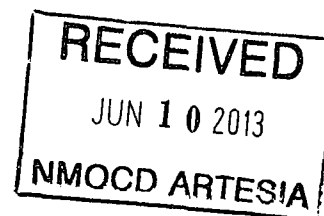




PHOENIX
TECHNOLOGY SERVICES

June 5, 2013

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



Dear District 2 - Artesia

Re: Chesapeake Operating Inc.
West Shugart 2-19-30 State #3H
Eddy Co., NM
API #30-015-40842
Job No. 1310494

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	
Derek Webster	3H	100	13,063	05/11/13	05/25/13	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 8448

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX
TECHNOLOGY SERVICES

PHOENIX JOB NUMBER 1310494

OPERATOR Chesapeake Energy

WELL NAME Wesh Shugart 2-19-30 State #3H

COUNTY & STATE

Eddy Co, NM

API WELL NUMBER 3001540842

PROPOSED DIRECTION 89.82

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

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
11 MAY 13	100 ft	0.27	349.24

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
25-May-13	13,063 ft	88.3	90.6

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
25-May-13	13,130 ft	88.3	90.6

Derek Webster

PRINT YOUR NAME ABOVE

Derek Webster

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.37
DECLINATION OR GRID	GRID

5/25/2013

TODAY'S DATE

MWD SUPERVISOR 1

Derek Webster

DIRECTIONAL DRILLER 1

Keith Sheppler

MWD SUPERVISOR 2

Zak Dawson

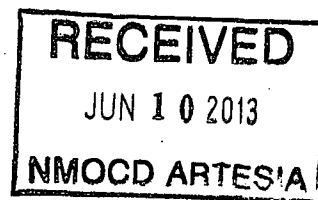
DIRECTIONAL DRILLER 2

Justin Jackson

1805 Brittmore Road

Houston, Texas 77043

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



Chesapeake Operating Inc.

Eddy County, New Mexico (NAD27 NME)

West Shugart 2-19-30 State

#3H

OH / Job #1310494

Design: Surveys (Ensign 153)

Standard Survey Report

28 May, 2013





Phoenix Technology Services Survey Report



Company:	Chesapeake Operating, Inc.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County, New Mexico (NAD27 NME)	TVD Reference:	KB @ 3497.50usft (Ensign 153)
Site:	West Shugart 2-19-30 State	MD Reference:	KB @ 3497.50usft (Ensign 153)
Well:	#3H	North Reference:	Grid
Wellbore:	OH / Job #1310494	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Ensign 153)	Database:	GCR DB

Project	Eddy County, New Mexico (NAD27 NME)		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	West Shugart 2-19-30 State		
Site Position:		Northing:	616,927.00 usft
From:	Map	Easting:	617,854.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 41' 43.604497 N
		Longitude:	103° 57' 0.842992 W
		Grid Convergence:	0.21 °

Well	#3H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 41' 35.737537 N
		Longitude:	103° 57' 0.841487 W
		Ground Level:	3,473.00 usft

Wellbore	OH / Job #1310494		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010_14	04/08/13	(°)
			7.57
		Dip Angle	(°)
		60.51	
		Field Strength	(nT)
		48,675	

Design	Surveys (Ensign 153)		
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
			89.82

Survey Program	Date 05/28/13		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
100.00	700.00	Gyrodata Gyro Surveys (OH / Job #13104	NS-GYRO-MS
772.00	13,130.00	Phoenix MWD Survey (OH / Job #1310494	MWD
			Description
			North sensing gyrocompassing m/s
			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
	100.00	0.27	349.24	100.00	0.23	-0.04	-0.04	0.27	0.27	0.00
	200.00	0.91	338.10	199.99	1.20	-0.38	-0.38	0.65	0.64	-11.14
	300.00	1.75	341.61	299.97	3.39	-1.16	-1.15	0.84	0.84	3.51
	400.00	2.74	344.29	399.89	7.14	-2.29	-2.27	1.00	0.99	2.68
	500.00	4.02	343.62	499.71	12.80	-3.93	-3.89	1.28	1.28	-0.67
	600.00	6.04	340.78	599.32	21.13	-6.65	-6.58	2.03	2.02	-2.84
	700.00	6.40	336.73	698.73	31.22	-10.58	-10.48	0.57	0.36	-4.05
	Tie In to Gyrodata Gyro Surveys									
	772.00	6.40	336.40	770.28	38.58	-13.77	-13.65	0.05	0.00	-0.46



