

Well Name:
BLEHM-8X-HNB-10-07-67

Project Name:
Sec. 9-T7N-R67W

Pad Name:
BLEHM Pad

ANNOTATIONS

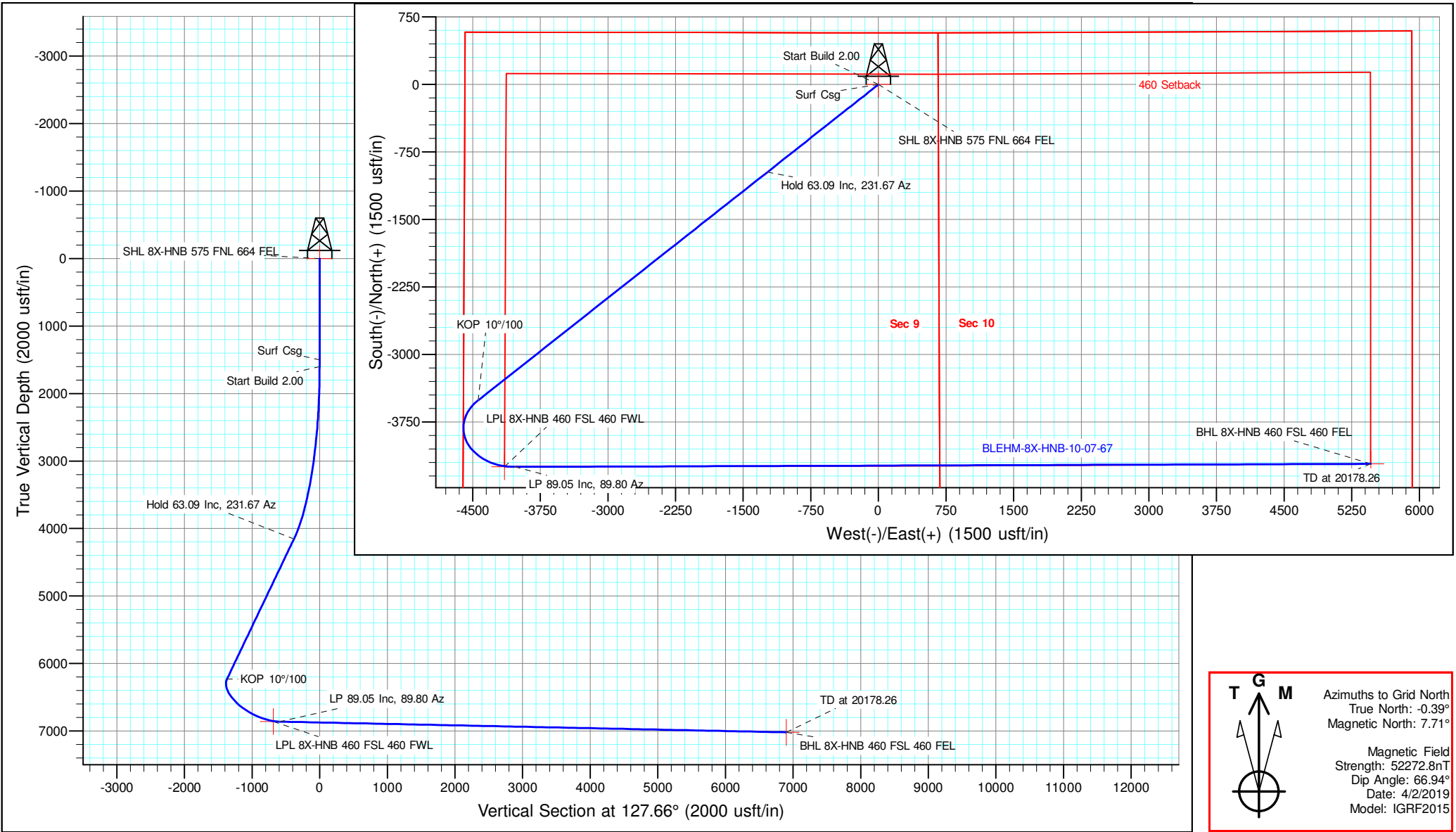
MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	Surf Csg
1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	Start Build 2.00
4754.42	63.09	231.67	4154.55	-972.49	-1230.18	-379.70	1568.14	Hold 63.09 Inc, 231.67 Az
9341.20	63.09	231.67	6230.59	-3508.97	-4438.74	-1370.05	5658.20	KOP 10°/100
10680.54	89.05	89.80	6863.00	-4249.47	-4034.00	-597.21	6809.95	LP 89.05 Inc, 89.80 Az
20178.26	89.05	89.80	7021.13	-4216.06	5461.34	6899.38	16305.35	TD at 20178.26

