

Jones, William V., EMNRD

From: Jones, William V., EMNRD
Sent: Monday, February 25, 2008 7:17 PM
To: 'Ocean Munds-Dry'
Cc: Brooks, David K., EMNRD; Williams, Chris, EMNRD; Kautz, Paul, EMNRD; Ezeanyim, Richard, EMNRD
Subject: Case 14027 Chesapeake Operating Inc. Compulsory Pooling N/2 of Section 21, T22S, R36E, Lea County (Langley Greer #3 API No. 30-025-38612)

Hello Ocean:
I believe this case was uncontested

The transcript is still not available from this hearing, but after looking at the Application and at the planned horizontal wellplan as shown in the wellfile, I have questions:

- 1) What Copus Rates were requested at the hearing (drilling and operating)?
- 2) Chesapeake wants a N/2 well unit, I believe because the S/2 is taken with other wells in the Langlie-Devonian Gas Pool.

Chesapeake got NSL-5720 approved by the Division after promising to penetrate the Devonian at 2310 feet FNL and 660 feet FWL (in the N/2 of Section 21) - but the wellplan shows this may NOT be the first time the well penetrates into this Pool. According to the wellplan, Chesapeake proposes to penetrate the Devonian IN the S/2 of Section 21. I think this would not be allowed by the Division.

- 3) Also, it is not clear if the Ellenburger would ever be penetrated by this well (the formation vertical depths are not present on the wellplan), but the Ellenburger was proposed also for compulsory pooling. Can the Ellenburger be dropped from this case since it appears there will not be a proposed well to produce it?
- 4) The compulsory pooling is proposed from 4000 feet to 15751 feet, but it looks like the only place the well could possibly produce (in the N/2 of Section 21) would be in the Devonian Gas - does this sound right? The case mentioned the W/2 NW/4 for oil production, but the well is projected to be below any oil zones - unless the Devonian or other deep formations turn out to be "oil" instead of "gas". Chesapeake does mention Strawn as an oil zone - but no one testified as to the depth of the Strawn in this area. Even if so, how would the two oil spacing units be combined? Project area? I can't find an 80 acre oil pool in this area below the San Andres.

Anyway, maybe the Chesapeake engineers need to meet with the Chesapeake Landman and decide whether to alter the planned wellpath or change the proposed compulsory pooling language?

Let me know? I will confer with David Brooks about this also. This maybe should be re-opened.

William V. Jones PE
 New Mexico Oil Conservation Division
 1220 South St. Francis
 Santa Fe, NM 87505
 505-476-3448

2/25/2008



Actual Wellpath Report

No. 3H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	Chesapeake Operating, Inc.	Slot	No. 3H SHL
Area	Lea County, NM	Well	No. 3H
Field	Langley (Devonian) Field	Wellbore	No. 3H AWB
Facility	Langley Greer COM #3H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet	Software System	WellArchitect® 2.0
North Reference	Grid	User	Gomeoscr
Scale	1.00003	Report Generated	2/28/2008 at 3:26:47 PM
Convergence at slot	0.57° East	Database/Source file	WA_Midland/No. 3H_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	0.00	0.00	826367.40	502345.60	32°22'35.870"N	103°16'34.316"W
Facility Reference Pt			826367.40	502345.60	32°22'35.870"N	103°16'34.316"W
Field Reference Pt			0.00	0.00	30°59'24.512"N	105°55'44.137"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on 3H SHL (RT) to Facility Vertical Datum	23.00ft
Horizontal Reference Pt	Slot	Rig on 3H SHL (RT) to GRN. ELEV.	3566.00ft
Vertical Reference Pt	Rig on 3H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on 3H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	GRN. ELEV.	Section Azimuth	0.18°

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Facility	Langley Greer COM #3H		

