



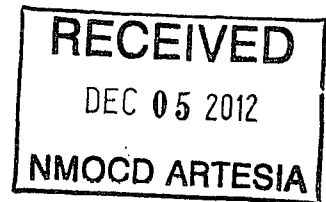
PHOENIX
TECHNOLOGY SERVICES

November 28, 2012

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

Dear District 2 - Artesia

Re: Chesapeake Operating Inc.
PLU Remuda Basin 4-24-30 USA 1H – Pilot Hole
Eddy Co., NM
API #30-015-40660
Job No. 1211012



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. 606018). Other information required by your office is as follows:

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Spencer Brown	1	176	9,413	10/26/12	11/04/12	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,

Amy Pope
Operations Administrator

Certified mail receipt number: 7011 1570 0001 4364 9872

RECEIVED

DEC 05 2012

PHOENIX TECHNOLOGY SERVICES INC.
WELL SURVEY DATA CERTIFICATION**PHOENIX**
TECHNOLOGY SERVICES

PHOENIX JOB NUMBER 1211012

OPERATOR Chesapeake

WELL NAME PLU Remuda Basin 4-24-30 USA 1H

COUNTY & STATE

Eddy Co., New Mexico

API WELL NUMBER 3001540660

PROPOSED DIRECTION 172.97

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

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
26-Oct-12	176 ft	1	299.8

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
4-Nov-12	9,413 ft	1	240.4

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
4-Nov-12	9,460 ft	1	240.4

Spencer Brown

PRINT YOUR NAME ABOVE

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.33
DECLINATION OR GRID	Grid

16-Nov

TODAY'S DATE

MWD SUPERVISOR 1 Spencer Brown

DIRECTIONAL DRILLER 1

Jay Stanley

MWD SUPERVISOR 2 Jia Lewis

DIRECTIONAL DRILLER 2

Brady Welch

1805 Brittmore Road

Houston, Texas 77043

(713)3370609 (Voice), (713)337-0599 (Fax)

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-8161 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 748-1283 Fax: (505) 748-0720

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) 476-3460 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

RECEIVED

DEC 05 2012

NMOCN ARTESIA

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 PLU REMUDA BASIN 4 24 30 USA	Well Number 1H
OGRID No.	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3495'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 1	4	24 S	30 E		175	NORTH	1250	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
P	4	24 S	30 E		100	SOUTH	660	EAST	EDDY

Dedicated Acres 162.61	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

LOT 4	LOT 3 SURFACE LOCATION Lat - N 32.253571538° Long - W 103.881603601° NMSPCE- N 456276.391 E 680982.201 (NAD-83) Lat - N 32.253448760° Long - W 103.881116280° NMSPCE- N 456217.229 E 639798.538 (NAD-27)	LOT 2	LOT 1 1250' 3498.3' 3520.0'
PROPOSED BOTTOM HOLE LOCATION Lat - N 32.239780450° Long - W 103.879673307° NMSPCE- N 451261.886 E 681600.121 (NAD-83) Lat - N 32.239657532° Long - W 103.879186602° NMSPCE- N 451202.836 E 640416.303 (NAD-27)			

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 _____

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.

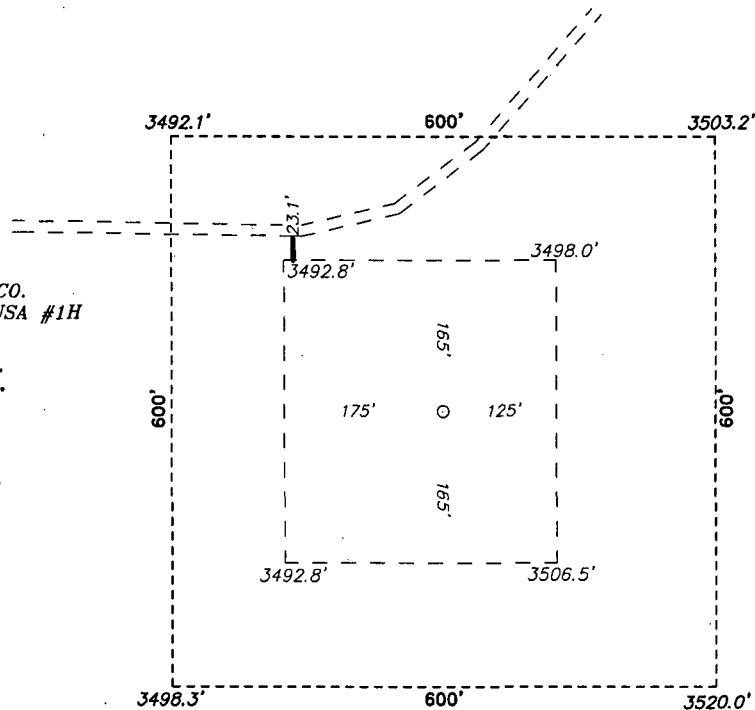
Date Surveyed MARCH 2012
Signature and Seal of Professional Surveyor GARY L. JONES
Certificate No. GARY L. JONES 7977
BASIN SURVEYS 26322

SECTION 4, TOWNSHIP 24 SOUTH, RANGE 30 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



CHESAPEAKE OPERATING CO.
PLU REMUDA BASIN 4 24 30 USA #1H
ELEV. - 3495'

Lat - N 32.253571538°
Long - W 103.881603601°
NMSPCE- N 456276.391
E 680982.201
(NAD-83)
Lat - N 32.253448760°
Long - W 103.881116280°
NMSPCE- N 456217.229
E 639798.538
(NAD-27)



200 0 200 400 FEET
SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF HWY 128 AND MOBLEY RANCH, GO SOUTH ON MOBLEY RANCH FOR 0.6 MILES TO LEASE ROAD, ON LEASE ROAD GO SOUTHERLY 4.6 MILES TO OLD LEASE ROAD, ON OLD LEASE ROAD GO GO SOUTHWEST 0.3 MILES TURNING SOUTH 0.9 MILES TO PROPOSED LEASE ROAD.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 26322 Drawn By: J. SMALL

Date: 03-02-2012 Disk: JMS 26322

CHESAPEAKE OPERATING CO.