Phoenix Technology Services

Survey Report



Company:	Chesapeake Operating, Inc.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County, New Mexico (NAD27 NME)	TVD Reference:	KB @ 3497.50usft (Ensign 153)
Site:	West Shugart 2-19-30 State	MD Reference:	KB @ 3497.50usft (Ensign 153)
Well:	#3H	North Reference:	Grid
Wellbore:	OH / Job #1310494	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Ensign 153)	Database:	GCR DB

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)
Phoenix First MWD Survey @ 772' MD									
923.00	5.70	339.70	920.44	53.33	-19.74	-19.58	0.52	-0.46	2.19
1,102.00	1.90	9.70	1,099.03	64.60	-22.33	-22.13	2.33	-2.12	16.76
1,281.00	0.90	124.20	1,278.00	66.73	-20.67	-20.46	1.35	-0.56	63.97
1,459.00	0.90	120.70	1,455.97	65.23	-18.31	-18.10	0.03	0.00	-1.97
1,638.00	0.80	106.90	1,634.96	64.15	-15.90	-15.70	0.13	-0.06	-7.71
1,817.00	0.80	100.40	1,813.94	63.56	-13.48	-13.28	0.05	0.00	-3.63
1,996.00	0.60	80.60	1,992.92	63.49	-11.33	-11.13	0.17	-0.11	-11.06
2,175.00	0.70	68.80	2,171.91	64.04	-9.38	-9.18	0.09	0.06	-6.59
2,354.00	0.90	56.80	2,350.90	65.20	-7.19	-6.98	0.15	0.11	-6.70
2,533.00	0.70	61.20	2,529.88	66.50	-5.05	-4.84	0.12	-0.11	2.46
2,711.00	0.60	64.10	2,707.87	67.43	-3.26	-3.05	0.06	-0.06	1.63
2,890.00	0.70	73.50	2,886.86	68.15	-1.37	-1.15	0.08	0.06	5.25
3,069.00	0.60	51.30	3,065.84	69.05	0.41	0.63	0.15	-0.06	-12.40
3,247.00	0.40	56.40	3,243.84	69.97	1.66	1.88	0.11	-0.11	2.87
3,426.00	0.50	17.00	3,422.83	71.07	2.41	2.63	0.18	0.06	-22.01
3,534.00	0.40	14.70	3,530.83	71.88	2.64	2.86	0.09	-0.09	-2.13
3,713.00	0.30	21.60	3,709.83	72.92	2.97	3.20	0.06	-0.06	3.85
3,891.00	0.50	359.10	3,887.82	74.13	3.13	3.36	0.14	0.11	-12.64
4,070.00	1.80	183.90	4,066.80	72.11	2.93	3.15	1.28	0.73	-97.88
4,248.00	1.40	184.70	4,244.73	67.15	2.56	2.77	0.23	-0.22	0.45
4,427.00	0.80	202.40	4,423.69	63.82	1.90	2.10	0.38	-0.34	9.89
4,605.00	0.70	228.10	4,601.68	61.94	0.62	0.81	0.20	-0.06	14.44
4,784.00	1.00	287.20	4,780.66	61.67	-1.69	-1.49	0.49	0.17	33.02
4,962.00	1.00	239.10	4,958.64	61.33	-4.50	-4.31	0.46	0.00	-27.02
5,141.00	2.10	254.40	5,137.57	59.65	-9.00	-8.82	0.65	0.61	8.55
5,320.00	2.50	250.00	5,316.43	57.43	-15.83	-15.65	0.24	0.22	-2.46
5,498.00	2.50	260.90	5,494.26	55.49	-23.31	-23.14	0.27	0.00	6.12
5,677.00	2.50	267.00	5,673.09	54.67	-31.06	-30.89	0.15	0.00	3.41
5,856.00	2.40	267.40	5,851.92	54.29	-38.71	-38.54	0.06	-0.06	0.22
6,034.00	1.90	271.60	6,029.80	54.21	-45.38	-45.21	0.29	-0.28	2.36
6,213.00	1.70	273.90	6,208.71	54.47	-51.00	-50.82	0.12	-0.11	1.28
6,392.00	0.20	175.40	6,387.68	54.34	-53.62	-53.45	0.97	-0.84	-55.03
6,570.00	0.40	156.50	6,565.68	53.46	-53.35	-53.18	0.12	0.11	-10.62
6,748.00	0.50	210.90	6,743.68	52.22	-53.50	-53.33	0.24	0.06	30.56
6,927.00	0.40	253.00	6,922.67	51.37	-54.50	-54.34	0.19	-0.06	23.52
7,106.00	0.70	244.90	7,101.66	50.73	-56.08	-55.92	0.17	0.17	-4.53
7,285.00	0.30	289.00	7,280.66	50.41	-57.52	-57.36	0.29	-0.22	24.64
7,464.00	0.10	297.10	7,459.66	50.64	-58.10	-57.94	0.11	-0.11	4.53
7,643.00	0.40	307.20	7,638.65	51.09	-58.74	-58.58	0.17	0.17	5.64
7,821.00	0.30	245.30	7,816.65	51.27	-59.65	-59.49	0.21	-0.06	-34.78
7,907.00	0.40	179.50	7,902.65	50.87	-59.86	-59.70	0.45	0.12	-76.51
7,950.00	0.40	194.50	7,945.65	50.58	-59.89	-59.73	0.24	0.00	34.88



