



CONFIDENTIAL

OIL & GAS CONSERVATION DIVISION

WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

Form Must Be Typed
Form must be Signed
All blanks must be Filled

OPERATOR: License # 32334

Name: Chesapeake Operating, Inc.

Address 1: 6100 N WESTERN AVE

Address 2: PO BOX 18496

City: OKLAHOMA CITY State: OK Zip: 73118 + 0496

Contact Person: Aletha Dewbre

Phone: (405) 935-4775

CONTRACTOR: License # 34500

Name: Nomac Drilling, LLC

Wellsite Geologist: Hayet Serradji

Purchaser:

Designate Type of Completion:

- Checkboxes for New Well, Re-Entry, Workover, Oil, Gas, OG, CM, Cathodic, WSW, D&A, ENHR, GSW, SWD, SIOW, SIGW, Temp. Abd., and Other.

If Workover/Re-entry: Old Well Info as follows:

Operator:

Well Name:

Original Comp. Date: Original Total Depth:

- Checkboxes for Deepening, Re-perf., Conv. to ENHR, Conv. to SWD, Conv. to GSW, Plug Back, Commingled, Dual Completion, SWD, ENHR, GSW with Permit # fields.

5/10/2012 5/26/2012 5/26/2012
Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - 15-077-21841-01-00

Spot Description:

SE SW SE SE Sec. 5 Twp. 35 S. R. 7 East West
265 Feet from North South Line of Section
900 Feet from East West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- Checkboxes for NE, NW, SE, SW

County: Harper

Lease Name: Cather Family Farms 8-35-7 Well #: 1H

Field Name:

Producing Formation: Mississippi Lime

Elevation: Ground: 1291 Kelly Bushing: 1308

Total Depth: 9500 Plug Back Total Depth: 9415

Amount of Surface Pipe Set and Cemented at: 800 Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: Feet

If Alternate II completion, cement circulated from:

feet depth to: w/ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: 6200 ppm Fluid volume: 1475 bbls

Dewatering method used: Evaporated

Location of fluid disposal if hauled offsite:

Operator Name:

Lease Name: License #:

Quarter Sec. Twp. S. R. East West

County: Permit #:

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Checkboxes for Letter of Confidentiality Received, Wireline Log Received, Geologist Report Received, UIC Distribution, and ALT I II III. Approved by: NAOMI JAMES Date: 09/06/2012

Chesapeake - OK, TX, KS

Harper County KS

Cather Family Farms 8-35-7

#1H

Wellbore #1

Design: Wellbore #1

Standard Survey Report

29 May, 2012

Crescent Directional Drilling

Survey Report

Company:	Chesapeake - OK, TX, KS	Local Co-ordinate Reference:	Site Cather Family Farms 8-35-7
Project:	Harper County KS	TVD Reference:	RKB @ 1308.00ft (Nomac 115)
Site:	Cather Family Farms 8-35-7	MD Reference:	RKB @ 1308.00ft (Nomac 115)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	R5000 Oklahoma DB

Project	Harper County KS		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Kansas South 1502		

Site	Cather Family Farms 8-35-7				
Site Position:		Northing:	129,866.000 ft	Latitude:	37° 1' 21.414 N
From:	Map	Easting:	2,118,369.000 ft	Longitude:	98° 5' 40.552 W
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence:	0.25 °

Well	#1H					
Well Position	+N/-S	0.00 ft	Northing:	129,866.000 ft	Latitude:	37° 1' 21.414 N
	+E/-W	0.00 ft	Easting:	2,118,369.000 ft	Longitude:	98° 5' 40.552 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	1,292.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/7/2012	4.65	65.18	51,817

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	211.46	

Survey Program	Date 5/29/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
100.00	700.00	Gyro's (Wellbore #1)	Good_gyro	Good Gyro
737.00	9,500.00	Crescent MWD Surveys (Wellbore #1)	Good_mag	Good Magnetic