Geodetic Datum:
North American Datum 1983
US State Plane 1983, Colorado Northern Zone

Elevation:
Ground Elevation: 5088.00
KB Elevation: KB @ 5115.00usft

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SHL 8X-HNB 575 FNL 664 FEL	0.00	0.00	0.00	1459954.370	3169119.316	40.594379	-104.891021	Point
LPL 8X-HNB 460 FSL 460 FWL	6861.00	-4249.47	-4145.36	1455704.898	3164973.955	40.582792	-104.906050	Point
BHL 8X-HNB 460 FSL 460 FEL	7021.00	-4215.67	5462.34	1455738.702	3174581.654	40.582703	-104.871460	Point



T G M

Azimuths to Grid North
True North: -0.39°
Magnetic North: 7.71°

Magnetic Field
Strength: 52272.8nT
Dip Angle: 66.94°
Date: 4/2/2019
Model: IGRF2015

NICKEL ROAD

O P E R A T I N G

Nickel Road Operating

Sec. 9-T7N-R67W

BLEHM Pad

BLEHM-8X-HNB-10-07-67

Wellbore #1

Plan: Plan #2

Standard Planning Report - Geographic

20 July, 2020

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-8X-HNB-10-07-67
Company:	Nickel Road Operating	TVD Reference:	KB @ 5115.00usft
Project:	Sec. 9-T7N-R67W	MD Reference:	KB @ 5115.00usft
Site:	BLEHM Pad	North Reference:	Grid
Well:	BLEHM-8X-HNB-10-07-67	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Project	Sec. 9-T7N-R67W, 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	BLEHM Pad				
Site Position:		Northing:	1,458,460.000 usft	Latitude:	40.590318
From:	Lat/Long	Easting:	3,166,936.305 usft	Longitude:	-104.898918
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.39 °

Well	BLEHM-8X-HNB-10-07-67					
Well Position	+N/-S	0.00 usft	Northing:	1,459,954.370 usft	Latitude:	40.594379
	+E/-W	0.00 usft	Easting:	3,169,119.316 usft	Longitude:	-104.891021
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	5,088.00 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	4/2/2019	8.10	66.94	52,272.78160908

Design	Plan #2			
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	127.66

Plan Survey Tool Program	Date	7/20/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	20,177.38 Plan #2 (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	
4,754.42	63.09	231.67	4,154.55	-972.49	-1,230.18	2.00	2.00	0.00	231.67	
9,341.20	63.09	231.67	6,230.59	-3,508.97	-4,438.74	0.00	0.00	0.00	0.00	
10,680.54	89.05	89.80	6,863.00	-4,249.47	-4,034.00	10.00	1.94	-10.59	-121.00	
20,178.26	89.05	89.80	7,021.00	-4,215.67	5,462.34	0.00	0.00	0.00	0.00	BHL 8X-HNB 460 FSI