REF: PLU REMUDA BASIN 4 24 30 USA #1H / WELL PAD TOPO

THE PLU REMUDA BASIN 4 24 30 USA #1H LOCATED 175'

FROM THE NORTH LINE AND 1250' FROM THE EAST LINE OF

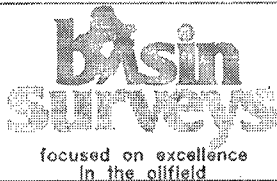
SECTION 4, TOWNSHIP 24 SOUTH, RANGE 30 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 03-02-2012 Sheet 1 of 1 Sheets



PLU REMUDA BASIN 4 24 30 USA #1H
 Located 175' FNL and 1250' FEL
 Section 4, Township 24 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7316 - Office
 (575) 392-2206 - Fax
 basinsurveys.com

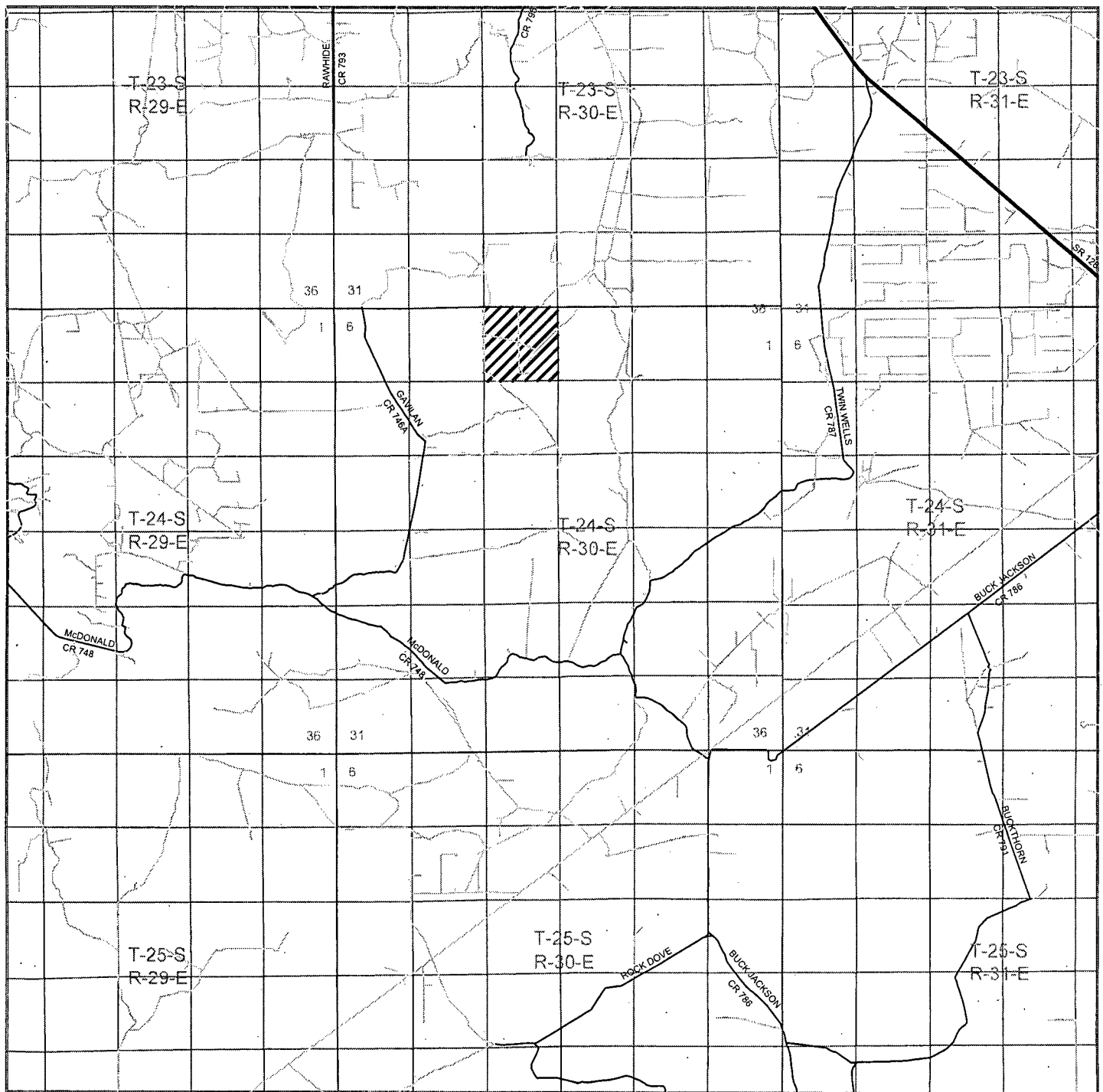
W.O. Number: JMS 26322

Survey Date: 03-02-2012

Scale: 1" = 2000'

Date: 03-09-2012

CHESAPEAKE
 OPERATING CO.



PLU REMUDA BASIN 4 24 30 USA #1H
 Located 175' FNL and 1250' FEL
 Section 4, Township 24 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.

basin
surveys
 focused on excellence
 in the oilfield

P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
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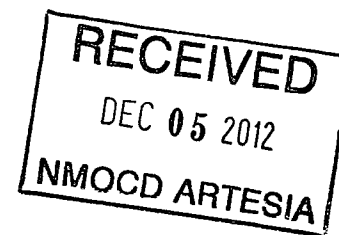
W.O. Number: JMS 26322

Survey Date: 03-02-2012

Scale: 1" = 2 Miles

Date: 03-09-2012

CHESAPEAKE
OPERATING CO.



Chesapeake Operating Inc.

Eddy County, New Mexico (NAD 1983)

PLU Remuda Basin 4 24 30 USA 1H

Job # 1211012

Rig: Latshaw 14

Survey: Phoenix MWD Surveys Pilot

Chesapeake Energy, Survey Report

28 November, 2012





Chesapeake Energy, Survey Report



Company:	Chesapeake Operating Inc.	Local Co-ordinate Reference:	Well Job # 1211012
Project:	Eddy County, New Mexico (NAD 1983)	TVD Reference:	WELL @ 3518.00usft (Latshaw 14)
Site:	PLU Remuda Basin 4 24 30 USA 1H	MD Reference:	WELL @ 3518.00usft (Latshaw 14)
Well:	Job # 1211012	North Reference:	Grid
Wellbore:	Rig: Latshaw 14	Survey Calculation Method:	Minimum Curvature
Design:	Rig: Latshaw 14	Database:	Compass5000

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

Site	PLU Remuda Basin 4 24 30 USA 1H		
Site Position:		Northing:	456,276.00 usft
From:	Map	Easting:	680,982.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 15' 12.8537 N
		Longitude:	103° 52' 53.7753 W
		Grid Convergence:	0.24 °

Well		Job # 1211012				
Well Position	+N/-S	0.00 usft	Northing:	456,276.00 usft	Latitude:	32° 15' 12.8537 N
	+E/-W	0.00 usft	Easting:	680,982.00 usft	Longitude:	103° 52' 53.7753 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	23.00 usft	Ground Level:	3,495.00 usft	

Wellbore		Rig: Latshaw 14			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	10/17/12	7.57	60.13	48,465

Design		Rig: Latshaw 14		
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	172.97



