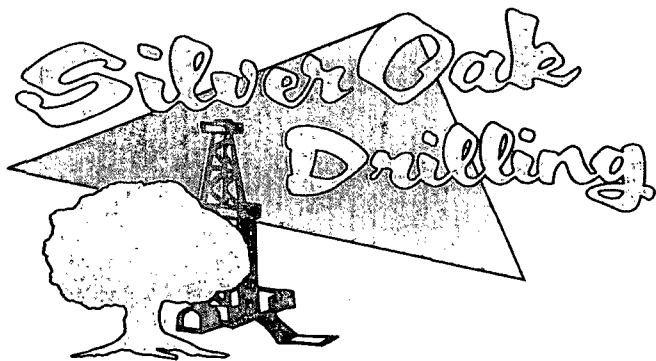
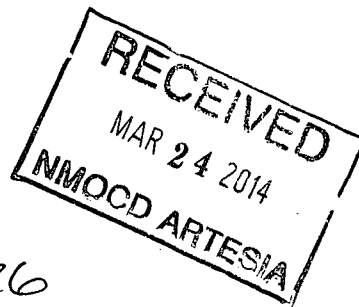




PO Box 1370
Artesia, NM 88211-1370
(505) 748-1288



January 13, 2014

Yates Petroleum Corporation
105 S. 4th
Artesia, NM 88211-1395

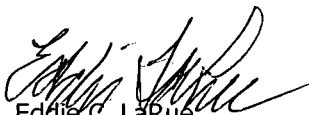
15-41726

RE: Roy AET #6-H
530' FSL & 150' FEL
Sec. 8, T19S, R25E
Eddy County, New Mexico

Dear Sir,

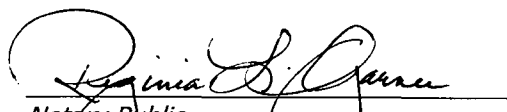
The attached is the Deviation Survey for the above captioned well.

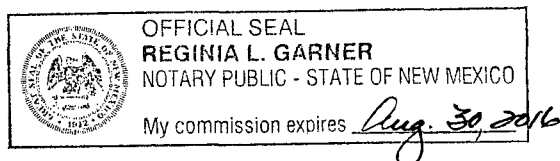
Very truly yours,


Eddie C. LaRue
Operations Manager

State of New Mexico }
County of Eddy }

The foregoing was acknowledged before me this 13th day of January, 2014.


Notary Public



ROY AET #6-H

Date	Depth	Deviation	Direction	TVD
12/26/2013	177	0.40	0.00	0.00
12/26/2013	394	0.70	0.00	0.00
12/27/2013	579	0.90	0.00	0.00
12/27/2013	766	0.80	0.00	0.00
12/29/2013	975	0.00	0.00	0.00
12/29/2013	1165	1.00	0.00	0.00
12/29/2013	1384	0.00	0.00	0.00
12/31/2013	1829	1.10	287.30	1828.86
12/31/2013	1861	2.10	284.20	1860.85
12/31/2013	1892	3.80	280.70	1891.81
12/31/2013	1923	5.90	278.20	1922.69
12/31/2013	1955	8.60	278.10	0.00
12/31/2013	1986	11.70	276.30	0.00
12/31/2013	2017	16.00	272.80	0.00
12/31/2013	2048	21.20	270.50	0.00
1/1/2014	2078	25.80	266.80	2071.92
1/1/2014	2109	30.60	265.50	2099.23
1/1/2014	2141	35.90	365.70	2125.98
1/1/2014	2172	40.50	265.80	2150.34
1/1/2014	2203	44.80	265.80	2173.10
1/1/2014	2243	49.10	264.90	2194.30
1/1/2014	2265	52.10	265.00	2214.00
1/1/2014	2328	51.80	264.90	2250.50
1/1/2014	2343	64.70	264.90	0.00
1/1/2014	2362	61.50	263.90	0.00
1/1/2014	2423	67.70	265.10	0.00
1/1/2014	2454	69.50	265.00	0.00
1/2/2014	2547	79.80	265.30	2328.80
1/2/2014	2578	82.30	266.00	2333.60
1/2/2014	2604	84.60	266.90	2336.54
1/2/2014	2636	87.30	268.00	2338.80
1/2/2014	2667	89.40	268.50	2339.70
1/2/2014	2759	92.00	268.90	0.00
1/2/2014	2854	90.10	269.20	0.00
1/2/2014	2947	90.70	269.60	0.00
1/2/2014	3040	91.20	269.20	0.00
1/3/2014	3135	91.80	269.30	2332.17
1/3/2014	3229	92.30	269.10	2328.81
1/3/2014	3322	92.80	268.90	2324.67
1/3/2014	3415	91.80	269.00	2320.94
1/3/2014	3509	91.90	269.40	2320.94
1/3/2014	3603	91.30	269.30	2316.09

