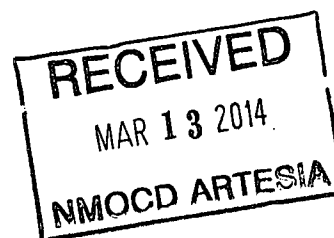


March 7, 2014



PHOENIX
TECHNOLOGY SERVICES

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



Dear District 2 - Artesia

Attention: Regulatory Department

Re: Yates Petroleum Corp.
Thomas AJJ #7H
Eddy County, NM
API #30-015-41969
Job No. 1410260

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	7H	1,038	6,822	02/24/14	03/03/14	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,

Kelly Jo Walter

Kelly Jo Walter
Operations Administrator

Certified mail receipt number: 7011 1570 0001 4364 8998

Phoenix Technology Services
SURVEY DATA CERTIFICATION

RECEIVED

MAR 13 2014

NMOCD ARTESIA



PHOENIX
TECHNOLOGY SERVICES

PHOENIX JOB NUMBER

1410260

OPERATOR

Yates Petroleum Corporation

WELL NAME

Thomas AJJ #7H

COUNTY & STATE

Eddy, New Mexico

API WELL NUMBER

30-015-41969

PROPOSED DIRECTION

272.7

TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
900 ft	899.90 ft	1.8	136.6	-6.18 ft	6.52 ft	Gyro

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
24-Feb-14	1,038 ft	1.5	153.0

SURVEY INSTRUMENT

TYPE

Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
3-Mar-14	6,822 ft	92.4	270.4

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
3-Mar-14	6,893 ft	92.4	270.4

Daniel Scott

PRINT YOUR NAME ABOVE

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.81
DECLINATION OR GRID	GRID

Tuesday, March 04, 2014

TODAY'S DATE

MWD SUPERVISOR 1

Daniel Scott

DIRECTIONAL DRILLER 1

Dan Waggoner

MWD SUPERVISOR 2

James Garber

DIRECTIONAL DRILLER 2

Greg Puntny

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



Project: Eddy County, NM (NAD83 NME)
Site: Thomas AJJ
Well: #7H
Wellbore: WB1/Job #1410260
Design: Plan #2 02-25-14
Rig: Silver Oak 11



Compass rose showing True North (T), Magnetic North (M), and Grid North (G).
Azimuths to Grid North
True North: 0.09°
Magnetic North: 7.81°
Magnetic Field Strength: 48516.4nT
Dip Angle: 60.38°
Date: 02/11/2014
Model: IGRF2010_14

WELL DETAILS							
			Ground Level	3527.00			
+N-S	+E-W	Northing	Easting	Latitude	Longitude		
0.00	0.00	608408.90	490430.90	32° 40' 20.82818 N	104° 29' 55.58360 W		

SECTION DETAILS												
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	Vsect	Target	Annotation	
1	1708.00	0.20	284.10	1707.79	-14.01	8.92	0.00	0.00	-8.57		Tie-on to Current Survey	
2	1780.00	0.20	284.10	1779.79	-13.95	8.67	0.00	0.00	-8.32		Projection to Bit	
3	1811.75	0.20	284.10	1811.54	-13.92	8.57	0.00	0.00	-8.21		XOP, 11.95°/100' Build	
4	2575.42	91.49	287.30	2289.00	132.22	-460.97	11.95	3.20	466.69		Begin 3°/100' Turn	
5	3146.96	91.49	270.15	2274.04	218.56	-1023.60	3.00	-89.78	1032.77		LP, Hold 91.49° Inc, 270.15° Azim	
6	6962.66	91.49	270.15	2175.00	228.40	-4838.00	0.00	0.00	4843.39	PBHL-Thomas AJJ #7H	TD at 6962.66	

DESIGN TARGET DETAILS										
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape		
PBHL-Thomas AJJ #7H	2175.00	228.40	-4838.00	608637.30	465592.90	32° 40' 23.01008 N	104° 30' 52.19028 W	Point		
- plan hits target center										