Chesapeake Energy, Survey Report



Company: Chesapeake Operating Inc.
Project: Eddy County, New Mexico (NAD 1983)
Site: PLU Remuda Basin 4 24 30 USA 1H
Well: Job # 1211012
Wellbore: Rig: Latshaw 14
Design: Rig: Latshaw 14

Local Co-ordinate Reference: Well Job # 1211012
TVD Reference: WELL @ 3518.00usft (Latshaw 14)
MD Reference: WELL @ 3518.00usft (Latshaw 14)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass5000

Survey Program		Date	11/28/12		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
176.00	8,491.00	Phoenix MWD Surveys Pilot (Rig: Latshaw	MWD	MWD - Standard	
8,565.00	13,743.00	Phoenix MWD Surveys (Rig: Latshaw 14)	MWD	MWD - Standard	

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)	
0.00	0.00	0.00	3,518.00	0.00	0.00	0.00	0.00	0.00	456,276.00	680,982.00	
176.00	1.00	299.80	3,342.01	175.99	0.76	-1.33	-0.92	0.57	456,276.76	680,980.67	
First Phoenix MWD Surveys @ 176' MD											
360.00	1.00	294.60	3,158.04	359.96	2.23	-4.19	-2.73	0.05	456,278.23	680,977.81	
528.00	1.10	292.70	2,990.07	527.93	3.46	-7.01	-4.29	0.06	456,279.46	680,974.99	
669.00	1.00	261.90	2,849.09	668.91	3.81	-9.47	-4.94	0.40	456,279.81	680,972.53	
858.00	1.20	254.30	2,660.12	857.88	3.04	-13.01	-4.61	0.13	456,279.04	680,968.99	
1,048.00	1.00	246.70	2,470.16	1,047.84	1.85	-16.45	-3.85	0.13	456,277.85	680,965.55	
1,238.00	1.10	244.40	2,280.19	1,237.81	0.41	-19.62	-2.80	0.06	456,276.41	680,962.38	
1,429.00	0.70	224.50	2,089.21	1,428.79	-1.22	-22.09	-1.49	0.26	456,274.78	680,959.91	
1,619.00	0.70	207.70	1,899.23	1,618.77	-3.07	-23.44	0.18	0.11	456,272.93	680,958.56	
1,809.00	0.60	239.00	1,709.24	1,808.76	-4.61	-24.83	1.54	0.19	456,271.39	680,957.17	
2,000.00	0.40	283.30	1,518.25	1,999.75	-4.98	-26.34	1.72	0.22	456,271.02	680,955.66	
2,190.00	0.70	30.10	1,328.25	2,189.75	-3.82	-26.40	0.56	0.47	456,272.18	680,955.60	
2,380.00	0.90	11.30	1,138.27	2,379.73	-1.35	-25.53	-1.78	0.17	456,274.65	680,956.47	
2,570.00	0.40	356.90	948.28	2,569.72	0.77	-25.27	-3.86	0.27	456,276.77	680,956.73	
2,760.00	0.20	335.80	758.28	2,759.72	1.74	-25.44	-4.84	0.12	456,277.74	680,956.56	
2,950.00	0.40	326.50	568.29	2,949.71	2.59	-25.95	-5.75	0.11	456,278.59	680,956.05	
3,140.00	0.40	76.10	378.29	3,139.71	3.31	-25.67	-6.42	0.34	456,279.31	680,956.33	
3,330.00	0.80	118.80	188.30	3,329.70	2.83	-23.86	-5.73	0.30	456,278.83	680,958.14	
3,520.00	2.00	129.10	-1.64	3,519.64	0.10	-20.13	-2.56	0.64	456,276.10	680,961.87	



Chesapeake Energy, Survey Report



Company: Chesapeake Operating Inc.
Project: Eddy County, New Mexico (NAD 1983)
Site: PLU Remuda Basin 4 24 30 USA 1H
Well: Job # 1211012
Wellbore: Rig: Latshaw 14
Design: Rig: Latshaw 14

Local Co-ordinate Reference: Well Job # 1211012
TVD Reference: WELL @ 3518.00usft (Latshaw 14)
MD Reference: WELL @ 3518.00usft (Latshaw 14)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass5000

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)	
3,711.00	2.50	134.70	-192.49	3,710.49	-4.94	-14.58	3.11	0.29	456,271.06	680,967.42	
3,926.00	1.60	132.90	-407.35	3,925.35	-10.28	-9.05	9.09	0.42	456,265.72	680,972.95	
4,116.00	1.70	141.60	-597.27	4,115.27	-14.29	-5.35	13.53	0.14	456,261.71	680,976.65	
4,306.00	1.50	126.20	-787.20	4,305.20	-17.97	-1.60	17.64	0.25	456,258.03	680,980.40	
4,497.00	1.10	134.70	-978.15	4,496.15	-20.74	1.72	20.79	0.23	456,255.26	680,983.72	
4,687.00	1.30	133.20	-1,168.11	4,686.11	-23.49	4.59	23.88	0.11	456,252.51	680,986.59	
4,877.00	0.90	142.40	-1,358.07	4,876.07	-26.15	7.07	26.82	0.23	456,249.85	680,989.07	
5,068.00	0.60	117.80	-1,549.06	5,067.06	-27.81	8.87	28.68	0.23	456,248.19	680,990.87	
5,258.00	0.80	162.40	-1,739.05	5,257.05	-29.53	10.15	30.56	0.30	456,246.47	680,992.15	
5,448.00	0.40	145.00	-1,929.04	5,447.04	-31.34	10.94	32.44	0.23	456,244.66	680,992.94	
5,638.00	0.60	181.40	-2,119.03	5,637.03	-32.88	11.29	34.01	0.19	456,243.12	680,993.29	
5,828.00	0.70	155.90	-2,309.02	5,827.02	-34.93	11.74	36.11	0.16	456,241.07	680,993.74	
6,019.00	0.40	209.40	-2,500.01	6,018.01	-36.58	11.89	37.76	0.29	456,239.42	680,993.89	
6,209.00	0.70	167.70	-2,690.00	6,208.00	-38.29	11.81	39.45	0.25	456,237.71	680,993.81	
6,399.00	0.60	181.80	-2,879.99	6,397.99	-40.42	12.03	41.59	0.10	456,235.58	680,994.03	
6,589.00	0.70	193.20	-3,069.98	6,587.98	-42.54	11.73	43.66	0.09	456,233.46	680,993.73	
6,780.00	1.00	179.80	-3,260.95	6,778.95	-45.35	11.47	46.41	0.19	456,230.65	680,993.47	
6,970.00	1.00	167.70	-3,450.93	6,968.93	-48.62	11.83	49.71	0.11	456,227.38	680,993.83	
7,160.00	1.50	174.60	-3,640.88	7,158.88	-52.72	12.42	53.84	0.27	456,223.28	680,994.42	
7,350.00	1.70	165.20	-3,830.81	7,348.81	-57.92	13.37	59.12	0.17	456,218.08	680,995.37	
7,540.00	1.90	169.40	-4,020.71	7,538.71	-63.74	14.67	65.06	0.13	456,212.26	680,996.67	
7,730.00	1.90	166.40	-4,210.61	7,728.61	-69.90	15.99	71.33	0.05	456,206.10	680,997.99	
7,920.00	1.80	183.40	-4,400.51	7,918.51	-75.94	16.56	77.39	0.29	456,200.06	680,998.56	
8,111.00	1.10	236.10	-4,591.46	8,109.46	-79.96	14.86	81.17	0.75	456,196.04	680,996.86	
8,301.00	1.30	139.80	-4,781.43	8,299.43	-82.62	14.73	83.80	0.94	456,193.38	680,996.73	
8,491.00	2.40	208.20	-4,971.35	8,489.35	-87.77	14.24	88.86	1.19	456,188.23	680,996.24	
8,681.00	2.20	224.20	-5,161.20	8,679.20	-93.89	9.82	94.39	0.35	456,182.11	680,991.82	