Date	Depth	Deviation	Direction	TVD
1/3/2014	3696	91.40	269.00	2313.09
1/3/2014	3789	92.20	268.60	2310.16
1/3/2014	3883	92.70	268.20	2306.15
1/3/2014	3976	92.40	269.00	0.00
1/3/2014	4070	92.30	268.60	0.00
1/4/2014	4164	91.90	264.80	2294.71
1/4/2014	4257	90.70	270.00	2292.60
1/4/2014	4381	90.60	270.50	2291.53
1/4/2014	4444	91.20	270.70	2290.07
1/4/2014	4538	91.40	271.00	2287.94
1/4/2014	4632	91.90	271.10	2285.23
1/4/2014	4725	92.10	271.20	2281.98
1/4/2014	4819	91.70	270.00	2278.87
1/4/2014	4912	90.60	264.20	2277.00
1/4/2014	5006	90.80	269.10	2275.87
1/4/2014	5109	91.10	269.30	2274.31
1/4/2014	5192	92.00	269.40	2271.79
1/5/2014	5285	92.40	269.10	0.00
1/5/2014	5381	92.60	269.20	0.00
1/5/2014	5472	92.50	269.00	0.00
1/5/2014	5566	92.80	268.60	2255.64
1/5/2014	5660	92.00	269.00	2250.89
1/5/2014	5754	93.00	268.80	2245.97
1/5/2014	5847	91.90	268.80	2241.99
1/5/2014	5941	92.60	269.00	2238.30
1/5/2014	6035	93.30	269.70	2233.46
1/6/2014	6128	90.90	269.30	0.00
1/6/2014	6135	91.40	269.20	0.00
1/6/2014	6222	90.90	269.00	0.00
1/6/2014	6503	92.30	269.20	2220.23
1/7/2014	6597	92.70	269.20	2216.13
1/7/2014	6689	92.30	269.00	2212.12
1/7/2014	6783	92.80	269.10	2207.94
1/7/2014	6876	92.70	269.40	2203.98



3335 Pollok Drive
Conroe, Texas 77303

936.442.2500 (office)
936.442.2599 (fax)
www.msenergyservices.com

Surveyor Certification Form

Survey Company: MS ENERGY SERVICES
Surveyors Name: ERIC ZIRNGIBLE
Survey Job Type: RATE GYRO
Customer: YATES PETROLEUM CORP
Well: ROY AET 6H
API: 30-015-41726
Surveyed from: SURFACE TO A DEPTH OF 1770' MD
Survey Run Date: 12-29-13
Surface Location: EDDY COUNTY, NM

I certify that the data is true, correct, and complete and within the limitations of the tool set forth by MS Energy Services; that I am authorized and qualified to make this report; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by MS Energy Services.