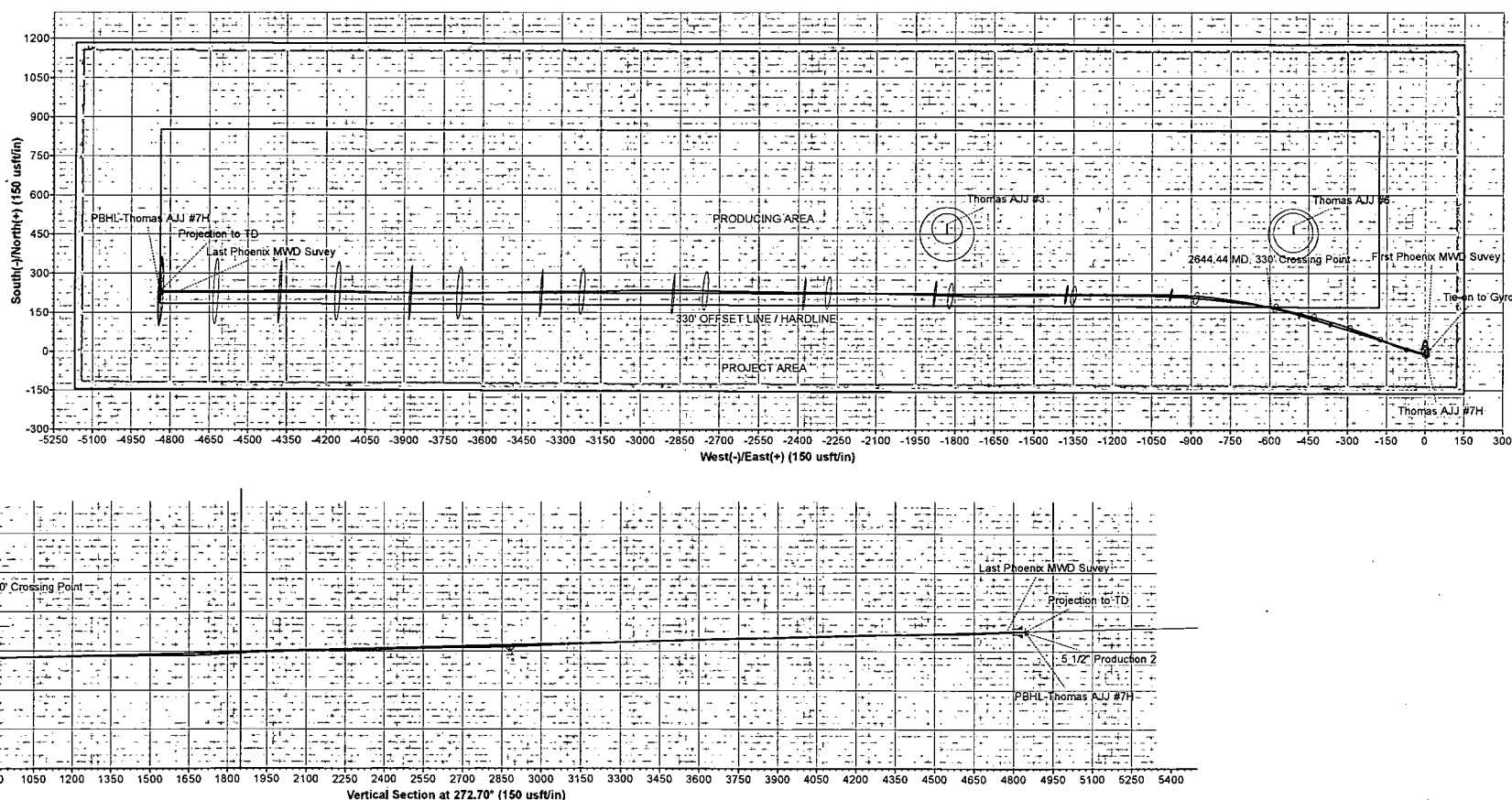
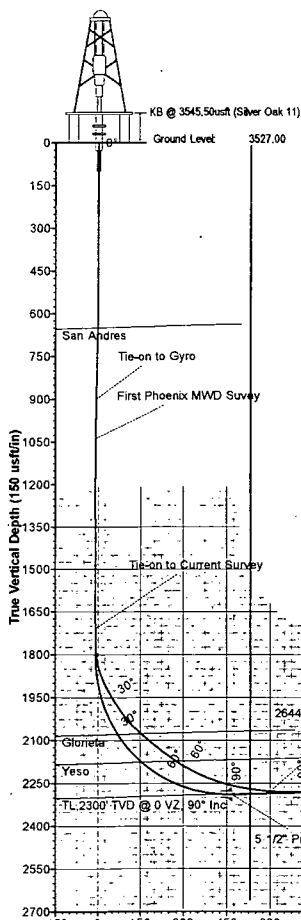
Map System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone Name: New Mexico Eastern Zone
Local Origin: Well #7H, Grid North
Latitude: 32° 40' 20.82818 N
Longitude: 104° 29' 55.58360 W
Grid East: 490430.90
Grid North: 608408.90
Scale Factor: 1.000
Geomagnetic Model: IGRF2010_14
Sample Date: 11-Feb-14
Magnetic Declination: 7.72°
Dip Angle from Horizontal: 60.38°
Magnetic Field Strength: 48516