Chesapeake Energy, Survey Report



Company: Chesapeake Operating Inc.
Project: Eddy County, New Mexico (NAD 1983)
Site: PLU Remuda Basin 4 24 30 USA 1H
Well: Job # 1211012
Wellbore: Rig Latshaw 14
Design: Rig Latshaw 14

Local Co-ordinate Reference: Well Job # 1211012
TVD Reference: WELL @ 3518.00usft (Latshaw 14)
MD Reference: WELL @ 3518.00usft (Latshaw 14)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass5000

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)
8,872.00	2.40	198.20	-5,352.05	8,870.05	-100.32	6.02	100.30	0.55	456,175.68	680,988.02
9,062.00	2.30	189.20	-5,541.89	9,059.89	-107.86	4.16	107.56	0.20	456,168.14	680,986.16
9,252.00	1.00	212.90	-5,731.81	9,249.81	-113.02	2.65	112.49	0.76	456,162.98	680,984.65
9,413.00	1.00	240.40	-5,892.78	9,410.78	-114.89	0.67	114.11	0.30	456,161.11	680,982.67
Last Phoenix MWD Surveys @ 9413' MD										
9,460.00	1.00	240.40	-5,939.78	9,457.78	-115.30	-0.04	114.43	0.00	456,160.70	680,981.96
Projection to TD @ 9460' MD										

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
176.00	175.99	0.76	-1.33	First Phoenix MWD Surveys @ 176' MD
9,413.00	9,410.78	-114.89	0.67	Last Phoenix MWD Surveys @ 9413' MD
9,460.00	9,457.78	-115.30	-0.04	Projection to TD @ 9460' MD

Checked By: _____

Approved By: _____

Date: _____



PHOENIX
TECHNOLOGY SERVICES

November 28, 2012

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

Dear District 2 - Artesia

Re: Chesapeake Operating Inc.
PLU Remuda Basin 4-24-30 USA 1H -- Sidetrack
Eddy Co., NM
API #30-015-40660
Job No. 1211012

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. 606018). Other information required by your office is as follows:

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Spencer Brown	1	8,565	13,640	11/07/12	11/16/12	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,

Amy Pope
Operations Administrator

Certified mail receipt number: 7011 1570 0001 4364 9872

Sidetrack

NEVIS ENERGY SERVICES INC.
SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER 1211012

OPERATOR Chesapeake

WELL NAME PLU Remuda Basin 4-24-30 USA 1H

COUNTY & STATE

Eddy Co., New Mexico

API WELL NUMBER	3001540660
-----------------	------------

PROPOSED DIRECTION	172.97
--------------------	--------

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
8,491 ft	8,489.35 ft	2.4	208.2	-87.77	14.24	MWD

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
07-Nov-12	8,565 ft	8.8	190

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
16-Nov-12	13,640 ft	88.7	172

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-Nov-12	13,743 ft	88.7	172.1

Spencer Brown

PRINT YOUR NAME ABOVE

Spencer Brown

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.33
DECLINATION OR GRID	GRID

11/16/12

TODAY'S DATE

MWD SUPERVISOR 1 Spencer Brown

DIRECTIONAL DRILLER 1

Jay Stanley

MWD SUPERVISOR 2 Jla Lewis

DIRECTIONAL DRILLER 2

Brady Welch

1805 Briltmore Road

Houston, Texas 77043

(713)3370609 (Voice), (713)337-0599 (Fax)

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
Phone (505) 393-6161 Fax: (505) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone (505) 748-1283 Fax: (505) 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) 476-3460 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

RECEIVED

DEC 05 2012

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 PLU REMUDA BASIN 4 24 30 USA	Well Number 1H
OGRID No.	Operator Name CHESAPEAKE OPERATING CO.	Elevation 3495'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
LOT 1	4	24 S	30 E		175	NORTH	1250	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
P	4	24 S	30 E		100	SOUTH	660	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
162.61			

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

LOT 4	LOT 3 SURFACE LOCATION Lat - N 32.253571538° Long - W 103.881603601° NMSPC- E 456276.391 E 680982.201 (NAD-83) Lat - N 32.253448760° Long - W 103.881116280° NMSPC- N 456217.229 E 639798.538 (NAD-27)	LOT 2	LOT 1 1250' 3498.3' 3520.0'
PROPOSED BOTTOM HOLE LOCATION Lat - N 32.239780450° Long - W 103.879673307° NMSPC- N 451261.886 E 681600.121 (NAD-83) Lat - N 32.239657532° Long - W 103.879186602° NMSPC- N 451202.836 E 640416.303 (NAD-27)			
B.H. 100' 660'			

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 _____

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: MARCH 2012

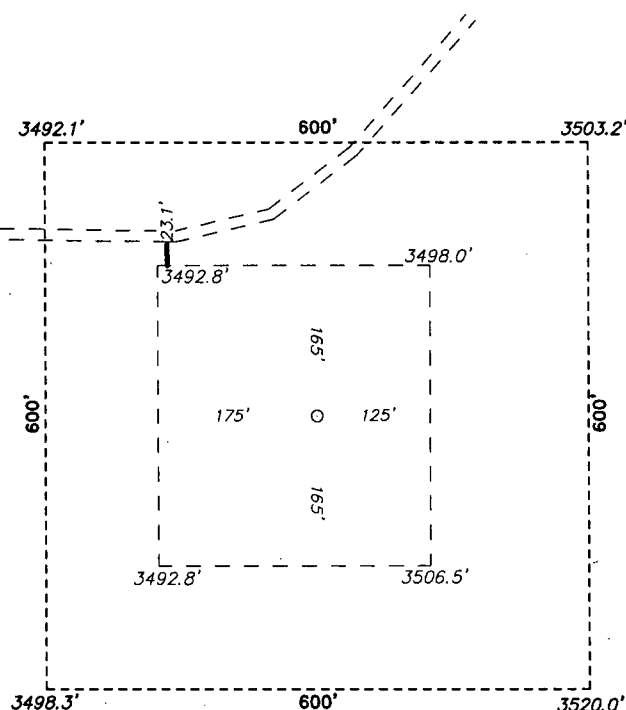
Date Surveyed _____

Signature _____ Seal of Professional Surveyor 7977

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 26322

Lat - N 32.253571538°
Long - W 103.881603601°
NMSPCE- N 456276.391
E 680982.201
(NAD-83)
Lat - N 32.253448760°
Long - W 103.881116280°
NMSPCE- N 456217.229
E 639798.538
(NAD-27)



