

Well Name:

REEMAN-4X-HNC-04-06-65

Project Name:

Sec. 5-T6N-R65W

Pad Name:

REEMAN PAD

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	Surf Csg
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	Start Build 2.00
2540.16	18.80	256.89	2523.38	-34.67	-148.91	-144.42	152.89	Hold 18.80 Inc, 256.89 Az
6629.37	18.80	256.89	6394.35	-333.51	-1432.61	-1389.44	1470.92	KOP 10°/100
7714.71	90.45	92.48	7142.00	-426.20	-887.00	-837.10	2091.00	LP 90.45 Inc, 92.48 Az
12494.01	90.45	92.48	7104.66	-633.13	3887.67	3932.76	6870.15	2/100 Turn
12614.86	90.45	90.06	7103.72	-635.82	4008.48	4053.18	6991.00	Hold 90.45 Inc, 90.06 Az
14621.48	90.45	90.06	7088.00	-638.09	6015.03	6048.78	8997.55	TD at 14621.48

Geodetic Datum:

North American Datum 1983
US State Plane 1983 Colorado Northern Zone

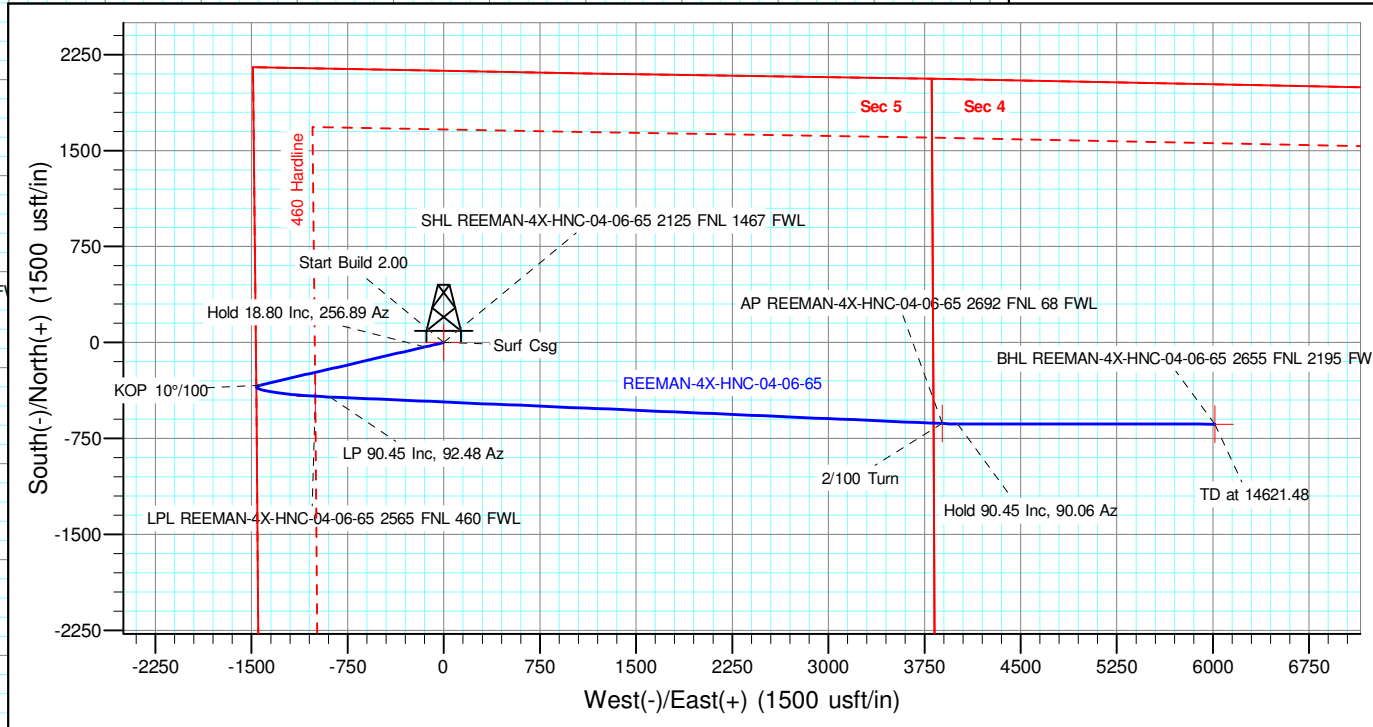
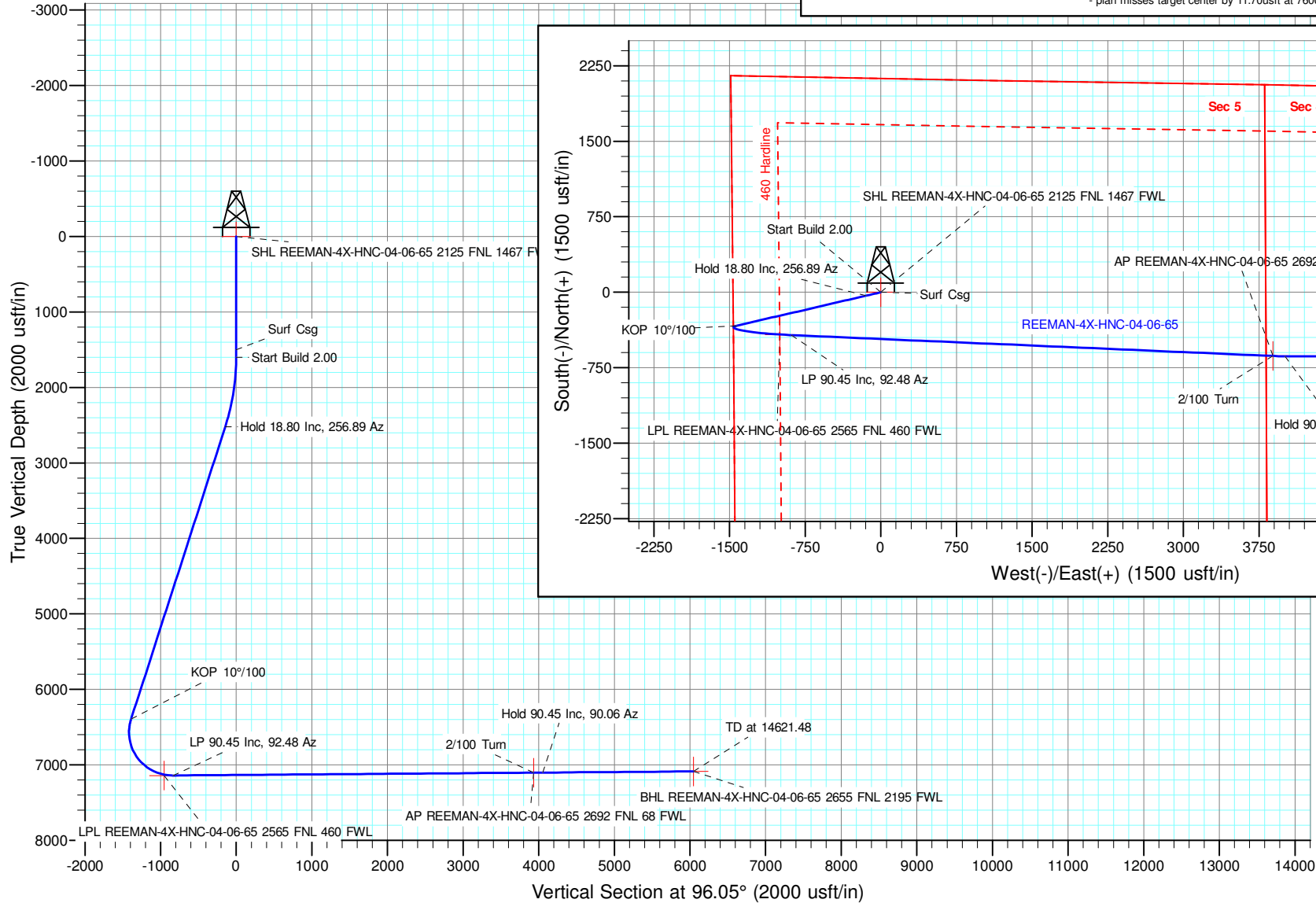
Elevation:

Ground Elevation: 4816.00
KB Elevation: WELL @ 4843.00usft (Original Well Elev)

