

CNX GAS COMPANY, LLC

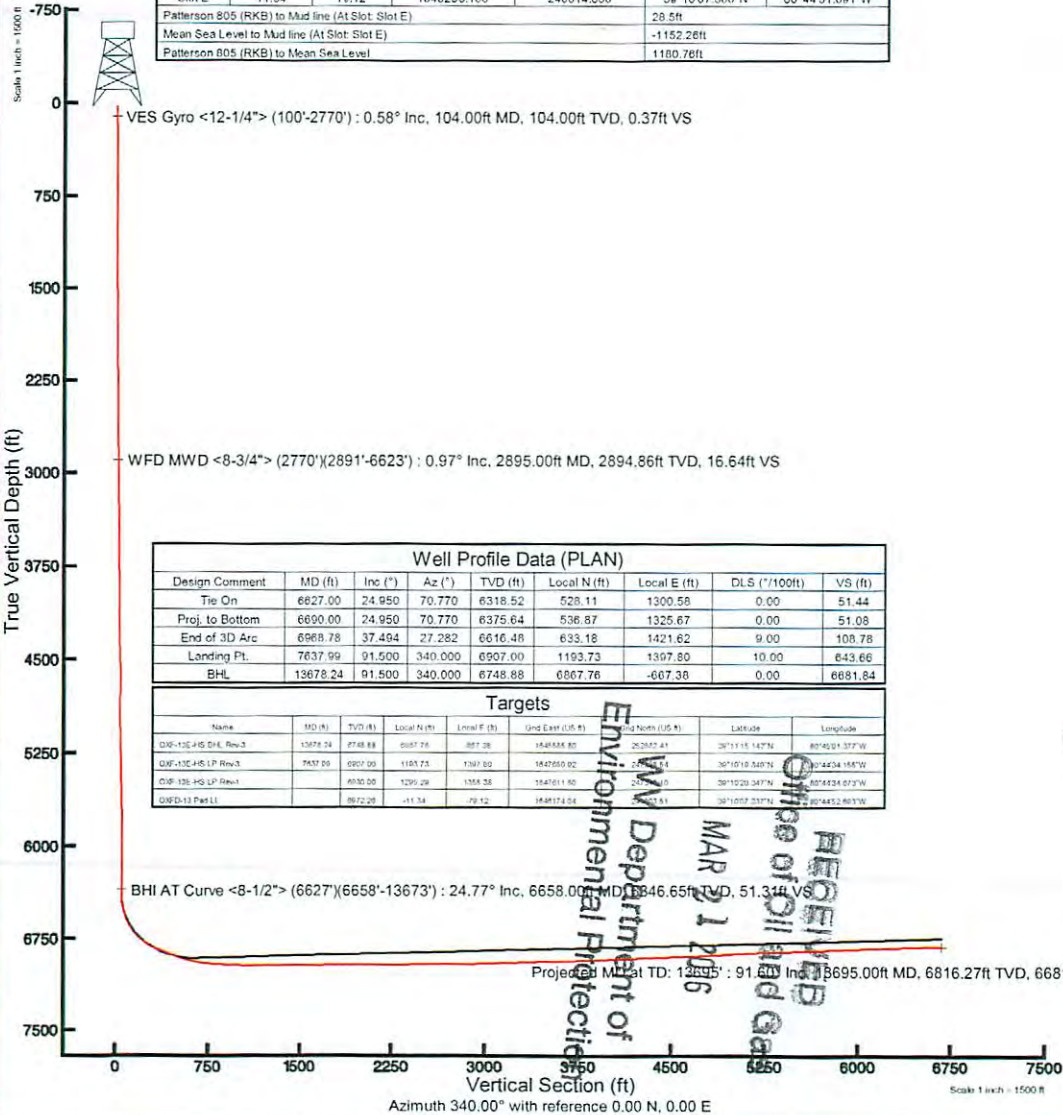
Location: Doddridge Co., WV
 Field: Doddridge
 Facility: OXF-13 Pad

