



END OF WELL REPORT

Prepared For:

**Kerr-McGee Oil & Gas Onshore LP
GITTLEIN 36-33HZ PAD
GITTLEIN 3N-28HZ
WELD COUNTY, COLORADO**

***Prepared By
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Rocky Mountain Region***

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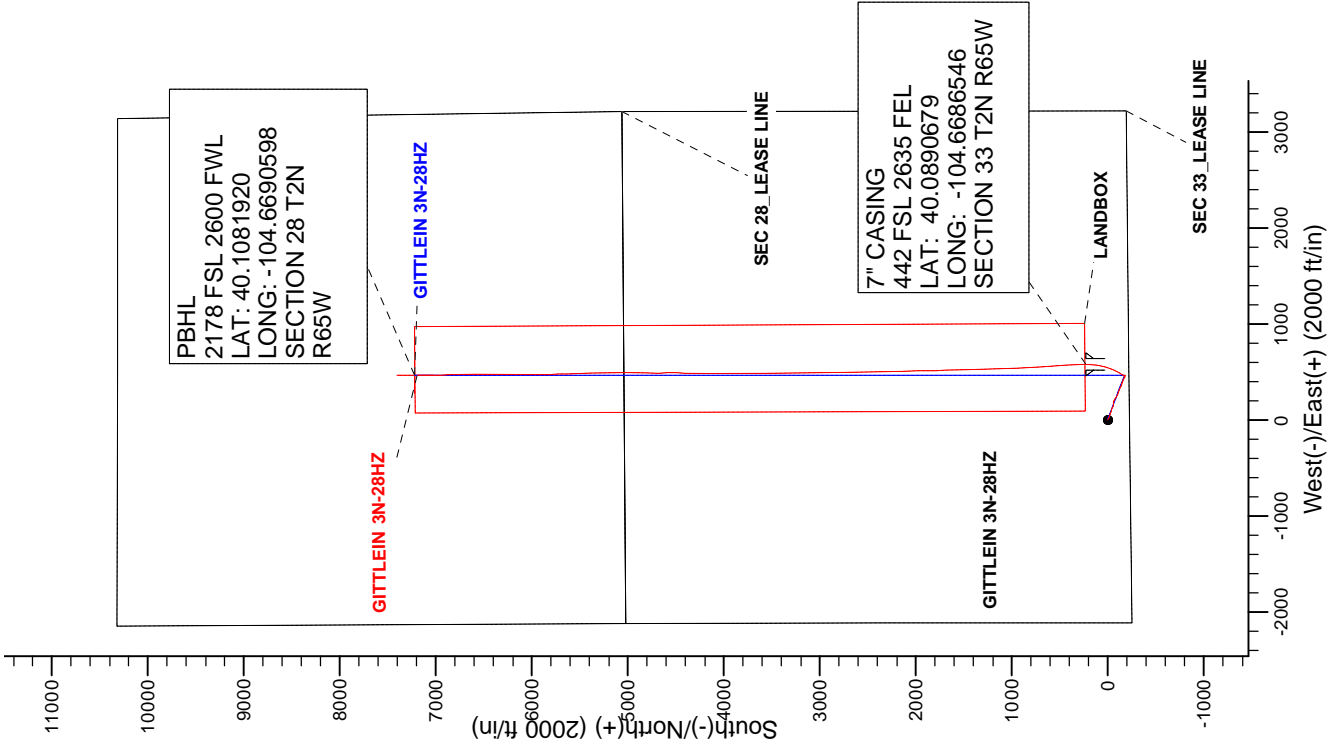
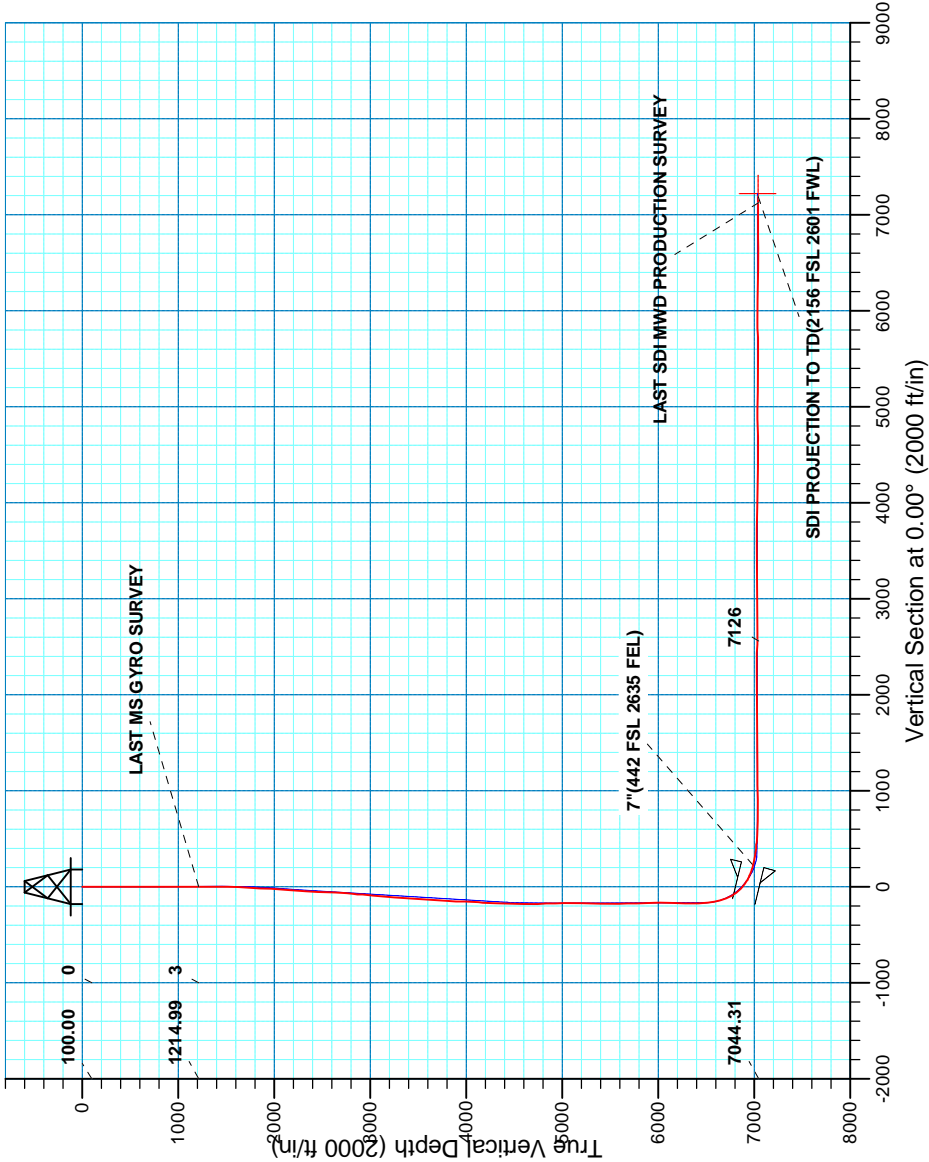