To convert a Magnetic Direction to a Grid Direction, Add 7.81°
To convert a Magnetic Direction to a True Direction, Add 7.72° East
To convert a True Direction to a Grid Direction, Add 0.09°

FORMATION TOP DETAILS				
TVDPath	MDPath	Formation	DipAngle	DipDir
2078.18	2094.86	Glorieta	-1.48	272.39
2175.95	2226.74	Yeso	-1.48	272.39
2288.76	2543.31	TL 2300' TVD @ 0 VZ, 90° Inc	-1.48	272.39

CASING DETAILS				
TVD	MD	Name	Size	
1000.00		9 5/8" Surface	5-5/8	
2289.00	2575.47	5 1/2" Production 1	5-1/2	
2175.29	6951.57	5 1/2" Production 2	5-1/2	

LEGEND	
—	#6, WB1, Inc Surveys V0
—	#3, WB1, Inc Surveys V0
—	#7H, WB1/Job #1410260, Surveys (Silver Oak 11) V0
—	Plan #2 02-25-14





Yates Petroleum Corp.

Eddy County, NM (NAD83 NME)

Thomas AJJ

#7H

WB1/Job #1410260

Survey: Phoenix MWD Survey

Phoenix Final Survey Report

05 March, 2014





Phoenix Technology Services
Phoenix Final Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #7H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3545.50usft (Silver Oak 11)
Site:	Thomas AJJ	MD Reference:	KB @ 3545.50usft (Silver Oak 11)
Well:	#7H	North Reference:	Grid
Wellbore:	WB1/Job #1410260	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	Thomas AJJ		
Site Position:	Map	Northing:	608,408.90 usft
From:		Easting:	490,430.90 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 40' 20.82818 N
		Longitude:	104° 29' 55.58360 W
		Grid Convergence:	-0.09 °

Well	#7H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 40' 20.82818 N
		Longitude:	104° 29' 55.58360 W
		Ground Level:	3,527.00 usft

Wellbore	WB1/Job #1410260		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010_14	02/11/14	7.72
			Dip Angle
			(°)
			60.38
			Field Strength
			(nT)
			48,516

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
			(°)
			272.70

Survey Program	Date 03/05/14		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	900.00	Gyro Survey (WB1/Job #1410260)	CB-GYRO-MS
1,038.00	6,893.00	Phoenix MWD Survey (WB1/Job #141026)	MWD
			Description
			Camera based gyro multishot
			MWD - Standard