FROM THE JUNCTION OF HWY 128 AND MOBLEY RANCH, GO SOUTH ON MOBLEY RANCH FOR 0.6 MILES TO LEASE ROAD, ON LEASE ROAD GO SOUTHERLY 4.6 MILES TO OLD LEASE ROAD, ON OLD LEASE ROAD GO GO SOUTHWEST 0.3 MILES TURNING SOUTH 0.9 MILES TO PROPOSED LEASE ROAD.

200 0 200 400 FEET

SCALE: 1" = 200'

CHESAPEAKE OPERATING CO.

THE PLU REMUDA BASIN 4 24 30 USA #1H LOCATED 175'
FROM THE NORTH LINE AND 1250' FROM THE EAST LINE OF

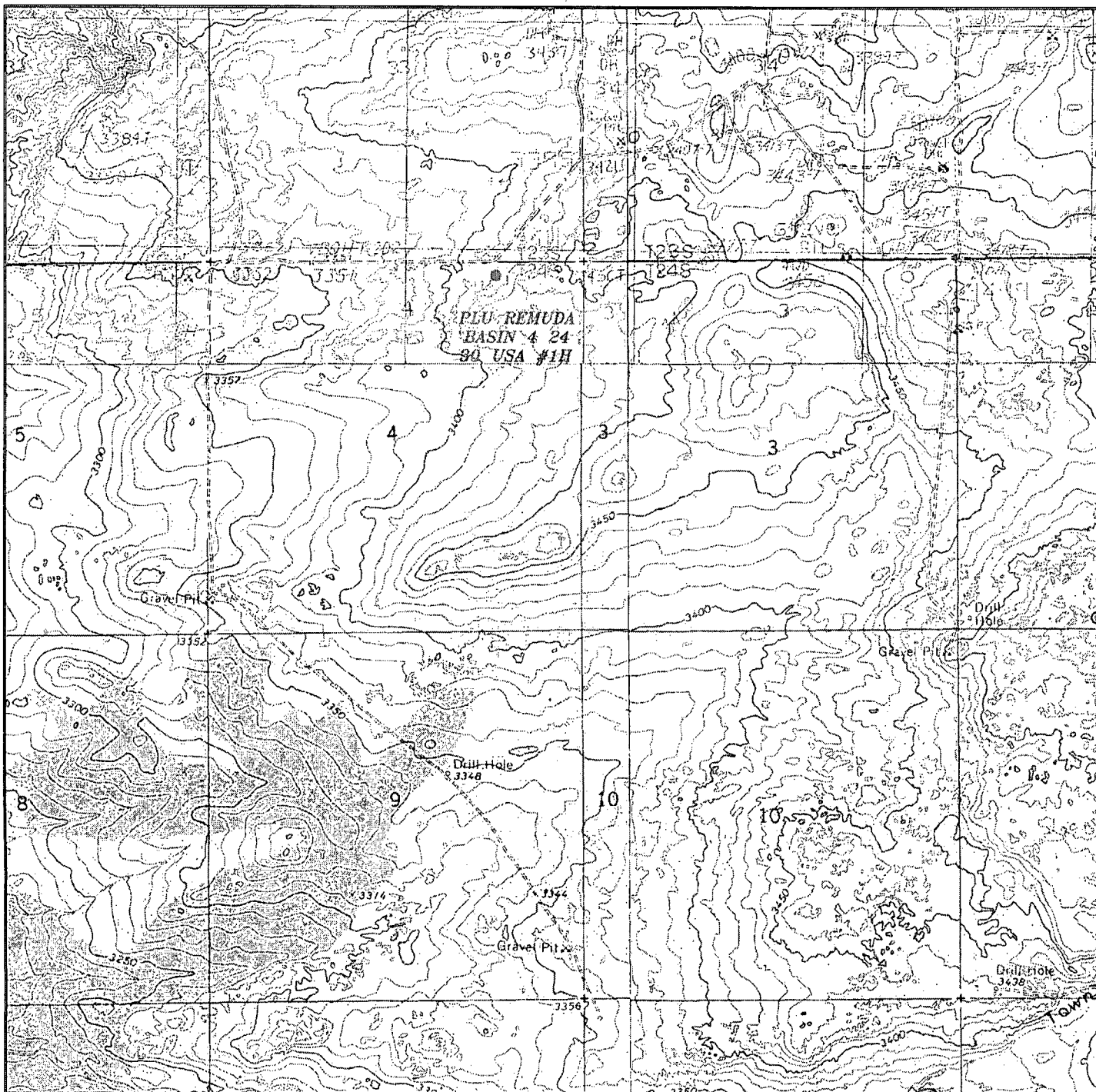
N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786—HOBBS, NEW MEXICO

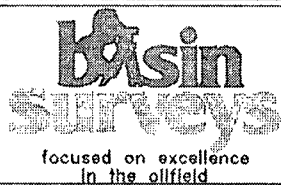
W.O. Number: 26322	Drawn By: J. SMALL
--------------------	--------------------

Date: 03-02-2012	Disk: JMS 26322
------------------	-----------------

Survey Date: 03-02-2012 Sheet 1 of 1 Sheets



PLU REMUDA BASIN 4 24 30 USA #1H
 Located 175' FNL and 1250' FEL
 Section 4, Township 24 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7316 - Office
 (575) 392-2206 - Fax
 basinsurveys.com