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-8X-HNB-10-07-67
Company:	Nickel Road Operating	TVD Reference:	KB @ 5115.00usft
Project:	Sec. 9-T7N-R67W	MD Reference:	KB @ 5115.00usft
Site:	BLEHM Pad	North Reference:	Grid
Well:	BLEHM-8X-HNB-10-07-67	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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	1,459,954.370	3,169,119.316	40.594379	-104.891021
SHL 8X-HNB 575 FNL 664 FEL									
100.00	0.00	0.00	100.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
200.00	0.00	0.00	200.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
300.00	0.00	0.00	300.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
400.00	0.00	0.00	400.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
500.00	0.00	0.00	500.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
600.00	0.00	0.00	600.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
700.00	0.00	0.00	700.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
800.00	0.00	0.00	800.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
900.00	0.00	0.00	900.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
1,000.00	0.00	0.00	1,000.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
1,100.00	0.00	0.00	1,100.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
1,200.00	0.00	0.00	1,200.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
1,300.00	0.00	0.00	1,300.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
1,400.00	0.00	0.00	1,400.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
1,500.00	0.00	0.00	1,500.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
Surf Csg									
1,600.00	0.00	0.00	1,600.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
Start Build 2.00									
1,700.00	2.00	231.67	1,699.98	-1.08	-1.37	1,459,953.287	3,169,117.947	40.594376	-104.891026
1,800.00	4.00	231.67	1,799.84	-4.33	-5.47	1,459,950.042	3,169,113.842	40.594367	-104.891041
1,900.00	6.00	231.67	1,899.45	-9.73	-12.31	1,459,944.637	3,169,107.005	40.594352	-104.891066
2,000.00	8.00	231.67	1,998.70	-17.29	-21.87	1,459,937.080	3,169,097.445	40.594332	-104.891100
2,100.00	10.00	231.67	2,097.47	-26.99	-34.14	1,459,927.379	3,169,085.174	40.594305	-104.891145
2,200.00	12.00	231.67	2,195.62	-38.82	-49.11	1,459,915.546	3,169,070.206	40.594273	-104.891199
2,300.00	14.00	231.67	2,293.06	-52.77	-66.76	1,459,901.597	3,169,052.560	40.594235	-104.891263
2,400.00	16.00	231.67	2,389.64	-68.82	-87.06	1,459,885.547	3,169,032.257	40.594192	-104.891336
2,500.00	18.00	231.67	2,485.27	-86.95	-109.99	1,459,867.416	3,169,009.322	40.594142	-104.891419
2,600.00	20.00	231.67	2,579.82	-107.14	-135.53	1,459,847.227	3,168,983.783	40.594087	-104.891512
2,700.00	22.00	231.67	2,673.17	-129.37	-163.64	1,459,825.004	3,168,955.671	40.594027	-104.891614
2,800.00	24.00	231.67	2,765.21	-153.60	-194.30	1,459,800.773	3,168,925.021	40.593961	-104.891725
2,900.00	26.00	231.67	2,855.84	-179.80	-227.45	1,459,774.566	3,168,891.869	40.593890	-104.891845
3,000.00	28.00	231.67	2,944.94	-207.96	-263.06	1,459,746.413	3,168,856.256	40.593813	-104.891974
3,100.00	30.00	231.67	3,032.39	-238.02	-301.09	1,459,716.349	3,168,818.226	40.593731	-104.892111
3,200.00	32.00	231.67	3,118.11	-269.96	-341.49	1,459,684.410	3,168,777.824	40.593644	-104.892258
3,300.00	34.00	231.67	3,201.97	-303.73	-384.22	1,459,650.635	3,168,735.101	40.593552	-104.892412
3,400.00	36.00	231.67	3,283.88	-339.30	-429.21	1,459,615.067	3,168,690.107	40.593456	-104.892575
3,500.00	38.00	231.67	3,363.74	-376.62	-476.42	1,459,577.747	3,168,642.899	40.593354	-104.892746
3,600.00	40.00	231.67	3,441.45	-415.65	-525.78	1,459,538.721	3,168,593.532	40.593248	-104.892925
3,700.00	42.00	231.67	3,516.92	-456.33	-577.25	1,459,498.037	3,168,542.067	40.593137	-104.893111
3,800.00	44.00	231.67	3,590.05	-498.62	-630.75	1,459,455.745	3,168,488.569	40.593022	-104.893305
3,900.00	46.00	231.67	3,660.76	-542.47	-686.21	1,459,411.895	3,168,433.100	40.592903	-104.893506
4,000.00	48.00	231.67	3,728.95	-587.83	-743.58	1,459,366.542	3,168,375.730	40.592779	-104.893713
4,100.00	50.00	231.67	3,794.56	-634.63	-802.79	1,459,319.741	3,168,316.528	40.592652	-104.893928
4,200.00	52.00	231.67	3,857.48	-682.82	-863.75	1,459,271.548	3,168,255.566	40.592521	-104.894148
4,300.00	54.00	231.67	3,917.66	-732.35	-926.40	1,459,222.023	3,168,192.917	40.592386	-104.894375
4,400.00	56.00	231.67	3,975.02	-783.14	-990.66	1,459,171.226	3,168,128.660	40.592248	-104.894608
4,500.00	58.00	231.67	4,029.48	-835.15	-1,056.44	1,459,119.218	3,168,062.871	40.592106	-104.894846
4,600.00	60.00	231.67	4,080.98	-888.31	-1,123.68	1,459,066.063	3,167,995.632	40.591962	-104.895089
4,700.00	62.00	231.67	4,129.46	-942.54	-1,192.29	1,459,011.825	3,167,927.023	40.591814	-104.895338
4,754.42	63.09	231.67	4,154.55	-972.49	-1,230.18	1,458,981.877	3,167,889.139	40.591733	-104.895475
Hold 63.09 Inc, 231.67 Az									
4,800.00	63.09	231.67	4,175.18	-997.70	-1,262.06	1,458,956.673	3,167,857.256	40.591664	-104.895590

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-8X-HNB-10-07-67
Company:	Nickel Road Operating	TVD Reference:	KB @ 5115.00usft
Project:	Sec. 9-T7N-R67W	MD Reference:	KB @ 5115.00usft
Site:	BLEHM Pad	North Reference:	Grid
Well:	BLEHM-8X-HNB-10-07-67	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