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.18	352.93	100.00	0.16	-0.02	-0.12	0.18	0.18	0.00
200.00	0.19	47.76	200.00	0.42	0.08	-0.40	0.17	0.01	54.83
300.00	0.24	83.62	300.00	0.56	0.41	-0.69	0.14	0.05	35.86
400.00	0.08	155.66	400.00	0.52	0.65	-0.78	0.23	-0.16	72.04
500.00	0.24	196.72	500.00	0.25	0.62	-0.54	0.19	0.16	41.06
600.00	0.36	226.73	600.00	-0.16	0.33	-0.03	0.19	0.12	30.01
700.00	0.64	243.65	699.99	-0.63	-0.40	0.74	0.31	0.28	16.92
737.00	0.78	259.81	736.99	-0.76	-0.83	1.08	0.66	0.38	43.68
903.00	0.10	318.20	902.98	-0.85	-2.04	1.79	0.44	-0.41	35.17

Crescent Directional Drilling

Survey Report

Company:	Chesapeake - OK, TX, KS	Local Co-ordinate Reference:	Site Cather Family Farms 8-35-7
Project:	Harper County KS	TVD Reference:	RKB @ 1308.00ft (Nomac 115)
Site:	Cather Family Farms 8-35-7	MD Reference:	RKB @ 1308.00ft (Nomac 115)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	R5000 Oklahoma DB

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
998.00	0.30	285.50	997.98	-0.73	-2.33	1.84	0.23	0.21	-34.42
1,093.00	0.40	238.80	1,092.98	-0.83	-2.86	2.20	0.31	0.11	-49.16
1,188.00	0.50	208.00	1,187.98	-1.37	-3.34	2.91	0.27	0.11	-32.42
1,283.00	0.50	234.80	1,282.98	-1.97	-3.87	3.70	0.24	0.00	28.21
1,379.00	0.50	244.20	1,378.97	-2.40	-4.59	4.44	0.09	0.00	9.79
1,474.00	0.40	245.60	1,473.97	-2.71	-5.26	5.06	0.11	-0.11	1.47
1,569.00	0.70	229.00	1,568.96	-3.23	-6.00	5.89	0.35	0.32	-17.47
1,661.00	0.70	233.60	1,660.96	-3.93	-6.88	6.95	0.06	0.00	5.00
1,753.00	0.90	228.40	1,752.95	-4.75	-7.87	8.16	0.23	0.22	-5.65
1,844.00	0.90	221.60	1,843.94	-5.76	-8.88	9.55	0.12	0.00	-7.47
1,936.00	0.80	212.30	1,935.93	-6.84	-9.70	10.90	0.18	-0.11	-10.11
2,028.00	0.70	210.90	2,027.92	-7.87	-10.34	12.10	0.11	-0.11	-1.52
2,120.00	0.70	221.30	2,119.91	-8.77	-11.00	13.22	0.14	0.00	11.30
2,212.00	0.60	216.10	2,211.91	-9.58	-11.65	14.25	0.13	-0.11	-5.65