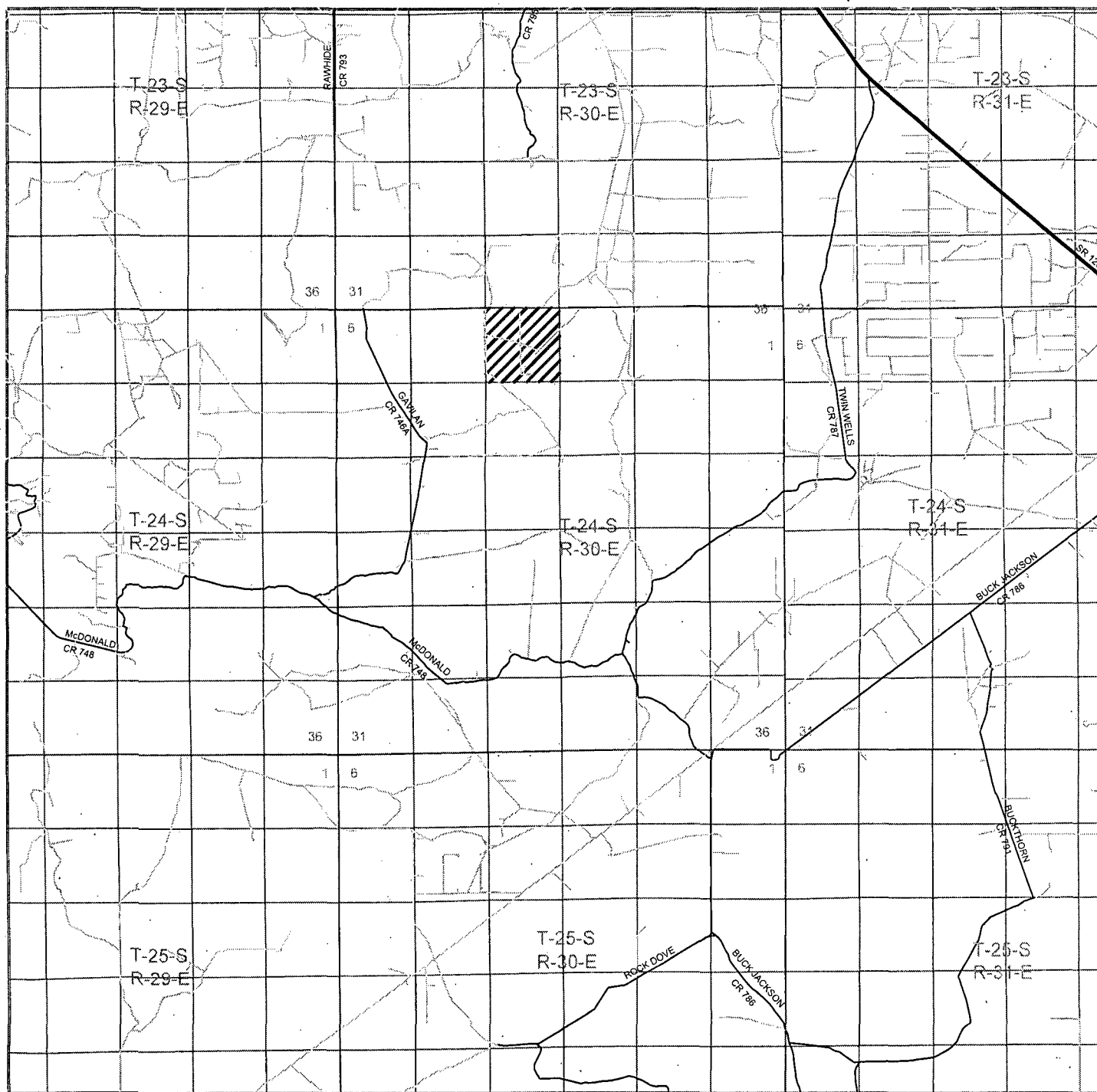
W.O. Number: JMS 26322

Survey Date: 03-02-2012

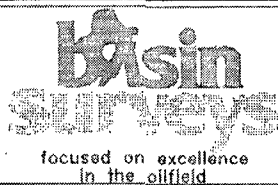
Scale: 1" = 2000'

Date: 03-09-2012

CHESAPEAKE
 OPERATING CO.



PLU REMUDA BASIN 4 24 30 USA #1H
 Located 175' FNL and 1250' FEL
 Section 4, Township 24 South, Range 30 East,
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786
 1120 N. West County Rd.
 Hobbs, New Mexico 88241
 (575) 393-7316 - Office
 (575) 392-2206 - Fax
 basinsurveys.com

W.O. Number: JMS 26322

Survey Date: 03-02-2012

Scale: 1" = 2 Miles

Date: 03-09-2012

CHESAPEAKE
 OPERATING CO.



PHOENIX
TECHNOLOGY SERVICES

Chesapeake Operating Inc.

Eddy County, New Mexico (NAD 1983)

PLU Remuda Basin 4 24 30 USA 1H

Job # 1211012

Rig: Latshaw 14

Survey: Phoenix MWD Surveys

Chesapeake Energy, Survey Report

16 November, 2012





Chesapeake Energy, Survey Report



Company:	Chesapeake Operating Inc.	Local Co-ordinate Reference:	Well Job # 1211012
Project:	Eddy County, New Mexico (NAD 1983)	TVD Reference:	WELL @ 3518.00usft (Latshaw 14)
Site:	PLU Remuda Basin 4 24 30 USA 1H	MD Reference:	WELL @ 3518.00usft (Latshaw 14)
Well:	Job # 1211012	North Reference:	Grid
Wellbore:	Rig: Latshaw 14	Survey Calculation Method:	Minimum Curvature
Design:	Rig: Latshaw 14	Database:	Compass5000

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

Site	PLU Remuda Basin 4 24 30 USA 1H		
Site Position:		Northing:	456,276.00 usft
From:	Map	Easting:	680,982.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 15' 12.8537 N
		Longitude:	103° 52' 53.7753 W
		Grid Convergence:	0.24 °

Well		Job # 1211012				
Well Position	+N/-S	0.00 usft	Northing:	456,276.00 usft	Latitude:	32° 15' 12.8537 N
	+E/-W	0.00 usft	Easting:	680,982.00 usft	Longitude:	103° 52' 53.7753 W
Position Uncertainty	0.00 usft		Wellhead Elevation:	23.00 usft	Ground Level:	3,495.00 usft

Wellbore		Rig: Latshaw 14			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	10/17/12	7.57	60.13	48,465

Design		Rig: Latshaw 14		
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	172.97



Chesapeake Energy, Survey Report



Company:	Chesapeake Operating Inc.	Local Co-ordinate Reference:	Well Job # 1211012
Project:	Eddy County - New Mexico (NAD 1983)	TVD Reference:	WELL @ 3518.00usft (Latshaw 14)
Site:	PLU Remuda Basin 4 24 30 USA 1H	MD Reference:	WELL @ 3518.00usft (Latshaw 14)
Well:	Job # 1211012	North Reference:	Grid
Wellbore:	Rig: Latshaw 14	Survey Calculation Method:	Minimum Curvature
Design:	Rig: Latshaw 14	Database:	Compass5000