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	63.09	231.67	4,220.44	-1,053.00	-1,332.01	1,458,901.373	3,167,787.304	40.591514	-104.895843	
5,000.00	63.09	231.67	4,265.70	-1,108.30	-1,401.96	1,458,846.073	3,167,717.352	40.591363	-104.896097	
5,100.00	63.09	231.67	4,310.96	-1,163.60	-1,471.92	1,458,790.774	3,167,647.399	40.591213	-104.896350	
5,200.00	63.09	231.67	4,356.23	-1,218.90	-1,541.87	1,458,735.474	3,167,577.447	40.591062	-104.896603	
5,300.00	63.09	231.67	4,401.49	-1,274.20	-1,611.82	1,458,680.174	3,167,507.494	40.590912	-104.896856	
5,400.00	63.09	231.67	4,446.75	-1,329.50	-1,681.77	1,458,624.875	3,167,437.542	40.590761	-104.897109	
5,500.00	63.09	231.67	4,492.01	-1,384.79	-1,751.73	1,458,569.575	3,167,367.589	40.590611	-104.897363	
5,600.00	63.09	231.67	4,537.27	-1,440.09	-1,821.68	1,458,514.275	3,167,297.637	40.590460	-104.897616	
5,700.00	63.09	231.67	4,582.53	-1,495.39	-1,891.63	1,458,458.976	3,167,227.684	40.590310	-104.897869	
5,800.00	63.09	231.67	4,627.79	-1,550.69	-1,961.58	1,458,403.676	3,167,157.732	40.590159	-104.898122	
5,900.00	63.09	231.67	4,673.06	-1,605.99	-2,031.54	1,458,348.376	3,167,087.779	40.590009	-104.898376	
6,000.00	63.09	231.67	4,718.32	-1,661.29	-2,101.49	1,458,293.077	3,167,017.827	40.589858	-104.898629	
6,100.00	63.09	231.67	4,763.58	-1,716.59	-2,171.44	1,458,237.777	3,166,947.874	40.589708	-104.898882	
6,200.00	63.09	231.67	4,808.84	-1,771.89	-2,241.39	1,458,182.478	3,166,877.922	40.589557	-104.899135	
6,300.00	63.09	231.67	4,854.10	-1,827.19	-2,311.35	1,458,127.178	3,166,807.969	40.589407	-104.899388	
6,400.00	63.09	231.67	4,899.36	-1,882.49	-2,381.30	1,458,071.878	3,166,738.017	40.589256	-104.899642	
6,500.00	63.09	231.67	4,944.62	-1,937.79	-2,451.25	1,458,016.579	3,166,668.064	40.589106	-104.899895	
6,600.00	63.09	231.67	4,989.89	-1,993.09	-2,521.20	1,457,961.279	3,166,598.112	40.588955	-104.900148	
6,700.00	63.09	231.67	5,035.15	-2,048.39	-2,591.16	1,457,905.979	3,166,528.159	40.588805	-104.900401	
6,800.00	63.09	231.67	5,080.41	-2,103.69	-2,661.11	1,457,850.680	3,166,458.207	40.588654	-104.900655	
6,900.00	63.09	231.67	5,125.67	-2,158.99	-2,731.06	1,457,795.380	3,166,388.254	40.588504	-104.900908	
7,000.00	63.09	231.67	5,170.93	-2,214.29	-2,801.01	1,457,740.080	3,166,318.302	40.588353	-104.901161	
7,100.00	63.09	231.67	5,216.19	-2,269.59	-2,870.97	1,457,684.781	3,166,248.349	40.588203	-104.901414	
7,200.00	63.09	231.67	5,261.45	-2,324.89	-2,940.92	1,457,629.481	3,166,178.397	40.588052	-104.901667	
7,300.00	63.09	231.67	5,306.72	-2,380.19	-3,010.87	1,457,574.181	3,166,108.444	40.587902	-104.901921	
7,400.00	63.09	231.67	5,351.98	-2,435.49	-3,080.82	1,457,518.882	3,166,038.492	40.587752	-104.902174	