DESIGN TARGET DETAILS

Name	SHL REEMAN-4X-HNC-04-06-65 2125 FNL 1467 FWL	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SHL REEMAN-4X-HNC-04-06-65 2125 FNL 1467 FWL	0.00	0.00	0.00	0.00	1432681.480	3224760.260	40.518299	-104.691569	Point
BHL REEMAN-4X-HNC-04-06-65 2655 FNL 2195 FWL7088.00	-638.09	6015.03	1432043.394	3230775.288	40.516395	-104.669957	Point		
AP REEMAN-4X-HNC-04-06-65 2692 FNL 68 FWL	7104.66	-633.13	3887.67	1432048.346	3228647.927	40.516463	-104.677608	Point	
LPL REEMAN-4X-HNC-04-06-65 2565 FNL 460 FWL	7143.00	-421.16	-1002.82	1432260.321	3223757.445	40.517168	-104.695190	Point	

- plan misses target center by 11.70usft at 7600.00usft MD (7131.50 TVD, -420.22 N, -1000.88 E)



T G M

Azimuths to Grid North
True North: -0.52°
Magnetic North: 7.37°

Magnetic Field
Strength: 52091.5nT
Dip Angle: 66.78°
Date: 10/21/2020
Model: IGRF2020

NICKEL ROAD

O P E R A T I N G

Nickel Road Operating

Sec. 5-T6N-R65W

REEMAN PAD

REEMAN-4X-HNC-04-06-65

Wellbore #1

Plan: Design #1

Standard Planning Report - Geographic

27 October, 2020

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-4X-HNC-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4843.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4843.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-4X-HNC-04-06-65	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Project	Sec. 5-T6N-R65W, Weld County, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site	REEMAN PAD				
Site Position:	Northing:	1,432,900.490 usft	Latitude:	40.518901	
From: Map	Easting:	3,224,708.630 usft	Longitude:	-104.691748	
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.52 °

Well	REEMAN-4X-HNC-04-06-65					
Well Position	+N/-S	0.00 usft	Northing:	1,432,681.480 usft	Latitude:	40.518299
	+E/-W	0.00 usft	Easting:	3,224,760.260 usft	Longitude:	-104.691570
Position Uncertainty	0.00 usft		Wellhead Elevation:		Ground Level:	4,816.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	10/21/2020	7.89	66.78	52,091.54943079

Design	Design #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	96.05

Plan Survey Tool Program	Date	10/26/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	14,621.48 Design #1 (Wellbore #1)	MWD	OWSG MWD - Standard

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,540.16	18.80	256.89	2,523.38	-34.67	-148.91	2.00	2.00	0.00	256.89	
6,629.37	18.80	256.89	6,394.35	-333.51	-1,432.61	0.00	0.00	0.00	0.00	
7,714.72	90.45	92.48	7,142.00	-426.20	-887.00	10.00	6.60	-15.15	-163.54	
12,494.01	90.45	92.48	7,104.67	-633.13	3,887.67	0.00	0.00	0.00	0.00	
12,614.87	90.45	90.06	7,103.72	-635.82	4,008.48	2.00	0.00	-2.00	-89.99	
14,621.48	90.45	90.06	7,088.00	-638.09	6,015.03	0.00	0.00	0.00	0.00	BHL REEMAN-4X-HN