Survey Program		Date	11/16/12	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
176.00	8,491.00	Phoenix MWD Surveys Pilot (Rig: Latshaw	MWD	MWD - Standard
8,565.00	13,743.00	Phoenix MWD Surveys (Rig: Latshaw 14)	MWD	MWD - Standard

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)	
8,491.00	2.40	208.20	-4,971.35	8,489.35	-87.77	14.24	88.86	0.00	456,188.23	680,996.24	
Tie In: 8491'											
8,565.00	8.80	190.00	-5,044.96	8,562.96	-94.72	12.53	95.54	8.87	456,181.28	680,994.53	
First Phoenix MWD Surveys @ 8565' MD											
8,597.00	13.00	180.70	-5,076.38	8,594.38	-100.73	12.06	101.45	14.19	456,175.27	680,994.06	
8,629.00	17.30	179.20	-5,107.26	8,625.26	-109.09	12.08	109.75	13.49	456,166.91	680,994.08	
8,660.00	21.70	177.40	-5,136.47	8,654.47	-119.43	12.40	120.05	14.32	456,156.57	680,994.40	
8,692.00	25.70	175.70	-5,165.77	8,683.77	-132.27	13.19	132.89	12.68	456,143.73	680,995.19	
8,724.00	30.30	173.40	-5,194.02	8,712.02	-147.21	14.64	147.90	14.76	456,128.79	680,996.64	
8,755.00	34.50	171.00	-5,220.19	8,738.19	-163.66	16.92	164.50	14.17	456,112.34	680,998.92	
8,787.00	37.10	169.00	-5,246.14	8,764.14	-182.09	20.18	183.19	8.91	456,093.91	681,002.18	
8,819.00	39.10	169.80	-5,271.32	8,789.32	-201.50	23.80	202.90	6.44	456,074.50	681,005.80	
8,851.00	40.60	170.10	-5,295.89	8,813.89	-221.69	27.38	223.37	4.73	456,054.31	681,009.38	
8,882.00	42.70	170.40	-5,319.05	8,837.05	-241.99	30.87	243.95	6.80	456,034.01	681,012.87	
8,914.00	44.70	171.20	-5,342.18	8,860.18	-263.81	34.40	266.04	6.48	456,012.19	681,016.40	
8,945.00	46.90	171.90	-5,363.79	8,881.79	-285.80	37.66	288.26	7.28	455,990.20	681,019.66	
8,977.00	48.10	171.90	-5,385.41	8,903.41	-309.15	40.99	311.84	3.75	455,966.85	681,022.99	
9,009.00	50.20	171.60	-5,406.34	8,924.34	-333.11	44.46	336.04	6.60	455,942.89	681,026.46	
9,041.00	54.20	171.40	-5,425.95	8,943.95	-358.11	48.20	361.31	12.51	455,917.89	681,030.20	
9,072.00	56.20	170.50	-5,443.64	8,961.64	-383.24	52.21	386.75	6.88	455,892.76	681,034.21	
9,104.00	57.70	170.30	-5,461.09	8,979.09	-409.69	56.68	413.55	4.72	455,866.31	681,038.68	
9,136.00	59.40	171.20	-5,477.79	8,995.79	-436.63	61.07	440.82	5.83	455,839.37	681,043.07	



Chesapeake Energy, Survey Report



Company: Chesapeake Operating Inc.
Project: Eddy County, New Mexico (NAD 1983)
Site: PLU Remuda Basin 4 24 30 USA 1H
Well: Job # 1211012
Wellbore: Rig: Latshaw 14
Design: Rig: Latshaw 14

Local Co-ordinate Reference: Well Job # 1211012
TVD Reference: WELL @ 3518.00usft (Latshaw 14)
MD Reference: WELL @ 3518.00usft (Latshaw 14)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: Compass5000

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)	
9,168.00	63.00	172.70	-5,493.20	9,011.20	-464.39	64.99	468.86	11.98	455,811.61	681,046.99	
9,200.00	65.70	173.50	-5,507.05	9,025.05	-493.03	68.45	497.70	8.73	455,782.97	681,050.45	
9,231.00	69.50	173.50	-5,518.86	9,036.86	-521.50	71.69	526.35	12.26	455,754.50	681,053.69	
9,263.00	74.50	173.50	-5,528.75	9,046.75	-551.73	75.14	556.78	15.62	455,724.27	681,057.14	
9,295.00	78.50	173.00	-5,536.22	9,054.22	-582.62	78.79	587.89	12.59	455,693.38	681,060.79	
9,327.00	81.10	172.70	-5,541.88	9,059.88	-613.87	82.71	619.38	8.18	455,662.13	681,064.71	
9,358.00	84.00	172.40	-5,545.90	9,063.90	-644.34	86.70	650.11	9.40	455,631.66	681,068.70	
9,390.00	87.50	172.70	-5,548.27	9,066.27	-675.98	90.84	682.02	10.98	455,600.02	681,072.84	
9,453.00	88.80	173.50	-5,550.31	9,068.31	-738.49	98.40	744.98	2.42	455,537.51	681,080.40	
9,549.00	90.50	174.10	-5,550.90	9,068.90	-833.92	108.77	840.97	1.88	455,442.08	681,090.77	
9,644.00	91.70	173.80	-5,549.07	9,067.07	-928.38	118.78	935.93	1.30	455,347.62	681,100.78	
9,739.00	92.70	173.80	-5,545.42	9,063.42	-1,022.75	129.03	1,030.85	1.05	455,253.25	681,111.03	
9,834.00	91.90	172.70	-5,541.61	9,059.61	-1,117.01	140.19	1,125.77	1.43	455,158.99	681,122.19	
9,929.00	91.50	172.70	-5,538.79	9,056.79	-1,211.20	152.25	1,220.73	0.42	455,064.80	681,134.25	
10,025.00	90.30	172.90	-5,537.29	9,055.29	-1,306.43	164.28	1,316.72	1.27	454,969.57	681,146.28	
10,120.00	92.00	172.70	-5,535.38	9,053.38	-1,400.66	176.19	1,411.69	1.80	454,875.34	681,158.19	
10,215.00	91.70	173.20	-5,532.31	9,050.31	-1,494.89	187.84	1,506.64	0.61	454,781.11	681,169.84	
10,310.00	91.30	173.10	-5,529.83	9,047.83	-1,589.18	199.17	1,601.61	0.43	454,686.82	681,181.17	
10,405.00	91.20	173.00	-5,527.75	9,045.75	-1,683.46	210.66	1,696.59	0.15	454,592.54	681,192.66	
10,500.00	90.10	172.70	-5,526.68	9,044.68	-1,777.71	222.48	1,791.58	1.20	454,498.29	681,204.48	
10,596.00	91.10	172.60	-5,525.67	9,043.67	-1,872.92	234.76	1,887.57	1.05	454,403.08	681,216.76	
10,691.00	90.20	172.40	-5,524.59	9,042.59	-1,967.10	247.16	1,982.56	0.97	454,308.90	681,229.16	
10,786.00	92.60	173.10	-5,522.27	9,040.27	-2,061.30	259.15	2,077.52	2.63	454,214.70	681,241.15	
10,881.00	91.90	173.40	-5,518.54	9,036.54	-2,155.57	270.31	2,172.45	0.80	454,120.43	681,252.31	
10,976.00	91.10	173.00	-5,516.06	9,034.06	-2,249.87	281.55	2,267.41	0.94	454,026.13	681,263.55	
11,071.00	90.20	172.80	-5,514.98	9,032.98	-2,344.13	293.29	2,362.41	0.97	453,931.87	681,275.29	
11,166.00	90.50	172.60	-5,514.40	9,032.40	-2,438.36	305.36	2,457.40	0.38	453,837.64	681,287.36	