7,500.00	63.09	231.67	5,397.24	-2,490.79	-3,150.78	1,457,463.582	3,165,968.540	40.587601	-104.902427	
7,600.00	63.09	231.67	5,442.50	-2,546.09	-3,220.73	1,457,408.283	3,165,898.587	40.587451	-104.902680	
7,700.00	63.09	231.67	5,487.76	-2,601.39	-3,290.68	1,457,352.983	3,165,828.635	40.587300	-104.902933	
7,800.00	63.09	231.67	5,533.02	-2,656.69	-3,360.63	1,457,297.683	3,165,758.682	40.587150	-104.903187	
7,900.00	63.09	231.67	5,578.28	-2,711.99	-3,430.59	1,457,242.384	3,165,688.730	40.586999	-104.903440	
8,000.00	63.09	231.67	5,623.55	-2,767.29	-3,500.54	1,457,187.084	3,165,618.777	40.586849	-104.903693	
8,100.00	63.09	231.67	5,668.81	-2,822.59	-3,570.49	1,457,131.784	3,165,548.825	40.586698	-104.903946	
8,200.00	63.09	231.67	5,714.07	-2,877.89	-3,640.44	1,457,076.485	3,165,478.872	40.586548	-104.904199	
8,300.00	63.09	231.67	5,759.33	-2,933.18	-3,710.40	1,457,021.185	3,165,408.920	40.586397	-104.904452	
8,400.00	63.09	231.67	5,804.59	-2,988.48	-3,780.35	1,456,965.885	3,165,338.967	40.586247	-104.904706	
8,500.00	63.09	231.67	5,849.85	-3,043.78	-3,850.30	1,456,910.586	3,165,269.015	40.586096	-104.904959	
8,600.00	63.09	231.67	5,895.11	-3,099.08	-3,920.25	1,456,855.286	3,165,199.062	40.585946	-104.905212	
8,700.00	63.09	231.67	5,940.38	-3,154.38	-3,990.21	1,456,799.987	3,165,129.110	40.585795	-104.905465	
8,800.00	63.09	231.67	5,985.64	-3,209.68	-4,060.16	1,456,744.687	3,165,059.157	40.585645	-104.905718	
8,900.00	63.09	231.67	6,030.90	-3,264.98	-4,130.11	1,456,689.387	3,164,989.205	40.585494	-104.905972	
9,000.00	63.09	231.67	6,076.16	-3,320.28	-4,200.06	1,456,634.088	3,164,919.252	40.585344	-104.906225	
9,100.00	63.09	231.67	6,121.42	-3,375.58	-4,270.02	1,456,578.788	3,164,849.300	40.585193	-104.906478	
9,200.00	63.09	231.67	6,166.68	-3,430.88	-4,339.97	1,456,523.488	3,164,779.347	40.585043	-104.906731	
9,300.00	63.09	231.67	6,211.95	-3,486.18	-4,409.92	1,456,468.189	3,164,709.395	40.584892	-104.906984	
9,341.20	63.09	231.67	6,230.59	-3,508.97	-4,438.74	1,456,445.405	3,164,680.574	40.584830	-104.907089	
KOP 10°/100										
9,400.00	60.18	225.86	6,258.54	-3,543.02	-4,477.65	1,456,411.355	3,164,641.668	40.584737	-104.907230	
9,500.00	55.88	215.21	6,311.59	-3,607.20	-4,532.79	1,456,347.166	3,164,586.529	40.584562	-104.907430	
9,600.00	52.58	203.57	6,370.17	-3,677.60	-4,572.63	1,456,276.772	3,164,546.684	40.584370	-104.907575	
9,700.00	50.52	191.06	6,432.51	-3,752.06	-4,595.97	1,456,202.311	3,164,523.346	40.584166	-104.907661	
9,800.00	49.85	178.06	6,496.70	-3,828.32	-4,602.09	1,456,126.047	3,164,517.223	40.583956	-104.907684	
9,900.00	50.65	165.08	6,560.80	-3,904.08	-4,590.81	1,456,050.295	3,164,528.502	40.583748	-104.907646	
10,000.00	52.84	152.64	6,622.87	-3,977.01	-4,562.48	1,455,977.358	3,164,556.838	40.583548	-104.907545	