WELLPATH DATA (176 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	23.010	0.00	0.00	0.00	0.00	0.00	
200.00	0.500	23.010	200.00	0.80	0.80	0.34	0.25	
400.00	0.250	220.100	400.00	1.27	1.27	0.40	0.37	
600.00	0.500	252.200	599.99	0.67	0.67	-0.71	0.16	
800.00	0.500	217.300	799.98	-0.30	-0.29	-2.07	0.15	
1000.00	0.250	112.390	999.98	-1.16	-1.15	-2.20	0.31	
1200.00	0.000	0.000	1199.98	-1.32	-1.32	-1.79	0.12	
1400.00	0.500	320.580	1399.98	-0.65	-0.64	-2.35	0.25	
1600.00	1.250	8.680	1599.96	2.18	2.19	-2.57	0.49	
1800.00	1.500	351.260	1799.90	6.92	6.93	-2.64	0.24	
2000.00	0.750	11.360	1999.86	10.80	10.80	-2.78	0.42	
2200.00	0.500	12.450	2199.85	12.93	12.94	-2.33	0.13	
2400.00	3.000	14.580	2399.74	18.85	18.86	-0.83	1.25	
2600.00	3.750	41.700	2599.40	28.82	28.81	4.84	0.87	
2800.00	3.500	47.790	2799.00	37.83	37.79	13.71	0.23	
3000.00	2.750	50.870	2998.70	44.99	44.92	21.96	0.38	
3200.00	1.750	49.950	3198.55	50.00	49.91	28.02	0.50	
3400.00	1.000	31.030	3398.49	53.47	53.37	31.25	0.43	
3600.00	0.250	73.130	3598.48	55.10	55.00	32.57	0.42	
3800.00	0.500	71.020	3798.47	55.51	55.41	33.81	0.13	
4000.00	0.250	342.920	3998.47	56.22	56.11	34.51	0.28	
4200.00	0.750	25.820	4198.46	57.81	57.70	34.95	0.30	
4400.00	0.250	62.710	4398.45	59.20	59.08	35.91	0.29	
4600.00	0.250	186.610	4598.45	58.96	58.85	36.25	0.22	
4800.00	0.750	126.500	4798.45	57.75	57.64	37.25	0.33	
5000.00	0.500	157.400	4998.43	56.17	56.05	38.64	0.21	
5200.00	1.000	95.300	5198.42	55.21	55.09	40.71	0.44	
5400.00	1.000	96.190	5398.39	54.88	54.74	44.18	0.01	
5600.00	1.000	113.090	5598.36	54.01	53.86	47.52	0.15	
5800.00	1.000	105.470	5798.33	52.87	52.71	50.81	0.07	
6000.00	0.750	108.360	5998.30	52.01	51.84	53.74	0.13	
6200.00	0.500	131.260	6198.29	51.02	50.85	55.63	0.17	
6400.00	0.250	18.160	6398.29	50.87	50.69	56.43	0.32	
6600.00	0.250	56.050	6598.29	51.53	51.34	56.92	0.08	
6800.00	0.750	6.950	6798.28	53.07	52.89	57.44	0.31	
7000.00	0.500	32.850	6998.27	55.10	54.92	58.08	0.19	
7200.00	1.000	6.750	7198.25	57.57	57.39	58.76	0.30	
7400.00	1.000	343.640	7398.22	60.98	60.79	58.47	0.20	
7600.00	0.750	8.540	7598.20	63.95	63.76	58.17	0.22	
7800.00	0.750	332.360	7798.18	66.40	66.22	57.76	0.23	
8000.00	1.000	34.110	7998.16	69.01	68.82	58.13	0.46	
8200.00	1.000	6.600	8198.13	72.19	72.00	59.31	0.24	
8305.00	1.750	8.840	8303.10	74.68	74.50	59.66	0.72	
8344.00	1.700	40.700	8342.09	75.71	75.52	60.13	2.43	
8375.00	1.700	22.100	8373.07	76.49	76.30	60.60	1.77	



Actual Wellpath Report

No. 3H AWP

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Field	Langley (Devonian) Field	Wellbore	No. 3H AWB
Facility	Langley Greer COM #3H		

