



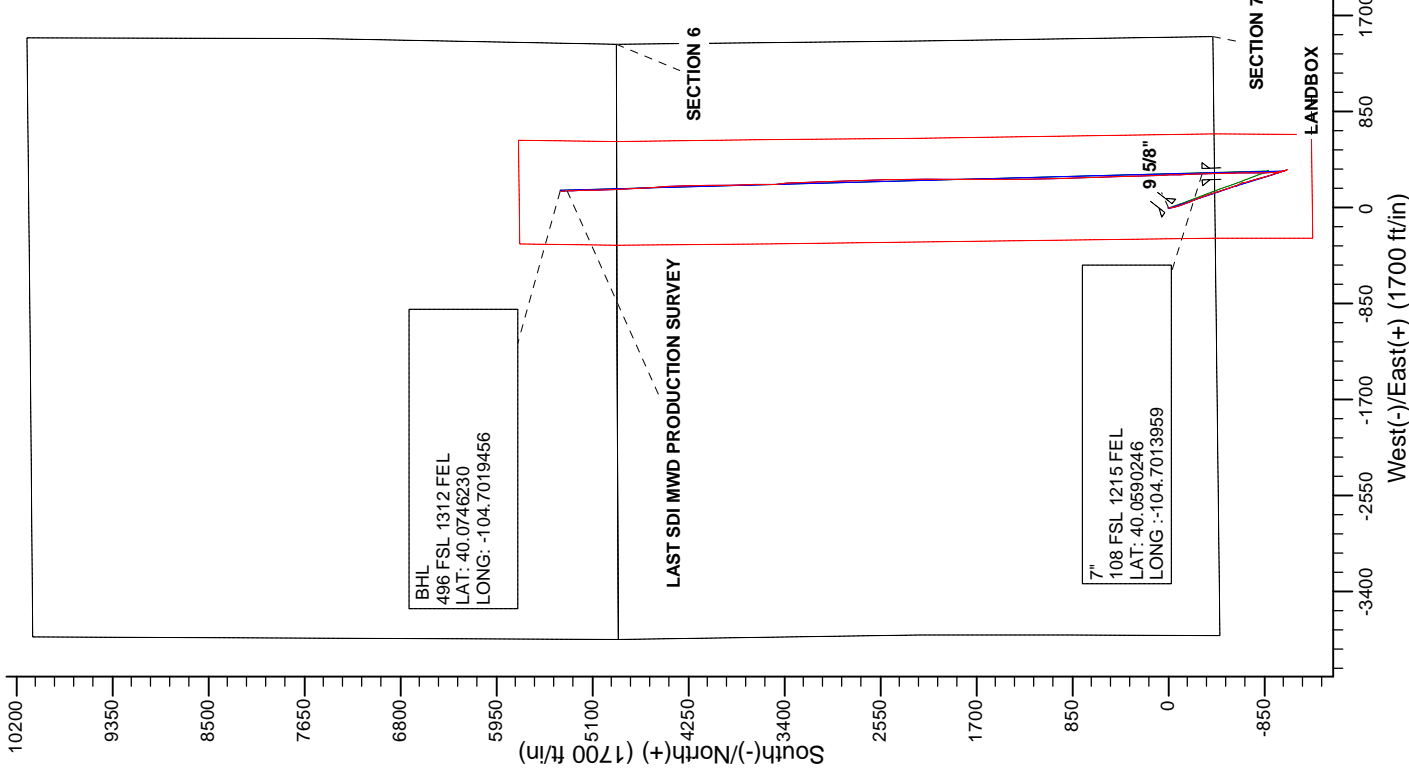
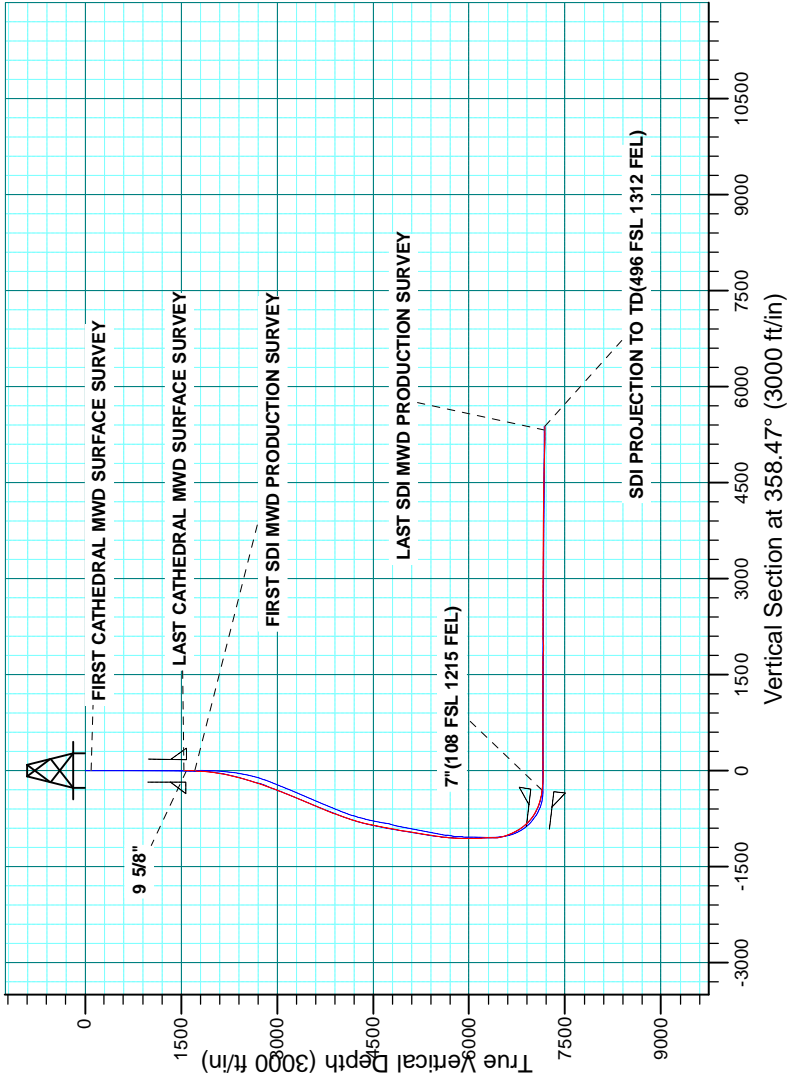
Project: COLORADO NORTHERN ZONE - 83  
Site: GOODIN 15-7HZ Pad  
Well: GOODIN 37N-B6HZ  
Wellbore: OH  
Design: OH