ERIC ZIRNGIBLE

Digitally signed by ERIC ZIRNGIBLE
DN: cn=ERIC ZIRNGIBLE, o=MS ENERGY SERVICES,
ou, email=ezirngible@msenergyservices.com, c=US
Date: 2013.04.03 14:33:57 -05'00'



Job Number: SVM0-131170
 Company: Yates Petroleum Corporation
 Lease/Well: Roy AET 6H
 Location: Eddy County, NM
 Rig Name: Silver Oak #11
 RKB: 18.5'
 G.L. or M.S.L.: GL

State/Country: New Mexico/USA
 Declination: 7.83°
 Grid: East To Grid North
 File name: S:\2013SU-1\YATES\MO\ROYAET-1\6H.SVY
 Date/Time: 02-Jan-14 / 16:16
 Curve Name: Surface - 1770' M.D. (Rate Gyro)

WINSERVE SURVEY CALCULATIONS
 Minimum Curvature Method
 Vertical Section Plane 268.79
 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
200.00	.34	213.99	200.00	-.49	-.33	.34	.59	213.99	.17
400.00	.62	210.64	399.99	-1.92	-1.21	1.26	2.27	212.39	.14
600.00	.76	225.29	599.98	-3.78	-2.71	2.79	4.65	215.63	.11
800.00	.53	238.47	799.96	-5.20	-4.44	4.55	6.83	220.51	.14
1000.00	.75	255.93	999.95	-6.00	-6.50	6.62	8.84	227.29	.15
1200.00	.97	261.77	1199.93	-6.56	-9.44	9.58	11.50	235.22	.12
1400.00	.72	265.77	1399.91	-6.89	-12.37	12.51	14.16	240.87	.13
1600.00	.93	257.49	1599.89	-7.34	-15.21	15.36	16.89	244.25	.12
Last Survey Depth Recorded									
1770.00	.77	270.35	1769.87	-7.63	-17.70	17.86	19.27	246.68	.15



Yates Petroleum Corp.

Eddy County, NM (NAD83 NME)

Roy AET

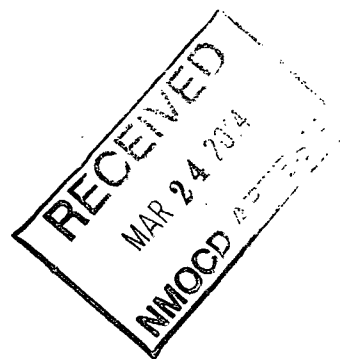
#6H

WB1/Job #1311694

Survey: Phoenix MWD Surveys

Survey Report

08 January, 2014





Phoenix Technology Services

Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #6H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3547.50usft (Silver Oak 11)
Site:	Roy AET	MD Reference:	KB @ 3547.50usft (Silver Oak 11)
Well:	#6H	North Reference:	Grid
Wellbore:	WB1/Job #1311694	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	Compass 5000 GCR DB

Project:	Eddy County, NM (NAD83 NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Roy AET					
Site Position:		Northing:	607,439.10	usft	Latitude:	32° 40' 11.23170 N
From:	Map	Easting:	490,431.50	usft	Longitude:	104° 29' 55.55890 W
Position Uncertainty:	0.00	usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.09 °

Well	#6H					
Well Position	+N/-S	0.00 usft	Northing:	607,439.10 usft	Latitude:	32° 40' 11.23170 N
	+E/-W	0.00 usft	Easting:	490,431.50 usft	Longitude:	104° 29' 55.55890 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	usft	Ground Level:	3,529.00 usft

Wellbore	WB1/Job #1311694				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	12/11/13	7.74	60.38	48,532

Design:		Surveys (Silver Oak 11)			
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(usft)	(usft)	(usft)	(°)	
	0.00	0.00	0.00	268.79	



Phoenix Technology Services

Survey Report



Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #6H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3547.50usft (Silver Oak 11)
Site:	Roy AET	MD Reference:	KB @ 3547.50usft (Silver Oak 11)
Well:	#6H	North Reference:	Grid
Wellbore:	WB1/Job #1311694	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	Compass 5000 GCR DB

Survey Program	Date	From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
	01/08/14	200.00	1,770.00	MS Gyro Survey (WB1/Job #1311694)	CB-GYRO-MS	Camera based gyro multishot
		1,829.00	6,958.00	Phoenix MWD Surveys (WB1/Job #131169)	MWD	MWD - Standard