Slot: Slot E
 Well: OXF-13E-HS
 Wellbore: OXF-13E-HS PWB



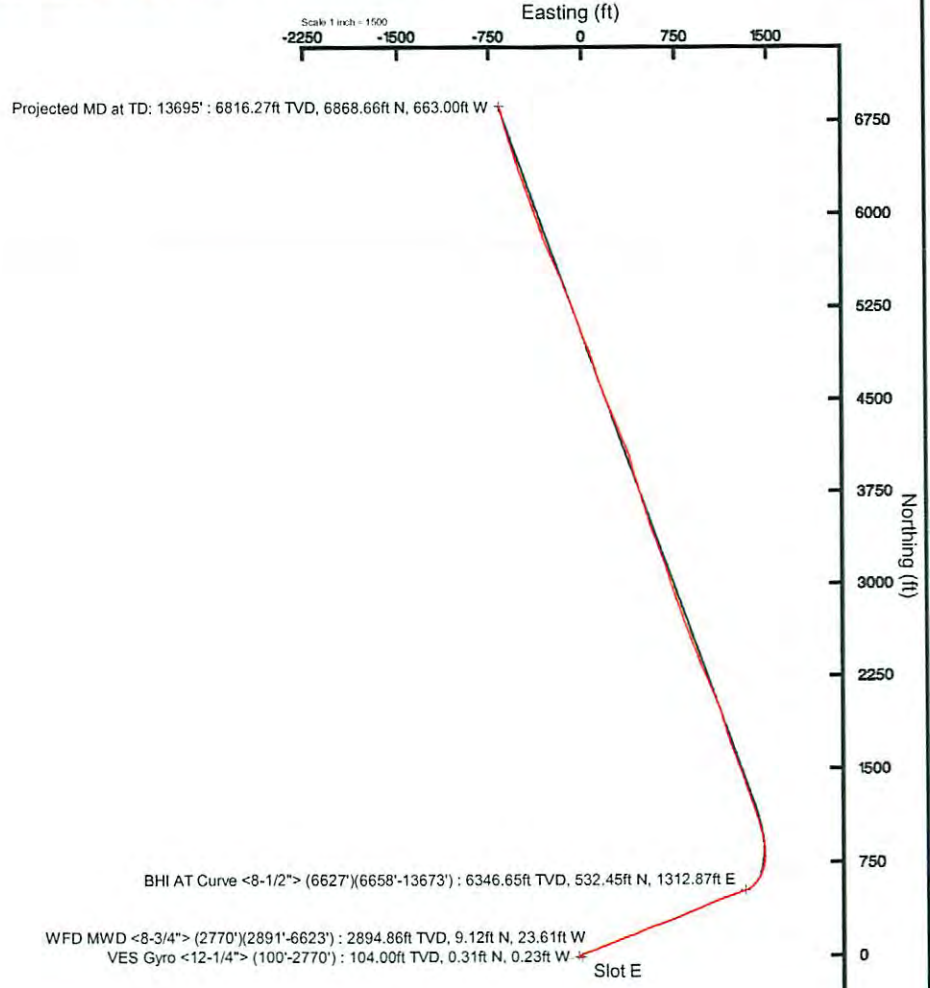
Plot reference wellpath is OXF-13E-HS PWB Rev-0	
True vertical depths are referenced to Patterson 805 (RKB)	Grid System: NAD27 (Lambert West Virginia SP, Northern Zone (4701), US feet)
Measured depths are referenced to Patterson 805 (RKB)	North Reference: Grid north
Patterson 805 (RKB) to Mean Sea Level: 1100.76 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot, Slot E): -1152.20 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: edwayer on 13Jul2015

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
OXFD-13 Pad	1646174.040	246003.510	39°10'07.237"N	80°44'52.693"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
Slot E	11.34	79.12	1646253.100	246014.850
			Latitude	Longitude
			39°10'07.360"N	80°44'51.691"W
Patterson 805 (RKB) to Mud line (At Slot, Slot E)				
			28.5ft	
Mean Sea Level to Mud line (At Slot, Slot E)				
			-1152.26ft	
Patterson 805 (RKB) to Mean Sea Level				
			1100.76ft	

