



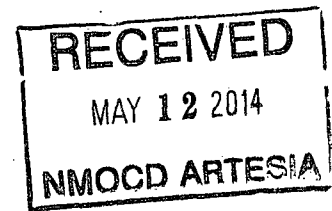
PHOENIX
TECHNOLOGY SERVICES

May 7, 2014

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

Attention: Regulatory Department

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



Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title 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

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 and phone number.

Best Regards,

Dana Robinson

Dana Robinson
Operations Administrator
Certified mail receipt number: 7011 1570 0001 4365 1899

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

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

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	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	PROJECTED		
TD SURVEY	TD SURVEY		
DATE	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

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.72
DECLINATION OR GRID	GRID

4/11/2014

TODAY'S DATE

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)

DISTRICT I
1925 N. French Dr., Hobbs, NM 88240
Phone (575) 393-8101 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-8170 Fax: (505) 334-8170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 478-3480 Fax: (505) 478-3480

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

RECEIVED

MAY 12 2014

Form C-102
Revised August 1, 2011

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code	Pool Name
Property Code	Property Name NICKSON "BM"	Well Number 5H
OCRID No.	Operator Name YATES PETROLEUM CORPORATION	Elevation 3440

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	30	18 S	26 E		600	NORTH	150	EAST	EDDY

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
LOT 1	30	18 S	26 E		400	NORTH	330	WEST	EDDY
Dedicated Acres	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

N: 627807.1 E: 511781.5 (NAD83) LOT 1 PROPOSED BOTTOM HOLE LOCATION Lat - N 32°43'30.10" Long - W 104°25'42.43" NMSPC- N 627509.6 E 512086.5 (NAD-83)	N: 627925.2 E: 514260.1 (NAD83)	N: 627843.2 E: 516818.7 (NAD83) LOT 2 SURFACE LOCATION Lat - N 32°43'28.48" Long - W 104°24'48.75" NMSPC- N 627342.3 E 516671.2 (NAD-83)
LOT 3		
LOT 4		

N: 622805.2
E: 511698.6
(NAD83)

N: 622615.2
E: 516840.2
(NAD83)

OPERATOR CERTIFICATION
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unEDDyed mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature _____ Date _____

Printed Name _____

Email Address _____

SURVEYOR CERTIFICATION
I 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 belief.

Date Surveyed _____

Signature _____
Professional Surveyor

Certificate No. Gary L. Jones 7977

Scale: 1" = 1000'
WO Num.: 29190



PHOENIX
TECHNOLOGY SERVICES

Yates Petroleum Corp.

Eddy County, NM (NAD83 NME)

Nickson "BM"

#5H

WB1/Job #1410470

Design: Surveys (Silver Oak 11)

Standard Survey Report

12 April, 2014



PHOENIX
TECHNOLOGY SERVICES

Survey Report

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
	+E/-W	0.00 usft	Easting: 516,671.20 usft
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) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	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 (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/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