Phoenix Technology Services Survey Report



Company:	Chesapeake Operating Inc.	Local Co-ordinate Reference:	Well #3H
Project:	Eddy County, New Mexico (NAD27-NME)	TVD Reference:	KB @ 3497.50usft (Ensign 153)
Site:	West Shugart 2-19-30 State	MD Reference:	KB @ 3497.50usft (Ensign 153)
Well:	#3H	North Reference:	Grid
Wellbore:	OH/ Job #1310494	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Ensign 153)	Database:	GCR/DB

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)
7,995.00	1.20	93.60	7,990.65	50.40	-59.46	-59.30	2.97	1.78	-224.22
8,039.00	6.40	80.30	8,034.53	50.78	-56.58	-56.42	11.91	11.82	-30.23
8,084.00	11.50	80.10	8,078.97	51.98	-49.69	-49.52	11.33	11.33	-0.44
8,129.00	17.50	81.40	8,122.52	53.76	-38.57	-38.40	13.35	13.33	2.89
8,173.00	23.00	83.90	8,163.78	55.66	-23.47	-23.29	12.65	12.50	5.68
8,218.00	27.00	85.20	8,204.56	57.45	-4.54	-4.36	8.97	8.89	2.89
8,263.00	30.00	87.10	8,244.10	58.88	16.88	17.07	6.96	6.67	4.22
8,307.00	31.90	87.40	8,281.84	59.96	39.48	39.67	4.33	4.32	0.68
8,352.00	34.60	92.80	8,319.47	59.88	64.13	64.32	8.90	6.00	12.00
8,397.00	39.40	95.50	8,355.40	57.88	91.13	91.31	11.26	10.67	6.00
8,442.00	42.50	94.60	8,389.39	55.29	120.50	120.67	7.01	6.89	-2.00
8,486.00	46.20	91.00	8,420.85	53.82	151.21	151.38	10.17	8.41	-8.18
8,524.40	49.01	89.19	8,446.74	53.79	179.56	179.73	8.11	7.33	-4.70
330' Perf Hardline									
8,531.00	49.50	88.90	8,451.05	53.87	184.56	184.73	8.11	7.37	-4.46
8,576.00	54.70	90.20	8,478.68	54.13	220.06	220.23	11.78	11.56	2.89
8,620.00	59.40	91.70	8,502.61	53.51	256.96	257.13	11.06	10.68	3.41
8,665.00	64.70	96.90	8,523.70	50.49	296.56	296.72	15.58	11.78	11.56
8,710.00	68.50	100.40	8,541.58	44.26	337.37	337.51	11.06	8.44	7.78
8,754.00	71.90	100.40	8,556.48	36.79	378.09	378.20	7.73	7.73	0.00
8,799.00	76.20	98.80	8,568.84	29.58	420.74	420.83	10.15	9.56	-3.56
8,844.00	82.20	96.10	8,577.27	23.86	464.54	464.62	14.58	13.33	-6.00
8,889.00	87.10	93.90	8,581.47	19.96	509.16	509.22	11.93	10.89	-4.89