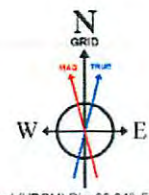


Well Profile Data (PLAN)							
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	VS (ft)
Tie On	6627.00	24.950	70.770	6318.52	528.11	1300.58	0.00
Proj. to Bottom	6690.00	24.950	70.770	6375.64	536.87	1325.67	0.00
End of 3D Arc	6968.78	37.494	27.282	6616.48	633.18	1421.62	9.00
Landing Pt.	7637.99	91.500	340.000	6907.00	1193.73	1307.80	10.00
BHL	13678.24	91.500	340.000	6748.88	6667.76	-667.38	0.00

Targets							
Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude
OXF-13E-HS D/L Rev-3	13678.24	6748.88	6667.76	887.28	1646174.04	246003.51	39°10'07.237"N
OXF-13E-HS LP Rev-3	7637.99	6907.00	1193.73	1307.80	1646253.10	246014.85	39°10'07.360"N
OXF-13E-HS LP Rev-1	6968.78	6616.48	633.18	1421.62	1646174.04	246003.51	39°10'07.237"N
OXFD-13 Pad LI	6627.00	6318.52	528.11	1300.58	1646174.04	246003.51	39°10'07.237"N



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 MAR 21 2015
 WV Department of Environmental Protection



User specified (HDGM) Dip: 66.64° Field: 52265 nT
 Magnetic North is 7.74 degrees West of True North (at 01Jul2015)
 Grid North is 0.80 degrees West of True North
 To correct azimuth from True to Grid add 0.80 degrees
 To correct azimuth from Magnetic to Grid subtract 6.94 degrees

Survey Report for OXFD13EHS

Field: CONSOL ENERGY_DODDRIDGE COUNTY, WV_NAD 27 (WV NORTH)

Map Units: US ft
Vertical Reference Datum (VRD): Mean Sea Level
Projected Coordinate System: NAD27 / West Virginia North

Site: OXF 13 PAD

Company Name: CONSOL ENERGY
Units: US ft
TVD Reference:

Position:

Northing:	246003.53US ft	Latitude:	39° 10' 7.24"
Easting:	1646174.06US ft	Longitude:	-80° 44' 52.69"

North Reference: Grid **Convergence Angle:** -0.80
Elevation above Mean Sea Level: 1152.00US ft
Comment:

Slot: EHS

Position (Relative to Site centre)

+N/-S: 11.32US ft	Northing:	246014.85US ft	Latitude:	39° 10' 7.36"
+E/-W: 79.10US ft	Easting:	1646253.16US ft	Longitude:	-80° 44' 51.69"

Elevation above Mean Sea Level: 1152.26US ft
Comment:

Well: EHS

Type: Main well **Rig Height (Drill Floor):** 24.50US ft **Relative To Mean Sea Level:** 1176.76US ft
File Number:
Closure Distance: 1430.26US ft **Closure Azimuth:** 67.9532°
Comment:

Vertical Section:

Position of Origin (Relative to Slot centre) **+N/-S: 0.00US ft** **+E/-W: 0.00US ft**
Vertical Section Azimuth: 340.01°

Target Set: OXF 13 EHS TARGETS

Number of Targets: 2

Target: EHS LP

Position: (Relative to Slot centre)

+N/-S: 1184.13	Northing:	247198.98	Latitude:	39° 10' 19.25"
+E/-W: 1398.26	Easting:	1647651.42	Longitude:	-80° 44' 34.15"

TVD (Drill Floor): 6970.00 US ft
Shape: Cuboid
Orientation: **Inclination:** 0.00° **Azimuth:** 0.00°
Dimensions: **Length:** 20.00 **Breadth:** 20.00 **Height:** 20.00

Target: EHS PBHL

Position: (Relative to Slot centre)

+N/-S: 6867.56	Northing:	252882.41	Latitude:	39° 11' 15.14"
+E/-W: -667.35	Easting:	1645585.80	Longitude:	-80° 45' 1.38"

TVD (Drill Floor): 6970.00 US ft
Shape: Cuboid
Orientation: **Inclination:** 0.00° **Azimuth:** 0.00°
Dimensions: **Length:** 20.00 **Breadth:** 20.00 **Height:** 20.00

Casing Points: (Relative to Slot Centre, TVD Relative to Drill Floor)

Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)

Wellpath created using minimum curvature

Interpolated Points: (Relative to Slot Centre, TVD Relative to Drill Floor)