WELLPATH DATA (176 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8406.00	2.200	9.900	8404.06	77.50	77.31	60.88	2.09	
8438.00	3.200	3.100	8436.02	79.00	78.81	61.03	3.28	
8469.00	4.200	3.500	8466.95	81.00	80.80	61.15	3.23	
8500.00	5.400	4.900	8497.85	83.58	83.39	61.34	3.89	
8532.00	6.100	3.300	8529.68	86.78	86.59	61.57	2.24	
8563.00	7.000	2.500	8560.48	90.31	90.12	61.75	2.92	
8594.00	7.900	1.200	8591.22	94.33	94.14	61.87	2.95	
8626.00	8.700	359.900	8622.88	98.95	98.76	61.91	2.57	
8657.00	9.200	358.500	8653.51	103.77	103.58	61.85	1.76	
8689.00	9.400	359.000	8685.09	108.94	108.75	61.73	0.67	
8720.00	9.500	358.900	8715.66	114.03	113.84	61.64	0.33	
8751.00	9.500	359.900	8746.24	119.15	118.95	61.59	0.53	
8783.00	9.400	359.100	8777.81	124.40	124.21	61.54	0.52	
8814.00	9.400	359.800	8808.39	129.46	129.27	61.49	0.37	
8845.00	9.300	358.700	8838.98	134.50	134.30	61.43	0.66	
8877.00	9.300	358.500	8870.56	139.67	139.47	61.30	0.10	
8908.00	9.300	359.200	8901.15	144.68	144.48	61.20	0.36	
8940.00	9.200	359.200	8932.73	149.82	149.63	61.13	0.31	
8972.00	9.100	0.700	8964.33	154.91	154.71	61.12	0.81	
9004.00	9.400	1.000	8995.91	160.05	159.86	61.20	0.95	
9036.00	9.400	1.000	9027.48	165.28	165.08	61.29	0.00	
9068.00	9.300	0.400	9059.06	170.48	170.28	61.35	0.44	
9100.00	9.500	358.900	9090.63	175.70	175.51	61.32	0.99	
9132.00	9.200	358.900	9122.20	180.90	180.71	61.22	0.94	
9164.00	9.100	359.200	9153.79	185.99	185.79	61.14	0.35	
9196.00	9.200	359.400	9185.39	191.07	190.88	61.07	0.33	
9228.00	8.900	358.600	9216.99	196.11	195.91	60.99	1.02	
9260.00	8.500	357.400	9248.62	200.94	200.75	60.82	1.37	
9292.00	8.400	359.900	9280.27	205.64	205.45	60.71	1.19	
9324.00	8.300	357.500	9311.93	210.29	210.10	60.60	1.13	
9356.00	8.400	358.900	9343.59	214.93	214.74	60.46	0.71	
9420.00	8.300	359.400	9406.92	224.22	224.03	60.32	0.19	
9483.00	8.300	359.600	9469.26	233.32	233.13	60.24	0.05	
9547.00	8.400	2.300	9532.58	242.61	242.42	60.40	0.63	
9611.00	8.900	0.000	9595.85	252.23	252.04	60.58	0.95	
9674.00	9.000	359.700	9658.08	262.03	261.84	60.56	0.18	
9738.00	9.100	356.400	9721.29	272.09	271.90	60.21	0.83	
9801.00	9.300	357.000	9783.48	282.14	281.95	59.63	0.35	
9864.00	8.800	358.700	9845.69	292.04	291.85	59.26	0.90	
9928.00	8.800	0.600	9908.94	301.83	301.64	59.20	0.45	
9991.00	8.900	358.500	9971.19	311.52	311.33	59.12	0.54	
10055.00	8.900	358.400	10034.42	321.42	321.23	58.85	0.02	
10119.00	8.800	0.500	10097.66	331.26	331.08	58.76	0.53	
10183.00	8.700	358.500	10160.91	341.00	340.81	58.67	0.50	
10247.00	8.400	356.400	10224.20	350.50	350.31	58.25	0.68	

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Field	Langley (Devonian) Field	Wellbore	No. 3H AWP
Facility	Langley Greer COM #3H		