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	EW (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
1,770.00	0.77	270.35	-1,777.63	1,769.87	-7.63	-17.70	17.86	0.00	607,431.47	490,413.80
1,829.00	1.10	287.30	-1,718.64	1,828.86	-7.46	-18.64	18.79	0.72	607,431.64	490,412.86
First Phoenix Survey										
1,861.00	2.10	284.20	-1,686.65	1,860.85	-7.22	-19.50	19.65	3.14	607,431.88	490,412.00
1,892.00	3.80	280.70	-1,655.69	1,891.81	-6.89	-21.06	21.20	5.51	607,432.21	490,410.44
1,923.00	5.90	278.20	-1,624.81	1,922.69	-6.48	-23.64	23.78	6.81	607,432.62	490,407.86
1,955.00	8.60	278.10	-1,593.07	1,954.43	-5.90	-27.64	27.76	8.44	607,433.20	490,403.86
1,986.00	11.70	276.30	-1,562.55	1,984.95	-5.23	-33.06	33.17	10.05	607,433.87	490,398.44
2,017.00	16.00	272.80	-1,532.46	2,015.04	-4.68	-40.46	40.55	14.13	607,434.42	490,391.04
2,048.00	21.20	270.50	-1,503.09	2,044.41	-4.42	-50.34	50.42	16.94	607,434.68	490,381.16
2,078.00	25.80	266.80	-1,475.59	2,071.91	-4.74	-62.29	62.37	16.10	607,434.36	490,369.21
2,109.00	30.60	265.50	-1,448.27	2,099.23	-5.73	-76.90	77.00	15.61	607,433.37	490,354.60
2,141.00	35.90	265.70	-1,421.52	2,125.98	-7.08	-94.38	94.51	16.57	607,432.02	490,337.12
2,172.00	40.50	265.80	-1,397.17	2,150.33	-8.50	-113.50	113.65	14.84	607,430.60	490,318.00
2,203.00	44.80	265.80	-1,374.37	2,173.13	-10.03	-134.44	134.62	13.87	607,429.07	490,297.06
2,234.00	49.00	264.90	-1,353.19	2,194.31	-11.88	-156.99	157.21	13.71	607,427.22	490,274.51
2,265.00	52.10	265.00	-1,333.50	2,214.00	-13.98	-180.83	181.09	10.00	607,425.12	490,250.67
2,297.00	54.90	264.90	-1,314.47	2,233.03	-16.25	-206.46	206.75	8.75	607,422.85	490,225.04
2,328.00	57.80	264.90	-1,297.29	2,250.21	-18.54	-232.16	232.50	9.35	607,420.56	490,199.34
2,359.00	61.50	263.90	-1,281.63	2,265.87	-21.15	-258.77	259.16	12.26	607,417.95	490,172.73
2,390.00	64.70	264.90	-1,267.61	2,279.89	-23.85	-286.28	286.72	10.72	607,415.25	490,145.22



Phoenix Technology Services

Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #6H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3547.50usft (Silver Oak 11)
Site:	Roy AET	MD Reference:	KB @ 3547.50usft (Silver Oak 11)
Well:	#6H	North Reference:	Grid
Wellbore:	WB1/Job #1311694	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	Compass 5000 GCR DB