WELL DETAILS: GOODIN 37N-B6HZ					
GL 4979 & KB 25 @ 5004.00ft (HP 307)					
+N/-S 0.00	+E/-W 0.00	Northing 1265651.11	Easting 3223233.77	Latitude 40.0598460	Longitude -104.7024630

PROJECT DETAILS: COLORADO NORTHERN ZONE - 83	
Geodetic System: US State Plane 1983	
Datum: North American Datum 1983	
Ellipsoid: GRS 1980	
Zone: Colorado Northern Zone	
Location: SECTION 6 T1N R65W	
System Datum: Mean Sea Level	

CASING DETAILS		
TVD	MD	Name
1583.92	1584.00	9 5/8" 9.625
7145.14	7722.00	7" 7.000



Survey: Survey #2 SDI MWD PRODUCTION (GOODIN 37N-B6HZOH)
Created By: R.Scott Date: 11:31, May 01 2015

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well GOODIN 37N-B6HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Site:</b>	GOODIN 15-7HZ Pad	<b>MD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Well:</b>	GOODIN 37N-B6HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Denver Sales

<b>Project</b>	COLORADO NORTHERN ZONE - 83, KERR MCGEE OIL & GAS ONSHORE LP		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		GOODIN 15-7HZ Pad, SECTION 6 T1N R65W			
Site Position:		Northing:	1,265,650.80 usft	Latitude:	40.0598470
From:	Lat/Long	Easting:	3,223,158.76 usft	Longitude:	-104.7027310
Position Uncertainty:	3.28 ft	Slot Radius:	13.200 in	Grid Convergence:	0.52 °