MD (US ft)	Inc (")	Az (")	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS ("/100 US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comment
0	0	0	0	0	0	0	0	0	0	2
100	0.58	323.14	100	0.31	-0.23	0.77	0.37	0	0	
200	0.36	308.97	200	0.91	-0.78	0.25	1.12	0	0	
300	0.26	296.86	299.99	1.21	-1.22	0.12	1.55	0	0	
400	0.24	301.42	399.99	1.42	-1.6	0.03	1.88	0	0	
500	0.17	280.49	499.99	1.56	-1.93	0.1	2.12	0	0	
600	0.19	264.66	599.99	1.57	-2.24	0.05	2.24	0	0	
700	0.26	268.14	699.99	1.55	-2.63	0.07	2.35	0	0	
800	0.38	276.19	799.99	1.57	-3.19	0.13	2.57	0	0	
900	0.27	270.52	899.99	1.61	-3.75	0.11	2.8	0	0	
1000	0.35	268.4	999.99	1.6	-4.29	0.08	2.98	0	0	
1100	0.26	279.47	1099.98	1.63	-4.82	0.11	3.18	0	0	
1200	0.38	283.11	1199.98	1.75	-5.37	0.12	3.48	0	0	
1300	0.53	295.98	1299.98	2.02	-6.11	0.18	3.99	0	0	
1400	0.61	302.17	1399.98	2.51	-6.98	0.1	4.74	0	0	
1500	0.8	307.75	1499.97	3.22	-7.98	0.2	5.75	0	0	
1600	0.71	305.96	1599.96	4.01	-9.03	0.09	6.86	0	0	
1700	0.71	285.54	1699.95	4.54	-10.13	0.25	7.73	0	0	
1800	0.59	288.09	1799.94	4.87	-11.22	0.12	8.41	0	0	
1900	0.57	290.86	1899.94	5.2	-12.17	0.03	9.05	0	0	
2000	0.55	298.83	1999.94	5.61	-13.06	0.08	9.74	0	0	
2100	0.52	294.81	2099.93	6.04	-13.89	0.05	10.42	0	0	
2200	0.45	299.22	2199.93	6.42	-14.64	0.08	11.04	0	0	
2300	0.49	290.87	2299.92	6.76	-15.39	0.08	11.61	0	0	
2400	0.7	292.71	2399.92	7.15	-16.35	0.21	12.31	0	0	
2500	0.78	284.89	2499.91	7.56	-17.57	0.13	13.11	0	0	
2600	0.92	282.99	2599.9	7.92	-19.01	0.14	13.94	0	0	
2700	0.93	282.1	2699.89	8.27	-20.59	0.02	14.81	0	0	
2800	0.94	287.01	2799.87	8.71	-22.15	0.06	15.75	0	0	
2900	0.98	285.59	2899.86	9.16	-23.76	0.24	16.73	-0.05	0.07	
3000	0.61	327.96	2999.85	9.79	-25.19	2.84	17.81	-0.04	-0.08	
3100	5.2	63.89	3099.73	11.98	-21.87	6.35	18.73	-4.09	-0.45	
3200	10.34	65.55	3198.72	17.85	-9.25	4.1	19.94	-10.54	-0.63	