Survey							
MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)
900.00	1.77	136.56	899.90	-6.18	6.52	-6.81	0.00
Tie-on to Gyro							
1,038.00	1.50	153.00	1,037.84	-9.33	8.81	-9.24	0.39
First Phoenix MWD Survey							
1,132.00	1.70	155.00	1,131.81	-11.69	9.96	-10.50	0.22
1,225.00	0.30	214.70	1,224.79	-13.14	10.40	-11.01	1.69
1,319.00	0.30	222.30	1,318.79	-13.53	10.10	-10.72	0.04
1,506.00	0.10	244.20	1,505.79	-13.96	9.62	-10.27	0.11
1,693.00	0.30	271.50	1,692.79	-14.02	8.98	-9.63	0.12
1,708.00	0.20	284.10	1,707.79	-14.01	8.92	-9.57	0.76
1,756.00	0.30	316.20	1,755.79	-13.90	8.75	-9.39	0.35



Phoenix Technology Services

Phoenix Final Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #7H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3545.50usft (Silver Oak 11)
Site:	Thomas AJJ	MD Reference:	KB @ 3545.50usft (Silver Oak 11)
Well:	#7H	North Reference:	Grid
Wellbore:	WB1/Job #1410260	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)	
1,787.00	2.60	288.40	1,786.77	-13.62	8.03	-8.66	7.54	
1,818.00	9.80	283.10	1,817.57	-12.80	4.78	-5.38	23.27	
1,849.00	16.80	281.30	1,847.72	-11.32	-2.19	1.65	22.62	
1,880.00	22.80	284.10	1,876.88	-8.98	-12.41	11.98	19.59	
1,912.00	26.50	284.90	1,905.96	-5.63	-25.33	25.04	11.61	
1,943.00	29.60	286.50	1,933.31	-1.68	-39.36	39.24	10.29	
1,974.00	33.00	285.50	1,959.80	2.75	-54.84	54.91	11.09	
2,005.00	35.70	285.60	1,985.39	7.44	-71.69	71.96	8.71	
2,036.00	38.90	286.50	2,010.04	12.64	-89.74	90.23	10.47	
2,067.00	43.00	290.00	2,033.46	19.03	-109.02	109.79	15.15	
2,098.00	47.00	293.50	2,055.38	27.17	-129.36	130.49	15.17	
2,130.00	51.00	293.80	2,076.37	36.85	-151.47	153.04	12.52	
2,161.00	51.30	292.90	2,095.81	46.42	-173.64	175.63	2.46	
2,192.00	51.70	290.90	2,115.11	55.47	-196.15	198.54	5.21	
2,224.00	53.20	289.50	2,134.61	64.23	-219.96	222.74	5.83	
2,255.00	55.00	289.70	2,152.79	72.65	-243.61	246.76	5.83	
2,285.00	57.00	289.00	2,169.57	80.89	-267.08	270.59	6.94	
2,316.00	59.00	289.20	2,185.99	89.49	-291.92	295.81	6.47	
2,347.00	62.20	288.20	2,201.21	98.14	-317.50	321.77	10.70	
2,379.00	64.40	287.60	2,215.59	106.93	-344.70	349.35	7.08	
2,410.00	67.70	286.40	2,228.17	115.21	-371.79	376.80	11.22	
2,441.00	70.90	285.50	2,239.12	123.17	-399.67	405.03	10.67	
2,473.00	73.40	285.00	2,248.93	131.18	-429.05	434.76	7.95	
2,504.00	76.30	284.30	2,257.03	138.75	-458.00	464.03	9.61	
2,535.00	78.60	284.20	2,263.77	146.20	-487.33	493.67	7.43	
2,566.00	81.10	284.00	2,269.23	153.63	-516.92	523.58	8.09	
2,598.00	83.30	283.00	2,273.57	161.03	-547.75	554.72	7.54	
2,629.00	84.50	281.30	2,276.87	167.52	-577.88	585.13	6.69	
2,644.44	85.63	279.93	2,278.20	170.35	-593.00	600.36	11.45	
2644.44 MD, 330' Crossing Point								
2,655.00	86.40	279.00	2,278.93	172.08	-603.39	610.82	11.45	
2,686.00	88.50	277.10	2,280.31	176.42	-634.05	641.65	9.13	
2,748.00	90.70	277.10	2,280.74	184.08	-695.57	703.47	3.55	
2,842.00	91.70	277.10	2,278.78	195.70	-788.83	797.17	1.06	
2,935.00	91.00	274.60	2,276.58	205.17	-881.31	889.99	2.79	
3,029.00	91.20	272.40	2,274.78	210.91	-975.11	983.96	2.35	
3,123.00	91.20	270.60	2,272.81	213.37	-1,069.05	1,077.92	1.91	
3,216.00	91.10	270.50	2,270.94	214.26	-1,162.03	1,170.83	0.15	
3,310.00	90.90	270.30	2,269.30	214.92	-1,256.01	1,264.74	0.30	
3,403.00	90.60	269.50	2,268.09	214.76	-1,349.00	1,357.62	0.92	
3,497.00	90.60	269.70	2,267.10	214.10	-1,443.00	1,451.48	0.21	
3,590.00	90.30	268.90	2,266.37	212.96	-1,535.99	1,544.31	0.92	
3,684.00	90.20	268.90	2,265.96	211.16	-1,629.97	1,638.10	0.11	
3,777.00	92.80	270.90	2,263.53	211.00	-1,722.92	1,730.95	3.53	