WELLPATH DATA (176 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
10311.00	8.400	356.400	10287.51	359.83	359.65	57.67	0.00	
10375.00	8.300	356.500	10350.83	369.10	368.92	57.09	0.16	
10439.00	8.000	359.200	10414.19	378.16	377.99	56.75	0.76	
10503.00	7.900	358.900	10477.57	387.01	386.84	56.60	0.17	
10566.00	8.600	356.100	10539.92	396.04	395.86	56.20	1.28	
10630.00	9.500	351.600	10603.12	406.04	405.86	55.10	1.79	
10694.00	9.800	349.400	10666.22	416.61	416.44	53.33	0.74	
10758.00	9.800	350.600	10729.29	427.33	427.17	51.44	0.32	
10821.00	8.600	357.800	10791.48	437.32	437.17	50.38	2.64	
10883.00	7.500	5.900	10852.87	445.98	445.82	50.62	2.54	
10946.00	7.500	3.500	10915.33	454.18	454.02	51.29	0.50	
11010.00	7.100	1.500	10978.81	462.30	462.14	51.65	0.74	
11073.00	7.500	354.000	11041.30	470.28	470.12	51.32	1.64	
11137.00	8.100	357.000	11104.71	478.94	478.78	50.65	1.13	
11201.00	7.700	352.600	11168.10	487.69	487.53	49.86	1.13	
11233.00	7.800	352.600	11199.81	491.97	491.81	49.30	0.31	
11265.00	7.700	354.000	11231.52	496.25	496.10	48.80	0.67	
11297.00	7.400	358.300	11263.24	500.44	500.29	48.52	2.00	
11328.00	7.000	359.800	11293.99	504.33	504.17	48.45	1.43	
11360.00	6.200	1.100	11325.78	508.00	507.85	48.48	2.54	
11393.00	6.000	1.800	11358.59	511.51	511.36	48.56	0.65	
11424.00	5.800	0.200	11389.43	514.70	514.54	48.62	0.84	
11456.00	5.700	358.300	11421.27	517.90	517.75	48.58	0.67	
11488.00	4.900	356.800	11453.13	520.85	520.70	48.46	2.54	
11520.00	4.000	359.100	11485.04	523.33	523.18	48.36	2.87	
11550.00	3.600	2.100	11514.97	525.32	525.17	48.38	1.49	
11582.00	3.100	358.000	11546.91	527.19	527.04	48.39	1.73	
11614.00	2.500	353.400	11578.88	528.75	528.60	48.28	2.00	
11646.00	1.700	349.300	11610.85	529.91	529.76	48.11	2.54	
11670.00	1.500	338.200	11634.85	530.55	530.40	47.93	1.53	
11699.00	1.200	335.000	11663.84	531.17	531.03	47.66	1.07	
11731.00	0.800	318.500	11695.83	531.64	531.50	47.37	1.53	
11763.00	0.700	318.200	11727.83	531.96	531.81	47.09	0.31	
11795.00	0.600	319.600	11759.83	532.23	532.08	46.85	0.32	
11827.00	0.700	337.100	11791.83	532.54	532.39	46.66	0.69	
11859.00	0.700	338.200	11823.82	532.90	532.75	46.52	0.04	
11889.00	0.700	335.300	11853.82	533.23	533.09	46.37	0.12	
11921.00	0.700	347.600	11885.82	533.60	533.46	46.25	0.47	
11952.00	1.900	350.900	11916.81	534.29	534.15	46.13	3.88	
11984.00	4.200	350.400	11948.76	535.97	535.83	45.85	7.19	
12016.00	7.000	351.100	11980.61	539.05	538.91	45.35	8.75	
12048.00	10.200	351.100	12012.24	543.78	543.64	44.61	10.00	
12080.00	13.000	350.800	12043.59	550.13	549.99	43.59	8.75	
12112.00	15.500	351.600	12074.60	557.91	557.78	42.39	7.84	
12133.00	16.900	352.600	12094.76	563.71	563.58	41.59	6.80	