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-4X-HNC-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4843.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4843.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-4X-HNC-04-06-65	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
0.00	0.00	0.00	0.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
SHL REEMAN-4X-HNC-04-06-65 2125 FNL 1467 FWL										
100.00	0.00	0.00	100.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
200.00	0.00	0.00	200.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
300.00	0.00	0.00	300.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
400.00	0.00	0.00	400.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
500.00	0.00	0.00	500.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
600.00	0.00	0.00	600.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
700.00	0.00	0.00	700.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
800.00	0.00	0.00	800.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
900.00	0.00	0.00	900.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
1,100.00	0.00	0.00	1,100.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
1,200.00	0.00	0.00	1,200.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
1,400.00	0.00	0.00	1,400.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
Surf Csg										
1,600.00	0.00	0.00	1,600.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570	
Start Build 2.00										
1,700.00	2.00	256.89	1,699.98	-0.40	-1.70	1,432,681.084	3,224,758.560	40.518298	-104.691576	
1,800.00	4.00	256.89	1,799.84	-1.58	-6.80	1,432,679.898	3,224,753.463	40.518295	-104.691594	
1,900.00	6.00	256.89	1,899.45	-3.56	-15.28	1,432,677.922	3,224,744.975	40.518290	-104.691625	
2,000.00	8.00	256.89	1,998.70	-6.32	-27.15	1,432,675.159	3,224,733.106	40.518282	-104.691668	
2,100.00	10.00	256.89	2,097.47	-9.87	-42.39	1,432,671.612	3,224,717.871	40.518273	-104.691723	
2,200.00	12.00	256.89	2,195.62	-14.19	-60.97	1,432,667.286	3,224,699.288	40.518262	-104.691789	
2,300.00	14.00	256.89	2,293.06	-19.29	-82.88	1,432,662.185	3,224,677.380	40.518248	-104.691868	
2,400.00	16.00	256.89	2,389.64	-25.16	-108.09	1,432,656.317	3,224,652.173	40.518233	-104.691959	
2,500.00	18.00	256.89	2,485.27	-31.79	-136.56	1,432,649.688	3,224,623.699	40.518215	-104.692062	
2,540.16	18.80	256.89	2,523.38	-34.67	-148.91	1,432,646.814	3,224,611.351	40.518208	-104.692106	
Hold 18.80 Inc, 256.89 Az										
2,600.00	18.80	256.89	2,580.02	-39.04	-167.69	1,432,642.441	3,224,592.566	40.518196	-104.692174	
2,700.00	18.80	256.89	2,674.68	-46.35	-199.09	1,432,635.133	3,224,561.174	40.518177	-104.692287	
2,800.00	18.80	256.89	2,769.35	-53.66	-230.48	1,432,627.824	3,224,529.781	40.518158	-104.692400	
2,900.00	18.80	256.89	2,864.01	-60.96	-261.87	1,432,620.516	3,224,498.389	40.518138	-104.692514	
3,000.00	18.80	256.89	2,958.67	-68.27	-293.26	1,432,613.208	3,224,466.997	40.518119	-104.692627	
3,100.00	18.80	256.89	3,053.34	-75.58	-324.66	1,432,605.900	3,224,435.604	40.518100	-104.692740	
3,200.00	18.80	256.89	3,148.00	-82.89	-356.05	1,432,598.592	3,224,404.212	40.518080	-104.692853	
3,300.00	18.80	256.89	3,242.66	-90.20	-387.44	1,432,591.284	3,224,372.819	40.518061	-104.692966	
3,400.00	18.80	256.89	3,337.33	-97.50	-418.83	1,432,583.975	3,224,341.427	40.518042	-104.693079	
3,500.00	18.80	256.89	3,431.99	-104.81	-450.23	1,432,576.667	3,224,310.034	40.518023	-104.693192	