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-8X-HNB-10-07-67
Company:	Nickel Road Operating	TVD Reference:	KB @ 5115.00usft
Project:	Sec. 9-T7N-R67W	MD Reference:	KB @ 5115.00usft
Site:	BLEHM Pad	North Reference:	Grid
Well:	BLEHM-8X-HNB-10-07-67	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,100.00	56.24	141.09	6,681.01	-4,044.92	-4,517.94	1,455,909.452	3,164,601.373	40.583360	-104.907387
10,200.00	60.62	130.53	6,733.45	-4,105.73	-4,458.56	1,455,848.640	3,164,660.752	40.583192	-104.907174
10,300.00	65.77	120.91	6,778.62	-4,157.60	-4,386.14	1,455,796.770	3,164,733.171	40.583049	-104.906915
10,400.00	71.47	112.08	6,815.12	-4,198.95	-4,302.89	1,455,755.418	3,164,816.429	40.582934	-104.906616
10,500.00	77.55	103.84	6,841.86	-4,228.53	-4,211.32	1,455,725.841	3,164,907.998	40.582851	-104.906287
10,570.85	82.01	98.25	6,854.44	-4,241.85	-4,142.92	1,455,712.517	3,164,976.396	40.582813	-104.906041
LPL 8X-HNB 460 FSL 460 FWL									
10,600.00	83.87	95.98	6,858.02	-4,245.43	-4,114.22	1,455,708.937	3,165,005.095	40.582803	-104.905938
10,680.54	89.05	89.80	6,863.00	-4,249.47	-4,034.00	1,455,704.898	3,165,085.315	40.582790	-104.905649
LP 89.05 Inc, 89.80 Az									
10,700.00	89.05	89.80	6,863.32	-4,249.40	-4,014.55	1,455,704.967	3,165,104.770	40.582790	-104.905579
10,800.00	89.05	89.80	6,864.99	-4,249.05	-3,914.56	1,455,705.319	3,165,204.755	40.582789	-104.905219
10,900.00	89.05	89.80	6,866.65	-4,248.70	-3,814.57	1,455,705.670	3,165,304.741	40.582788	-104.904859
11,000.00	89.05	89.80	6,868.32	-4,248.35	-3,714.59	1,455,706.022	3,165,404.726	40.582787	-104.904499
11,100.00	89.05	89.80	6,869.98	-4,248.00	-3,614.60	1,455,706.374	3,165,504.712	40.582786	-104.904139
11,200.00	89.05	89.80	6,871.65	-4,247.64	-3,514.62	1,455,706.726	3,165,604.697	40.582785	-104.903779
11,300.00	89.05	89.80	6,873.31	-4,247.29	-3,414.63	1,455,707.077	3,165,704.683	40.582785	-104.903419
11,400.00	89.05	89.80	6,874.98	-4,246.94	-3,314.65	1,455,707.429	3,165,804.668	40.582784	-104.903060
11,500.00	89.05	89.80	6,876.64	-4,246.59	-3,214.66	1,455,707.781	3,165,904.654	40.582783	-104.902700
11,600.00	89.05	89.80	6,878.31	-4,246.24	-3,114.68	1,455,708.133	3,166,004.639	40.582782	-104.902340
11,700.00	89.05	89.80	6,879.98	-4,245.89	-3,014.69	1,455,708.485	3,166,104.625	40.582781	-104.901980
11,800.00	89.05	89.80	6,881.64	-4,245.53	-2,914.70	1,455,708.836	3,166,204.610	40.582780	-104.901620
11,900.00	89.05	89.80	6,883.31	-4,245.18	-2,814.72	1,455,709.188	3,166,304.596	40.582779	-104.901260
12,000.00	89.05	89.80	6,884.97	-4,244.83	-2,714.73	1,455,709.540	3,166,404.581	40.582778	-104.900900
12,100.00	89.05	89.80	6,886.64	-4,244.48	-2,614.75	1,455,709.892	3,166,504.567	40.582778	-104.900540
12,200.00	89.05	89.80	6,888.30	-4,244.13	-2,514.76	1,455,710.244	3,166,604.552	40.582777	-104.900180