2,304.00	0.50	212.00	2,303.90	-10.31	-12.15	15.13	0.12	-0.11	-4.46
2,396.00	0.60	209.90	2,395.90	-11.07	-12.60	16.02	0.11	0.11	-2.28
2,488.00	0.60	204.50	2,487.89	-11.92	-13.04	16.98	0.06	0.00	-5.87
2,580.00	0.70	187.50	2,579.89	-12.92	-13.31	17.97	0.23	0.11	-18.48
2,672.00	0.60	187.60	2,671.88	-13.95	-13.45	18.92	0.11	-0.11	0.11
2,763.00	0.70	197.90	2,762.88	-14.96	-13.68	19.90	0.17	0.11	11.32
2,855.00	0.90	205.20	2,854.87	-16.14	-14.16	21.16	0.24	0.22	7.93
2,947.00	0.90	204.00	2,946.86	-17.46	-14.77	22.60	0.02	0.00	-1.30
3,042.00	1.00	202.00	3,041.84	-18.91	-15.38	24.16	0.11	0.11	-2.11
3,138.00	1.00	197.80	3,137.83	-20.48	-15.95	25.80	0.08	0.00	-4.38
3,234.00	0.50	169.50	3,233.82	-21.69	-16.13	26.92	0.63	-0.52	-29.48
3,329.00	0.40	162.90	3,328.82	-22.42	-15.96	27.45	0.12	-0.11	-6.95
3,424.00	0.50	150.10	3,423.81	-23.09	-15.65	27.87	0.15	0.11	-13.47
3,519.00	0.40	145.60	3,518.81	-23.73	-15.26	28.20	0.11	-0.11	-4.74
3,615.00	0.40	132.40	3,614.81	-24.23	-14.82	28.40	0.10	0.00	-13.75
3,710.00	0.50	128.80	3,709.81	-24.71	-14.25	28.52	0.11	0.11	-3.79
3,774.00	0.90	149.50	3,773.80	-25.32	-13.78	28.79	0.73	0.63	32.34
3,806.00	2.40	179.10	3,805.79	-26.21	-13.64	29.47	5.24	4.69	92.50
3,837.00	4.30	183.40	3,836.73	-28.02	-13.70	31.05	6.18	6.13	13.87
3,869.00	6.20	184.80	3,868.60	-30.94	-13.92	33.65	5.95	5.94	4.38
3,901.00	8.10	183.10	3,900.35	-34.91	-14.18	37.18	5.97	5.94	-5.31
3,933.00	10.00	180.40	3,931.95	-39.94	-14.33	41.55	6.08	5.94	-8.44
3,964.00	11.60	180.30	3,962.40	-45.75	-14.36	46.52	5.16	5.16	-0.32
3,996.00	13.10	179.30	3,993.66	-52.59	-14.33	52.34	4.73	4.69	-3.13
4,028.00	14.40	177.80	4,024.74	-60.19	-14.14	58.72	4.21	4.06	-4.69
4,060.00	15.60	177.00	4,055.65	-68.47	-13.76	65.58	3.81	3.75	-2.50
4,091.00	17.10	178.00	4,085.39	-77.18	-13.38	72.82	4.92	4.84	3.23
4,123.00	19.60	179.10	4,115.76	-87.25	-13.13	81.28	7.89	7.81	3.44
4,155.00	21.90	179.70	4,145.69	-98.59	-13.02	90.89	7.22	7.19	1.88