Project: COLORADO NORTHERN ZONE - 83
Site: GITTLEIN 36-33HZ PAD
Well: GITTLEIN 3N-28HZ
Wellbore: OH
Design: OH



WELL DETAILS: GITTLEIN 3N-28HZ				
GL 4911 & KB 25 @ 4936.00ft (HP 311)				
+N/-S 0.00	+E/-W 0.00	Northing 1276147.90	Easting 3232019.43	Latitude 40.0884389
				Longitude -104.8707260

7" CASING IS SET 18'
OUTSIDE OF LANDBOX



Design: OH (GITTLEIN 3N-28HZ/OH)

Created By: RobertScott Date: 13:35, October 28 2013



Scientific Drilling

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

GITTLEIN 36-33HZ PAD

GITTLEIN 3N-28HZ

OH

Design: OH

Standard Survey Report

28 October, 2013

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well GITTLEIN 3N-28HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Site:	GITTLEIN 36-33HZ PAD	MD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Well:	GITTLEIN 3N-28HZ	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						GITTLEIN 36-33HZ PAD, SESW SEC 33 T2N R65W											
Site Position:			Northing:			1,276,114.66 usft			Latitude:			40.0883490					
From:			Lat/Long			Easting:			3,231,969.38 usft			Longitude:			-104.6709060		
Position Uncertainty:			0.00 ft			Slot Radius:			13.200 in			Grid Convergence:			0.54 °		

