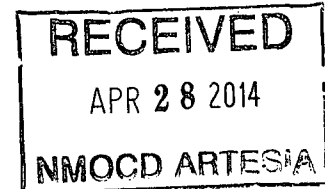


PHOENIX
TECHNOLOGY SERVICES

April 21, 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
Patriot AIZ #14H
Eddy County, NM
API #30-015- 41787 ✓
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	
Daniel Scott	14H	1,038	7,387	03/09/14	03/16/14	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 1752

Phoenix Technology Services SURVEY DATA CERTIFICATION

RECEIVED

APR 28 2014

NMOCD ARTESIA



PHOENIX
TECHNOLOGY SERVICES

PHOENIX JOB NUMBER 1410302

OPERATOR Yates Petroleum Corporation

WELL NAME Patriot AIZ #14H

COUNTY & STATE

Eddy, New Mexico

API WELL NUMBER 30-015-41787

PROPOSED DIRECTION 268.5

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
872 ft	871.93 ft	0.28	26.31	8.86 ft	4.26 ft	GYRO

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
9-Mar-14	1,038 ft	0.5	70.6

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
16-Mar-14	7,387 ft	92	269.5

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
16-Mar-14	7,463 ft	92	269.5

Daniel Scott

PRINT YOUR NAME ABOVE

Daniel Scott

SIGN YOUR NAME ABOVE

3/16/2014

TODAY'S DATE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.8
DECLINATION OR GRID	GRID

MWD SUPERVISOR 1 Daniel Scott

DIRECTIONAL DRILLER 1

Brian Terrell

MWD SUPERVISOR 2 James Garber

DIRECTIONAL DRILLER 2

Greg Puntney

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

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (575) 393-6161 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) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3400 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

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

RECEIVED

APR 28 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 30-05-41787	Pool Code	Pool Name
Property Code	Property Name PATRIOT AIZ	Well Number 14H
OGRID No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3515

Surface Location

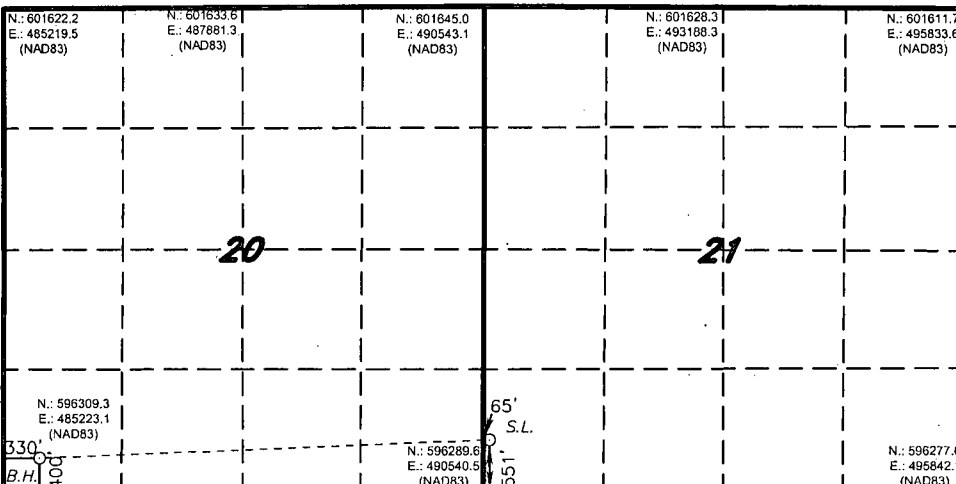
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	21	19 S	25 E		551	SOUTH	65	WEST	EDDY

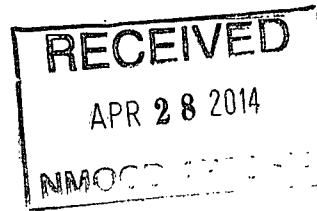
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	20	19 S	25 E		400	SOUTH	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

				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 unleased 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 _____	
PROPOSED BOTTOM HOLE LOCATION Lat - N 32°38'24.97" Long - W 104°30'52.42" NMSPC- N 596708.1 E 485552.4 (NAD-83)				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. OCTOBER 17 2013 Date Surveyed Signature & Seal of Professional Surveyor 7977 Certificate No. 7977 BASIN SURVEYORS 0' 1000' 2000' 3000' 4000' SCALE: 1" = 2000' WO Num.: 29605	



30-015-41787

Yates Petroleum Corp.

