10' 18.740 N	104° 11' 52.836 W
10,603.0	91.80	267.70	7,602.9	-0.4	-3,190.0	426,285.73	583,112.87	32° 10' 18.715 N	104° 11' 53.939 W
10,698.0	92.40	268.30	7,599.4	-3.7	-3,284.9	426,282.42	583,017.99	32° 10' 18.684 N	104° 11' 55.043 W
10,793.0	92.90	268.80	7,595.0	-6.1	-3,379.8	426,280.01	582,923.12	32° 10' 18.661 N	104° 11' 56.147 W
10,888.0	92.00	269.30	7,590.9	-7.7	-3,474.7	426,278.44	582,828.22	32° 10' 18.647 N	104° 11' 57.251 W
10,983.0	94.70	270.00	7,585.4	-8.3	-3,569.5	426,277.86	582,733.40	32° 10' 18.642 N	104° 11' 58.355 W
11,078.0	94.00	269.00	7,578.2	-9.1	-3,664.2	426,277.03	582,638.68	32° 10' 18.635 N	104° 11' 59.457 W
11,173.0	94.10	270.20	7,571.5	-9.8	-3,759.0	426,276.37	582,543.92	32° 10' 18.630 N	104° 12' 0.559 W
11,268.0	92.00	270.70	7,566.4	-9.0	-3,853.8	426,277.12	582,449.06	32° 10' 18.638 N	104° 12' 1.663 W
11,363.0	90.80	270.20	7,564.1	-8.3	-3,948.8	426,277.86	582,354.09	32° 10' 18.647 N	104° 12' 2.768 W
11,458.0	90.30	269.00	7,563.2	-9.0	-4,043.8	426,277.20	582,259.10	32° 10' 18.641 N	104° 12' 3.873 W
11,553.0	89.60	268.60	7,563.3	-11.0	-4,138.8	426,275.21	582,164.12	32° 10' 18.623 N	104° 12' 4.978 W
11,648.0	88.70	267.70	7,564.7	-14.0	-4,233.7	426,272.14	582,069.19	32° 10' 18.594 N	104° 12' 6.083 W

Survey Report - Geographic



Company:	Yates Petroleum	Local Co-ordinate Reference:	Well #1H
Project:	Eddy, NM (NAD-83)	TVD Reference:	WELL @ 3278.0usft (Sidewinder.#223 - 25'KB)
Site:	Bolivar BRD Federal Com.	MD Reference:	WELL @ 3278.0usft (Sidewinder.#223 - 25'KB)
Well:	#1H	North Reference:	Grid
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Houston R5000 Database

Survey										
Measured			Vertical			Map	Map			
Depth	Inclination	Azimuth	Depth	+N/-S	+E/-W	Northing	Easting		Latitude	Longitude
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
11,742.0	90.80	269.00	7,565.1	-16.7	-4,327.7	426,269.44	581,975.23		32° 10' 18.568 N	104° 12' 7.176 W
11,837.0	91.00	269.00	7,563.6	-18.4	-4,422.6	426,267.78	581,880.26		32° 10' 18.553 N	104° 12' 8.281 W
11,932.0	91.30	268.60	7,561.7	-20.4	-4,517.6	426,265.79	581,785.30		32° 10' 18.534 N	104° 12' 9.386 W
12,002.0	91.00	268.60	7,560.3	-22.1	-4,587.6	426,264.08	581,715.33		32° 10' 18.518 N	104° 12' 10.200 W
12,063.0	91.00	268.60	7,559.2	-23.6	-4,648.5	426,262.59	581,654.36		32° 10' 18.504 N	104° 12' 10.910 W
BHL - 12063.0' MD, 7559.2' TVD, 91.00° INC, 268.60° AZI, -23.6° N, -4648.5' E, 4648.6' VS										

Design Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
7,083.0	7,080.8	-38.2	21.0	KOP - 7083.0' MD, 7080.8' TVD, -20.9° VS	
7,236.6	7,232.4	-38.4	-0.1	Cross into 330' Lease - 7236.6' MD, 7232.4' TVD, 15.94° INC, 0.2° VS	
8,039.0	7,627.9	-26.4	-627.3	EOC - 8039.0' MD, 7627.9' TVD, 91.00° INC, 627.3° VS	
12,063.0	7,559.2	-23.6	-4,648.5	BHL - 12063.0' MD, 7559.2' TVD, 91.00° INC, 268.60° AZI, -23.6° N, -4648.5' E,	

Checked By: _____ Approved By: _____ Date: _____