Well	GITTLEIN 3N-28HZ, 223 FSL 2113 FWL					
Well Position	+N/-S	0.00 ft	Northing:	1,276,147.89 usft	Latitude:	40.0884390
	+E/-W	0.00 ft	Easting:	3,232,019.43 usft	Longitude:	-104.6707260
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	4,911.00 ft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2013	9/3/2013	8.52	66.73	52,671

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		0.00

Survey Program	Date	10/28/2013			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	1,215.00	Survey #1 MS GYRO SURVEY (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
1,330.00	14,210.00	Survey #2 SDI MWD PRODUCTION (OH)	SDI_MWD+CRUST_1.0	SDI MWD + Crustal anomaly, Version 1.0	

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	
100.00	0.10	341.52	100.00	0.08	-0.03	0.08	0.10	0.10	0.00	
FIRST MS GYRO SURVEY										
200.00	0.06	297.22	200.00	0.19	-0.10	0.19	0.07	-0.04	-44.30	
300.00	0.07	151.02	300.00	0.16	-0.12	0.16	0.12	0.01	-146.20	
400.00	0.14	89.20	400.00	0.11	0.03	0.11	0.12	0.07	-61.82	
500.00	0.12	43.90	500.00	0.19	0.23	0.19	0.10	-0.02	-45.30	
600.00	0.03	207.80	600.00	0.24	0.29	0.24	0.15	-0.09	163.90	
700.00	0.12	61.18	700.00	0.27	0.37	0.27	0.15	0.09	-146.62	
800.00	0.08	36.89	800.00	0.37	0.50	0.37	0.06	-0.04	-24.29	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well GITTLEIN 3N-28HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Site:	GITTLEIN 36-33HZ PAD	MD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Well:	GITTLEIN 3N-28HZ	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)
900.00	0.35	19.22	900.00	0.72	0.64	0.72	0.27	0.27	-17.67
1,000.00	0.53	13.68	999.99	1.45	0.85	1.45	0.18	0.18	-5.54
1,100.00	0.42	350.61	1,099.99	2.26	0.90	2.26	0.22	-0.11	-23.07
1,200.00	0.32	334.27	1,199.99	2.88	0.72	2.88	0.14	-0.10	-16.34
1,215.00	0.51	346.84	1,214.99	2.98	0.69	2.98	1.40	1.27	83.80
LAST MS GYRO SURVEY									
1,330.00	0.45	333.65	1,329.99	3.88	0.37	3.88	0.11	-0.05	-11.47
FIRST SDI MWD PRODUCTION SURVEY									
1,421.00	1.82	117.15	1,420.97	3.54	1.50	3.54	2.42	1.51	157.69
1,513.00	3.63	113.26	1,512.86	1.73	5.48	1.73	1.98	1.97	-4.23
1,604.00	5.06	121.15	1,603.60	-1.49	11.56	-1.49	1.70	1.57	8.67
1,696.00	7.29	124.85	1,695.06	-6.92	19.82	-6.92	2.46	2.42	4.02
1,787.00	9.59	110.76	1,785.08	-12.91	31.65	-12.91	3.38	2.53	-15.48
1,879.00	10.06	107.71	1,875.73	-18.07	46.47	-18.07	0.76	0.51	-3.32
1,971.00	10.45	102.84	1,966.26	-22.37	62.26	-22.37	1.03	0.42	-5.29
2,063.00	11.32	109.04	2,056.61	-27.17	78.93	-27.17	1.58	0.95	6.74
2,154.00	11.34	107.45	2,145.84	-32.76	95.91	-32.76	0.34	0.02	-1.75
2,246.00	11.16	115.81	2,236.08	-39.35	112.55	-39.35	1.78	-0.20	9.09
2,338.00	11.82	114.06	2,326.23	-47.07	129.17	-47.07	0.81	0.72	-1.90
2,430.00	11.24	101.38	2,416.39	-52.68	146.57	-52.68	2.82	-0.63	-13.78
2,522.00	11.43	93.47	2,506.60	-55.00	164.46	-55.00	1.70	0.21	-8.60
2,613.00	10.90	97.42	2,595.88	-56.66	181.99	-56.66	1.02	-0.58	4.34
2,705.00	11.91	110.73	2,686.08	-61.15	199.50	-61.15	3.06	1.10	14.47
2,800.00	10.67	120.70	2,779.25	-69.11	216.23	-69.11	2.43	-1.31	10.49
2,894.00	9.61	121.01	2,871.78	-77.59	230.44	-77.59	1.13	-1.13	0.33
2,989.00	10.97	120.52	2,965.25	-86.27	245.02	-86.27	1.43	1.43	-0.52
3,083.00	11.32	121.20	3,057.47	-95.59	260.62	-95.59	0.40	0.37	0.72
3,177.00	11.64	110.91	3,149.60	-103.75	277.37	-103.75	2.20	0.34	-10.95
3,272.00	10.54	107.49	3,242.83	-109.79	294.61	-109.79	1.35	-1.16	-3.60
3,366.00	10.94	110.84	3,335.18	-115.54	311.15	-115.54	0.79	0.43	3.56
3,460.00	9.99	113.98	3,427.62	-122.03	326.93	-122.03	1.18	-1.01	3.34
3,649.00	9.18	114.12	3,613.98	-134.85	355.67	-134.85	0.43	-0.43	0.07
3,743.00	9.40	111.34	3,706.75	-140.71	369.67	-140.71	0.53	0.23	-2.96
3,838.00	8.75	108.04	3,800.56	-145.77	383.76	-145.77	0.88	-0.68	-3.47
3,932.00	8.10	113.48	3,893.54	-150.63	396.64	-150.63	1.09	-0.69	5.79
4,027.00	6.77	114.37	3,987.74	-155.60	407.88	-155.60	1.41	-1.40	0.94
4,121.00	5.92	113.22	4,081.17	-159.80	417.38	-159.80	0.91	-0.90	-1.22
4,215.00	7.85	113.03	4,174.48	-164.22	427.74	-164.22	2.05	2.05	-0.20
4,310.00	6.76	113.48	4,268.71	-168.99	438.84	-168.99	1.15	-1.15	0.47
4,404.00	5.33	111.71	4,362.19	-172.81	447.97	-172.81	1.53	-1.52	-1.88
4,498.00	4.03	103.40	4,455.87	-175.19	455.24	-175.19	1.56	-1.38	-8.84
4,594.00	2.93	97.30	4,551.69	-176.28	460.96	-176.28	1.21	-1.15	-6.35
4,688.00	1.97	96.07	4,645.61	-176.76	464.95	-176.76	1.02	-1.02	-1.31