Crescent Directional Drilling

Survey Report

Company:	Chesapeake - OK, TX, KS	Local Co-ordinate Reference:	Site Cather Family Farms 8-35-7
Project:	Harper County KS	TVD Reference:	RKB @ 1308.00ft (Nomac 115)
Site:	Cather Family Farms 8-35-7	MD Reference:	RKB @ 1308.00ft (Nomac 115)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	R5000 Oklahoma DB

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,187.00	23.50	179.20	4,175.21	-110.94	-12.90	101.36	5.04	5.00	-1.56	
4,218.00	25.90	179.00	4,203.37	-123.89	-12.69	112.31	7.75	7.74	-0.65	
4,250.00	29.00	180.00	4,231.76	-138.64	-12.57	124.82	9.79	9.69	3.13	
4,282.00	31.60	180.40	4,259.39	-154.78	-12.63	138.62	8.15	8.13	1.25	
4,314.00	34.10	180.50	4,286.27	-172.14	-12.77	153.50	7.81	7.81	0.31	
4,345.00	36.50	179.80	4,311.57	-190.05	-12.81	168.80	7.85	7.74	-2.26	
4,377.00	38.30	179.60	4,336.99	-209.48	-12.71	185.33	5.64	5.63	-0.63	
4,409.00	39.70	179.00	4,361.86	-229.62	-12.46	202.38	4.53	4.38	-1.88	
4,441.00	40.40	178.90	4,386.35	-250.21	-12.08	219.74	2.20	2.19	-0.31	
4,464.00	41.05	178.76	4,403.78	-265.21	-11.77	232.38	2.84	2.81	-0.63	
Unit Line Crossed: 4464' MD										
4,473.00	41.30	178.70	4,410.56	-271.13	-11.64	237.36	2.84	2.81	-0.62	
4,504.00	42.90	179.20	4,433.56	-291.91	-11.26	254.89	5.27	5.16	1.61	
4,536.00	44.30	180.10	4,456.73	-313.98	-11.13	273.65	4.79	4.38	2.81	
4,568.00	46.10	180.20	4,479.28	-336.68	-11.19	293.04	5.63	5.63	0.31	
4,599.00	48.10	180.20	4,500.38	-359.39	-11.27	312.46	6.45	6.45	0.00	
4,631.00	49.00	180.00	4,521.56	-383.38	-11.31	332.94	2.85	2.81	-0.63	
4,663.00	49.30	180.20	4,542.49	-407.58	-11.35	353.61	1.05	0.94	0.63	
4,695.00	49.60	179.70	4,563.30	-431.90	-11.33	374.34	1.51	0.94	-1.56	
4,726.00	49.70	179.50	4,583.37	-455.52	-11.17	394.41	0.59	0.32	-0.65	
4,758.00	50.10	179.50	4,603.98	-480.00	-10.95	415.17	1.25	1.25	0.00	
4,790.00	50.40	179.00	4,624.44	-504.60	-10.63	435.99	1.52	0.94	-1.56	
4,821.00	50.20	179.00	4,644.24	-528.45	-10.22	456.12	0.65	-0.65	0.00	
4,853.00	49.80	178.90	4,664.81	-552.96	-9.77	476.79	1.27	-1.25	-0.31	
4,885.00	50.50	178.80	4,685.32	-577.52	-9.27	497.48	2.20	2.19	-0.31	
4,906.00	52.21	179.20	4,698.43	-593.92	-8.99	511.32	8.26	8.12	1.90	
330' Line Crossed: 4906' MD										
4,917.00	53.10	179.40	4,705.10	-602.66	-8.88	518.73	8.26	8.13	1.83	
4,948.00	56.00	180.20	4,723.08	-627.91	-8.80	540.22	9.59	9.35	2.58	
4,980.00	58.70	180.70	4,740.34	-654.85	-9.01	563.31	8.54	8.44	1.56	
5,012.00	62.70	181.10	4,756.00	-682.75	-9.45	587.34	12.55	12.50	1.25	
5,043.00	67.50	180.70	4,769.05	-710.85	-9.89	611.55	15.53	15.48	-1.29	
5,075.00	71.20	180.80	4,780.33	-740.79	-10.28	637.29	11.57	11.56	0.31	
5,107.00	74.00	180.60	4,789.90	-771.32	-10.65	663.53	8.77	8.75	-0.63	
5,139.00	76.30	179.70	4,798.10	-802.25	-10.73	689.95	7.68	7.19	-2.81	
5,170.00	78.70	179.70	4,804.81	-832.51	-10.57	715.68	7.74	7.74	0.00	
5,199.00	81.00	179.70	4,809.92	-861.05	-10.42	739.95	7.93	7.93	0.00	
5,270.00	82.90	179.90	4,819.86	-931.35	-10.18	799.79	2.69	2.68	0.28	
5,301.00	83.40	179.90	4,823.56	-962.13	-10.13	826.02	1.61	1.61	0.00	
5,333.00	84.10	180.00	4,827.05	-993.94	-10.10	853.14	2.21	2.19	0.31	
5,365.00	84.70	179.30	4,830.17	-1,025.79	-9.90	880.20	2.87	1.88	-2.19	
5,397.00	85.90	179.70	4,832.79	-1,057.68	-9.63	907.26	3.95	3.75	1.25	
5,492.00	86.30	179.50	4,839.25	-1,152.45	-8.96	987.77	0.47	0.42	-0.21	
5,587.00	88.80	179.60	4,843.31	-1,247.36	-8.22	1,068.33	2.63	2.63	0.11	

Crescent Directional Drilling

Survey Report

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Site:	Cather Family Farms 8-35-7	MD Reference:	RKB @ 1308.00ft (Nomac 115)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	R5000 Oklahoma DB

