



PHOENIX
TECHNOLOGY SERVICES

RECEIVED
MAY 12 2014
MAIL ROOM

May 7, 2014

Yates Petroleum Corp.
Attention: Regulatory Department
105 S. 4th St.
Artesia, NM 88210

Re: Yates Petroleum
Nickson BM #5H
Eddy County, NM
API #30-015- 41726
Job No. 1410302

15-41725

Dear Regulatory Department;

Phoenix Technology Services, Inc. has filed the Survey Data Certification, Surveys, and Lease Plat for the above referenced well with the State of New Mexico Oil Conservation Division – District 2 via certified mail. A copy of the filing is attached for your records.

Name of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
James Garber	5H	1,000	6,974	04/06/14	04/11/14	MWD

Thank you for the opportunity to be of service. Please contact me if you have any questions or require additional information.

Best Regards,

Dana Robinson

Dana Robinson
Operations Administrator

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1410470

OPERATOR Yates Petroleum

WELL NAME Nickson BM #5H

COUNTY & STATE Eddy, New Mexico

API WELL NUMBER 30-015-41726

PROPOSED DIRECTION 272.09

TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
0 ft	.00 ft	0 ft	.0 ft	.00 ft	.00 ft	Surface

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
6-Apr-14	1,000 ft	0.8	29.9

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
11-Apr-14	6,974 ft	90.3	271.1

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
11-Apr-14	7,055 ft	90.3	271.1

James Garber

PRINT YOUR NAME ABOVE

James Garber

SIGN YOUR NAME ABOVE

4/11/2014

TODAY'S DATE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.72
DECLINATION OR GRID	GRID

MWD SUPERVISOR 1 Jim Garber

DIRECTIONAL DRILLER 1 Dan Waggoner

MWD SUPERVISOR 2 David Puente

DIRECTIONAL DRILLER 2 Daniel Scott

1805 Brittmore Road Houston, Texas 77043 (713)3370609 (Voice), (713)337-0599 (Fax)



PHOENIX
TECHNOLOGY SERVICES

NM OIL CONSERVATION
ARTESIA DISTRICT

AUG 29 2014

RECEIVED

Yates Petroleum Corp.

Eddy County, NM (NAD83 NME)

Nickson "BM"

#5H

WB1/Job #1410470

15- 41725

Design: Surveys (Silver Oak 11)

Standard Survey Report

12 April, 2014



PHOENIX
TECHNOLOGY SERVICES

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County, NM (NAD83-NME)	TVD Reference:	KB @ 3458.00usft (Silver Oak-11)
Site:	Nickson "BM"	MD Reference:	KB @ 3458.00usft (Silver Oak-11)
Well:	#5H	North Reference:	Grid
Wellbore:	WB1/Job #1410470	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 Nickson "BM"					
Site Position:		Northing:	627,342.30 usft	Latitude:	32° 43' 28.48044 N
From:	Map	Easting:	516,671.20 usft	Longitude:	104° 24' 48.75218 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.04 °

Well	#5H					
Well Position	+N-S	0.00 usft	Northing:	627,342.30 usft	Latitude:	32° 43' 28.48044 N
	+E-W	0.00 usft	Easting:	516,671.20 usft	Longitude:	104° 24' 48.75218 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,440.00 usft

Wellbore						WB1/Job #1410470									
Magnetics						Model Name		Sample Date		Declination		Dip Angle		Field Strength	
										(°)		(°)		(nT)	
						IGRF2010_14		3/17/2014		7.67		60.44		48,549	

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		272.09			

Survey Program		Date 4/12/2014		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
600.00	1,000.00	Gyro Survey (WB1/Job #1410470)	CB-GYRO-MS	Camera based gyro multishot
1,056.00	7,055.00	Phoenix MWD Survey (WB1/Job #141047)	MWD	MWD - Standard

Survey	Measured Depth	Inclination	Azimuth	Vertical Depth	+N-S	+E-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
	(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	600.00	0.27	304.52	600.00	0.80	-1.16	1.19	0.05	0.05	0.00
	700.00	0.20	290.25	700.00	1.00	-1.52	1.56	0.09	-0.07	-14.27
	800.00	0.19	83.29	800.00	1.07	-1.52	1.56	0.38	-0.01	153.04
	900.00	0.60	43.76	899.99	1.47	-0.99	1.05	0.47	0.41	-39.53
	1,000.00	0.79	29.88	999.99	2.45	-0.29	0.38	0.25	0.19	-13.88
First Phoenix MWD Survey										
	1,056.00	0.80	54.20	1,055.98	3.01	0.22	-0.11	0.60	0.02	43.43
	1,150.00	0.80	55.20	1,149.97	3.77	1.29	-1.15	0.01	0.00	1.06
	1,243.00	0.80	81.20	1,242.96	4.24	2.47	-2.31	0.39	0.00	27.96

Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #5H
Project:	Eddy County NM (NAD83 NME)	TVD Reference:	KB @ 3458.00usft (Silver Oak 11)
Site:	Nickson "BM"	MD Reference:	KB @ 3458.00usft (Silver Oak 11)
Well:	#5H	North Reference:	Grid
Wellbore:	WB1/Job #1410470	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	Compass 5000 GCR DB

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N-S (usft)	+E-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
1,337.00	0.60	75.80	1,336.96	4.46	3.59	-3.43	0.22	-0.21	-5.74	
1,430.00	0.60	82.10	1,429.95	4.65	4.55	-4.37	0.07	0.00	6.77	
1,524.00	0.60	82.30	1,523.95	4.78	5.52	-5.34	0.00	0.00	0.21	
1,617.00	0.50	67.20	1,616.94	5.00	6.38	-6.19	0.19	-0.11	-16.24	
1,711.00	0.60	75.50	1,710.94	5.29	7.23	-7.03	0.14	0.11	8.83	
1,805.00	0.60	91.00	1,804.93	5.40	8.20	-8.00	0.17	0.00	16.49	
1,898.00	0.80	79.10	1,897.93	5.51	9.33	-9.12	0.26	0.22	-12.80	
1,992.00	0.90	75.80	1,991.92	5.82	10.69	-10.47	0.12	0.11	-3.51	
2,038.00	0.90	78.10	2,037.91	5.98	11.39	-11.16	0.08	0.00	5.00	
2,054.00	1.10	73.10	2,053.91	6.05	11.66	-11.43	1.36	1.25	-31.25	
2,085.00	0.90	74.30	2,084.90	6.21	12.18	-11.94	0.65	-0.65	3.87	
2,116.00	0.60	315.90	2,115.90	6.39	12.30	-12.06	4.19	-0.97	-381.94	
2,148.00	5.60	271.10	2,147.85	6.54	10.62	-10.38	16.22	15.63	-140.00	
2,179.00	11.60	269.50	2,178.48	6.54	5.99	-5.75	19.37	19.35	-5.16	
2,210.00	16.80	269.60	2,208.53	6.48	-1.61	1.85	16.77	16.77	0.32	
2,241.00	20.80	269.90	2,237.87	6.44	-11.60	11.83	12.91	12.90	0.97	
2,272.00	24.20	269.80	2,266.50	6.41	-23.46	23.68	10.97	10.97	-0.32	
2,304.00	28.30	270.10	2,295.20	6.40	-37.61	37.82	12.82	12.81	0.94	
2,335.00	32.30	270.90	2,321.96	6.54	-53.25	53.45	12.97	12.90	2.58	
2,366.00	36.20	271.30	2,347.58	6.88	-70.69	70.89	12.60	12.58	1.29	
2,397.00	39.50	271.70	2,372.05	7.38	-89.70	89.91	10.67	10.65	1.29	
2,429.00	43.10	271.60	2,396.09	7.99	-110.81	111.03	11.25	11.25	-0.31	
2,461.00	45.60	271.70	2,418.97	8.63	-133.17	133.39	7.82	7.81	0.31	
2,492.00	47.70	271.70	2,440.25	9.30	-155.70	155.94	6.77	6.77	0.00	
2,522.00	50.20	272.00	2,459.95	10.03	-178.31	178.56	8.37	8.33	1.00	
2,523.03	50.33	271.99	2,460.60	10.06	-179.10	179.35	12.60	12.58	-1.02	
330' Cross Point 1										
2,553.00	54.10	271.70	2,478.96	10.82	-202.77	203.03	12.60	12.58	-0.97	
2,584.00	57.10	272.30	2,496.48	11.72	-228.33	228.61	9.81	9.68	1.94	
2,615.00	59.90	272.50	2,512.67	12.82	-254.74	255.03	9.05	9.03	0.65	
2,647.00	62.20	272.30	2,528.16	14.00	-282.71	283.03	7.21	7.19	-0.63	
2,678.00	65.50	272.90	2,541.82	15.26	-310.51	310.86	10.79	10.65	1.94	
2,709.00	68.50	272.60	2,553.93	16.63	-339.01	339.39	9.72	9.68	-0.97	
2,740.00	72.40	271.70	2,564.30	17.72	-368.19	368.59	12.87	12.58	-2.90	
2,771.00	76.00	271.10	2,572.74	18.45	-398.01	398.41	11.76	11.61	-1.94	
2,802.00	79.40	271.10	2,579.35	19.03	-428.28	428.69	10.97	10.97	0.00	
2,833.00	82.10	271.40	2,584.33	19.70	-458.87	459.28	8.76	8.71	0.97	
2,864.00	85.40	271.40	2,587.70	20.45	-489.67	490.09	10.65	10.65	0.00	
2,888.00	88.40	271.50	2,589.00	21.06	-513.63	514.05	12.51	12.50	0.42	
2,919.00	91.30	271.60	2,589.08	21.89	-544.61	545.05	9.36	9.35	0.32	
2,951.00	91.30	271.40	2,588.36	22.73	-576.59	577.04	0.62	0.00	-0.63	
3,044.00	90.70	272.10	2,586.73	25.57	-669.54	670.02	0.99	-0.65	0.75	
3,138.00	90.40	273.00	2,585.83	29.75	-763.44	764.01	1.01	-0.32	0.96	