Phoenix Technology Services

Phoenix Final Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #7H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3545.50usft (Silver Oak 11)
Site:	Thomas AJJ	MD Reference:	KB @ 3545.50usft (Silver Oak 11)
Well:	#7H	North Reference:	Grid
Wellbore:	WB1/Job #1410260	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)	
3,871.00	93.20	272.40	2,258.61	213.70	-1,816.75	1,824.80	1.65	
3,964.00	92.00	271.70	2,254.39	217.02	-1,909.59	1,917.70	1.49	
4,058.00	92.00	271.80	2,251.11	219.89	-2,003.49	2,011.63	0.11	
4,151.00	91.40	271.00	2,248.35	222.16	-2,096.42	2,104.56	1.07	
4,245.00	91.10	270.80	2,246.30	223.64	-2,190.39	2,198.49	0.38	
4,339.00	90.60	270.80	2,244.90	224.95	-2,284.37	2,292.43	0.53	
4,433.00	91.30	270.60	2,243.35	226.10	-2,378.35	2,386.36	0.77	
4,526.00	91.30	271.00	2,241.24	227.40	-2,471.32	2,479.28	0.43	
4,620.00	91.30	271.00	2,239.10	229.04	-2,565.28	2,573.22	0.00	
4,714.00	91.10	271.40	2,237.13	231.00	-2,659.24	2,667.17	0.48	
4,808.00	90.60	271.30	2,235.74	233.22	-2,753.20	2,761.13	0.54	
4,902.00	91.70	271.20	2,233.85	235.27	-2,847.16	2,855.08	1.18	
4,995.00	92.90	269.30	2,230.12	235.67	-2,940.07	2,947.91	2.41	
5,089.00	92.60	268.70	2,225.61	234.04	-3,033.95	3,041.61	0.71	
5,182.00	92.30	268.80	2,221.64	232.01	-3,126.84	3,134.30	0.34	
5,276.00	92.30	269.20	2,217.86	230.37	-3,220.75	3,228.03	0.43	
5,370.00	92.30	269.60	2,214.09	229.39	-3,314.67	3,321.80	0.43	
5,463.00	91.70	269.00	2,210.84	228.25	-3,407.61	3,414.58	0.91	
5,557.00	91.30	268.10	2,208.38	225.87	-3,501.54	3,508.30	1.05	
5,651.00	91.70	270.20	2,205.92	224.48	-3,595.50	3,602.08	2.27	
5,744.00	91.40	269.80	2,203.41	224.48	-3,688.46	3,694.94	0.54	
5,837.00	91.30	269.50	2,201.22	223.91	-3,781.43	3,787.78	0.34	
5,931.00	91.90	271.20	2,198.59	224.48	-3,875.39	3,881.66	1.92	
6,025.00	91.90	271.60	2,195.47	226.78	-3,969.31	3,975.59	0.43	
6,118.00	91.30	271.80	2,192.88	229.54	-4,062.23	4,068.54	0.68	
6,212.00	91.30	272.00	2,190.75	232.65	-4,156.16	4,162.50	0.21	
6,305.00	90.90	270.00	2,188.96	234.28	-4,249.12	4,255.44	2.19	
6,399.00	90.60	269.70	2,187.73	234.03	-4,343.11	4,349.32	0.45	
6,492.00	90.40	269.10	2,186.92	233.06	-4,436.11	4,442.16	0.68	
6,586.00	91.10	269.70	2,185.69	232.07	-4,530.09	4,535.99	0.98	
6,680.00	91.40	269.90	2,183.64	231.74	-4,624.07	4,629.85	0.38	
6,773.00	92.00	270.10	2,180.88	231.74	-4,717.03	4,722.71	0.68	
6,822.00	92.40	270.40	2,179.00	231.96	-4,765.99	4,771.63	1.02	
Last Phoenix MWD Survey								
6,893.00	92.40	270.40	2,176.02	232.45	-4,836.93	4,842.51	0.00	
Projection to TD								