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well GITTLEIN 3N-28HZ
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Site:	GITTLEIN 36-33HZ PAD	MD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Well:	GITTLEIN 3N-28HZ	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)	
4,782.00	1.52	84.64	4,739.56	-176.81	467.79	-176.81	0.60	-0.48	-12.16	
4,876.00	1.19	318.32	4,833.55	-175.97	468.39	-175.97	2.58	-0.35	-134.38	
4,970.00	1.68	302.48	4,927.52	-174.50	466.57	-174.50	0.67	0.52	-16.85	
5,064.00	1.58	302.15	5,021.48	-173.07	464.31	-173.07	0.11	-0.11	-0.35	
5,159.00	1.89	298.36	5,116.44	-171.63	461.83	-171.63	0.35	0.33	-3.99	
5,253.00	1.89	246.89	5,210.39	-171.50	459.04	-171.50	1.75	0.00	-54.76	
5,347.00	2.08	132.13	5,304.36	-173.25	458.88	-173.25	3.56	0.20	-122.09	
5,442.00	2.95	125.60	5,399.27	-175.83	462.14	-175.83	0.96	0.92	-6.87	
5,536.00	0.34	3.78	5,493.23	-176.96	464.13	-176.96	3.34	-2.78	-129.60	
5,630.00	1.19	323.50	5,587.22	-175.90	463.57	-175.90	1.02	0.90	-42.85	
5,725.00	1.18	337.00	5,682.20	-174.21	462.60	-174.21	0.29	-0.01	14.21	
5,819.00	1.14	322.15	5,776.18	-172.58	461.65	-172.58	0.32	-0.04	-15.80	
5,914.00	2.36	306.16	5,871.14	-170.68	459.49	-170.68	1.37	1.28	-16.83	
6,008.00	1.44	272.85	5,965.09	-169.48	456.74	-169.48	1.49	-0.98	-35.44	
6,102.00	0.48	79.82	6,059.08	-169.35	455.95	-169.35	2.03	-1.02	177.63	
6,197.00	0.11	79.14	6,154.08	-169.26	456.43	-169.26	0.39	-0.39	-0.72	
6,291.00	0.81	160.68	6,248.08	-169.87	456.74	-169.87	0.85	0.74	86.74	
6,433.00	0.93	175.03	6,390.06	-171.97	457.17	-171.97	0.17	0.08	10.11	
6,480.00	2.79	53.91	6,437.04	-171.67	458.13	-171.67	7.16	3.96	-257.70	
6,527.00	6.18	38.30	6,483.89	-169.01	460.62	-169.01	7.60	7.21	-33.21	
6,575.00	9.37	28.19	6,531.45	-163.54	464.07	-163.54	7.21	6.65	-21.06	
6,622.00	12.85	30.91	6,577.56	-155.68	468.57	-155.68	7.49	7.40	5.79	
6,669.00	17.24	31.66	6,622.94	-145.26	474.91	-145.26	9.35	9.34	1.60	
6,716.00	19.77	31.02	6,667.51	-132.52	482.66	-132.52	5.40	5.38	-1.36	
6,763.00	24.60	29.91	6,711.01	-117.22	491.64	-117.22	10.31	10.28	-2.36	
6,810.00	29.61	25.55	6,752.84	-98.25	501.54	-98.25	11.46	10.66	-9.28	
6,857.00	35.92	24.89	6,792.34	-75.24	512.36	-75.24	13.45	13.43	-1.40	
6,952.00	45.84	21.39	6,864.09	-18.09	536.58	-18.09	10.71	10.44	-3.68	
7,046.00	60.15	13.57	6,920.58	53.38	558.57	53.38	16.59	15.22	-8.32	
7,140.00	69.90	9.05	6,960.24	136.83	575.13	136.83	11.25	10.37	-4.81	
7,187.00	72.27	1.40	6,975.49	181.06	579.15	181.06	16.20	5.04	-16.28	
7,237.00	75.57	359.56	6,989.34	229.10	579.55	229.10	7.48	6.60	-3.67	
7"(442 FSL 2635 FEL)										
7,280.00	78.42	358.03	6,999.01	270.98	578.67	270.98	7.48	6.63	-3.57	
7,342.00	80.51	358.00	7,010.35	331.89	576.56	331.89	3.37	3.37	-0.05	
7,433.00	83.12	357.63	7,023.30	421.89	573.12	421.89	2.90	2.87	-0.41	
7,525.00	87.62	356.32	7,030.73	513.44	568.28	513.44	5.09	4.89	-1.42	
7,617.00	88.05	356.46	7,034.20	605.19	562.49	605.19	0.49	0.47	0.15	
7,709.00	87.84	356.16	7,037.50	696.94	556.58	696.94	0.40	-0.23	-0.33	
7,800.00	89.09	355.82	7,039.94	787.68	550.21	787.68	1.42	1.37	-0.37	
7,891.00	90.37	356.17	7,040.37	878.46	543.86	878.46	1.46	1.41	0.38	
7,981.00	91.51	357.48	7,038.89	968.31	538.88	968.31	1.93	1.27	1.46	
8,072.00	91.89	358.29	7,036.19	1,059.20	535.52	1,059.20	0.98	0.42	0.89	