Survey										
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
2,422.00	67.70	265.10	-1,254.69	2,292.81	-26.40	-315.45	315.94	9.39	607,412.70	490,116.05
2,453.00	69.50	265.00	-1,243.38	2,304.12	-28.89	-344.20	344.74	5.81	607,410.21	490,087.30
2,484.00	72.90	264.60	-1,233.39	2,314.11	-31.55	-373.42	374.01	11.04	607,407.55	490,058.08
2,516.00	76.80	264.70	-1,225.03	2,322.47	-34.43	-404.17	404.81	12.19	607,404.67	490,027.33
2,547.00	79.80	265.30	-1,218.75	2,328.75	-37.07	-434.41	435.09	9.86	607,402.03	489,997.09
2,578.00	82.30	266.00	-1,213.92	2,333.58	-39.40	-464.94	465.67	8.37	607,399.70	489,966.56
2,604.00	84.60	266.90	-1,210.96	2,336.54	-40.99	-490.72	491.47	9.49	607,398.11	489,940.78
2,636.00	87.30	268.00	-1,208.70	2,338.80	-42.41	-522.60	523.38	9.11	607,396.69	489,908.90
2,667.00	89.40	268.50	-1,207.81	2,339.69	-43.36	-553.57	554.37	6.96	607,395.74	489,877.93
2,760.00	92.00	268.90	-1,208.94	2,338.56	-45.47	-646.53	647.35	2.83	607,393.63	489,784.97
2,854.00	90.10	269.20	-1,210.66	2,336.84	-47.03	-740.50	741.33	2.05	607,392.07	489,691.00
2,947.00	90.70	269.60	-1,211.31	2,336.19	-48.00	-833.49	834.32	0.78	607,391.10	489,598.01
3,041.00	91.20	269.20	-1,212.87	2,334.63	-48.99	-927.48	928.30	0.68	607,390.11	489,504.02
3,135.00	91.80	269.30	-1,215.33	2,332.17	-50.22	-1,021.43	1,022.27	0.65	607,388.88	489,410.07
3,229.00	92.30	269.10	-1,218.70	2,328.80	-51.53	-1,115.36	1,116.20	0.57	607,387.57	489,316.14
3,322.00	92.80	268.90	-1,222.83	2,324.67	-53.15	-1,208.26	1,209.11	0.58	607,385.95	489,223.24
3,415.00	91.80	269.00	-1,226.57	2,320.93	-54.85	-1,301.17	1,302.03	1.08	607,384.25	489,130.33
3,509.00	91.90	269.40	-1,229.60	2,317.90	-56.16	-1,395.11	1,395.98	0.44	607,382.94	489,036.39
3,603.00	91.30	269.30	-1,232.22	2,315.28	-57.23	-1,489.07	1,489.94	0.65	607,381.87	488,942.43
3,696.00	91.40	269.00	-1,234.42	2,313.08	-58.61	-1,582.03	1,582.91	0.34	607,380.49	488,849.47
3,789.00	92.20	268.60	-1,237.34	2,310.16	-60.56	-1,674.96	1,675.87	0.96	607,378.54	488,756.54
3,883.00	92.70	268.20	-1,241.36	2,306.14	-63.18	-1,768.84	1,769.78	0.68	607,375.92	488,662.66
3,977.00	92.40	269.00	-1,245.54	2,301.96	-65.47	-1,862.72	1,863.68	0.91	607,373.63	488,568.78
4,070.00	92.30	268.60	-1,249.35	2,298.15	-67.42	-1,955.62	1,956.61	0.44	607,371.68	488,475.88
4,164.00	91.90	269.80	-1,252.80	2,294.70	-68.73	-2,049.54	2,050.54	1.34	607,370.37	488,381.96
4,257.00	90.70	270.00	-1,254.91	2,292.59	-68.89	-2,142.52	2,143.49	1.31	607,370.21	488,288.98
4,351.00	90.60	270.50	-1,255.97	2,291.53	-68.48	-2,236.51	2,237.46	0.54	607,370.62	488,194.99



Phoenix Technology Services

Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #6H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3547.50usft (Silver Oak 11)
Site:	Roy AET	MD Reference:	KB @ 3547.50usft (Silver Oak 11)
Well:	#6H	North Reference:	Grid
Wellbore:	WB1/Job #1311694	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	Compass 5000 GCR DB