Well	GOODIN 37N-B6HZ, 412 FSL 1510' FEL					
Well Position	+N/-S	0.00 ft	Northing:	1,265,651.11 usft	Latitude:	40.0598460
	+E/-W	0.00 ft	Easting:	3,223,233.78 usft	Longitude:	-104.7024630
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	4,979.00 ft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	9/8/2014	8.45	66.66	52,538

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	358.47	

<b>Survey Program</b>	<b>Date</b>	5/1/2015			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
19.00	1,549.00	Survey #1 CATHEDRAL (OH)	MWD	MWD - Standard	
1,716.00	13,408.00	Survey #2 SDI MWD PRODCUTION (OH)	SDI MWD	SDI MWD - Standard ver 1.0.1	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
19.00	0.00	0.00	19.00	0.00	0.00	0.00	0.00	0.00	0.00	
101.00	0.30	60.60	101.00	0.11	0.19	0.10	0.37	0.37	0.00	
<b>FIRST CATHEDRAL MWD SURFACE SURVEY</b>										
181.00	0.40	31.60	181.00	0.45	0.52	0.43	0.25	0.13	-36.25	
259.00	0.50	41.80	259.00	0.93	0.89	0.91	0.16	0.13	13.08	
339.00	0.70	46.20	338.99	1.53	1.47	1.49	0.26	0.25	5.50	
419.00	0.40	26.20	418.99	2.12	1.95	2.07	0.44	-0.38	-25.00	
499.00	0.60	21.40	498.98	2.76	2.22	2.70	0.26	0.25	-6.00	
579.00	0.30	325.40	578.98	3.32	2.26	3.26	0.62	-0.38	-70.00	

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well GOODIN 37N-B6HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Site:</b>	GOODIN 15-7HZ Pad	<b>MD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Well:</b>	GOODIN 37N-B6HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Denver Sales