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WELLPATH DATA (176 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
12179.00	20.400	353.000	12138.34	578.30	578.17	39.75	7.61	
12211.00	25.600	351.500	12167.79	590.67	590.55	38.05	16.35	
12243.00	31.000	351.600	12195.95	605.66	605.55	35.82	16.88	
12275.00	35.800	352.400	12222.66	623.10	622.99	33.38	15.06	
12307.00	40.800	352.900	12247.77	642.75	642.66	30.85	15.65	
12339.00	45.900	355.000	12271.03	664.58	664.49	28.55	16.56	
12370.00	51.100	357.200	12291.56	687.73	687.65	26.99	17.59	
12402.00	56.500	358.400	12310.46	713.52	713.44	26.01	17.14	
12434.00	60.600	359.600	12327.15	740.81	740.73	25.54	13.21	
12466.00	64.500	0.200	12341.90	769.20	769.12	25.49	12.30	
12498.00	68.400	0.500	12354.68	798.53	798.45	25.67	12.22	
12530.00	73.200	0.400	12365.20	828.74	828.66	25.91	15.00	
12561.00	76.200	0.900	12373.38	858.64	858.56	26.25	9.80	
12593.00	78.300	0.100	12380.44	889.84	889.76	26.52	7.00	
12625.00	80.500	359.900	12386.33	921.30	921.22	26.52	6.90	
12657.00	82.200	359.600	12391.14	952.93	952.85	26.38	5.39	
12688.00	84.400	359.500	12394.76	983.71	983.64	26.14	7.10	
12720.00	86.400	359.500	12397.33	1015.61	1015.53	25.86	6.25	
12752.00	87.200	359.600	12399.11	1047.56	1047.48	25.61	2.52	
12784.00	88.200	359.400	12400.40	1079.53	1079.45	25.33	3.19	
12816.00	89.500	358.900	12401.04	1111.51	1111.44	24.86	4.35	
12848.00	91.400	358.800	12400.79	1143.50	1143.43	24.22	5.95	
12880.00	93.000	359.200	12399.56	1175.47	1175.40	23.66	5.15	
12912.00	94.300	359.200	12397.52	1207.40	1207.33	23.21	4.06	
12944.00	94.300	358.900	12395.12	1239.31	1239.24	22.68	0.93	
12976.00	94.200	358.900	12392.75	1271.21	1271.15	22.07	0.31	
13007.00	95.100	358.700	12390.24	1302.10	1302.04	21.42	2.97	
13071.00	95.700	358.500	12384.21	1365.79	1365.73	19.87	0.99	
13135.00	95.900	358.600	12377.75	1429.44	1429.39	18.26	0.35	
13199.00	95.500	359.200	12371.39	1493.10	1493.06	17.03	1.12	
13263.00	95.200	358.900	12365.42	1556.81	1556.77	15.98	0.66	
13326.00	95.400	359.900	12359.60	1619.54	1619.50	15.32	1.61	
13389.00	95.800	359.100	12353.46	1682.23	1682.19	14.77	1.41	
13453.00	95.000	359.400	12347.43	1745.94	1745.90	13.94	1.33	
13517.00	95.600	358.800	12341.52	1809.65	1809.62	12.94	1.32	
13579.00	96.500	359.200	12334.99	1871.29	1871.26	11.86	1.59	
13643.00	97.000	0.300	12327.46	1934.85	1934.82	11.58	1.88	
13707.00	95.200	359.300	12320.66	1998.48	1998.45	11.36	3.21	
13739.00	95.200	359.300	12317.76	2030.34	2030.32	10.97	0.00	
13793.00	95.400	359.300	12312.78	2084.11	2084.08	10.32	0.37	
13844.00	95.400	359.300	12307.98	2134.87	2134.85	9.70	0.00	Proj to Bit

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
#3H-TGT 1		11680.00	530.13	48.00	826415.40	502875.75	32°22'41.111"N	103°16'33.696"W	point
#3H-BHL		12299.00	2155.26	6.77	826374.17	504500.92	32°22'57.195"N	103°16'33.989"W	point
33H NEW BHL		12299.00	2130.26	6.77	826374.17	504475.92	32°22'56.948"N	103°16'33.992"W	point

WELLPATH COMPOSITION Ref Wellbore: No. 3H AWB Ref Wellpath: No. 3H AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8305.00	Gyrodatta standard - Drop gyro or Multi-shot	GYRO	No. 3H AWB
8305.00	13844.00	NaviTrak (Standard)	MWD	No. 3H AWB



Chesapeake Operating, Inc.

