



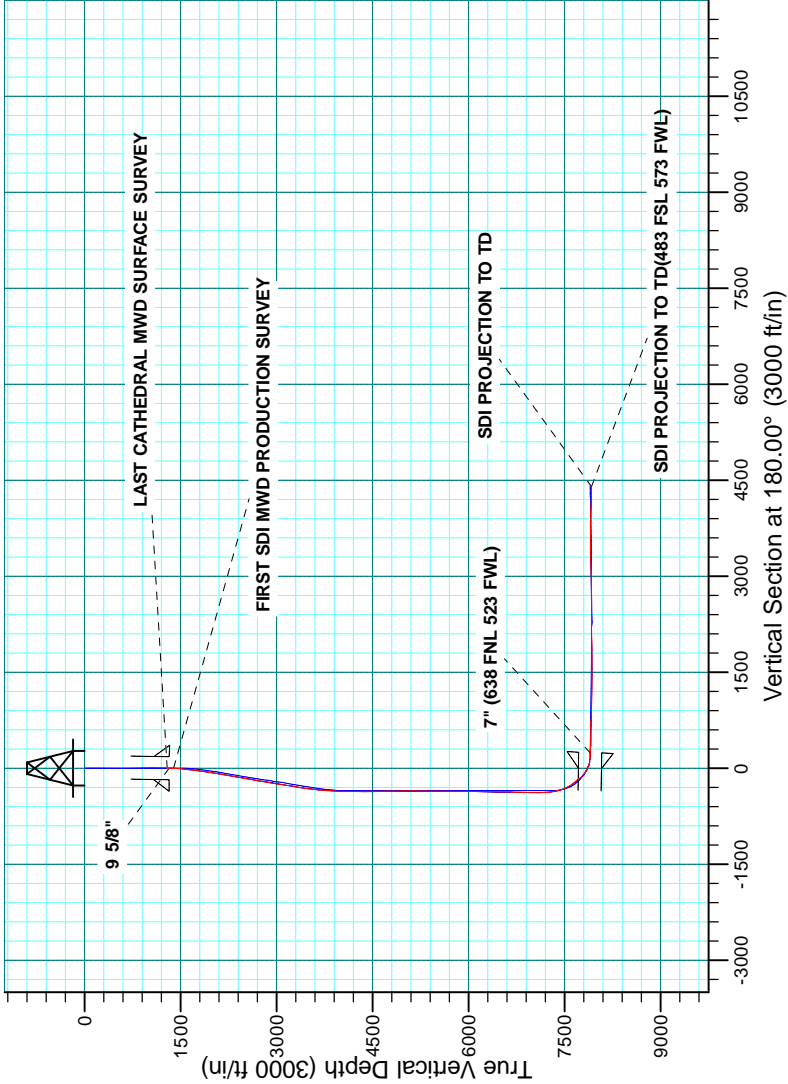
Project: COLORADO NORTHERN ZONE - 83
Site: BUFFALO & BADGER 4W-15HZ PAD
Well: BUFFALO 13C-15HZ
Wellbore: OH
Design: OH