Project: Eddy County, NM (NAD83 NME)
 Site: Nickson "BM"
 Well: #5H
 Wellbore: WB1/Job #1410470
 Design: Plan #1 03-17-14
 Rig: Silver Oak 11



Azimuths to Grid North
 True North: 0.04°
 Magnetic North: 7.72°
 Magnetic Field
 Strength: 48545.7 nT
 Dip Angle: 60.44°
 Date: 3/17/2014
 Model: IGRF2010_14

WELL DETAILS												
	+N-S	+E-W	North	Ground Level	3440.00	Latitude	Longitude					
	0.00	0.00	627342.30	Easting	516671.20	32° 43' 28.49044 N	104° 24' 48.75218 W					
SECTION DETAILS												
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Diag	TFace	VSeal	Target	Annotation	
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2114.91	0.00	0.00	2114.91	0.00	0.00	0.00	0.00	0.00	0.00	KOP, 12"/100' Build	
3	2872.74	90.94	272.09	2592.31	17.70	-484.98	12.00	272.09	485.30		LP, Hold 90.94° Inc, 272.09° Azm	
4	6975.75	90.94	272.09	2525.00	167.30	-4584.70	0.00	0.00	4587.75	PBHL-Nickson BM #5H		
5	7075.75	90.94	272.09	2523.36	170.95	-4684.62	0.00	0.00	4687.74		TD at 7075.75 MD 100' Past Hardline	
DESIGN TARGET DETAILS												
Name	TVD	+N-S	+E-W	North	Easting	Latitude	Longitude	Shape				
PBHL-Nickson BM #5H	2525.00	167.30	-4584.70	627509.60	512066.50	32° 43' 30.09839 N	104° 25' 42.42306 W	Point				
plan hits target center												

Map System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone Name: New Mexico Eastern Zone
 Local Origin: Well #5H, Grid North
 Latitude: 32° 43' 28.49044 N
 Longitude: 104° 24' 48.75218 W
 Grid East: 516671.20
 Grid North: 627342.30
 Scale Factor: 1.000
 Geomagnetic Model: IGRF2010_14
 Sample Date: 17-Mar-14
 Magnetic Declination: 7.67°
 Dip Angle from Horizontal: 60.44°
 Magnetic Field Strength: 48549
 To convert a Magnetic Direction to a Grid Direction, Add 7.72°
 To convert a Magnetic Direction to a True Direction, Add 7.67° East
 To convert a True Direction to a Grid Direction, Add 0.04°

FORMATION TOP DETAILS					
TVDPath	MDPath	Formation	DipAngle	DipDir	
125.00	125.00	Queen	-0.94	272.09	
480.00	480.00	Grayburg	-0.94	272.09	
820.00	820.00	San Andres	-0.94	272.09	
2189.90	2189.21	Glorieta	-0.94	272.09	
2339.08	2348.26	Yeso	-0.94	272.09	
2592.30	2856.57	Yeso Target	-0.94	272.09	
LEGEND					
— #5H, WB1/Job #1410470, Surveys (Silver Oak 11) V0					
— #2, WB1, Inc Surveys V0					
— #1, WB1, Inc Surveys V0					
— #1, WB1, Inc Surveys V0					
— Plan #1 03-17-14					