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)
3,231.00	90.70	271.90	2,584.94	33.73	-856.35	857.01	1.23	0.32	-1.18
3,326.00	90.50	271.80	2,583.94	36.80	-951.29	952.00	0.24	-0.21	-0.11
3,419.00	90.30	272.00	2,583.29	39.88	-1,044.24	1,045.00	0.30	-0.22	0.22
3,513.00	90.80	272.10	2,582.39	43.24	-1,138.17	1,138.99	0.54	0.53	0.11
3,606.00	90.90	272.20	2,581.01	46.73	-1,231.10	1,231.98	0.15	0.11	0.11
3,700.00	90.80	272.30	2,579.62	50.42	-1,325.01	1,325.97	0.15	-0.11	0.11
3,793.00	90.90	272.20	2,578.24	54.07	-1,417.93	1,418.96	0.15	0.11	-0.11
3,887.00	91.10	272.50	2,576.60	57.92	-1,511.84	1,512.95	0.38	0.21	0.32
3,980.00	90.90	272.30	2,574.97	61.82	-1,604.74	1,605.93	0.30	-0.22	-0.22
4,074.00	91.10	272.10	2,573.33	65.43	-1,698.66	1,699.92	0.30	0.21	-0.21
4,167.00	91.20	272.00	2,571.47	68.75	-1,791.58	1,792.90	0.15	0.11	-0.11
4,261.00	91.30	272.10	2,569.42	72.11	-1,885.50	1,886.87	0.15	0.11	0.11
4,355.00	91.10	271.90	2,567.45	75.39	-1,979.42	1,980.85	0.30	-0.21	-0.21
4,448.00	91.10	272.20	2,565.66	78.72	-2,072.34	2,073.84	0.32	0.00	0.32
4,542.00	91.00	272.40	2,563.94	82.49	-2,166.25	2,167.82	0.24	-0.11	0.21
4,635.00	90.90	272.20	2,562.40	86.22	-2,259.16	2,260.81	0.24	-0.11	-0.22
4,729.00	90.80	271.90	2,561.00	89.59	-2,353.09	2,354.80	0.34	-0.11	-0.32
4,823.00	90.40	271.70	2,560.02	92.54	-2,447.04	2,448.79	0.48	-0.43	-0.21
4,916.00	89.80	271.20	2,559.86	94.89	-2,540.01	2,541.78	0.84	-0.65	-0.54
5,010.00	90.50	271.70	2,559.61	97.27	-2,633.98	2,635.78	0.92	0.74	0.53
5,104.00	90.70	271.50	2,558.63	99.89	-2,727.94	2,729.77	0.30	0.21	-0.21
5,197.00	90.10	271.20	2,557.98	102.09	-2,820.91	2,822.76	0.72	-0.65	-0.32
5,290.00	90.80	271.20	2,557.25	104.03	-2,913.89	2,915.74	0.75	0.75	0.00
5,384.00	91.70	271.70	2,555.20	106.41	-3,007.83	3,009.71	1.10	0.96	0.53
5,477.00	91.60	271.90	2,552.52	109.33	-3,100.75	3,102.67	0.24	-0.11	0.22
5,571.00	91.20	271.30	2,550.22	111.96	-3,194.68	3,196.64	0.77	-0.43	-0.64
5,664.00	90.90	273.00	2,548.52	115.44	-3,287.60	3,289.62	1.86	-0.32	1.83
5,758.00	91.00	273.10	2,546.96	120.44	-3,381.45	3,383.60	0.15	0.11	0.11
5,851.00	91.20	272.80	2,545.17	125.23	-3,474.31	3,476.57	0.39	0.22	-0.32
5,945.00	91.00	272.40	2,543.37	129.49	-3,568.20	3,570.55	0.48	-0.21	-0.43
6,038.00	90.60	271.90	2,542.07	132.98	-3,661.12	3,663.54	0.69	-0.43	-0.54
6,132.00	91.60	272.50	2,540.27	136.59	-3,755.03	3,757.52	1.24	1.06	0.64
6,225.00	91.30	272.60	2,537.91	140.73	-3,847.91	3,850.48	0.34	-0.32	0.11
6,319.00	91.00	271.70	2,536.03	144.25	-3,941.83	3,944.46	1.01	-0.32	-0.96
6,413.00	91.00	271.50	2,534.39	146.88	-4,035.77	4,038.45	0.21	0.00	-0.21
6,506.00	91.50	271.20	2,532.36	149.07	-4,128.73	4,131.42	0.63	0.54	-0.32
6,600.00	91.50	270.90	2,529.90	150.79	-4,222.68	4,225.37	0.32	0.00	-0.32
6,693.00	91.60	270.70	2,527.38	152.09	-4,315.64	4,318.31	0.24	0.11	-0.22
6,787.00	90.90	271.90	2,525.33	154.22	-4,409.59	4,412.28	1.48	-0.74	1.28
6,881.00	90.60	271.70	2,524.10	157.17	-4,503.53	4,506.27	0.38	-0.32	-0.21
6,961.95	90.34	271.18	2,523.44	159.20	-4,584.45	4,587.21	0.72	-0.32	-0.65
330' Cross Point 2									
6,974.00	90.30	271.10	2,523.37	159.44	-4,596.50	4,599.26	0.72	-0.32	-0.65

Last Phoenix MWD Survey

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)
7,055.00	90.30	271.10	2,522.95	161.00	-4,677.48	4,680.24	0.00	0.00	0.00
Projection to Bit									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.00	999.99	2.45	-0.29	First Phoenix MWD Survey
2,523.03	2,460.60	10.06	-179.10	330' Cross Point 1
6,961.95	2,523.44	159.20	-4,584.45	330' Cross Point 2
6,974.00	2,523.37	159.44	-4,596.50	Last Phoenix MWD Survey
7,055.00	2,522.95	161.00	-4,677.48	Projection to Bit

Checked By: _____	Approved By: _____	Date: _____
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