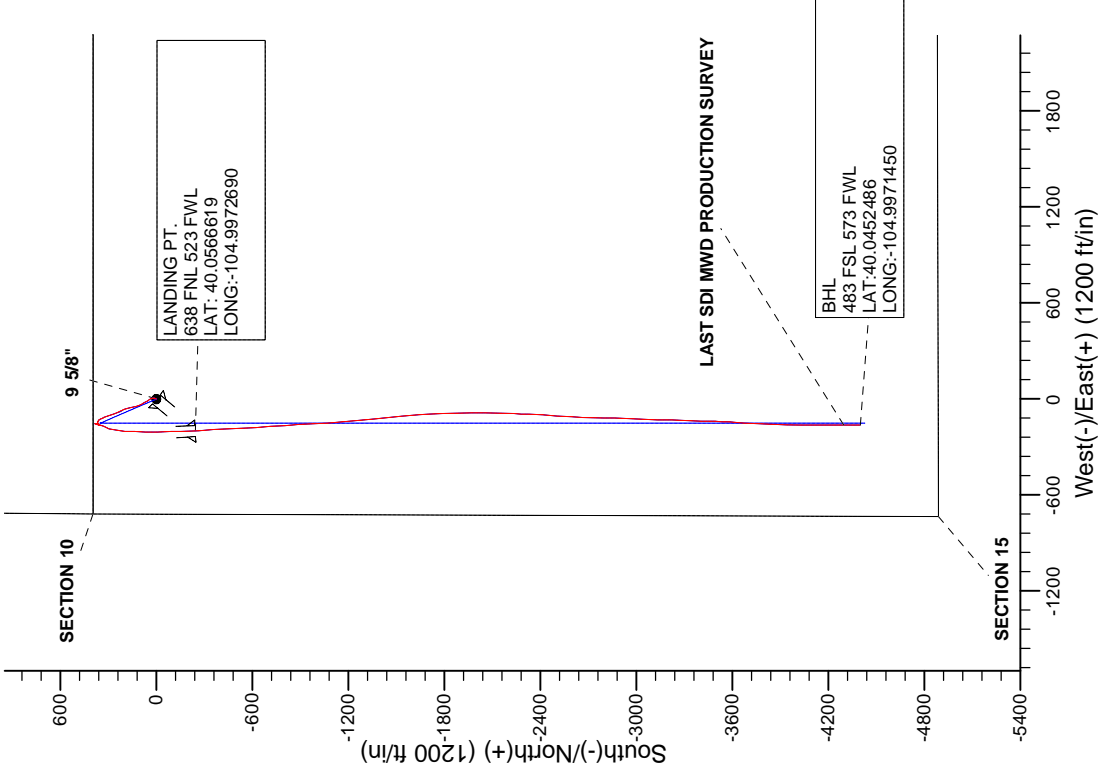
WELL DETAILS: BUFFALO 13C-15HZ					
GL 5141 & KB 20 @ 5161.00ft (PRECISION 461)					
+N/-S 0.00	+E/-W 0.00	Northing 1264129.98	Easting 3140920.93	Latitude 40.0573279	Longitude -104.9965610

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 15 T1N R68W	
System Datum: Mean Sea Level	

CASING DETAILS		
TVD	MD	Name
1321.94	1322.00	9 5/8" 9.625
7900.53	8278.00	7" 7.000



Survey: Survey #2 SDI MWD PRODUCTION (BUFFALO 13C-15HZ/OH)
Created By: R.Scott Date: 13:39, June 29 2015



Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well BUFFALO 13C-15HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	GL 5141 & KB 20 @ 5161.00ft (PRECISION 461)
Site:	BUFFALO & BADGER 4W-15HZ PAD	MD Reference:	GL 5141 & KB 20 @ 5161.00ft (PRECISION 461)
Well:	BUFFALO 13C-15HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales

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

Site	BUFFALO & BADGER 4W-15HZ PAD, SECTION 15 T1N R68W			
Site Position:		Northing:	1,264,129.48 usft	Latitude: 40.0573270
From:	Lat/Long	Easting:	3,140,890.98 usft	Longitude: -104.9966680
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence: 0.33 °

Well	BUFFALO 13C-15HZ, 397 FNL 720 FWL			
Well Position	+N/-S	0.00 ft	Northing:	1,264,129.98 usft
	+E/-W	0.00 ft	Easting:	3,140,920.93 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level: 5,141.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	6/10/2014	8.61	66.62	52,524

Design	OH				
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	180.00	

Survey Program	Date	6/29/2015			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
14.00	1,287.00	Survey #1 CATHEDRAL MWD SURFACE	MWD	MWD - Standard	
1,390.00	12,442.00	Survey #2 SDI MWD PRODUCTION (OH)	MWD+IFR	MWD + IFR correction	