8,978.00	90.10	92.70	8,583.64	14.84	597.98	598.02	3.63	3.37	-1.35
9,067.00	93.60	94.10	8,580.77	-9.57	686.76	686.78	4.24	3.93	1.57
9,157.00	94.10	94.30	8,574.73	2.99	776.31	776.32	0.60	0.56	0.22
9,246.00	94.20	94.30	8,568.28	-3.66	864.83	864.81	0.11	0.11	0.00
9,336.00	94.30	94.10	8,561.61	-10.24	954.34	954.30	0.25	0.11	-0.22
9,425.00	93.20	93.20	8,555.79	-15.89	1,042.97	1,042.91	1.60	-1.24	-1.01
9,514.00	91.40	92.20	8,552.22	-20.08	1,131.79	1,131.72	2.31	-2.02	-1.12
9,604.00	91.50	91.90	8,549.94	-23.30	1,221.71	1,221.63	0.35	0.11	-0.33
9,693.00	90.20	90.70	8,548.62	-25.31	1,310.67	1,310.58	1.99	-1.46	-1.35
9,783.00	90.50	91.00	8,548.07	-26.65	1,400.66	1,400.57	0.47	0.33	0.33
9,872.00	89.10	89.90	8,548.39	-27.35	1,489.65	1,489.56	2.00	-1.57	-1.24
9,961.00	88.70	89.40	8,550.09	-26.81	1,578.63	1,578.54	0.72	-0.45	-0.56
10,051.00	89.00	89.40	8,551.90	-25.86	1,668.61	1,668.52	0.33	0.33	0.00
10,140.00	89.30	88.90	8,553.22	-24.54	1,757.59	1,757.50	0.66	0.34	-0.56
10,229.00	89.70	88.70	8,554.00	-22.68	1,846.57	1,846.49	0.50	0.45	-0.22
10,319.00	90.20	88.60	8,554.08	-20.56	1,936.54	1,936.47	0.57	0.56	-0.11
10,408.00	90.90	88.50	8,553.22	-18.31	2,025.51	2,025.44	0.79	0.79	-0.11
10,497.00	91.40	88.40	8,551.43	-15.90	2,114.46	2,114.40	0.57	0.56	-0.11
10,587.00	90.10	89.00	8,550.26	-13.86	2,204.42	2,204.37	1.59	-1.44	0.67
10,676.00	91.20	89.40	8,549.25	-12.62	2,293.41	2,293.36	1.32	1.24	0.45
10,766.00	88.70	89.20	8,549.33	-11.52	2,383.39	2,383.35	2.79	-2.78	-0.22



Phoenix Technology Services

Survey Report

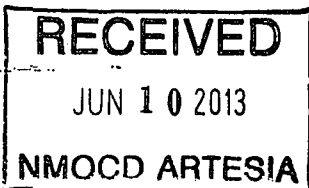


Company:	Chesapeake Operating Inc.	Local Co-ordinate Reference:	Well: #3H
Project:	Eddy County New Mexico (NAD27 NME)	TVD Reference:	KB @ 3497.50usft (Ensign 153)
Site:	West Shugart 2-19-30 State	MD Reference:	KB @ 3497.50usft (Ensign 153)
Well:	#3H	North Reference:	Grid
Wellbore:	OH / Job #1310494	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Ensign 153)	Database:	GCR DB