Eddy County, NM (NAD83 NME)

Patriot AIZ

#14H

WB1/Job #1410302

Design: Surveys (Silver Oak 11)

Phoenix Final Survey Report

17 March, 2014





Phoenix Technology Services

Phoenix Final Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #14H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3533.50usft (Silver Oak 11)
Site:	Patriot AIZ	MD Reference:	KB @ 3533.50usft (Silver Oak 11)
Well:	#14H	North Reference:	Grid
Wellbore:	WB1/Job #1410302	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	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	Patriot AIZ		
Site Position:		Northing:	596,840.50 usft
From:	Map	Easting:	490,606.70 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 38' 26.35759 N
		Longitude:	104° 29' 53.31675 W
		Grid Convergence:	-0.09 °

Well	#14H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 38' 26.35759 N
		Longitude:	104° 29' 53.31675 W
		Ground Level:	3,515.00 usft

Wellbore	WB1/Job #1410302		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	02/25/14	(°)
			7.71
			Dip Angle
			(°)
			60.35
			Field Strength
			(nT)
			48,494

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
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			268.50

Survey Program	Date 03/17/14		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	872.00	Gyro Survey (WB1/Job #1410302)	CB-GYRO-MS
1,038.00	7,463.00	Phoenix MWD Survey (WB1/Job #141030)	MWD
			Description
			Camera based gyro multishot
			MWD - Standard

Survey	MD	Inc	Azi (azimuth)	TVD	N/S	E/W	V. Sec	DLeg
	(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(°/100usft)
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.52	11.30	100.00	0.44	0.09	-0.10	0.52
	200.00	0.70	13.49	199.99	1.48	0.32	-0.36	0.18
	300.00	0.77	13.13	299.98	2.73	0.62	-0.69	0.07
	400.00	0.86	12.52	399.97	4.12	0.93	-1.04	0.09
	500.00	0.93	24.97	499.96	5.59	1.44	-1.58	0.21
	600.00	0.89	36.95	599.95	6.94	2.25	-2.43	0.19
	700.00	0.70	62.43	699.94	7.85	3.25	-3.46	0.40
	800.00	0.46	34.20	799.94	8.46	4.02	-4.24	0.37
	872.00	0.28	26.31	871.93	8.86	4.26	-4.49	0.26
Tie-on to Gyro Survey								



Phoenix Technology Services
Phoenix Final Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #14H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3533.50usft (Silver Oak 11)
Site:	Patriot AIZ	MD Reference:	KB @ 3533.50usft (Silver Oak 11)
Well:	#14H	North Reference:	Grid
Wellbore:	WB1/Job #1410302	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	GCR DB