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
14.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	0.00	0.00	
66.00	0.00	0.00	66.00	0.00	0.00	0.00	0.00	0.00	0.00	
FIRST CATHEDRAL MWD SURFACE SURVEY										
176.00	0.50	324.20	176.00	0.39	-0.28	-0.39	0.45	0.45	0.00	
255.00	0.60	315.00	254.99	0.96	-0.77	-0.96	0.17	0.13	-11.65	
335.00	0.80	306.60	334.99	1.59	-1.52	-1.59	0.28	0.25	-10.50	
415.00	1.00	302.50	414.98	2.30	-2.56	-2.30	0.26	0.25	-5.13	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well BUFFALO 13C-15HZ
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Site:	BUFFALO & BADGER 4W-15HZ PAD	MD Reference:	GL 5141 & KB 20 @ 5161.00ft (PRECISION 461)
Well:	BUFFALO 13C-15HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	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)
495.00	0.80	270.20	494.97	2.68	-3.70	-2.68	0.67	-0.25	-40.38
575.00	0.70	167.80	574.97	2.20	-4.16	-2.20	1.46	-0.13	-128.00
655.00	0.60	154.10	654.96	1.35	-3.87	-1.35	0.23	-0.13	-17.13
735.00	0.40	153.80	734.96	0.72	-3.57	-0.72	0.25	-0.25	-0.38
815.00	0.50	140.20	814.95	0.20	-3.22	-0.20	0.18	0.13	-17.00
895.00	0.30	113.40	894.95	-0.15	-2.80	0.15	0.34	-0.25	-33.50
975.00	0.10	127.20	974.95	-0.28	-2.56	0.28	0.26	-0.25	17.25
1,055.00	0.30	112.00	1,054.95	-0.40	-2.31	0.40	0.26	0.25	-19.00
1,135.00	0.30	98.50	1,134.95	-0.51	-1.91	0.51	0.09	0.00	-16.88
1,215.00	0.40	65.50	1,214.95	-0.42	-1.44	0.42	0.28	0.13	-41.25
1,287.00	0.40	60.40	1,286.95	-0.19	-1.00	0.19	0.05	0.00	-7.08
LAST CATHEDRAL MWD SURFACE SURVEY									
1,322.00	1.06	40.09	1,321.94	0.11	-0.68	-0.11	1.99	1.88	-58.04
9 5/8"									
1,390.00	2.40	33.63	1,389.91	1.78	0.51	-1.78	1.99	1.97	-9.49
FIRST SDI MWD PRODUCTION SURVEY									
1,484.00	4.16	21.36	1,483.76	6.59	2.84	-6.59	2.01	1.87	-13.05
1,574.00	6.01	7.16	1,573.40	14.31	4.62	-14.31	2.47	2.06	-15.78
1,664.00	7.25	351.15	1,662.81	24.60	4.33	-24.60	2.46	1.38	-17.79
1,754.00	8.61	339.37	1,751.95	36.51	1.08	-36.51	2.35	1.51	-13.09
1,843.00	8.86	326.94	1,839.92	48.49	-5.00	-48.49	2.14	0.28	-13.97
1,933.00	10.18	329.09	1,928.68	61.13	-12.87	-61.13	1.52	1.47	2.39
2,023.00	11.55	329.03	2,017.07	75.68	-21.59	-75.68	1.52	1.52	-0.07
2,113.00	10.44	328.61	2,105.41	90.36	-30.48	-90.36	1.24	-1.23	-0.47
2,202.00	10.26	337.72	2,192.97	104.58	-37.68	-104.58	1.85	-0.20	10.24
2,292.00	10.21	343.52	2,281.54	119.65	-42.98	-119.65	1.15	-0.06	6.44
2,382.00	11.17	348.47	2,369.98	135.84	-46.99	-135.84	1.48	1.07	5.50
2,472.00	11.22	346.37	2,458.27	152.89	-50.79	-152.89	0.46	0.06	-2.33
2,562.00	8.81	345.74	2,546.89	168.08	-54.56	-168.08	2.68	-2.68	-0.70
2,651.00	10.13	340.81	2,634.68	182.08	-58.81	-182.08	1.74	1.48	-5.54
2,741.00	11.15	341.23	2,723.13	197.80	-64.21	-197.80	1.14	1.13	0.47
2,831.00	8.93	337.43	2,811.75	212.49	-69.69	-212.49	2.57	-2.47	-4.22
2,921.00	10.10	337.18	2,900.51	226.21	-75.43	-226.21	1.30	1.30	-0.28
3,010.00	11.16	338.49	2,987.98	241.42	-81.62	-241.42	1.22	1.19	1.47
3,100.00	9.12	336.48	3,076.57	256.06	-87.66	-256.06	2.30	-2.27	-2.23
3,190.00	9.22	337.66	3,165.42	269.27	-93.25	-269.27	0.24	0.11	1.31
3,279.00	10.23	343.89	3,253.14	283.46	-98.15	-283.46	1.64	1.13	7.00
3,369.00	11.48	338.83	3,341.53	299.49	-103.60	-299.49	1.75	1.39	-5.62
3,459.00	9.61	336.52	3,430.01	314.74	-109.83	-314.74	2.13	-2.08	-2.57
3,549.00	7.80	337.25	3,518.97	327.26	-115.18	-327.26	2.01	-2.01	0.81
3,638.00	6.15	339.57	3,607.30	337.30	-119.18	-337.30	1.88	-1.85	2.61
3,728.00	5.04	335.59	3,696.87	345.41	-122.50	-345.41	1.31	-1.23	-4.42