3,600.00	18.80	256.89	3,526.65	-112.12	-481.62	1,432,569.359	3,224,278.642	40.518003	-104.693306	
3,700.00	18.80	256.89	3,621.32	-119.43	-513.01	1,432,562.051	3,224,247.249	40.517984	-104.693419	
3,800.00	18.80	256.89	3,715.98	-126.74	-544.40	1,432,554.743	3,224,215.857	40.517965	-104.693532	
3,900.00	18.80	256.89	3,810.64	-134.05	-575.80	1,432,547.435	3,224,184.465	40.517946	-104.693645	
4,000.00	18.80	256.89	3,905.30	-141.35	-607.19	1,432,540.126	3,224,153.072	40.517926	-104.693758	
4,100.00	18.80	256.89	3,999.97	-148.66	-638.58	1,432,532.818	3,224,121.680	40.517907	-104.693871	
4,200.00	18.80	256.89	4,094.63	-155.97	-669.97	1,432,525.510	3,224,090.287	40.517888	-104.693984	
4,300.00	18.80	256.89	4,189.29	-163.28	-701.37	1,432,518.202	3,224,058.895	40.517868	-104.694098	
4,400.00	18.80	256.89	4,283.96	-170.59	-732.76	1,432,510.894	3,224,027.502	40.517849	-104.694211	
4,500.00	18.80	256.89	4,378.62	-177.89	-764.15	1,432,503.585	3,223,996.110	40.517830	-104.694324	
4,600.00	18.80	256.89	4,473.28	-185.20	-795.54	1,432,496.277	3,223,964.717	40.517811	-104.694437	
4,700.00	18.80	256.89	4,567.95	-192.51	-826.93	1,432,488.969	3,223,933.325	40.517791	-104.694550	
4,800.00	18.80	256.89	4,662.61	-199.82	-858.33	1,432,481.661	3,223,901.933	40.517772	-104.694663	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-4X-HNC-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4843.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4843.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-4X-HNC-04-06-65	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,900.00	18.80	256.89	4,757.27	-207.13	-889.72	1,432,474.353	3,223,870.540	40.517753	-104.694777	
5,000.00	18.80	256.89	4,851.94	-214.44	-921.11	1,432,467.045	3,223,839.148	40.517733	-104.694890	
5,100.00	18.80	256.89	4,946.60	-221.74	-952.50	1,432,459.736	3,223,807.755	40.517714	-104.695003	
5,200.00	18.80	256.89	5,041.26	-229.05	-983.90	1,432,452.428	3,223,776.363	40.517695	-104.695116	
5,300.00	18.80	256.89	5,135.93	-236.36	-1,015.29	1,432,445.120	3,223,744.970	40.517676	-104.695229	
5,400.00	18.80	256.89	5,230.59	-243.67	-1,046.68	1,432,437.812	3,223,713.578	40.517656	-104.695342	
5,500.00	18.80	256.89	5,325.25	-250.98	-1,078.07	1,432,430.504	3,223,682.185	40.517637	-104.695455	
5,600.00	18.80	256.89	5,419.91	-258.28	-1,109.47	1,432,423.196	3,223,650.793	40.517618	-104.695569	
5,700.00	18.80	256.89	5,514.58	-265.59	-1,140.86	1,432,415.887	3,223,619.401	40.517599	-104.695682	
5,800.00	18.80	256.89	5,609.24	-272.90	-1,172.25	1,432,408.579	3,223,588.008	40.517579	-104.695795	
5,900.00	18.80	256.89	5,703.90	-280.21	-1,203.64	1,432,401.271	3,223,556.616	40.517560	-104.695908	
6,000.00	18.80	256.89	5,798.57	-287.52	-1,235.04	1,432,393.963	3,223,525.223	40.517541	-104.696021	
6,100.00	18.80	256.89	5,893.23	-294.83	-1,266.43	1,432,386.655	3,223,493.831	40.517521	-104.696134	
6,200.00	18.80	256.89	5,987.89	-302.13	-1,297.82	1,432,379.346	3,223,462.438	40.517502	-104.696247	
6,300.00	18.80	256.89	6,082.56	-309.44	-1,329.21	1,432,372.038	3,223,431.046	40.517483	-104.696361	
6,400.00	18.80	256.89	6,177.22	-316.75	-1,360.61	1,432,364.730	3,223,399.654	40.517464	-104.696474	
6,500.00	18.80	256.89	6,271.88	-324.06	-1,392.00	1,432,357.422	3,223,368.261	40.517444	-104.696587	
6,600.00	18.80	256.89	6,366.55	-331.37	-1,423.39	1,432,350.114	3,223,336.869	40.517425	-104.696700	
6,629.37	18.80	256.89	6,394.35	-333.51	-1,432.61	1,432,347.967	3,223,327.648	40.517419	-104.696733	
KOP 10°/100										