Chesapeake Energy, Survey Report



Company: Chesapeake Operating Inc.
Project: Eddy County, New Mexico (NAD 1983)
Site: PLU Remuda Basin 4 24 30 USA 1H
Well: Job # 1211012
Wellbore: Rig: Latshaw 14
Design: Rig: Latshaw 14

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Database:

Well Job #: 1211012
WELL @ 3518.00usft (Latshaw 14)
WELL @ 3518.00usft (Latshaw 14)
Grid
Minimum Curvature
Compass5000

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)	
11,262.00	90.70	172.30	-5,513.39	9,031.39	-2,533.52	317.98	2,553.39	0.38	453,742.48	681,299.98	
11,357.00	90.20	172.30	-5,512.65	9,030.65	-2,627.66	330.70	2,648.39	0.53	453,648.34	681,312.70	
11,452.00	90.40	172.70	-5,512.15	9,030.15	-2,721.85	343.10	2,743.38	0.47	453,554.15	681,325.10	
11,547.00	90.10	172.90	-5,511.73	9,029.73	-2,816.10	355.01	2,838.38	0.38	453,459.90	681,337.01	
11,642.00	89.10	172.60	-5,512.40	9,030.40	-2,910.34	367.00	2,933.37	1.10	453,365.66	681,349.00	
11,737.00	90.10	172.40	-5,513.06	9,031.06	-3,004.52	379.40	3,028.37	1.07	453,271.48	681,361.40	
11,833.00	89.10	172.40	-5,513.73	9,031.73	-3,099.67	392.09	3,124.36	1.04	453,176.33	681,374.09	
11,928.00	90.50	173.40	-5,514.06	9,032.06	-3,193.94	403.84	3,219.36	1.81	453,082.06	681,385.84	
12,023.00	89.10	173.60	-5,514.39	9,032.39	-3,288.33	414.59	3,314.35	1.49	452,987.67	681,396.59	
12,118.00	88.60	173.20	-5,516.30	9,034.30	-3,382.68	425.51	3,409.33	0.67	452,893.32	681,407.51	
12,213.00	90.10	172.40	-5,517.38	9,035.38	-3,476.92	437.41	3,504.32	1.79	452,799.08	681,419.41	
12,308.00	89.90	172.30	-5,517.38	9,035.38	-3,571.07	450.06	3,599.31	0.24	452,704.93	681,432.06	
12,403.00	88.80	172.00	-5,518.46	9,036.46	-3,665.18	463.03	3,694.29	1.20	452,610.82	681,445.03	
12,498.00	90.00	172.80	-5,519.45	9,037.45	-3,759.33	475.60	3,789.28	1.52	452,516.67	681,457.60	
12,594.00	89.00	173.20	-5,520.29	9,038.29	-3,854.61	487.29	3,885.28	1.12	452,421.39	681,469.29	
12,689.00	88.80	174.20	-5,522.11	9,040.11	-3,949.02	497.72	3,980.25	1.07	452,326.98	681,479.72	
12,784.00	90.20	173.90	-5,522.94	9,040.94	-4,043.50	507.56	4,075.23	1.51	452,232.50	681,489.56	
12,879.00	90.00	173.30	-5,522.78	9,040.78	-4,137.91	518.15	4,170.22	0.67	452,138.09	681,500.15	
12,974.00	89.30	173.70	-5,523.36	9,041.36	-4,232.30	528.91	4,265.21	0.85	452,043.70	681,510.91	
13,069.00	88.50	173.60	-5,525.18	9,043.18	-4,326.70	539.41	4,360.19	0.85	451,949.30	681,521.41	
13,164.00	89.50	173.30	-5,526.84	9,044.84	-4,421.06	550.25	4,455.17	1.10	451,854.94	681,532.25	
13,259.00	89.50	173.20	-5,527.67	9,045.67	-4,515.40	561.41	4,550.16	0.11	451,760.60	681,543.41	
13,355.00	87.60	173.10	-5,530.10	9,048.10	-4,610.68	572.86	4,646.13	1.98	451,665.32	681,554.86	
13,450.00	89.10	172.90	-5,532.83	9,050.83	-4,704.93	584.43	4,741.09	1.59	451,571.07	681,566.43	
13,545.00	89.50	172.60	-5,533.99	9,051.99	-4,799.16	596.42	4,836.08	0.53	451,476.84	681,578.42	
13,640.00	88.70	172.00	-5,535.48	9,053.48	-4,893.29	609.15	4,931.06	1.05	451,382.71	681,591.15	

Last Phoenix MWD Surveys @ 13640' MD



Chesapeake Energy, Survey Report



Company:	Chesapeake Operating Inc.	Local Co-ordinate Reference:	Well Job # 1211012
Project:	Eddy County, New Mexico (NAD 1983)	TVD Reference:	WELL @ 3518.00usft (Latshaw 14)
Site:	PLU Remuda Basin 4 24 30 USA 1H	MD Reference:	WELL @ 3518.00usft (Latshaw 14)
Well:	Job # 1211012	North Reference:	Grid
Wellbore:	Rig: Latshaw 14	Survey Calculation Method:	Minimum Curvature
Design:	Rig: Latshaw 14	Database:	Compass5000

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)
13,743.00	88.70	172.10	-5,537.82	9,055.82	-4,995.28	623.39	5,034.02	0.10	451,280.72	681,605.39
Projection to TD @ 13743' MD										

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,491.00	8,489.35	-87.77	14.24	Tie In, 8491'
8,565.00	8,562.96	-94.72	12.53	First Phoenix MWD Surveys @ 8565' MD
13,640.00	9,053.48	-4,893.29	609.15	Last Phoenix MWD Surveys @ 13640' MD
13,743.00	9,055.82	-4,995.28	623.39	Projection to TD @ 13743' MD

Checked By: _____	Approved By: _____	Date: _____
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