3300	14.91	67.01	3296.24	26.8	10.86	3.92	21.47	-18.46	-0.12	
3400	17.07	68.72	3392.31	37.52	36.44	5.04	22.81	-19.46	0.64	
3500	20.37	74.18	3486.82	47.36	67.54	3.12	21.42	-18.73	-0.03	
3600	23.01	66.41	3579.88	60.11	101.79	2.39	21.69	-13.59	-2.74	
3700	24.87	67.82	3671.14	76	189.43	0.14	23.75	-11.34	-1.21	
3800	25.1	67.83	3761.85	91.97	178.38	1.09	25.45	-10.38	-0.39	
3900	25.66	68.82	3852.08	107.87	218.44	0.62	26.69	-10.53	0.09	
4000	25.22	68.63	3942.41	123.21	258.52	0.96	27.41	-10.46	-0.14	
4100	24.65	67.53	4033.02	139.22	297.67	1.08	29.08	-9.73	0.45	
4200	24.41	69.16	4124.15	154.59	335.85	1.41	30.47	-7.72	1.2	
4300	25.33	70.87	4214.91	168.75	375.39	1.08	30.25	-6.63	0.26	
4400	24.86	69.21	4305.21	183.05	415.89	2.26	29.85	-6.6	-1.24	
4500	24.22	65.91	4396.23	198.82	453.95	1.25	31.66	-4.62	-0.57	
4600	24.32	66.18	4487.5	215.88	491.33	0.86	34.91	-2.59	1.92	
4700	25.23	68.89	4578.38	232	529.81	1.57	36.9	-1.13	3.11	
4800	24.77	70.42	4668.84	246.98	569.69	1.34	37.35	-0.64	2.67	
4900	25.75	72.42	4759.42	260.46	609.86	1.67	36.29	0.04	0.69	
5000	27.19	71.14	4848.9	274.26	652.31	1.75	34.75	-1.86	-1.74	
5100	27.42	69.62	4937.67	289.73	695.68	0.7	34.46	-5.25	-3.02	
5200	27.13	67.13	5026.55	306.64	738.26	0.99	35.78	-8.32	-2.95	
5300	27.14	68.8	5115.5	323.62	780.68	2.17	37.24	-11.42	-2.26	
5400	25.96	65.69	5205	341.08	821.71	0.9	39.62	-13.16	-1.47	
5500	25.73	67.63	5295.01	358.34	861.73	0.78	42.16	-13.87	0.53	
5600	25.72	68.37	5385.12	374.3	902.04	1.22	43.38	-14.29	0.98	
5700	25.81	66.37	5475.12	391.25	942.2	0.45	45.58	-15.04	1.77	
5800	25.26	66.55	5565.32	408.59	981.73	0.93	48.37	-15.28	3.67	
5900	24.61	67.66	5656.03	424.96	1020.5	0.62	50.5	-14.25	5.18	
6000	24.25	68.69	5747.1	440.22	1058.86	0.48	51.81	-12.34	5.85	
6100	23.89	69.41	5838.38	454.87	1097.01	0.51	52.44	-9.92	5.72	
6200	24.09	70.09	5929.86	468.89	1134.89	0.9	52.67	-7.03	5.13	