8,164.00	90.71	358.78	7,034.11	1,151.15	533.17	1,151.15	1.39	-1.28	0.53	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well GITTLEIN 3N-28HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Site:	GITTLEIN 36-33HZ PAD	MD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Well:	GITTLEIN 3N-28HZ	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)
8,256.00	90.10	358.16	7,033.46	1,243.11	530.71	1,243.11	0.95	-0.66	-0.67
8,347.00	89.60	358.61	7,033.69	1,334.07	528.15	1,334.07	0.74	-0.55	0.49
8,438.00	89.73	358.16	7,034.23	1,425.04	525.58	1,425.04	0.51	0.14	-0.49
8,530.00	90.54	358.57	7,034.01	1,517.00	522.96	1,517.00	0.99	0.88	0.45
8,621.00	90.44	358.60	7,033.23	1,607.97	520.71	1,607.97	0.11	-0.11	0.03
8,713.00	90.57	357.64	7,032.42	1,699.91	517.69	1,699.91	1.05	0.14	-1.04
8,805.00	90.67	358.53	7,031.43	1,791.85	514.62	1,791.85	0.97	0.11	0.97
8,896.00	89.87	358.03	7,031.00	1,882.81	511.89	1,882.81	1.04	-0.88	-0.55
8,988.00	89.29	358.87	7,031.67	1,974.77	509.40	1,974.77	1.11	-0.63	0.91
9,079.00	90.10	358.91	7,032.16	2,065.76	507.63	2,065.76	0.89	0.89	0.04
9,171.00	91.04	358.66	7,031.24	2,157.73	505.68	2,157.73	1.06	1.02	-0.27
9,263.00	91.11	358.96	7,029.51	2,249.69	503.77	2,249.69	0.33	0.08	0.33
9,355.00	88.83	359.23	7,029.56	2,341.67	502.32	2,341.67	2.50	-2.48	0.29
9,446.00	88.45	359.30	7,031.72	2,432.64	501.15	2,432.64	0.42	-0.42	0.08
9,538.00	88.69	358.62	7,034.02	2,524.60	499.48	2,524.60	0.78	0.26	-0.74
9,650.00	90.34	359.16	7,034.97	2,636.57	497.31	2,636.57	1.55	1.47	0.48
9,722.00	90.27	359.33	7,034.58	2,708.56	496.37	2,708.56	0.26	-0.10	0.24
9,814.00	90.97	358.96	7,033.59	2,800.54	494.99	2,800.54	0.86	0.76	-0.40
9,906.00	90.87	359.75	7,032.11	2,892.53	493.96	2,892.53	0.87	-0.11	0.86
10,000.00	90.77	0.10	7,030.76	2,986.52	493.83	2,986.52	0.39	-0.11	0.37
10,095.00	90.77	359.92	7,029.49	3,081.51	493.85	3,081.51	0.19	0.00	-0.19
10,189.00	89.87	359.52	7,028.96	3,175.50	493.39	3,175.50	1.05	-0.96	-0.43
10,284.00	89.56	359.91	7,029.44	3,270.50	492.92	3,270.50	0.52	-0.33	0.41
10,378.00	90.51	359.40	7,029.38	3,364.50	492.35	3,364.50	1.15	1.01	-0.54
10,472.00	89.83	358.71	7,029.10	3,458.48	490.80	3,458.48	1.03	-0.72	-0.73
10,566.00	89.56	358.49	7,029.60	3,552.45	488.51	3,552.45	0.37	-0.29	-0.23
10,661.00	90.30	359.15	7,029.72	3,647.43	486.55	3,647.43	1.04	0.78	0.69
10,755.00	89.87	359.42	7,029.58	3,741.42	485.38	3,741.42	0.54	-0.46	0.29
10,850.00	88.89	1.02	7,030.60	3,836.41	485.74	3,836.41	1.97	-1.03	1.68
10,944.00	89.23	0.28	7,032.15	3,930.39	486.81	3,930.39	0.87	0.36	-0.79
11,039.00	88.05	0.47	7,034.40	4,025.36	487.43	4,025.36	1.26	-1.24	0.20
11,133.00	88.86	0.98	7,036.94	4,119.32	488.62	4,119.32	1.02	0.86	0.54
11,227.00	89.53	0.50	7,038.26	4,213.30	489.83	4,213.30	0.88	0.71	-0.51
11,321.00	88.96	0.22	7,039.49	4,307.29	490.42	4,307.29	0.68	-0.61	-0.30
11,416.00	88.89	0.20	7,041.28	4,402.28	490.77	4,402.28	0.08	-0.07	-0.02
11,510.00	89.87	0.26	7,042.29	4,496.27	491.15	4,496.27	1.04	1.04	0.06
11,604.00	90.44	359.78	7,042.04	4,590.27	491.18	4,590.27	0.79	0.61	-0.51
11,699.00	91.38	359.99	7,040.53	4,685.25	490.99	4,685.25	1.01	0.99	0.22
11,793.00	90.60	0.59	7,038.91	4,779.24	491.47	4,779.24	1.05	-0.83	0.64
11,888.00	90.77	0.51	7,037.77	4,874.23	492.38	4,874.23	0.20	0.18	-0.08
11,982.00	89.46	0.41	7,037.58	4,968.22	493.13	4,968.22	1.40	-1.39	-0.11
12,077.00	89.56	0.41	7,038.39	5,063.22	493.81	5,063.22	0.11	0.11	0.00
12,171.00	90.24	0.05	7,038.56	5,157.21	494.19	5,157.21	0.82	0.72	-0.38