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
659.00	0.30	335.60	658.98	3.68	2.05	3.63	0.07	0.00	12.75
739.00	0.30	97.00	738.98	3.85	2.17	3.79	0.65	0.00	151.75
819.00	0.10	187.90	818.98	3.76	2.37	3.69	0.40	-0.25	113.63
899.00	0.10	153.00	898.98	3.62	2.39	3.56	0.07	0.00	-43.63
979.00	0.10	98.30	978.98	3.55	2.49	3.48	0.11	0.00	-68.38
1,059.00	0.20	209.60	1,058.98	3.42	2.49	3.35	0.32	0.13	139.13
1,139.00	0.90	217.10	1,138.98	2.80	2.05	2.74	0.88	0.88	9.38
1,219.00	1.10	217.30	1,218.96	1.69	1.20	1.65	0.25	0.25	0.25
1,299.00	1.10	223.10	1,298.95	0.51	0.21	0.51	0.14	0.00	7.25
1,379.00	0.70	205.00	1,378.94	-0.49	-0.52	-0.48	0.61	-0.50	-22.63
1,459.00	0.80	210.90	1,458.93	-1.41	-1.01	-1.38	0.16	0.13	7.38
1,549.00	1.00	218.20	1,548.92	-2.57	-1.82	-2.52	0.26	0.22	8.11
LAST CATHEDRAL MWD SURFACE SURVEY									
1,584.00	1.03	217.69	1,583.92	-3.06	-2.20	-3.00	0.09	0.08	-1.45
9 5/8"									
1,716.00	1.14	216.02	1,715.89	-5.06	-3.70	-4.96	0.09	0.08	-1.27
FIRST SDI MWD PRODUCTION SURVEY									
1,808.00	2.47	189.44	1,807.85	-7.75	-4.56	-7.63	1.67	1.45	-28.89
2,090.00	9.74	169.86	2,088.08	-37.27	-1.36	-37.22	2.64	2.58	-6.94
2,185.00	12.19	165.21	2,181.34	-54.88	2.62	-54.93	2.74	2.58	-4.89
2,279.00	13.57	162.65	2,272.97	-75.00	8.44	-75.20	1.59	1.47	-2.72
2,374.00	15.48	160.72	2,364.93	-97.61	15.95	-98.00	2.07	2.01	-2.03
2,469.00	16.66	159.29	2,456.22	-122.32	24.96	-122.94	1.31	1.24	-1.51
2,564.00	17.52	159.65	2,547.02	-148.46	34.74	-149.34	0.91	0.91	0.38
2,658.00	18.45	159.42	2,636.43	-175.65	44.89	-176.79	0.99	0.99	-0.24
2,753.00	19.52	158.65	2,726.26	-204.51	55.96	-205.93	1.16	1.13	-0.81
2,847.00	20.32	156.25	2,814.64	-234.08	68.25	-235.81	1.22	0.85	-2.55
2,942.00	21.51	157.87	2,903.38	-265.31	81.45	-267.39	1.39	1.25	1.71
3,036.00	22.52	159.79	2,990.52	-298.17	94.16	-300.57	1.32	1.07	2.04
3,131.00	22.86	159.84	3,078.17	-332.56	106.81	-335.30	0.36	0.36	0.05
3,225.00	23.65	161.83	3,164.53	-367.62	118.98	-370.66	1.19	0.84	2.12
3,319.00	23.53	161.39	3,250.68	-403.31	130.85	-406.66	0.23	-0.13	-0.47
3,413.00	22.94	160.73	3,337.05	-438.39	142.88	-442.05	0.69	-0.63	-0.70
3,508.00	23.19	162.03	3,424.46	-473.66	154.76	-477.62	0.60	0.26	1.37
3,602.00	23.91	161.77	3,510.63	-509.36	166.43	-513.62	0.77	0.77	-0.28
3,697.00	23.06	160.98	3,597.76	-545.23	178.52	-549.80	0.95	-0.89	-0.83
3,791.00	23.95	162.22	3,683.96	-580.81	190.34	-585.68	1.08	0.95	1.32
3,885.00	23.05	161.12	3,770.16	-616.39	202.12	-621.56	1.07	-0.96	-1.17
3,979.00	22.30	159.94	3,856.90	-650.55	214.20	-656.04	0.93	-0.80	-1.26
4,073.00	21.59	162.89	3,944.09	-683.83	225.40	-689.61	1.39	-0.76	3.14
4,167.00	20.84	164.12	4,031.72	-716.45	235.07	-722.47	0.93	-0.80	1.31
4,261.00	18.80	164.95	4,120.15	-747.16	243.58	-753.40	2.19	-2.17	0.88
4,356.00	17.47	167.34	4,210.43	-775.86	250.68	-782.27	1.60	-1.40	2.52
4,450.00	15.56	163.43	4,300.55	-801.71	257.36	-808.30	2.35	-2.03	-4.16

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<b>Well:</b>	GOODIN 37N-B6HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Denver Sales