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well BUFFALO 13C-15HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	GL 5141 & KB 20 @ 5161.00ft (PRECISION 461)
Site:	BUFFALO & BADGER 4W-15HZ PAD	MD Reference:	GL 5141 & KB 20 @ 5161.00ft (PRECISION 461)
Well:	BUFFALO 13C-15HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	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)	
3,818.00	4.15	330.30	3,786.58	351.84	-125.75	-351.84	1.09	-0.99	-5.88	
3,908.00	3.42	322.88	3,876.39	356.81	-128.98	-356.81	0.98	-0.81	-8.24	
3,997.00	3.22	310.93	3,965.24	360.57	-132.47	-360.57	0.81	-0.22	-13.43	
4,087.00	3.46	307.33	4,055.09	363.87	-136.54	-363.87	0.35	0.27	-4.00	
4,177.00	3.51	306.09	4,144.92	367.14	-140.93	-367.14	0.10	0.06	-1.38	
4,267.00	2.22	251.86	4,234.82	368.22	-144.81	-368.22	3.17	-1.43	-60.26	
4,357.00	1.95	257.59	4,324.76	367.35	-147.96	-367.35	0.38	-0.30	6.37	
4,446.00	2.38	253.69	4,413.70	366.50	-151.22	-366.50	0.51	0.48	-4.38	
4,536.00	2.46	246.47	4,503.62	365.21	-154.78	-365.21	0.35	0.09	-8.02	
4,626.00	1.72	244.27	4,593.56	363.85	-157.77	-363.85	0.83	-0.82	-2.44	
4,716.00	0.96	202.70	4,683.53	362.57	-159.28	-362.57	1.32	-0.84	-46.19	
4,806.00	0.71	179.21	4,773.52	361.32	-159.56	-361.32	0.47	-0.28	-26.10	
4,895.00	0.78	177.68	4,862.52	360.16	-159.53	-360.16	0.08	0.08	-1.72	
4,985.00	0.75	194.60	4,952.51	358.98	-159.65	-358.98	0.25	-0.03	18.80	
5,075.00	0.45	205.06	5,042.50	358.09	-159.95	-358.09	0.35	-0.33	11.62	
5,165.00	0.66	246.22	5,132.50	357.56	-160.57	-357.56	0.49	0.23	45.73	
5,255.00	0.69	249.53	5,222.49	357.16	-161.55	-357.16	0.05	0.03	3.68	
5,344.00	0.63	269.19	5,311.49	356.96	-162.55	-356.96	0.26	-0.07	22.09	
5,434.00	0.65	253.31	5,401.48	356.81	-163.53	-356.81	0.20	0.02	-17.64	
5,524.00	1.39	3.17	5,491.47	357.75	-163.96	-357.75	1.91	0.82	122.07	
5,614.00	1.75	0.76	5,581.44	360.22	-163.88	-360.22	0.41	0.40	-2.68	
5,704.00	1.27	37.83	5,671.41	362.38	-163.25	-362.38	1.18	-0.53	41.19	
5,793.00	1.31	18.90	5,760.39	364.12	-162.31	-364.12	0.48	0.04	-21.27	
5,883.00	1.21	0.89	5,850.37	366.04	-161.97	-366.04	0.45	-0.11	-20.01	
5,973.00	1.47	91.89	5,940.35	366.96	-160.80	-366.96	2.13	0.29	101.11	
6,063.00	1.02	88.03	6,030.33	366.95	-158.84	-366.95	0.51	-0.50	-4.29	