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well GITTLEIN 3N-28HZ
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Site:	GITTLEIN 36-33HZ PAD	MD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Well:	GITTLEIN 3N-28HZ	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)	
12,266.00	88.86	358.41	7,039.31	5,252.20	492.91	5,252.20	2.26	-1.45	-1.73	
12,360.00	89.19	358.37	7,040.90	5,346.15	490.27	5,346.15	0.35	0.35	-0.04	
12,454.00	89.50	358.10	7,041.98	5,440.09	487.38	5,440.09	0.44	0.33	-0.29	
12,549.00	90.67	358.29	7,041.84	5,535.05	484.39	5,535.05	1.25	1.23	0.20	
12,643.00	91.38	357.73	7,040.16	5,628.97	481.12	5,628.97	0.96	0.76	-0.60	
12,738.00	90.71	358.22	7,038.42	5,723.90	477.77	5,723.90	0.87	-0.71	0.52	
12,832.00	91.54	359.27	7,036.58	5,817.85	475.71	5,817.85	1.42	0.88	1.12	
12,927.00	90.40	359.77	7,034.97	5,912.84	474.91	5,912.84	1.31	-1.20	0.53	
13,021.00	90.57	359.44	7,034.17	6,006.83	474.26	6,006.83	0.39	0.18	-0.35	
13,115.00	88.76	359.67	7,034.72	6,100.82	473.53	6,100.82	1.94	-1.93	0.24	
13,210.00	89.40	0.00	7,036.25	6,195.81	473.26	6,195.81	0.76	0.67	0.35	
13,304.00	88.52	0.40	7,037.96	6,289.79	473.59	6,289.79	1.03	-0.94	0.43	
13,398.00	88.62	0.41	7,040.30	6,383.76	474.25	6,383.76	0.11	0.11	0.01	
13,492.00	89.26	359.96	7,042.04	6,477.74	474.56	6,477.74	0.83	0.68	-0.48	
13,587.00	90.07	359.09	7,042.60	6,572.74	473.77	6,572.74	1.25	0.85	-0.92	
13,681.00	90.81	358.54	7,041.87	6,666.71	471.82	6,666.71	0.98	0.79	-0.59	
13,775.00	89.16	359.26	7,041.90	6,760.69	470.02	6,760.69	1.92	-1.76	0.77	
13,869.00	88.66	359.94	7,043.69	6,854.67	469.36	6,854.67	0.90	-0.53	0.72	
13,964.00	89.36	359.40	7,045.33	6,949.65	468.82	6,949.65	0.93	0.74	-0.57	
14,058.00	90.44	359.49	7,045.49	7,043.65	467.91	7,043.65	1.15	1.15	0.10	
14,140.00	91.21	359.23	7,044.31	7,125.63	466.99	7,125.63	0.99	0.94	-0.32	
LAST SDI MWD PRODUCTION SURVEY										
14,210.00	91.21	359.23	7,042.83	7,195.61	466.05	7,195.61	0.00	0.00	0.00	
SDI PROJECTION TO TD(2156 FSL 2601 FWL)										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
PBHL_GITTLEIN 3N-28I - hit/miss target - Shape - Point	0.00	0.00	7,036.00	7,220.75	466.56	1,283,372.68	3,232,418.44	40.1082610	-104.6690580	
- actual wellpath misses target center by 26.06ft at 14210.00ft MD (7042.83 TVD, 7195.61 N, 466.05 E)										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
7,237.00	6,989.34	7"(442 FSL 2635 FEL)	7.000	7.500	

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well GITTLEIN 3N-28HZ
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Site:	GITTLEIN 36-33HZ PAD	MD Reference:	GL 4911 & KB 25 @ 4936.00ft (HP 311)
Well:	GITTLEIN 3N-28HZ	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	Denver Sales

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
100.00	100.00	0.08	-0.03	FIRST MS GYRO SURVEY
1,215.00	1,214.99	2.98	0.69	LAST MS GYRO SURVEY
1,330.00	1,329.99	3.88	0.37	FIRST SDI MWD PRODUCTION SURVEY
14,140.00	7,044.31	7,125.63	466.99	LAST SDI MWD PRODUCTION SURVEY
14,210.00	7,042.83	7,195.61	466.05	SDI PROJECTION TO TD(2156 FSL 2601 FWL)

Checked By: _____	Approved By: _____	Date: _____
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