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,544.00	13.30	161.77	4,391.58	-824.07	264.34	-830.83	2.44	-2.40	-1.77
4,638.00	11.79	164.22	4,483.33	-843.58	270.34	-850.50	1.70	-1.61	2.61
4,732.00	11.57	164.05	4,575.38	-861.89	275.54	-868.93	0.24	-0.23	-0.18
4,827.00	11.36	164.20	4,668.49	-880.05	280.71	-887.23	0.22	-0.22	0.16
4,921.00	10.84	162.83	4,760.73	-897.40	285.84	-904.71	0.62	-0.55	-1.46
5,015.00	10.66	163.65	4,853.08	-914.19	290.89	-921.63	0.25	-0.19	0.87
5,109.00	10.29	162.05	4,945.51	-930.52	295.93	-938.09	0.50	-0.39	-1.70
5,203.00	9.80	161.37	5,038.07	-946.09	301.07	-953.79	0.54	-0.52	-0.72
5,297.00	9.76	165.00	5,130.71	-961.36	305.69	-969.18	0.66	-0.04	3.86
5,392.00	10.28	160.72	5,224.26	-977.14	310.57	-985.09	0.96	0.55	-4.51
5,486.00	9.87	161.17	5,316.81	-992.69	315.94	-1,000.77	0.44	-0.44	0.48
5,580.00	9.69	159.08	5,409.44	-1,007.70	321.37	-1,015.92	0.42	-0.19	-2.22
5,674.00	7.91	169.24	5,502.34	-1,021.45	325.40	-1,029.77	2.51	-1.89	10.81
5,769.00	6.51	157.62	5,596.59	-1,032.85	328.67	-1,041.26	2.12	-1.47	-12.23
5,862.00	4.83	161.70	5,689.13	-1,041.44	331.91	-1,049.93	1.86	-1.81	4.39
5,957.00	2.52	171.41	5,783.93	-1,047.30	333.47	-1,055.83	2.51	-2.43	10.22
6,051.00	1.60	169.31	5,877.87	-1,050.64	334.03	-1,059.18	0.98	-0.98	-2.23
6,145.00	0.72	33.66	5,971.86	-1,051.44	334.60	-1,059.99	2.31	-0.94	-144.31
6,239.00	0.99	3.77	6,065.85	-1,050.13	334.98	-1,058.70	0.55	0.29	-31.80
6,333.00	1.22	5.01	6,159.83	-1,048.33	335.12	-1,056.90	0.25	0.24	1.32
6,428.00	1.21	344.41	6,254.81	-1,046.35	334.94	-1,054.92	0.46	-0.01	-21.68
6,522.00	1.08	328.69	6,348.79	-1,044.64	334.21	-1,053.19	0.36	-0.14	-16.72
6,616.00	5.59	329.08	6,442.61	-1,039.95	331.40	-1,048.43	4.80	4.80	0.41
6,711.00	14.87	349.70	6,536.02	-1,023.95	326.83	-1,032.31	10.35	9.77	21.71
6,805.00	22.20	350.94	6,625.08	-994.51	321.87	-1,002.75	7.81	7.80	1.32
6,899.00	26.20	351.53	6,710.81	-956.43	316.01	-964.53	4.26	4.26	0.63
6,994.00	35.18	357.71	6,792.44	-908.23	311.82	-916.23	10.01	9.45	6.51
7,089.00	39.43	356.98	6,867.99	-850.73	309.14	-858.68	4.50	4.47	-0.77
7,183.00	46.39	359.52	6,936.80	-786.81	307.28	-794.73	7.63	7.40	2.70
7,277.00	55.62	359.71	6,995.88	-713.83	306.79	-721.77	9.82	9.82	0.20
7,371.00	62.00	357.73	7,044.54	-633.49	304.95	-641.41	7.02	6.79	-2.11
7,465.00	69.18	358.92	7,083.36	-547.99	302.48	-555.87	7.72	7.64	1.27
7,559.00	74.51	359.44	7,112.64	-458.71	301.21	-466.59	5.69	5.67	0.55
7,606.00	75.76	359.29	7,124.70	-413.28	300.70	-421.17	2.68	2.66	-0.32
7,653.00	78.68	358.81	7,135.10	-367.46	299.94	-375.34	6.29	6.21	-1.02
7,674.00	81.38	359.04	7,138.73	-346.78	299.55	-354.66	12.90	12.86	1.10
7,722.00	83.26	358.91	7,145.14	-299.22	298.70	-307.09	3.93	3.92	-0.28
7"(108 FSL 1215 FEL)									
7,821.00	87.14	358.63	7,153.43	-200.61	296.58	-208.46	3.93	3.92	-0.28
7,916.00	88.05	357.34	7,157.41	-105.76	293.24	-113.55	1.66	0.96	-1.36
8,010.00	89.06	357.52	7,159.78	-11.88	289.03	-19.60	1.09	1.07	0.19
8,105.00	90.00	358.45	7,160.56	83.05	285.69	75.40	1.39	0.99	0.98
8,200.00	90.30	358.68	7,160.31	178.02	283.31	170.40	0.40	0.32	0.24