Survey	MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
	1,038.00	0.50	70.60	1,037.93	9.46	5.12	-5.37	0.22
First Phoenix MWD Survey	1,228.00	0.80	58.90	1,227.92	10.42	7.04	-7.31	0.17
	1,416.00	0.70	61.40	1,415.90	11.65	9.17	-9.48	0.06
	1,603.00	0.90	71.00	1,602.88	12.68	11.57	-11.89	0.13
	1,821.00	0.90	79.80	1,820.86	13.54	14.87	-15.22	0.06
	1,900.00	0.80	66.20	1,899.85	13.87	15.98	-16.34	0.28
	1,945.00	0.90	64.80	1,944.84	14.15	16.59	-16.96	0.23
	1,976.00	0.70	297.00	1,975.84	14.34	16.64	-17.01	4.64
	2,007.00	6.00	266.80	2,006.78	14.33	14.86	-15.23	17.44
	2,039.00	12.00	265.10	2,038.37	13.95	9.87	-10.23	18.77
	2,070.00	17.90	263.10	2,068.31	13.11	1.92	-2.26	19.10
	2,101.00	22.60	263.00	2,097.38	11.81	-8.73	8.42	15.16
	2,133.00	26.30	263.70	2,126.51	10.28	-21.88	21.61	11.60
	2,164.00	29.60	264.80	2,153.89	8.83	-36.34	36.09	10.77
	2,195.00	33.40	266.40	2,180.32	7.60	-52.48	52.27	12.55
	2,226.00	38.10	268.00	2,205.47	6.73	-70.57	70.37	15.46
	2,257.00	40.80	269.40	2,229.41	6.29	-90.26	90.06	9.17
	2,288.00	43.30	270.80	2,252.42	6.33	-111.02	110.81	8.61
	2,320.00	44.80	271.30	2,275.42	6.74	-133.26	133.04	4.81
	2,351.00	46.10	270.90	2,297.17	7.17	-155.35	155.11	4.29
	2,382.00	49.70	270.40	2,317.95	7.42	-178.35	178.09	11.67
	2,414.00	53.90	269.20	2,337.73	7.33	-203.49	203.22	13.45
	2,445.00	57.00	268.60	2,355.31	6.84	-229.01	228.75	10.13
	2,476.00	59.60	267.90	2,371.60	6.03	-255.37	255.13	8.60
	2,507.00	62.70	266.60	2,386.56	4.72	-282.49	282.27	10.65
	2,538.00	65.50	267.20	2,400.10	3.21	-310.33	310.14	9.20
	2,569.00	64.80	267.00	2,413.13	1.79	-338.42	338.26	2.33
	2,601.00	69.30	268.80	2,425.60	0.72	-367.86	367.72	14.99
	2,630.69	73.61	268.90	2,435.04	0.15	-396.00	395.86	14.52
2630.69 MD, 330° Crossing Heel Point	2,632.00	73.80	268.90	2,435.41	0.13	-397.26	397.12	14.52
	2,664.00	79.30	269.40	2,442.85	-0.33	-428.36	428.22	17.25
	2,695.00	81.90	269.70	2,447.91	-0.57	-458.94	458.80	8.44
	2,727.00	85.70	270.10	2,451.37	-0.63	-490.75	490.60	11.94
	2,758.00	89.20	269.20	2,452.75	-0.81	-521.71	521.56	11.66
	2,789.00	91.70	268.30	2,452.50	-1.49	-552.70	552.55	8.57
	2,820.00	91.30	268.40	2,451.69	-2.38	-583.68	583.54	1.33
	2,852.00	91.10	268.60	2,451.02	-3.22	-615.66	615.53	0.88
	2,945.00	90.50	269.30	2,449.72	-4.92	-708.63	708.52	0.99
	3,039.00	89.90	269.40	2,449.39	-5.99	-802.63	802.51	0.65
	3,132.00	89.60	269.30	2,449.80	-7.05	-895.62	895.50	0.34
	3,226.00	90.40	268.40	2,449.80	-8.93	-989.60	989.49	1.28
	3,319.00	90.00	267.80	2,449.48	-12.02	-1,082.55	1,082.49	0.78
	3,413.00	91.00	268.10	2,448.66	-15.38	-1,176.48	1,176.48	1.11



Phoenix Technology Services

Phoenix Final Survey Report



Company:	Yates Petroleum Corp	Local Co-ordinate Reference:	Well #14H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3533.50usft (Silver Oak 11)
Site:	Patriot AIZ	MD Reference:	KB @ 3533.50usft (Silver Oak 11)
Well:	#14H	North Reference:	Grid
Wellbore:	WB1/Job #1410302	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	GCR-DB