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)	
4,444.00	91.20	270.70	-1,257.43	2,290.07	-67.51	-2,329.49	2,330.40	0.68	607,371.59	488,102.01	
4,538.00	91.40	271.00	-1,259.57	2,287.93	-66.11	-2,423.46	2,424.31	0.38	607,372.99	488,008.04	
4,632.00	91.90	271.10	-1,262.27	2,285.23	-64.39	-2,517.40	2,518.20	0.54	607,374.71	487,914.10	
4,725.00	92.10	271.20	-1,265.52	2,281.98	-62.53	-2,610.33	2,611.07	0.24	607,376.57	487,821.17	
4,819.00	91.70	270.00	-1,268.63	2,278.87	-61.54	-2,704.27	2,704.97	1.34	607,377.56	487,727.23	
4,912.00	90.60	269.20	-1,270.50	2,277.00	-62.19	-2,797.25	2,797.94	1.46	607,376.91	487,634.25	
5,005.00	90.80	269.10	-1,271.64	2,275.86	-63.57	-2,890.23	2,890.93	0.24	607,375.53	487,541.27	
5,099.00	91.10	269.30	-1,273.20	2,274.30	-64.88	-2,984.21	2,984.91	0.38	607,374.22	487,447.29	
5,192.00	92.00	269.40	-1,275.71	2,271.79	-65.94	-3,077.17	3,077.87	0.97	607,373.16	487,354.33	
5,286.00	92.40	269.10	-1,279.32	2,268.18	-67.17	-3,171.09	3,171.80	0.53	607,371.93	487,260.41	
5,379.00	92.60	269.20	-1,283.38	2,264.12	-68.55	-3,263.99	3,264.71	0.24	607,370.55	487,167.51	
5,473.00	92.50	269.00	-1,287.56	2,259.94	-70.02	-3,357.88	3,358.61	0.24	607,369.08	487,073.62	
5,566.00	92.80	268.60	-1,291.86	2,255.64	-71.97	-3,450.76	3,451.52	0.54	607,367.13	486,980.74	
5,660.00	93.00	269.00	-1,296.61	2,250.89	-73.93	-3,544.62	3,545.39	0.48	607,365.17	486,886.88	
5,754.00	93.00	268.80	-1,301.53	2,245.97	-75.73	-3,638.48	3,639.27	0.21	607,363.37	486,793.02	
5,847.00	91.90	268.80	-1,305.51	2,241.99	-77.68	-3,731.37	3,732.18	1.18	607,361.42	486,700.13	
5,941.00	92.60	269.00	-1,309.20	2,238.30	-79.48	-3,825.28	3,826.11	0.77	607,359.62	486,606.22	
6,035.00	93.30	269.70	-1,314.04	2,233.46	-80.55	-3,919.15	3,919.98	1.05	607,358.55	486,512.35	
6,129.00	90.90	269.30	-1,317.48	2,230.02	-81.37	-4,013.07	4,013.90	2.59	607,357.73	486,418.43	
6,222.00	90.90	269.00	-1,318.94	2,228.56	-82.75	-4,106.05	4,106.88	0.32	607,356.35	486,325.45	
6,316.00	91.40	269.20	-1,320.83	2,226.67	-84.22	-4,200.02	4,200.86	0.57	607,354.88	486,231.48	
6,410.00	92.10	269.10	-1,323.70	2,223.80	-85.62	-4,293.97	4,294.82	0.75	607,353.48	486,137.53	
6,503.00	92.30	269.20	-1,327.27	2,220.23	-87.00	-4,386.89	4,387.75	0.24	607,352.10	486,044.61	
6,597.00	92.70	269.20	-1,331.37	2,216.13	-88.31	-4,480.79	4,481.66	0.43	607,350.79	485,950.71	
6,689.00	92.30	269.00	-1,335.38	2,212.12	-89.75	-4,572.69	4,573.57	0.49	607,349.35	485,858.81	
6,783.00	92.80	269.10	-1,339.56	2,207.94	-91.31	-4,666.58	4,667.47	0.54	607,347.79	485,764.92	



Phoenix Technology Services

Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #6H
Project:	Eddy County NM (NAD83 NME)	TVD Reference:	KB @ 3547.50usft (Silver Oak 11)
Site:	Roy AET	MD Reference:	KB @ 3547.50usft (Silver Oak 11)
Well:	#6H	North Reference:	Grid
Wellbore:	WB1/Job #1311694	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	Compass 5000 GCR DB