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<b>Well:</b>	GOODIN 37N-B6HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Denver Sales

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,294.00	91.34	358.45	7,158.97	271.98	280.95	264.38	1.13	1.11	-0.24
8,388.00	90.70	358.51	7,157.30	365.93	278.46	358.37	0.68	-0.68	0.06
8,483.00	90.81	358.83	7,156.04	460.90	276.26	453.36	0.36	0.12	0.34
8,578.00	90.20	358.31	7,155.21	555.87	273.89	548.36	0.84	-0.64	-0.55
8,672.00	89.56	358.47	7,155.40	649.83	271.24	642.35	0.70	-0.68	0.17
8,767.00	89.90	357.85	7,155.85	744.78	268.19	737.35	0.74	0.36	-0.65
8,861.00	90.64	357.55	7,155.41	838.70	264.42	831.34	0.85	0.79	-0.32
8,956.00	90.27	358.58	7,154.65	933.64	261.21	926.33	1.15	-0.39	1.08
9,050.00	89.93	358.53	7,154.49	1,027.61	258.84	1,020.33	0.37	-0.36	-0.05
9,145.00	89.63	358.40	7,154.85	1,122.58	256.30	1,115.33	0.34	-0.32	-0.14
9,239.00	89.33	358.98	7,155.71	1,216.55	254.15	1,209.33	0.69	-0.32	0.62
9,334.00	89.83	359.25	7,156.40	1,311.53	252.68	1,304.32	0.60	0.53	0.28
9,429.00	89.70	0.43	7,156.79	1,406.53	252.42	1,399.29	1.25	-0.14	1.24
9,523.00	89.63	359.73	7,157.34	1,500.53	252.55	1,493.25	0.75	-0.07	-0.74
9,618.00	88.69	359.49	7,158.74	1,595.51	251.90	1,588.22	1.02	-0.99	-0.25
9,712.00	89.16	359.35	7,160.50	1,689.49	250.95	1,682.19	0.52	0.50	-0.15
9,806.00	89.56	359.53	7,161.55	1,783.48	250.03	1,776.17	0.47	0.43	0.19
9,900.00	89.83	359.68	7,162.05	1,877.48	249.38	1,870.15	0.33	0.29	0.16
9,993.00	90.07	0.23	7,162.13	1,970.48	249.31	1,963.12	0.65	0.26	0.59
10,088.00	91.21	0.28	7,161.07	2,065.47	249.73	2,058.07	1.20	1.20	0.05
10,182.00	90.47	0.93	7,159.69	2,159.45	250.73	2,151.99	1.05	-0.79	0.69
10,276.00	90.60	359.72	7,158.81	2,253.45	251.26	2,245.93	1.29	0.14	-1.29
10,370.00	90.84	358.91	7,157.63	2,347.43	250.14	2,339.92	0.90	0.26	-0.86
10,464.00	90.47	359.47	7,156.56	2,441.41	248.81	2,433.90	0.71	-0.39	0.60
10,559.00	89.56	359.81	7,156.53	2,536.41	248.21	2,528.88	1.02	-0.96	0.36
10,653.00	89.46	358.78	7,157.34	2,630.40	247.05	2,622.87	1.10	-0.11	-1.10
10,747.00	89.50	356.56	7,158.19	2,724.31	243.23	2,716.85	2.36	0.04	-2.36
10,842.00	90.60	356.91	7,158.11	2,819.16	237.82	2,811.80	1.22	1.16	0.37
10,936.00	90.03	357.91	7,157.59	2,913.06	233.57	2,905.78	1.22	-0.61	1.06
11,030.00	88.99	358.15	7,158.39	3,007.00	230.34	2,999.78	1.14	-1.11	0.26
11,125.00	89.70	358.03	7,159.48	3,101.94	227.18	3,094.77	0.76	0.75	-0.13
11,219.00	90.37	357.74	7,159.42	3,195.87	223.71	3,188.76	0.78	0.71	-0.31
11,314.00	89.09	357.36	7,159.87	3,290.78	219.65	3,283.75	1.41	-1.35	-0.40
11,408.00	89.46	357.19	7,161.06	3,384.67	215.18	3,377.72	0.43	0.39	-0.18
11,502.00	89.43	356.31	7,161.97	3,478.51	209.85	3,471.67	0.94	-0.03	-0.94
11,597.00	89.76	358.73	7,162.64	3,573.41	205.74	3,566.65	2.57	0.35	2.55
11,691.00	90.84	358.74	7,162.15	3,667.39	203.66	3,660.64	1.15	1.15	0.01
11,785.00	89.26	359.06	7,162.07	3,761.37	201.86	3,754.64	1.71	-1.68	0.34
11,879.00	89.23	359.11	7,163.31	3,855.35	200.36	3,848.62	0.06	-0.03	0.05
11,974.00	89.77	358.85	7,164.14	3,950.33	198.67	3,943.62	0.63	0.57	-0.27
12,068.00	90.00	359.13	7,164.32	4,044.31	197.01	4,037.61	0.39	0.24	0.30
12,162.00	88.09	358.64	7,165.89	4,138.28	195.18	4,131.59	2.10	-2.03	-0.52
12,257.00	88.22	358.13	7,168.95	4,233.19	192.51	4,226.54	0.55	0.14	-0.54