6,700.00	12.19	247.40	6,462.38	-338.97	-1,450.60	1,432,342.514	3,223,309.656	40.517405	-104.696798	
6,800.00	5.34	193.56	6,561.29	-347.57	-1,461.47	1,432,333.911	3,223,298.791	40.517381	-104.696837	
6,900.00	10.39	122.55	6,660.51	-356.97	-1,454.95	1,432,324.514	3,223,305.314	40.517356	-104.696814	
7,000.00	19.66	107.40	6,757.02	-366.87	-1,431.23	1,432,314.608	3,223,329.027	40.517328	-104.696729	
7,100.00	29.41	101.89	6,847.89	-376.99	-1,391.05	1,432,304.494	3,223,369.210	40.517299	-104.696585	
7,200.00	39.27	98.96	6,930.36	-387.00	-1,335.62	1,432,294.480	3,223,424.641	40.517270	-104.696386	
7,300.00	49.19	97.07	7,001.93	-396.61	-1,266.62	1,432,284.868	3,223,493.636	40.517242	-104.696138	
7,400.00	59.12	95.67	7,060.42	-405.53	-1,186.16	1,432,275.953	3,223,574.100	40.517216	-104.695849	
7,500.00	69.07	94.53	7,104.05	-413.48	-1,096.67	1,432,268.004	3,223,663.586	40.517192	-104.695528	
7,600.00	79.03	93.54	7,131.50	-420.22	-1,000.88	1,432,261.263	3,223,759.376	40.517171	-104.695183	
LPL REEMAN-4X-HNC-04-06-65 2565 FNL 460 FWL										
7,700.00	88.98	92.62	7,141.93	-425.55	-901.70	1,432,255.934	3,223,858.560	40.517154	-104.694827	
7,714.72	90.45	92.48	7,142.00	-426.20	-887.00	1,432,255.280	3,223,873.260	40.517151	-104.694774	
LP 90.45 Inc, 92.48 Az										
7,800.00	90.45	92.48	7,141.33	-429.89	-801.80	1,432,251.587	3,223,958.462	40.517139	-104.694468	
7,900.00	90.45	92.48	7,140.55	-434.22	-701.89	1,432,247.257	3,224,058.366	40.517125	-104.694108	
8,000.00	90.45	92.48	7,139.77	-438.55	-601.99	1,432,242.926	3,224,158.269	40.517110	-104.693749	
8,100.00	90.45	92.48	7,138.98	-442.88	-502.09	1,432,238.596	3,224,258.172	40.517096	-104.693390	
8,200.00	90.45	92.48	7,138.20	-447.21	-402.18	1,432,234.266	3,224,358.075	40.517082	-104.693031	
8,300.00	90.45	92.48	7,137.42	-451.54	-302.28	1,432,229.936	3,224,457.978	40.517067	-104.692672	
8,400.00	90.45	92.48	7,136.63	-455.87	-202.38	1,432,225.605	3,224,557.881	40.517053	-104.692313	
8,500.00	90.45	92.48	7,135.85	-460.20	-102.48	1,432,221.275	3,224,657.784	40.517038	-104.691953	
8,600.00	90.45	92.48	7,135.07	-464.54	-2.57	1,432,216.945	3,224,757.687	40.517024	-104.691594	
8,700.00	90.45	92.48	7,134.28	-468.87	97.33	1,432,212.615	3,224,857.591	40.517010	-104.691235	
8,800.00	90.45	92.48	7,133.50	-473.20	197.23	1,432,208.284	3,224,957.494	40.516995	-104.690876	
8,900.00	90.45	92.48	7,132.72	-477.53	297.14	1,432,203.954	3,225,057.397	40.516981	-104.690517	
9,000.00	90.45	92.48	7,131.93	-481.86	397.04	1,432,199.624	3,225,157.300	40.516967	-104.690158	
9,100.00	90.45	92.48	7,131.15	-486.19	496.94	1,432,195.294	3,225,257.203	40.516952	-104.689798	
9,200.00	90.45	92.48	7,130.37	-490.52	596.85	1,432,190.963	3,225,357.106	40.516938	-104.689439	
9,300.00	90.45	92.48	7,129.58	-494.85	696.75	1,432,186.633	3,225,457.009	40.516923	-104.689080	
9,400.00	90.45	92.48	7,128.80	-499.18	796.65	1,432,182.303	3,225,556.912	40.516909	-104.688721	
9,500.00	90.45	92.48	7,128.02	-503.51	896.56	1,432,177.973	3,225,656.816	40.516895	-104.688362	
9,600.00	90.45	92.48	7,127.23	-507.84	996.46	1,432,173.642	3,225,756.719	40.516880	-104.688003	
9,700.00	90.45	92.48	7,126.45	-512.17	1,096.36	1,432,169.312	3,225,856.622	40.516866	-104.687643	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-4X-HNC-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4843.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4843.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-4X-HNC-04-06-65	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,800.00	90.45	92.48	7,125.67	-516.50	1,196.27	1,432,164.982	3,225,956.525	40.516851	-104.687284	