Phoenix Technology Services

Phoenix Final Survey Report



Company:	Yates Petroleum Corp.	Local Co-ordinate Reference:	Well #7H
Project:	Eddy County, NM (NAD83 NME)	TVD Reference:	KB @ 3545.50usft (Silver Oak 11)
Site:	Thomas AJJ	MD Reference:	KB @ 3545.50usft (Silver Oak 11)
Well:	#7H	North Reference:	Grid
Wellbore:	WB1/Job #1410260	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Silver Oak 11)	Database:	GCR DB

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
900.00	899.90	-6.18	6.52	Tie-on to Gyro
1,038.00	1,037.84	-9.33	8.81	First Phoenix MWD Survey
2,644.44	2,278.20	170.35	-593.00	2644.44 MD, 330' Crossing Point
6,822.00	2,179.00	231.96	-4,765.99	Last Phoenix MWD Survey
6,893.00	2,176.02	232.45	-4,836.93	Projection to TD

Checked By: _____ Approved By: _____ Date: _____

DISTRICT I

1825 N. French Dr., Hobbs, NM 88240
Phone (505) 393-8161 Fax: (505) 393-0720

DISTRICT II

611 S. First St., Artesia, NM 88210
Phone (505) 334-8178 Fax: (505) 334-8170

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV

1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 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

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-41969	Pool Code 50270	Pool Name Penasco Draw; SA-Yeso (Assoc)
Property Code 12835	Property Name THOMAS AUJ	Well Number 7H
OGRID No. 025575	Operator Name YATES PETROLEUM CORPORATION	Elevation 3455

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/EAST line	County
I	8	19 S	25 E		1500	SOUTH	150	EAST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	SOUTH/South line	Feet from the	East/EAST line	County
L	8	19 S	25 E		1700	SOUTH	330	WEST	EDDY
Dedicated Acres 160	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: 612247.6 E: 485272.5 (NAD83) N: 612255.1 E: 487939.6 (NAD83) N: 612282.4 E: 490578.7 (NAD83) N: 606938.2 E: 486258.2 (NAD83) N: 606907.9 E: 490581.9 (NAD83) PROPOSED BOTTOM HOLE LOCATION Lat - N 32°40'23.01" Long - W 104°30'52.19" NMSPCE- N 608637.3 E 485592.9 (NAD-83) SURFACE LOCATION Lat - N 32°40'20.82" Long - W 104°29'55.58" NMSPCE- N 608408.9 E 490430.9 (NAD-83) B.H. 330 3459.1' 3463.1' 1500' 1500'	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 undivided 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. <i>Cy Cowan</i> 3/7/14 Signature Date Cy Cowan 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. NOVEMBER 08 2013 Date Surveyed Signature of Professional Surveyor 7977 Certificate for Gary L. Jones 7977 BASIN SURVEYOR 0' 500' 1000' 109000' 2000' SCALE: 1" = 1000' WO Num.: 29681
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