12,300.00	89.05	89.80	6,889.97	-4,243.77	-2,414.78	1,455,710.595	3,166,704.538	40.582776	-104.899820
12,400.00	89.05	89.80	6,891.63	-4,243.42	-2,314.79	1,455,710.947	3,166,804.523	40.582775	-104.899460
12,500.00	89.05	89.80	6,893.30	-4,243.07	-2,214.81	1,455,711.299	3,166,904.509	40.582774	-104.899100
12,600.00	89.05	89.80	6,894.96	-4,242.72	-2,114.82	1,455,711.651	3,167,004.494	40.582773	-104.898740
12,700.00	89.05	89.80	6,896.63	-4,242.37	-2,014.84	1,455,712.002	3,167,104.480	40.582772	-104.898380
12,800.00	89.05	89.80	6,898.29	-4,242.02	-1,914.85	1,455,712.354	3,167,204.465	40.582771	-104.898020
12,900.00	89.05	89.80	6,899.96	-4,241.66	-1,814.86	1,455,712.706	3,167,304.451	40.582770	-104.897660
13,000.00	89.05	89.80	6,901.62	-4,241.31	-1,714.88	1,455,713.058	3,167,404.436	40.582769	-104.897300
13,100.00	89.05	89.80	6,903.29	-4,240.96	-1,614.89	1,455,713.410	3,167,504.422	40.582769	-104.896940
13,200.00	89.05	89.80	6,904.95	-4,240.61	-1,514.91	1,455,713.761	3,167,604.407	40.582768	-104.896580
13,300.00	89.05	89.80	6,906.62	-4,240.26	-1,414.92	1,455,714.113	3,167,704.393	40.582767	-104.896220
13,400.00	89.05	89.80	6,908.28	-4,239.91	-1,314.94	1,455,714.465	3,167,804.378	40.582766	-104.895860
13,500.00	89.05	89.80	6,909.95	-4,239.55	-1,214.95	1,455,714.817	3,167,904.364	40.582765	-104.895500
13,600.00	89.05	89.80	6,911.61	-4,239.20	-1,114.97	1,455,715.168	3,168,004.350	40.582764	-104.895140
13,700.00	89.05	89.80	6,913.28	-4,238.85	-1,014.98	1,455,715.520	3,168,104.335	40.582763	-104.894780
13,800.00	89.05	89.80	6,914.94	-4,238.50	-914.99	1,455,715.872	3,168,204.321	40.582762	-104.894420
13,900.00	89.05	89.80	6,916.61	-4,238.15	-815.01	1,455,716.224	3,168,304.306	40.582761	-104.894060
14,000.00	89.05	89.80	6,918.27	-4,237.79	-715.02	1,455,716.576	3,168,404.292	40.582760	-104.893700
14,100.00	89.05	89.80	6,919.94	-4,237.44	-615.04	1,455,716.927	3,168,504.277	40.582759	-104.893340
14,200.00	89.05	89.80	6,921.60	-4,237.09	-515.05	1,455,717.279	3,168,604.264	40.582759	-104.892980
14,300.00	89.05	89.80	6,923.27	-4,236.74	-415.07	1,455,717.631	3,168,704.249	40.582758	-104.892620
14,400.00	89.05	89.80	6,924.93	-4,236.39	-315.08	1,455,717.983	3,168,804.235	40.582757	-104.892260
14,500.00	89.05	89.80	6,926.60	-4,236.04	-215.10	1,455,718.335	3,168,904.220	40.582756	-104.891900
14,600.00	89.05	89.80	6,928.26	-4,235.68	-115.11	1,455,718.686	3,169,004.206	40.582755	-104.891540
14,700.00	89.05	89.80	6,929.93	-4,235.33	-15.12	1,455,719.038	3,169,104.191	40.582754	-104.891180
14,800.00	89.05	89.80	6,931.59	-4,234.98	84.86	1,455,719.390	3,169,204.177	40.582753	-104.890820
14,900.00	89.05	89.80	6,933.26	-4,234.63	184.85	1,455,719.742	3,169,304.162	40.582752	-104.890460
15,000.00	89.05	89.80	6,934.92	-4,234.28	284.83	1,455,720.093	3,169,404.148	40.582751	-104.890101