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N-S (ft)	+E-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,682.00	91.60	180.30	4,842.98	-1,342.35	-8.14	1,149.32	3.04	2.95	0.74	
5,777.00	90.60	179.50	4,841.16	-1,437.33	-7.97	1,230.26	1.35	-1.05	-0.84	
5,872.00	88.30	178.20	4,842.07	-1,532.29	-6.06	1,310.27	2.78	-2.42	-1.37	
5,964.00	88.70	177.90	4,844.48	-1,624.21	-2.93	1,387.05	0.54	0.43	-0.33	
6,056.00	89.50	178.50	4,845.92	-1,716.15	-0.04	1,463.97	1.09	0.87	0.65	
6,147.00	91.70	178.20	4,844.97	-1,807.10	2.58	1,540.19	2.44	2.42	-0.33	
6,239.00	88.10	179.60	4,845.13	-1,899.07	4.34	1,617.72	4.20	-3.91	1.52	
6,331.00	89.90	179.40	4,846.74	-1,991.05	5.14	1,695.76	1.97	1.96	-0.22	
6,423.00	90.60	178.90	4,846.33	-2,083.04	6.51	1,773.52	0.94	0.76	-0.54	
6,515.00	88.70	178.60	4,846.90	-2,175.01	8.52	1,850.93	2.09	-2.07	-0.33	
6,607.00	89.50	179.70	4,848.34	-2,266.98	9.88	1,928.67	1.48	0.87	1.20	
6,699.00	89.20	180.40	4,849.38	-2,358.98	9.80	2,007.19	0.83	-0.33	0.76	
6,791.00	89.50	181.40	4,850.43	-2,450.96	8.35	2,086.41	1.13	0.33	1.09	
6,883.00	89.60	182.20	4,851.15	-2,542.91	5.47	2,166.35	0.88	0.11	0.87	
6,975.00	89.50	181.20	4,851.87	-2,634.87	2.74	2,246.22	1.09	-0.11	-1.09	
7,066.00	95.00	180.50	4,848.30	-2,725.75	1.39	2,324.45	6.09	6.04	-0.77	
7,158.00	94.50	179.70	4,840.68	-2,817.43	1.23	2,402.74	1.02	-0.54	-0.87	
7,250.00	93.80	180.00	4,834.03	-2,909.19	1.47	2,480.89	0.83	-0.76	0.33	
7,345.00	90.50	179.90	4,830.46	-3,004.11	1.55	2,561.82	3.48	-3.47	-0.11	
7,440.00	89.70	179.70	4,830.30	-3,099.11	1.88	2,642.68	0.87	-0.84	-0.21	
7,535.00	90.20	179.20	4,830.38	-3,194.10	2.79	2,723.24	0.74	0.53	-0.53	
7,630.00	88.80	178.00	4,831.21	-3,289.07	5.11	2,803.04	1.94	-1.47	-1.26	
7,725.00	88.50	177.30	4,833.45	-3,383.96	9.01	2,881.95	0.80	-0.32	-0.74	
7,820.00	89.70	178.00	4,834.94	-3,478.87	12.90	2,960.88	1.46	1.26	0.74	
7,916.00	91.00	179.00	4,834.35	-3,574.83	15.42	3,041.43	1.71	1.35	1.04	
8,010.00	90.10	179.20	4,833.45	-3,668.81	16.89	3,120.83	0.98	-0.96	0.21	
8,106.00	89.80	179.70	4,833.53	-3,764.81	17.81	3,202.24	0.61	-0.31	0.52	
8,201.00	90.60	180.00	4,833.20	-3,859.81	18.06	3,283.14	0.90	0.84	0.32	
8,296.00	89.60	179.30	4,833.04	-3,954.80	18.64	3,363.88	1.28	-1.05	-0.74	
8,391.00	90.80	178.90	4,832.70	-4,049.79	20.13	3,444.12	1.33	1.26	-0.42	
8,486.00	93.80	179.60	4,828.89	-4,144.69	21.38	3,524.43	3.24	3.16	0.74	
8,581.00	89.50	177.50	4,826.16	-4,239.59	23.78	3,604.13	5.04	-4.53	-2.21	
8,677.00	87.30	178.20	4,828.84	-4,335.48	27.38	3,684.05	2.40	-2.29	0.73	
8,772.00	89.10	178.80	4,831.82	-4,430.40	29.87	3,763.72	2.00	1.89	0.63	
8,867.00	90.30	179.80	4,832.32	-4,525.39	31.03	3,844.15	1.64	1.26	1.05	
8,962.00	89.30	179.60	4,832.65	-4,620.38	31.53	3,924.92	1.07	-1.05	-0.21	
9,057.00	92.40	180.70	4,831.24	-4,715.36	31.28	4,006.07	3.46	3.26	1.16	
9,153.00	92.40	180.80	4,827.22	-4,811.27	30.02	4,088.54	0.10	0.00	0.10	
9,248.00	89.80	181.50	4,825.40	-4,906.22	28.12	4,170.53	2.83	-2.74	0.74	
9,342.00	87.90	180.90	4,827.28	-5,000.18	26.15	4,251.71	2.12	-2.02	-0.64	
9,437.00	88.40	180.30	4,830.35	-5,095.12	25.15	4,333.22	0.82	0.53	-0.63	
Last MWD Survey : 9437' MD										
9,500.00	88.40	180.30	4,832.11	-5,158.10	24.82	4,387.11	0.00	0.00	0.00	