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)
10,855.00	89.50	89.20	8,550.72	-10.27	2,472.37	2,472.33	0.90	0.90	0.00
10,945.00	86.50	89.90	8,553.86	-9.57	2,562.31	2,562.26	3.42	-3.33	0.78
11,034.00	86.50	90.10	8,559.30	-9.57	2,651.14	2,651.10	0.22	0.00	0.22
11,123.00	86.80	90.40	8,564.50	-9.95	2,739.99	2,739.94	0.48	0.34	0.34
11,213.00	87.20	91.50	8,569.21	-11.44	2,829.85	2,829.80	1.30	0.44	1.22
11,302.00	87.40	91.00	8,573.40	-13.38	2,918.73	2,918.67	0.60	0.22	-0.56
11,392.00	87.90	89.10	8,577.09	-13.46	3,008.65	3,008.59	2.18	0.56	-2.11
11,481.00	88.20	88.20	8,580.12	-11.37	3,097.57	3,097.52	1.07	0.34	-1.01
11,571.00	88.40	88.30	8,582.79	-8.62	3,187.49	3,187.45	0.25	0.22	0.11
11,660.00	89.70	88.00	8,584.27	-5.75	3,276.43	3,276.39	1.50	1.46	-0.34
11,749.00	89.60	87.60	8,584.81	-2.33	3,365.36	3,365.34	0.46	-0.11	-0.45
11,839.00	90.10	87.30	8,585.05	1.67	3,455.27	3,455.26	0.65	0.56	-0.33
11,928.00	90.70	86.40	8,584.42	6.56	3,544.13	3,544.14	1.22	0.67	-1.01
12,017.00	90.90	84.90	8,583.18	13.31	3,632.87	3,632.89	1.70	0.22	-1.69
12,107.00	91.70	86.80	8,581.14	19.83	3,722.60	3,722.65	2.29	0.89	2.11
12,196.00	92.00	86.30	8,578.27	25.18	3,811.39	3,811.45	0.65	0.34	-0.56
12,285.00	92.20	89.00	8,575.00	28.82	3,900.25	3,900.32	3.04	0.22	3.03
12,374.00	92.30	89.10	8,571.51	30.30	3,989.17	3,989.25	0.16	0.11	0.11
12,464.00	90.00	89.90	8,569.70	31.08	4,079.14	4,079.22	2.71	-2.56	0.89
12,553.00	90.00	90.30	8,569.70	30.93	4,168.14	4,168.22	0.45	0.00	0.45
12,642.00	90.90	89.80	8,569.00	30.85	4,257.14	4,257.21	1.16	1.01	-0.56
12,732.00	89.80	90.80	8,568.46	30.38	4,347.13	4,347.21	1.65	-1.22	1.11
12,821.00	87.40	91.80	8,570.63	28.36	4,436.08	4,436.14	2.92	-2.70	1.12
12,910.00	87.40	91.40	8,574.67	25.88	4,524.95	4,525.01	0.45	0.00	-0.45
13,000.00	88.00	91.20	8,578.28	23.84	4,614.85	4,614.91	0.70	0.67	-0.22
13,063.00	88.30	90.60	8,580.31	22.85	4,677.81	4,677.86	1.06	0.48	-0.95
Last Phoenix MWD Survey @ 13063' MD									
13,130.00	88.30	90.60	8,582.30	22.15	4,744.78	4,744.82	0.00	0.00	0.00
Projection to TD @ 13130' MD									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
700.00	698.73	31.22	-10.58	Tie In to Gyrodata Gyro Surveys
772.00	770.28	38.58	-13.77	Phoenix First MWD Survey @ 772' MD
8,524.40	8,446.74	53.79	179.56	330' Perf Hardline
13,063.00	8,580.31	22.85	4,677.81	Last Phoenix MWD Survey @ 13063' MD
13,130.00	8,582.30	22.15	4,744.78	Projection to TD @ 13130' MD

Checked By: _____	Approved By: _____	Date: _____
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District I
1635 N. Francis Dr., Hobbs, NM 88240
Phone: (575) 392-6161 Fax: (575) 392-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 745-1253 Fax: (575) 748-9120
District III
1609 Rio Brancos Road, Artesia, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1230 S. St. Francis Dr., Santa Fe, NM 87503
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-015-40842		2 Pool Code (5200)		3 Pool Name BENSON; BONE SPRING	
4 Property Code 39852		5 Property Name WEST SHUGART 2 19 30 STATE			6 Well Number 3H
7 OGRID No. 4323		8 Operator Name CHEVRON USA, INC.			9 Elevation 3473'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	2	19S	30E		1195'	NORTH	150'	WEST	EDDY