6,332.00	1.29	21.80	6,299.28	369.84	-155.33	-369.84	0.48	0.10	-24.62	
6,422.00	1.55	3.25	6,389.26	372.00	-154.88	-372.00	0.58	0.29	-20.61	
6,512.00	1.70	327.28	6,479.22	374.33	-155.53	-374.33	1.13	0.17	-39.97	
6,602.00	0.33	50.58	6,569.21	375.62	-156.06	-375.62	1.88	-1.52	92.56	
6,691.00	0.86	358.59	6,658.20	376.45	-155.87	-376.45	0.79	0.60	-58.42	
6,781.00	0.75	323.46	6,748.20	377.60	-156.24	-377.60	0.55	-0.12	-39.03	
6,871.00	1.21	28.50	6,838.19	378.91	-156.14	-378.91	1.25	0.51	72.27	
6,961.00	1.53	20.05	6,928.16	380.87	-155.27	-380.87	0.42	0.36	-9.39	
7,051.00	0.92	3.04	7,018.14	382.72	-154.82	-382.72	0.78	-0.68	-18.90	
7,140.00	0.76	340.41	7,107.13	383.99	-154.98	-383.99	0.41	-0.18	-25.43	
7,230.00	3.69	185.07	7,197.08	381.67	-155.44	-381.67	4.88	3.26	-172.60	
7,320.00	8.70	190.41	7,286.52	372.08	-156.93	-372.08	5.60	5.57	5.93	
7,410.00	14.48	196.59	7,374.65	354.59	-161.37	-354.59	6.56	6.42	6.87	
7,499.00	20.96	206.95	7,459.41	329.70	-171.78	-329.70	8.07	7.28	11.64	
7,589.00	27.70	197.52	7,541.40	295.36	-185.39	-295.36	8.62	7.49	-10.48	
7,679.00	35.58	190.26	7,617.99	249.56	-196.37	-249.56	9.71	8.76	-8.07	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well BUFFALO 13C-15HZ
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Site:	BUFFALO & BADGER 4W-15HZ PAD	MD Reference:	GL 5141 & KB 20 @ 5161.00ft (PRECISION 461)
Well:	BUFFALO 13C-15HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	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)	
7,769.00	38.13	179.74	7,690.07	195.94	-200.92	-195.94	7.55	2.83	-11.69	
7,858.00	43.99	182.56	7,757.15	137.54	-202.17	-137.54	6.90	6.58	3.17	
7,948.00	53.53	182.00	7,816.41	69.99	-204.84	-69.99	10.61	10.60	-0.62	
8,038.00	66.17	178.95	7,861.53	-7.66	-205.35	7.66	14.34	14.04	-3.39	
8,128.00	79.14	178.85	7,888.31	-93.37	-203.70	93.37	14.41	14.41	-0.11	
8,185.00	86.00	177.94	7,895.67	-149.83	-202.11	149.83	12.14	12.04	-1.60	
8,278.00	88.01	177.21	7,900.53	-242.62	-198.19	242.62	2.30	2.17	-0.78	
7" (638 FNL 523 FWL)										
8,300.00	88.49	177.04	7,901.20	-264.58	-197.08	264.58	2.30	2.17	-0.78	
8,390.00	88.92	176.44	7,903.24	-354.41	-191.97	354.41	0.82	0.48	-0.67	
8,480.00	88.79	176.78	7,905.03	-444.24	-186.65	444.24	0.40	-0.14	0.38	