Crescent Directional Drilling

Survey Report

Company:	Chesapeake - OK, TX, KS	Local Co-ordinate Reference:	Site Cather Family Farms 8-35-7
Project:	Harper County KS	TVD Reference:	RKB @ 1308.00ft (Nomac 115)
Site:	Cather Family Farms 8-35-7	MD Reference:	RKB @ 1308.00ft (Nomac 115)
Well:	#1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	R5000 Oklahoma DB

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Projection to Bit: 9500' MD									

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
4,464.00	4,403.78	-265.21	-11.77	Unit Line Crossed: 4464' MD
4,906.00	4,698.43	-593.92	-8.99	330' Line Crossed: 4906' MD
9,437.00	4,830.35	-5,095.12	25.15	Last MWD Survey : 9437' MD
9,500.00	4,832.11	-5,158.10	24.82	Projection to Bit: 9500' MD

Checked By: _____ Approved By: _____ Date: _____

Jason Roe 05/29/2012



**Chesapeake - OK, TX, KS
Cather Family Farms 8-35-7 #1H
Harper County KS
Final Plan vs Actual**

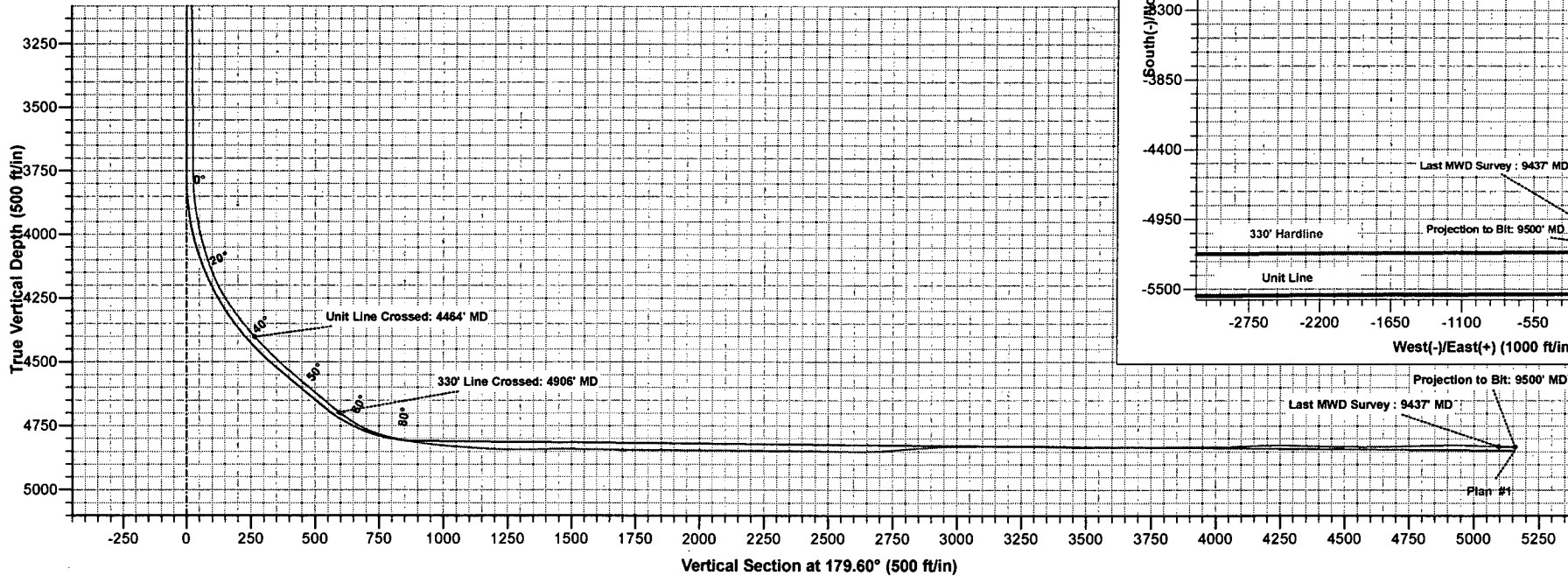
Nomac 115



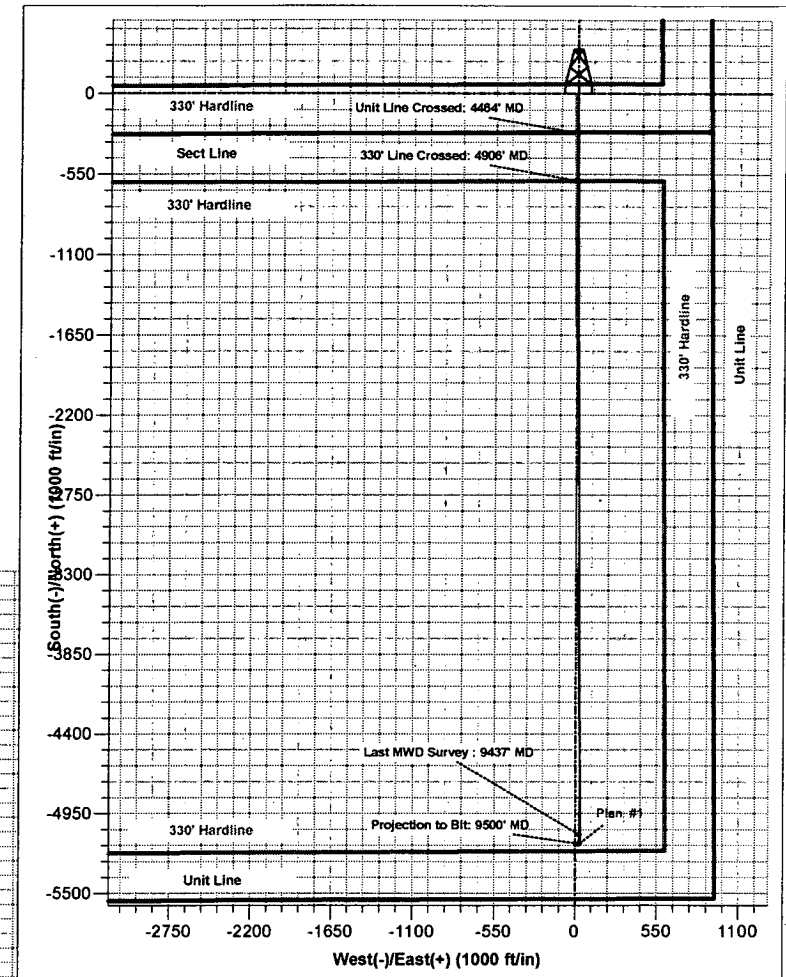
Surface Location		Ground Elevation: 1292.00 RKB @ 1308.00ft (Nomac 115)					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot	
0.00	0.00	129866.000	2118369.000	37° 1' 21.414 N	98° 5' 40.552 W		

Map System : US State Plane 1927 (Exact solution)
Datum : NAD 1927 (NADCON CONUS)
Ellipsoid : Clarke 1886
Zone Name : Kansas South 1502

Local Origin : Site Cather Family Farms 8-35-7, Grid North
System Datum : Mean Sea Level