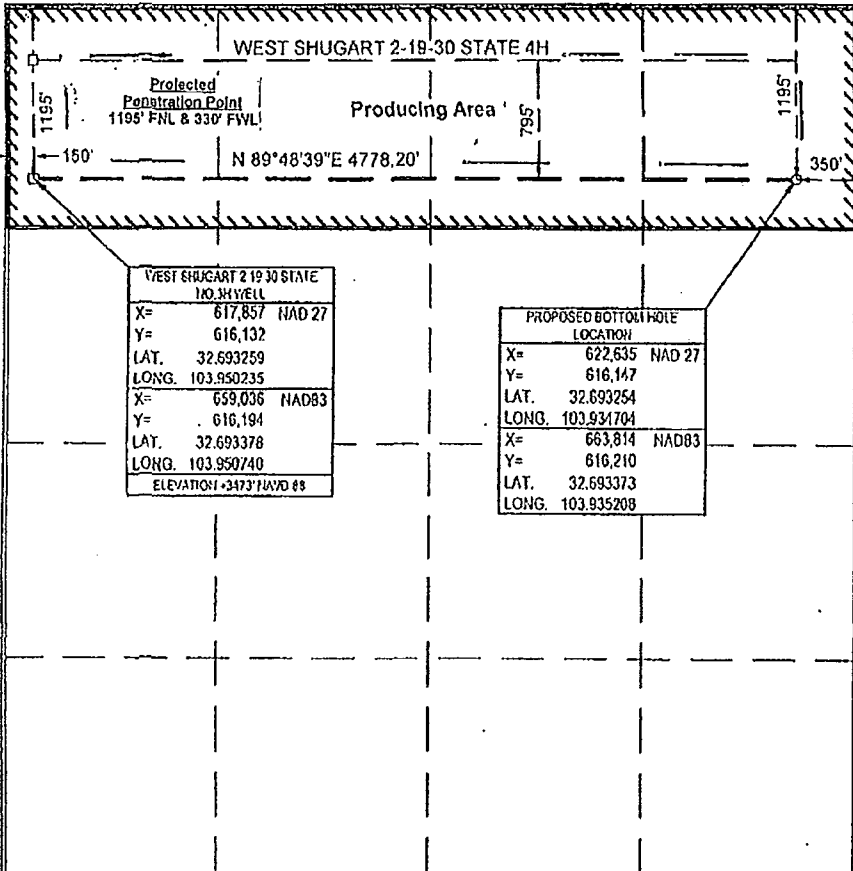
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	2	19S	30E		1195'	NORTH	350'	EAST	EDDY

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
160			

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.

Project Area

 <table border="1" data-bbox="305 1293 511 1527"><caption>WEST SHUGART 2 19 30 STATE 4H WELL</caption><tr><td>X=</td><td>617,857</td><td>NAD 27</td></tr><tr><td>Y=</td><td>616,132</td><td></td></tr><tr><td>LAT.</td><td>32.693259</td><td></td></tr><tr><td>LONG.</td><td>103.950235</td><td></td></tr><tr><td>X=</td><td>659,036</td><td>NAD83</td></tr><tr><td>Y=</td><td>616,194</td><td></td></tr><tr><td>LAT.</td><td>32.693378</td><td></td></tr><tr><td>LONG.</td><td>103.950740</td><td></td></tr><tr><td colspan="3">ELEVATION: 3473' MVD #8</td></tr></table> <table border="1" data-bbox="678 1336 885 1549"><caption>PROPOSED BOTTOM HOLE LOCATION</caption><tr><td>X=</td><td>622,635</td><td>NAD 27</td></tr><tr><td>Y=</td><td>616,147</td><td></td></tr><tr><td>LAT.</td><td>32.693254</td><td></td></tr><tr><td>LONG.</td><td>103.934704</td><td></td></tr><tr><td>X=</td><td>663,814</td><td>NAD83</td></tr><tr><td>Y=</td><td>616,210</td><td></td></tr><tr><td>LAT.</td><td>32.693373</td><td></td></tr><tr><td>LONG.</td><td>103.935208</td><td></td></tr></table>		X=	617,857	NAD 27	Y=	616,132		LAT.	32.693259		LONG.	103.950235		X=	659,036	NAD83	Y=	616,194		LAT.	32.693378		LONG.	103.950740		ELEVATION: 3473' MVD #8			X=	622,635	NAD 27	Y=	616,147		LAT.	32.693254		LONG.	103.934704		X=	663,814	NAD83	Y=	616,210		LAT.	32.693373		LONG.	103.935208		11 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 a 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 in a voluntary pooling agreement or a compulsory pooling order heretofore executed by this entity. <i>Bryan Arrant</i> 11/20/2012 Signature Date Bryan Arrant (Agent) Printed Name bryan.arrant@chk.com Email Address 12 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 knowledge and belief. 11/19/2012 Date of Survey <i>[Signature]</i> Signature and Seal of Registered Professional Surveyor 15078 Certificate Number
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