9,900.00	90.45	92.48	7,124.88	-520.83	1,296.17	1,432,160.652	3,226,056.428	40.516837	-104.686925	
10,000.00	90.45	92.48	7,124.10	-525.16	1,396.07	1,432,156.321	3,226,156.331	40.516823	-104.686566	
10,100.00	90.45	92.48	7,123.32	-529.49	1,495.97	1,432,151.991	3,226,256.234	40.516808	-104.686207	
10,200.00	90.45	92.48	7,122.53	-533.82	1,595.88	1,432,147.661	3,226,356.137	40.516794	-104.685848	
10,300.00	90.45	92.48	7,121.75	-538.15	1,695.78	1,432,143.331	3,226,456.041	40.516779	-104.685488	
10,400.00	90.45	92.48	7,120.97	-542.48	1,795.68	1,432,139.001	3,226,555.944	40.516765	-104.685129	
10,500.00	90.45	92.48	7,120.18	-546.81	1,895.59	1,432,134.670	3,226,655.847	40.516751	-104.684770	
10,600.00	90.45	92.48	7,119.40	-551.14	1,995.49	1,432,130.340	3,226,755.750	40.516736	-104.684411	
10,700.00	90.45	92.48	7,118.62	-555.47	2,095.39	1,432,126.010	3,226,855.653	40.516722	-104.684052	
10,800.00	90.45	92.48	7,117.83	-559.80	2,195.30	1,432,121.680	3,226,955.556	40.516707	-104.683693	
10,900.00	90.45	92.48	7,117.05	-564.13	2,295.20	1,432,117.349	3,227,055.459	40.516693	-104.683333	
11,000.00	90.45	92.48	7,116.27	-568.46	2,395.10	1,432,113.019	3,227,155.362	40.516678	-104.682974	
11,100.00	90.45	92.48	7,115.48	-572.79	2,495.01	1,432,108.689	3,227,255.266	40.516664	-104.682615	
11,200.00	90.45	92.48	7,114.70	-577.12	2,594.91	1,432,104.359	3,227,355.169	40.516650	-104.682256	
11,300.00	90.45	92.48	7,113.92	-581.45	2,694.81	1,432,100.028	3,227,455.072	40.516635	-104.681897	
11,400.00	90.45	92.48	7,113.13	-585.78	2,794.72	1,432,095.698	3,227,554.975	40.516621	-104.681538	
11,500.00	90.45	92.48	7,112.35	-590.11	2,894.62	1,432,091.368	3,227,654.878	40.516606	-104.681178	
11,600.00	90.45	92.48	7,111.57	-594.44	2,994.52	1,432,087.038	3,227,754.781	40.516592	-104.680819	
11,700.00	90.45	92.48	7,110.78	-598.77	3,094.42	1,432,082.707	3,227,854.684	40.516578	-104.680460	
11,800.00	90.45	92.48	7,110.00	-603.10	3,194.33	1,432,078.377	3,227,954.587	40.516563	-104.680101	
11,900.00	90.45	92.48	7,109.22	-607.43	3,294.23	1,432,074.047	3,228,054.491	40.516549	-104.679742	
12,000.00	90.45	92.48	7,108.43	-611.76	3,394.13	1,432,069.717	3,228,154.394	40.516534	-104.679383	
12,100.00	90.45	92.48	7,107.65	-616.09	3,494.04	1,432,065.386	3,228,254.297	40.516520	-104.679023	
12,200.00	90.45	92.48	7,106.87	-620.42	3,593.94	1,432,061.056	3,228,354.200	40.516505	-104.678664	
12,300.00	90.45	92.48	7,106.08	-624.75	3,693.84	1,432,056.726	3,228,454.103	40.516491	-104.678305	
12,400.00	90.45	92.48	7,105.30	-629.08	3,793.75	1,432,052.396	3,228,554.006	40.516477	-104.677946	
12,494.01	90.45	92.48	7,104.67	-633.13	3,887.67	1,432,048.346	3,228,647.927	40.516463	-104.677608	
2/100 Turn - AP REEMAN-4X-HNC-04-06-65 2692 FNL 68 FWL										
12,500.00	90.45	92.36	7,104.62	-633.39	3,893.65	1,432,048.092	3,228,653.911	40.516462	-104.677587	
12,600.00	90.45	90.36	7,103.83	-635.76	3,993.62	1,432,045.716	3,228,753.875	40.516453	-104.677227	
12,614.87	90.45	90.06	7,103.72	-635.82	4,008.48	1,432,045.660	3,228,768.739	40.516453	-104.677174	
Hold 90.45 Inc, 90.06 Az										
12,700.00	90.45	90.06	7,103.05	-635.92	4,093.61	1,432,045.564	3,228,853.872	40.516450	-104.676868	
12,800.00	90.45	90.06	7,102.27	-636.03	4,193.61	1,432,045.451	3,228,953.868	40.516447	-104.676508	
12,900.00	90.45	90.06	7,101.48	-636.14	4,293.61	1,432,045.338	3,229,053.865	40.516444	-104.676148	