Survey											
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (%/100usft)	Northing (usft)	Easting (usft)	
6,876.00	92.70	269.40	-1,344.03	2,203.47	-92.52	-4,759.47	4,760.36	0.34	607,346.58	485,672.03	
Final Phoenix Survey											
6,958.00	92.70	269.40	-1,347.89	2,199.61	-93.38	-4,841.37	4,842.27	0.00	607,345.72	485,590.13	
Projection to TD											

Survey Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		N/S (usft)	E/W (usft)		
1,829.00	1,828.86	-7.46	-18.64	First Phoenix Survey	
6,876.00	2,203.47	-92.52	-4,759.47	Final Phoenix Survey	
6,958.00	2,199.61	-93.38	-4,841.37	Projection to TD	

Checked By: _____ Approved By: _____ Date: _____



Project: Eddy County, NM (NAD83 NME)
Site: Roy AET
Well: #6H
Wellbore: WB1/Job #1311694
Design: Plan #3 12-30-13
Rig: Silver Oak 11



Azimuths to Grid North
True North: 0.09°
Magnetic North: 7.83°
Magnetic Field
Strength: 48531.6snT
Dip Angle: 60.38°
Date: 12/11/2013
Model: IGRF2010_14

WELL DETAILS						
	Ground Level:	3529.00				
+N-S	+E-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	607439.10	490431.50	32° 40' 11.23170 N	104° 29' 55.55890 W	

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diep	TFace	VSeet	Target
1	1770.00	0.77	270.35	1769.87	-7.63	-17.70	0.00	0.00	17.86	
2	1808.50	0.00	0.00	1808.37	-7.63	-17.95	2.00	180.00	18.11	
3	1870.50	0.00	0.00	1870.37	-7.63	-17.95	0.00	0.00	18.11	
4	2636.75	91.95	266.20	2347.56	-40.35	-510.58	12.00	266.20	511.32	
5	2737.39	91.95	269.22	2344.13	-44.37	-611.07	3.00	89.83	611.87	
6	6971.46	91.95	269.22	2200.00	-101.90	-4842.30	0.00	0.00	4843.37	PBHL-Roy AET #6H

DESIGN TARGET DETAILS										
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape		
PBHL-Roy AET #6H	2200.00	-101.90	-4842.30	607337.20	485589.20	32° 40' 10.14514 N	104° 30' 52.20761 W	Point		
		- plan hits target center								
PP-Roy AET #6H	2348.00	-38.72	-492.00	607490.38	489939.50	32° 40' 10.84092 N	104° 30' 1.31414 W	Point		
		- plan misses target center by 0.43usft at 2618.10usft MD (2347.63 TVD, -39.11 N, -491.98 E)								

Map System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone Name: New Mexico Eastern Zone
Local Origin: Well #6H, Grid North
Latitude: 32° 40' 11.23170 N
Longitude: 104° 29' 55.55890 W
Grid East: 490431.50
Grid North: 607439.10
Scale Factor: 1.000
Geomagnetic Model: IGRF2010_14
Sample Date: 11-Dec-13
Magnetic Declination: 7.74°
Dip Angle from Horizontal: 60.38°
Magnetic Field Strength: 48532
To convert a Magnetic Direction to a Grid Direction, Add 7.83°
To convert a Magnetic Direction to a True Direction, Add 7.74° East
To convert a True Direction to a Grid Direction, Add 0.09°

FORMATION TOP DETAILS				
TVDPath	MDPath	Formation	DipAngle	DipDir
2144.44	2162.43	Glorieta	-1.95°	268.79
2248.08	2306.22	Yeso	-1.95°	268.79

- LEGEND
- #2, WB1, Inc Surveys V0
 - #1, WB1, Inc Surveys V0
 - #4, WB1, Inc Surveys V0
 - #6H, WB1/Job #1311694, Surveys (Silver Oak 11) V0
 - #5, WB1, Inc Surveys V0
 - Plan #3 12-30-13