8,570.00	88.49	176.89	7,907.17	-534.07	-181.68	534.07	0.36	-0.33	0.12	
8,659.00	88.69	176.62	7,909.36	-622.90	-176.64	622.90	0.38	0.22	-0.30	
8,749.00	88.09	175.91	7,911.89	-712.68	-170.78	712.68	1.03	-0.67	-0.79	
8,839.00	89.03	176.36	7,914.15	-802.44	-164.72	802.44	1.16	1.04	0.50	
8,929.00	90.84	177.76	7,914.25	-892.32	-160.10	892.32	2.54	2.01	1.56	
9,018.00	88.62	176.10	7,914.67	-981.18	-155.34	981.18	3.11	-2.49	-1.87	
9,108.00	88.42	175.69	7,917.00	-1,070.92	-148.89	1,070.92	0.51	-0.22	-0.46	
9,198.00	88.62	175.33	7,919.32	-1,160.61	-141.85	1,160.61	0.46	0.22	-0.40	
9,288.00	88.39	174.90	7,921.67	-1,250.25	-134.19	1,250.25	0.54	-0.26	-0.48	
9,378.00	88.35	174.25	7,924.23	-1,339.81	-125.68	1,339.81	0.72	-0.04	-0.72	
9,467.00	90.07	174.15	7,925.46	-1,428.35	-116.69	1,428.35	1.94	1.93	-0.11	
9,557.00	90.24	174.75	7,925.21	-1,517.92	-107.99	1,517.92	0.69	0.19	0.67	
9,647.00	90.30	175.53	7,924.79	-1,607.60	-100.36	1,607.60	0.87	0.07	0.87	
9,737.00	90.03	176.24	7,924.53	-1,697.37	-93.90	1,697.37	0.84	-0.30	0.79	
9,827.00	90.64	178.17	7,924.00	-1,787.25	-89.52	1,787.25	2.25	0.68	2.14	
9,917.00	90.77	179.52	7,922.90	-1,877.23	-87.70	1,877.23	1.51	0.14	1.50	
10,006.00	89.60	179.52	7,922.61	-1,966.22	-86.96	1,966.22	1.31	-1.31	0.00	
10,096.00	90.03	180.87	7,922.90	-2,056.22	-87.26	2,056.22	1.57	0.48	1.50	
10,186.00	89.73	180.84	7,923.09	-2,146.21	-88.61	2,146.21	0.33	-0.33	-0.03	
10,276.00	89.36	181.58	7,923.80	-2,236.18	-90.51	2,236.18	0.92	-0.41	0.82	
10,366.00	90.67	182.99	7,923.78	-2,326.11	-94.09	2,326.11	2.14	1.46	1.57	
10,455.00	91.11	183.64	7,922.40	-2,414.95	-99.24	2,414.95	0.88	0.49	0.73	
10,545.00	90.50	183.21	7,921.13	-2,504.78	-104.62	2,504.78	0.83	-0.68	-0.48	
10,635.00	90.40	183.80	7,920.42	-2,594.61	-110.12	2,594.61	0.66	-0.11	0.66	
10,725.00	89.40	182.46	7,920.58	-2,684.47	-115.03	2,684.47	1.86	-1.11	-1.49	
10,814.00	90.24	181.45	7,920.86	-2,773.41	-118.07	2,773.41	1.48	0.94	-1.13	
10,904.00	91.78	181.44	7,919.27	-2,863.37	-120.34	2,863.37	1.71	1.71	-0.01	
10,994.00	91.14	181.41	7,916.98	-2,953.31	-122.58	2,953.31	0.71	-0.71	-0.03	
11,083.00	92.45	182.37	7,914.19	-3,042.22	-125.51	3,042.22	1.82	1.47	1.08	
11,173.00	91.58	182.03	7,911.03	-3,132.09	-128.96	3,132.09	1.04	-0.97	-0.38	