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well GOODIN 37N-B6HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Site:</b>	GOODIN 15-7HZ Pad	<b>MD Reference:</b>	GL 4979 & KB 25 @ 5004.00ft (HP 307)
<b>Well:</b>	GOODIN 37N-B6HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	Denver Sales

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
12,351.00	88.99	357.83	7,171.24	4,327.10	189.19	4,320.51	0.88	0.82	-0.32
12,445.00	88.99	357.78	7,172.90	4,421.02	185.59	4,414.49	0.05	0.00	-0.05
12,540.00	89.63	357.16	7,174.04	4,515.92	181.40	4,509.47	0.94	0.67	-0.65
12,634.00	90.57	356.65	7,173.88	4,609.78	176.33	4,603.43	1.14	1.00	-0.54
12,729.00	89.87	357.57	7,173.51	4,704.66	171.54	4,698.40	1.21	-0.74	0.97
12,823.00	88.32	357.39	7,175.00	4,798.55	167.41	4,792.37	1.66	-1.65	-0.19
12,917.00	88.25	356.84	7,177.81	4,892.39	162.68	4,886.30	0.59	-0.07	-0.59
13,012.00	88.32	358.32	7,180.65	4,987.26	158.67	4,981.25	1.56	0.07	1.56
13,106.00	89.03	358.33	7,182.83	5,081.20	155.92	5,075.22	0.76	0.76	0.01
13,200.00	88.35	357.95	7,184.97	5,175.12	152.87	5,169.19	0.83	-0.72	-0.40
13,295.00	89.13	357.86	7,187.06	5,270.03	149.40	5,264.17	0.83	0.82	-0.09
13,348.00	89.63	357.60	7,187.64	5,322.99	147.30	5,317.16	1.06	0.94	-0.49
LAST SDI MWD PRODUCTION SURVEY									
13,408.00	89.63	357.60	7,188.02	5,382.93	144.79	5,377.15	0.00	0.00	0.00
SDI PROJECTION TO TD(496 FSL 1312 FEL)									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,584.00	1,583.92	9 5/8"	9.625	13.500
7,722.00	7,145.14	7"(108 FSL 1215 FEL)	7.000	8.750

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
101.00	101.00	0.11	0.19	FIRST CATHEDRAL MWD SURFACE SURVEY
1,549.00	1,548.92	-2.57	-1.82	LAST CATHEDRAL MWD SURFACE SURVEY
1,716.00	1,715.89	-5.06	-3.70	FIRST SDI MWD PRODUCTION SURVEY
13,348.00	7,187.64	5,322.99	147.30	LAST SDI MWD PRODUCTION SURVEY
13,408.00	7,188.02	5,382.93	144.79	SDI PROJECTION TO TD(496 FSL 1312 FEL)

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_