6300	24.51	71.1	6020.94	482.62	1179.83	0.48	52.26	-5.12	3.88	
6400	24.36	70.52	6111.94	496.02	1213.05	0.75	51.45	-3.5	2.09	
6500	24.76	69.45	6202.99	510.25	1251.9	0.83	51.54	-1.77	1.22	
6600	24.95	70.4	6293.66	524.89	1291.43	0.68	51.78	-0.87	0.56	LAST MWD SURVEY
6686	24.95	70.77	6371.64	536.87	1325.67	0	51.33	-0.14	-0.68	PRGJ TO BIT

Survey										
Name	Definitive Survey			Company						
Magnetic Parameters:										
Model: Default	Field Strength: 50000.0 nT		Declination: 0.00 °		Dip: 0.00 °		Date: 25/Jun/2014 (dd/mmm/yyyy)			

Survey Tool Ranges:										
Survey Tool	Start MD (US ft)		End MD (US ft)		Source Survey					
NSG Cont	0		2770		VES GYRO					
MWD	2770		3587		mwd					
MWD	3587		6686		WFT MWD					

Survey Points (Relative to Slot Centre, TVD Relative to Drill Floor)										
MD (US ft)	Site (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	DLS (°/100 US ft)	VS (US ft)	High to Plan (US ft)	Right to Plan (US ft)	Comments
0	0	0	0	0	0	0	0	0	0	2
24.5	0	0	24.5	0	0	0	0	0	0	
100	0.58	323.14	100	0.91	-0.23	0.77	0.37	0	0	
200	0.36	308.97	200	0.91	-0.78	0.25	1.12	0	0	
300	0.26	296.86	299.99	1.21	-1.22	0.12	1.55	0	0	
400	0.24	301.42	399.99	1.42	-1.6	0.03	1.88	0	0	
500	0.17	280.49	499.99	1.56	-1.93	0.1	2.12	0	0	
600	0.19	264.66	599.99	1.57	-2.24	0.05	2.24	0	0	
700	0.26	268.14	699.99	1.55	-2.63	0.07	2.35	0	0	
800	0.38	276.19	799.99	1.57	-3.19	0.13	2.57	0	0	
900	0.27	270.32	899.99	1.61	-3.75	0.11	2.8	0	0	
1000	0.35	268.4	999.99	1.6	-4.29	0.08	2.98	0	0	
1100	0.26	279.47	1099.98	1.63	-4.82	0.11	3.18	0	0	
1200	0.38	283.11	1199.98	1.75	-5.37	0.12	3.48	0	0	
1300	0.53	295.98	1299.98	2.02	-6.11	0.18	3.99	0	0	
1400	0.61	302.17	1399.98	2.51	-6.98	0.1	4.74	0	0	
1500	0.8	307.75	1499.97	3.22	-7.98	0.2	5.75	0	0	
1600	0.71	305.96	1599.96	4.01	-9.03	0.09	6.86	0	0	
1700	0.71	285.54	1699.95	4.54	-10.13	0.25	7.73	0	0	
1800	0.59	288.09	1799.94	4.87	-11.22	0.12	8.41	0	0	
1900	0.57	290.86	1899.94	5.2	-12.17	0.03	9.05	0	0	
2000	0.55	298.83	1999.94	5.61	-13.06	0.08	9.74	0	0	
2100	0.52	294.81	2099.93	6.04	-13.89	0.05	10.42	0	0	
2200	0.45	299.22	2199.93	6.42	-14.64	0.08	11.04	0	0	
2300	0.49	290.87	2299.92	6.76	-15.39	0.08	11.61	0	0	
2400	0.7	292.71	2399.92	7.15	-16.35	0.21	12.31	0	0	
2500	0.78	284.89	2499.91	7.56	-17.57	0.13	13.11	0	0	
2600	0.92	282.99	2599.9	7.92	-19.01	0.14	13.94	0	0	
2700	0.93	282.1	2699.89	8.27	-20.59	0.02	14.81	0	0	
2770	0.93	287.92	2769.88	8.56	-21.68	0.13	15.46	0	0	
2891	0.97	284.36	2890.86	9.12	-23.61	0.06	16.64	-0.04	0.06	
2922	0.99	288.53	2921.86	9.27	-24.12	0.24	16.95	-0.07	0.08	
2954	0.94	292.48	2953.85	9.45	-24.62	0.26	17.3	-0.08	0.06	
2986	0.83	300.82	2985.85	9.67	-25.06	0.53	17.66	-0.06	-0.01	
3017	0.65	12.87	3016.85	9.96	-25.22	2.84	17.98	-0.23	-0.24	
3049	2.07	55.18	3048.84	10.47	-24.7	5.15	18.28	-1.35	-0.31	
3081	3.99	63.09	3080.79	11.3	-23.23	6.13	18.56	-3.02	-0.36	
3113	6.02	64.26	3112.67	12.53	-20.73	6.35	18.87	-4.88	-0.5	
3144	7.88	65.17	3143.44	14.13	-17.34	6.01	19.21	-6.89	-0.56	
3176	9.36	65.22	3175.07	16.14	-12.98	4.63	19.61	-9.02	-0.65	
3208	10.67	65.65	3206.59	18.46	-7.92	4.1	20.05	-11.03	-0.61	
3240	12.28	65.66	3237.95	21.08	-2.12	5.03	20.54	-12.96	-0.59	
3272	13.84	66.1	3269.12	24.03	4.48	4.88	21.06	-14.87	-0.42	
3303	15.03	67.1	3299.14	27.1	11.57	4.92	21.51	-16.62	-0.1	
3335	16.03	66.73	3329.97	30.46	19.45	3.14	21.98	-18.14	-0.13	
3366	16.33	67.03	3359.74	33.85	27.4	1.02	22.44	-19.11	0.09	
3398	16.98	68.56	3390.4	37.31	35.89	2.43	22.79	-19.48	0.6	
3429	18.37	70.92	3419.94	40.56	44.72	5.04	22.83	-19.66	1.09	