13,000.00	90.45	90.06	7,100.70	-636.25	4,393.60	1,432,045.225	3,229,153.862	40.516442	-104.675789	
13,100.00	90.45	90.06	7,099.92	-636.37	4,493.60	1,432,045.112	3,229,253.859	40.516439	-104.675429	
13,200.00	90.45	90.06	7,099.13	-636.48	4,593.60	1,432,044.999	3,229,353.856	40.516436	-104.675069	
13,300.00	90.45	90.06	7,098.35	-636.59	4,693.59	1,432,044.886	3,229,453.853	40.516433	-104.674710	
13,400.00	90.45	90.06	7,097.57	-636.71	4,793.59	1,432,044.773	3,229,553.850	40.516430	-104.674350	
13,500.00	90.45	90.06	7,096.78	-636.82	4,893.59	1,432,044.660	3,229,653.847	40.516427	-104.673991	
13,600.00	90.45	90.06	7,096.00	-636.93	4,993.58	1,432,044.547	3,229,753.843	40.516424	-104.673631	
13,700.00	90.45	90.06	7,095.22	-637.05	5,093.58	1,432,044.434	3,229,853.840	40.516422	-104.673271	
13,800.00	90.45	90.06	7,094.43	-637.16	5,193.58	1,432,044.322	3,229,953.837	40.516419	-104.672912	
13,900.00	90.45	90.06	7,093.65	-637.27	5,293.57	1,432,044.209	3,230,053.834	40.516416	-104.672552	
14,000.00	90.45	90.06	7,092.87	-637.38	5,393.57	1,432,044.096	3,230,153.831	40.516413	-104.672192	
14,100.00	90.45	90.06	7,092.08	-637.50	5,493.57	1,432,043.983	3,230,253.828	40.516410	-104.671833	
14,200.00	90.45	90.06	7,091.30	-637.61	5,593.57	1,432,043.870	3,230,353.825	40.516407	-104.671473	
14,300.00	90.45	90.06	7,090.52	-637.72	5,693.56	1,432,043.757	3,230,453.821	40.516404	-104.671113	
14,400.00	90.45	90.06	7,089.74	-637.84	5,793.56	1,432,043.644	3,230,553.818	40.516401	-104.670754	
14,500.00	90.45	90.06	7,088.95	-637.95	5,893.56	1,432,043.531	3,230,653.815	40.516399	-104.670394	
14,600.00	90.45	90.06	7,088.17	-638.06	5,993.55	1,432,043.418	3,230,753.812	40.516396	-104.670035	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well REEMAN-4X-HNC-04-06-65
Company:	Nickel Road Operating	TVD Reference:	WELL @ 4843.00usft (Original Well Elev)
Project:	Sec. 5-T6N-R65W	MD Reference:	WELL @ 4843.00usft (Original Well Elev)
Site:	REEMAN PAD	North Reference:	Grid
Well:	REEMAN-4X-HNC-04-06-65	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
14,621.48	90.45	90.06	7,088.00	-638.09	6,015.03	1,432,043.394	3,230,775.288	40.516395	-104.669957
TD at 14621.48 - BHL REEMAN-4X-HNC-04-06-65 2655 FNL 2195 FWL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL REEMAN-4X-HNC- - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	1,432,681.480	3,224,760.260	40.518299	-104.691570
BHL REEMAN-4X-HNC- - plan hits target center - Point	0.00	0.00	7,088.00	-638.09	6,015.03	1,432,043.394	3,230,775.288	40.516395	-104.669957
AP REEMAN-4X-HNC-0 - plan misses target center by 0.10usft at 12494.01usft MD (7104.56 TVD, -633.16 N, 3887.67 E) - Point	0.00	0.00	7,104.66	-633.13	3,887.67	1,432,048.346	3,228,647.927	40.516463	-104.677608
LPL REEMAN-4X-HNC- - plan misses target center by 11.70usft at 7600.00usft MD (7131.50 TVD, -420.22 N, -1000.88 E) - Point	0.00	0.00	7,143.00	-421.16	-1,002.82	1,432,260.321	3,223,757.445	40.517168	-104.695190

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
1,500.00	1,500.00	0.00	0.00	Surf Csg	
1,600.00	1,600.00	0.00	0.00	Start Build 2.00	
2,540.16	2,523.38	-34.67	-148.91	Hold 18.80 Inc, 256.89 Az	
6,629.37	6,394.35	-333.51	-1,432.61	KOP 10°/100	
7,714.72	7,142.00	-426.20	-887.00	LP 90.45 Inc, 92.48 Az	
12,494.01	7,104.67	-633.13	3,887.67	2/100 Turn	
12,614.87	7,103.72	-635.82	4,008.48	Hold 90.45 Inc, 90.06 Az	
14,621.48	7,088.00	-638.09	6,015.03	TD at 14621.48	