Survey								
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	
3,506.00	90.60	268.10	2,447.36	-18.46	-1,269.42	1,269.47		0.43
3,600.00	90.50	268.50	2,446.45	-21.25	-1,363.38	1,363.47		0.44
3,693.00	89.40	268.40	2,446.54	-23.77	-1,456.34	1,456.46		1.19
3,787.00	90.20	268.40	2,446.86	-26.39	-1,550.30	1,550.46		0.85
3,880.00	91.70	268.50	2,445.32	-28.91	-1,643.25	1,643.45		1.62
3,974.00	91.30	268.10	2,442.86	-31.69	-1,737.18	1,737.41		0.60
4,068.00	90.70	268.00	2,441.22	-34.89	-1,831.11	1,831.40		0.65
4,161.00	90.30	268.00	2,440.41	-38.14	-1,924.05	1,924.39		0.43
4,254.00	90.00	268.00	2,440.17	-41.38	-2,016.99	2,017.38		0.32
4,348.00	91.40	268.20	2,439.02	-44.50	-2,110.93	2,111.37		1.50
4,441.00	91.60	268.50	2,436.58	-47.18	-2,203.86	2,204.34		0.39
4,535.00	91.20	268.00	2,434.29	-50.05	-2,297.79	2,298.31		0.68
4,629.00	91.60	268.30	2,431.99	-53.08	-2,391.71	2,392.28		0.53
4,722.00	90.80	268.70	2,430.04	-55.51	-2,484.66	2,485.26		0.96
4,815.00	90.80	268.80	2,428.74	-57.54	-2,577.63	2,578.25		0.11
4,909.00	90.90	269.30	2,427.35	-59.10	-2,671.60	2,672.23		0.54
5,003.00	90.80	268.90	2,425.95	-60.58	-2,765.58	2,766.22		0.44
5,096.00	90.70	269.10	2,424.74	-62.20	-2,858.56	2,859.21		0.24
5,190.00	90.60	269.10	2,423.67	-63.68	-2,952.54	2,953.20		0.11
5,283.00	90.10	269.40	2,423.10	-64.89	-3,045.53	3,046.19		0.63
5,377.00	90.00	269.30	2,423.02	-65.96	-3,139.53	3,140.18		0.15
5,471.00	89.60	266.50	2,423.35	-69.40	-3,233.45	3,234.16		3.01
5,564.00	89.20	266.50	2,424.32	-75.08	-3,326.27	3,327.10		0.43
5,658.00	90.10	266.80	2,424.90	-80.57	-3,420.11	3,421.05		1.01
5,751.00	90.40	266.90	2,424.49	-85.68	-3,512.97	3,514.01		0.34
5,845.00	90.40	267.30	2,423.84	-90.44	-3,606.85	3,607.98		0.43
5,938.00	90.30	267.70	2,423.27	-94.50	-3,699.75	3,700.96		0.44
6,032.00	90.00	268.00	2,423.02	-98.02	-3,793.69	3,794.95		0.45
6,125.00	90.00	267.90	2,423.02	-101.35	-3,886.63	3,887.95		0.11
6,219.00	90.10	268.00	2,422.94	-104.71	-3,980.57	3,981.95		0.15
6,313.00	90.40	268.00	2,422.53	-107.99	-4,074.51	4,075.94		0.32
6,406.00	90.70	267.90	2,421.64	-111.32	-4,167.45	4,168.93		0.34
6,500.00	91.00	267.90	2,420.24	-114.76	-4,261.37	4,262.92		0.32
6,593.00	90.90	267.80	2,418.70	-118.25	-4,354.29	4,355.90		0.15
6,687.00	91.00	267.70	2,417.14	-121.94	-4,448.21	4,449.88		0.15
6,780.00	91.30	267.30	2,415.27	-126.00	-4,541.10	4,542.84		0.54
6,874.00	91.70	267.20	2,412.81	-130.50	-4,634.96	4,636.79		0.44
6,967.00	91.90	267.20	2,409.89	-135.05	-4,727.80	4,729.72		0.22
7,061.00	92.40	268.60	2,406.37	-138.49	-4,821.67	4,823.64		1.58
7,154.00	92.00	269.00	2,402.80	-140.43	-4,914.58	4,916.57		0.61
7,248.00	91.30	269.10	2,400.09	-141.99	-5,008.53	5,010.53		0.75
7,293.49	91.49	269.25	2,398.98	-142.65	-5,054.00	5,056.00		0.53
7293.49 MD 330, Crossing Toe Point								
7,342.00	91.70	269.40	2,397.63	-143.22	-5,102.49	5,104.49		0.53