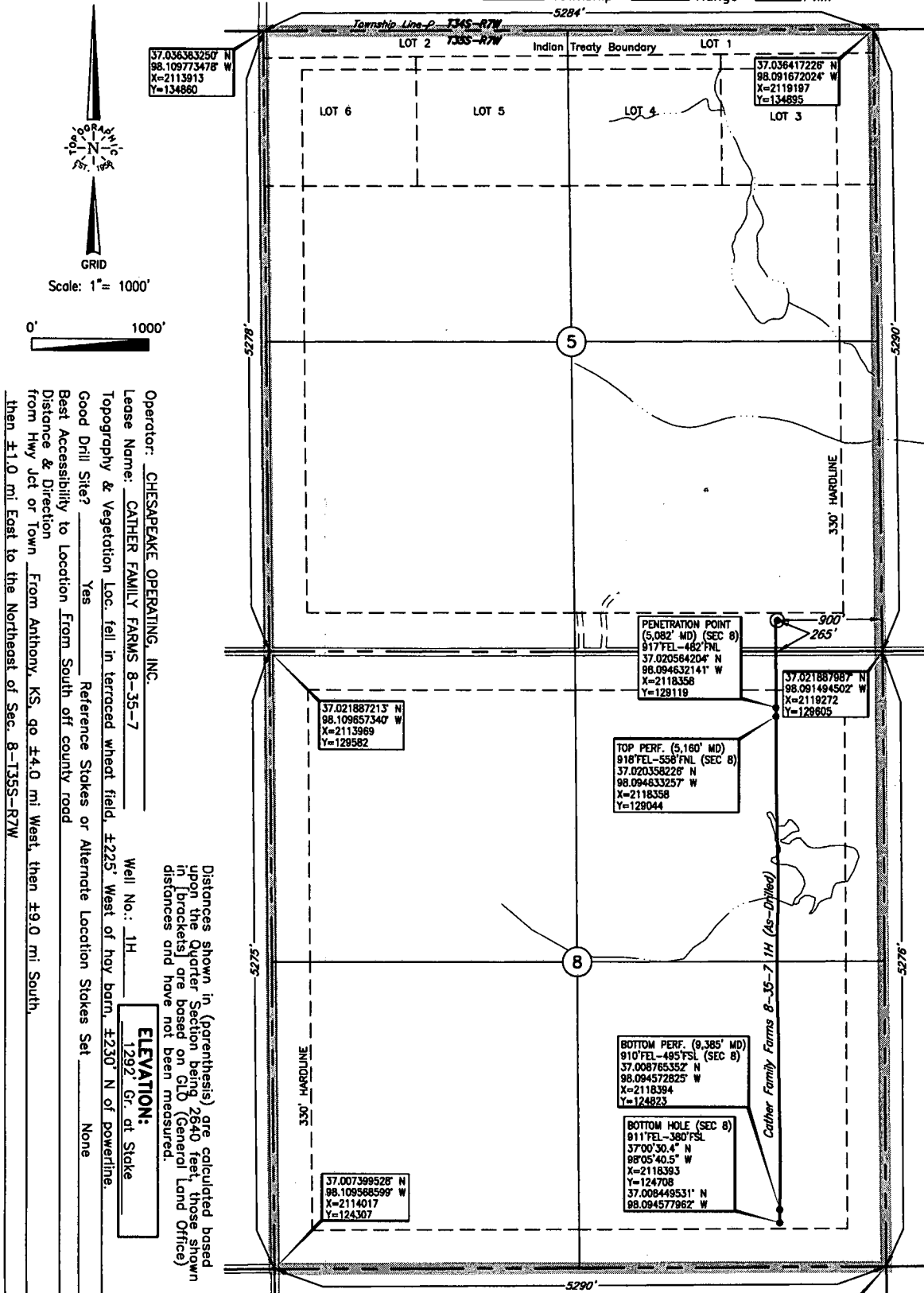


Vertical Section at 179.60° (500 ft/in)



Projection to Bit: 9500' MD
Last MWD Survey: 9437' MD
Plan: #1

HARPER County, Kansas
 265' FSL - 900' FEL Section 5 Township 35S Range 7W P.M.



Operator: CHESAPEAKE OPERATING, INC.
 Lease Name: CATHER FAMILY FARMS 8-35-7
 Topography & Vegetation Loc. fell in terraced wheat field, ±225' West of hwy barn, ±230' N of powerline.
 Good Drill Site? Yes Reference Stakes or Alternate Location Stakes Set None
 Best Accessibility to Location From South off county road
 Distance & Direction From Anthony, KS, go ±4.0 mi West, then ±9.0 mi South,
then ±1.0 mi East to the Northeast of Sec. 8-135S-R7W

Well No.: 1H
 Distances shown in (parenthesis) are calculated based upon the Quarter Section being 2640 feet, those shown in [brackets] are based on GLO (General Land Office) distances and have not been measured.
ELEVATION:
1292' Gr. at Stake

DATUM: NAD-27
 LAT: 37°01'21.4"N
 LONG: 98°05'40.5"W
 LAT: 37.022615519°N
 LONG: 98.094583018°W
 STATE PLANE COORDINATES: (US Feet)
 ZONE: KS NORTH
 X: 2118369
 Y: 129866

187607 Date of Drawing: Aug. 07, 2012
 Invoice # 182186 Date Staked: Apr. 17, 2012 JP

FINAL AS-DRILLED PLAT

AS-DRILLED INFORMATION
 FURNISHED BY CHESAPEAKE OPERATING

This information was gathered with a GPS receiver with Sub-Meter accuracy.