3461	19.72	73.58	3450.18	43.74	54.67	5.01	22.41	-19.34	1.21
3492	20.27	74.83	3479.31	46.62	64.87	2.25	21.64	-18.92	0.48
3524	20.7	72.25	3509.29	49.79	75.6	3.12	20.95	-17.85	-1.35
3556	21.37	68.63	3539.16	53.64	86.42	4.57	20.87	-16.04	-2.73
3587	22.7	66.48	3567.9	58.09	97.17	5.02	21.37	-14.17	-2.95
3619	23.46	66.3	3597.33	63.11	108.66	2.39	22.16	-12.86	-2.42
3682	24.87	67.88	3654.81	73.14	132.42	2.46	23.47	-11.52	-1.32
3777	24.87	67.57	3741	88.29	169.39	0.14	25.06	-10.56	-0.62
3872	25.81	68.61	3826.86	103.45	207.11	1.09	26.42	-10.39	0.04
3967	25.31	69.34	3912.56	118.16	245.37	0.62	27.16	-10.57	0.02
4062	25.05	67.29	3998.54	133.09	282.92	0.96	28.35	-10.12	0.02
4156	24.07	67.9	4084.03	147.98	319.04	1.08	30	-8.67	0.95
4251	24.81	70.59	4170.52	161.9	355.79	1.41	30.51	-6.95	0.94
4345	25.8	71.12	4255.5	175.07	393.75	1.08	29.92	-6.73	-0.46
4440	24.2	67.74	4341.6	189.14	431.33	2.26	30.29	-5.93	-1.3
4535	24.24	64.84	4428.24	204.81	467.01	1.25	32.82	-3.89	0.26
4630	24.36	66.8	4514.83	220.81	502.67	0.86	35.67	-1.99	2.45
4725	25.55	68.93	4600.96	235.9	539.79	1.57	37.15	-1.08	3.14
4819	24.58	70.81	4686.11	249.61	577.18	1.34	37.26	-0.37	2.41
4914	25.95	72.69	4772.02	262.29	615.68	1.67	36.02	-0.07	0.29
5009	27.43	70.99	4856.9	275.61	656.22	1.75	34.67	-2.15	-1.9
5103	27.42	69.57	4940.33	290.21	696.97	0.7	34.47	-5.35	-3.04
5198	27.13	67.09	5024.77	306.28	737.42	1.23	35.74	-8.25	-2.99
5292	27.25	69.1	5108.39	322.3	777.27	0.99	37.17	-11.19	-2.19
5387	26	65.43	5193.32	338.72	816.53	2.17	39.18	-13.02	-1.84
5482	25.75	67.31	5278.8	355.34	854.51	0.9	41.81	-13.78	0.28
5577	25.66	69	5364.4	370.67	892.75	0.78	43.15	-14.19	1.1
5671	25.94	66.45	5449.03	386.18	930.6	1.22	44.78	-14.81	1.27
5767	25.52	66.18	5535.51	402.92	968.76	0.45	47.47	-15.32	2.98
5862	24.77	67.26	5621.51	418.88	1005.84	0.99	49.79	-14.78	4.71
5957	24.36	68.27	5707.91	433.83	1042.39	0.62	51.34	-13.23	5.66
6052	24.12	69.21	5794.53	447.97	1078.74	0.48	52.21	-11.14	5.88
6148	23.66	69.62	5882.31	461.64	1115.14	0.51	52.61	-8.5	5.49
6243	24.44	70.47	5969.06	474.85	1151.53	0.9	52.88	-6.12	4.68
6338	24.56	71.52	6055.51	487.68	1188.78	0.48	51.91	-4.51	3.19
6433	24.25	69.98	6142.02	500.61	1225.83	0.75	51.4	-2.86	1.7
6528	24.97	69.23	6228.39	514.4	1262.91	0.83	51.68	-1.49	1.1
6623	24.95	70.77	6314.52	528.11	1300.58	0.68	51.69	-0.67	0.26
6686	24.95	70.77	6371.64	536.87	1325.67	0	51.33	-0.14	-0.68

LAST MWD SURVEY
PROJ TO BIT

Formation Points: (Relative to Slot Centre, TVD Relative to Drill Floor)

Name	MD (US ft)	Inc (°)	Az (°)	TVD (US ft)	N.Offset (US ft)	E.Offset (US ft)	F.Dip (°)	F.Dir (°)
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