11,263.00	91.85	182.16	7,908.34	-3,221.99	-132.25	3,221.99	0.33	0.30	0.14	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well BUFFALO 13C-15HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	GL 5141 & KB 20 @ 5161.00ft (PRECISION 461)
Site:	BUFFALO & BADGER 4W-15HZ PAD	MD Reference:	GL 5141 & KB 20 @ 5161.00ft (PRECISION 461)
Well:	BUFFALO 13C-15HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	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)	
11,353.00	89.36	181.75	7,907.39	-3,311.93	-135.32	3,311.93	2.80	-2.77	-0.46	
11,442.00	89.60	181.07	7,908.19	-3,400.90	-137.51	3,400.90	0.81	0.27	-0.76	
11,532.00	91.78	181.74	7,907.11	-3,490.86	-139.72	3,490.86	2.53	2.42	0.74	
11,622.00	90.71	183.21	7,905.15	-3,580.75	-143.60	3,580.75	2.02	-1.19	1.63	
11,712.00	89.50	182.93	7,904.99	-3,670.62	-148.42	3,670.62	1.38	-1.34	-0.31	
11,802.00	89.09	182.84	7,906.10	-3,760.50	-152.95	3,760.50	0.47	-0.46	-0.10	
11,891.00	89.16	182.69	7,907.46	-3,849.38	-157.24	3,849.38	0.19	0.08	-0.17	
11,981.00	88.99	181.68	7,908.91	-3,939.30	-160.67	3,939.30	1.14	-0.19	-1.12	
12,070.00	88.76	180.75	7,910.66	-4,028.27	-162.56	4,028.27	1.08	-0.26	-1.04	
12,160.00	88.46	180.34	7,912.84	-4,118.23	-163.42	4,118.23	0.56	-0.33	-0.46	
12,250.00	88.76	179.50	7,915.02	-4,208.21	-163.29	4,208.21	0.99	0.33	-0.93	
12,339.00	89.73	180.24	7,916.20	-4,297.20	-163.09	4,297.20	1.37	1.09	0.83	
LAST SDI MWD PRODUCTION SURVEY										
12,442.00	89.73	180.24	7,916.68	-4,400.20	-163.52	4,400.20	0.00	0.00	0.00	
SDI PROJECTION TO TD(483 FSL 573 FWL)										

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name			Casing Diameter (in)	Hole Diameter (in)
1,322.00	1,321.94	9 5/8"			9.625	13.500
8,278.00	7,900.53	7" (638 FNL 523 FWL)			7.000	8.750

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
66.00	66.00	0.00	0.00	FIRST CATHEDRAL MWD SURFACE SURVEY	
1,287.00	1,286.95	-0.19	-1.00	LAST CATHEDRAL MWD SURFACE SURVEY	
1,390.00	1,389.91	1.78	0.51	FIRST SDI MWD PRODUCTION SURVEY	
12,339.00	7,916.20	-4,297.20	-163.09	LAST SDI MWD PRODUCTION SURVEY	
12,442.00	7,916.68	-4,400.20	-163.52	SDI PROJECTION TO TD(483 FSL 573 FWL)	

Checked By: _____ Approved By: _____ Date: _____