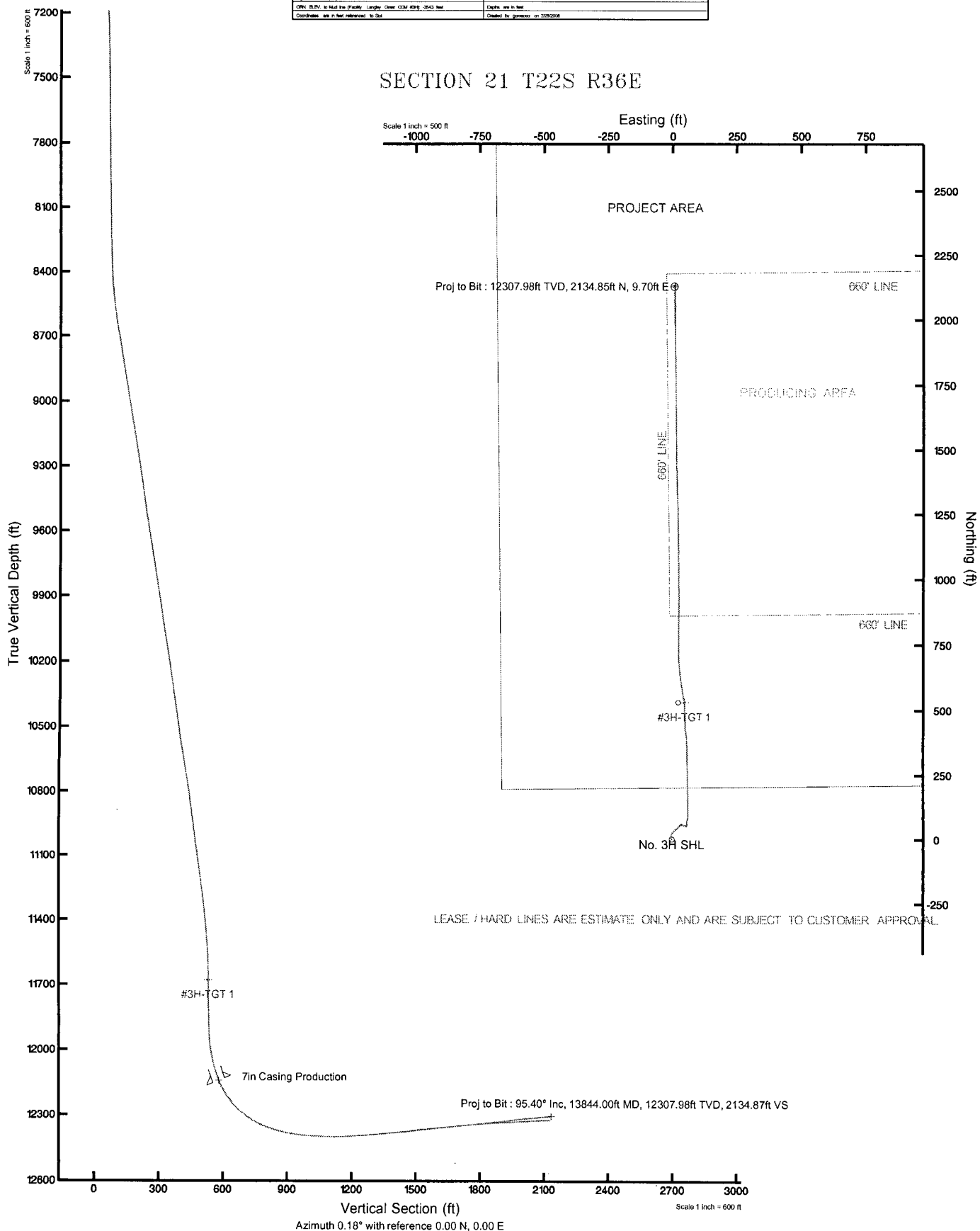
Location: Lea County, NM
Field: Langley (Devonian) Field
Facility: Langley Greer COM #3H

Slot: No. 3H SHL
Well: No. 3H
Wellbore: No. 3H AWB



3H reference wellpath is No. 3H AWP	One System: NACOP / To New Mexico State Parks, Eastern Zone (2011), US Nat
True vertical depths are referenced to Rig on 3H SHL (RTD)	North Reference: Grid north
Measured depths are referenced to Rig on 3H SHL (RTD)	Scale: True distance
Rig on 3H SHL (RTD) is OPEN ELEV: 2000 feet	Depths are in feet
OPEN ELEV is Mud line (Mud line) Length: Open COM #3H - 3543 feet	Created by generator on 10/20/2018
Coordinates are in feet referenced to Grid	

SECTION 21 T22S R36E



See reference section for No. 3H SHL	
True vertical depth was observed to be 7' 3.8" (7.07)	Well Status: NOTED - 10' New Interval (Shale) From, 13844' (13844') to 13854'
Measured depth was observed to be 8' 3.8" (8.07)	From Interval: 13844' to 13854'
Log at 31' 31" (31' 31" 31.52) 859' 10"	Scale: True depth
Depth 31' 31" to 13844' (31' 31" 31.52) 859' 10"	Scale: True depth
Curvature was not observed to be	Curvature was not observed to be