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-8X-HNB-10-07-67
Company:	Nickel Road Operating	TVD Reference:	KB @ 5115.00usft
Project:	Sec. 9-T7N-R67W	MD Reference:	KB @ 5115.00usft
Site:	BLEHM Pad	North Reference:	Grid
Well:	BLEHM-8X-HNB-10-07-67	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,100.00	89.05	89.80	6,936.59	-4,233.92	384.82	1,455,720.445	3,169,504.133	40.582750	-104.889741
15,200.00	89.05	89.80	6,938.25	-4,233.57	484.80	1,455,720.797	3,169,604.119	40.582749	-104.889381
15,300.00	89.05	89.80	6,939.92	-4,232.22	584.79	1,455,721.149	3,169,704.104	40.582748	-104.889021
15,400.00	89.05	89.80	6,941.58	-4,232.87	684.77	1,455,721.501	3,169,804.090	40.582748	-104.888661
15,500.00	89.05	89.80	6,943.25	-4,232.52	784.76	1,455,721.852	3,169,904.075	40.582747	-104.888301
15,600.00	89.05	89.80	6,944.91	-4,232.17	884.74	1,455,722.204	3,170,004.061	40.582746	-104.887941
15,700.00	89.05	89.80	6,946.58	-4,231.81	984.73	1,455,722.556	3,170,104.046	40.582745	-104.887581
15,800.00	89.05	89.80	6,948.24	-4,231.46	1,084.72	1,455,722.908	3,170,204.032	40.582744	-104.887221
15,900.00	89.05	89.80	6,949.91	-4,231.11	1,184.70	1,455,723.260	3,170,304.017	40.582743	-104.886861
16,000.00	89.05	89.80	6,951.57	-4,230.76	1,284.69	1,455,723.611	3,170,404.003	40.582742	-104.886501
16,100.00	89.05	89.80	6,953.24	-4,230.41	1,384.67	1,455,723.963	3,170,503.988	40.582741	-104.886141
16,200.00	89.05	89.80	6,954.90	-4,230.06	1,484.66	1,455,724.315	3,170,603.974	40.582740	-104.885781
16,300.00	89.05	89.80	6,956.57	-4,229.70	1,584.64	1,455,724.667	3,170,703.959	40.582739	-104.885421
16,400.00	89.05	89.80	6,958.23	-4,229.35	1,684.63	1,455,725.018	3,170,803.945	40.582738	-104.885061
16,500.00	89.05	89.80	6,959.90	-4,229.00	1,784.61	1,455,725.370	3,170,903.930	40.582737	-104.884701
16,600.00	89.05	89.80	6,961.56	-4,228.65	1,884.60	1,455,725.722	3,171,003.916	40.582736	-104.884341
16,700.00	89.05	89.80	6,963.23	-4,228.30	1,984.59	1,455,726.074	3,171,103.901	40.582735	-104.883981
16,800.00	89.05	89.80	6,964.89	-4,227.94	2,084.57	1,455,726.426	3,171,203.887	40.582734	-104.883621
16,900.00	89.05	89.80	6,966.56	-4,227.59	2,184.56	1,455,726.777	3,171,303.872	40.582734	-104.883261
17,000.00	89.05	89.80	6,968.22	-4,227.24	2,284.54	1,455,727.129	3,171,403.858	40.582733	-104.882901
17,100.00	89.05	89.80	6,969.89	-4,226.89	2,384.53	1,455,727.481	3,171,503.843	40.582732	-104.882541
17,200.00	89.05	89.80	6,971.55	-4,226.54	2,484.51	1,455,727.833	3,171,603.829	40.582731	-104.882181
17,300.00	89.05	89.80	6,973.22	-4,226.19	2,584.50	1,455,728.185	3,171,703.814	40.582730	-104.881821
17,400.00	89.05	89.80	6,974.89	-4,225.83	2,684.48	1,455,728.536	3,171,803.800	40.582729	-104.881461
17,500.00	89.05	89.80	6,976.55	-4,225.48	2,784.47	1,455,728.888	3,171,903.786	40.582728	-104.881101
17,600.00	89.05	89.80	6,978.22	-4,225.13	2,884.46	1,455,729.240	3,172,003.771	40.582727	-104.880741
17,700.00	89.05	89.80	6,979.88	-4,224.78	2,984.44	1,455,729.592	3,172,103.757	40.582726	-104.880381
17,800.00	89.05	89.80	6,981.55	-4,224.43	3,084.43	1,455,729.943	3,172,203.742	40.582725	-104.880021
17,900.00	89.05	89.80	6,983.21	-4,224.07	3,184.41	1,455,730.295	3,172,303.728	40.582724	-104.879661
18,000.00	89.05	89.80	6,984.88	-4,223.72	3,284.40	1,455,730.647	3,172,403.713	40.582723	-104.879301
18,100.00	89.05	89.80	6,986.54	-4,223.37	3,384.38	1,455,730.999	3,172,503.699	40.582722	-104.878941
18,200.00	89.05	89.80	6,988.21	-4,223.02	3,484.37	1,455,731.351	3,172,603.684	40.582721	-104.878581
18,300.00	89.05	89.80	6,989.87	-4,222.67	3,584.35	1,455,731.702	3,172,703.670	40.582720	-104.878221
18,400.00	89.05	89.80	6,991.54	-4,222.32	3,684.34	1,455,732.054	3,172,803.655	40.582719	-104.877861
18,500.00	89.05	89.80	6,993.20	-4,221.96	3,784.32	1,455,732.406	3,172,903.641	40.582718	-104.877502
18,600.00	89.05	89.80	6,994.87	-4,221.61	3,884.31	1,455,732.758	3,173,003.626	40.582717	-104.877142
18,700.00	89.05	89.80	6,996.53	-4,221.26	3,984.30	1,455,733.109	3,173,103.612	40.582716	-104.876782
18,800.00	89.05	89.80	6,998.20	-4,220.91	4,084.28	1,455,733.461	3,173,203.597	40.582715	-104.876422
18,900.00	89.05	89.80	6,999.86	-4,220.56	4,184.27	1,455,733.813	3,173,303.583	40.582714	-104.876062
19,000.00	89.05	89.80	7,001.53	-4,220.21	4,284.25	1,455,734.165	3,173,403.568	40.582713	-104.875702
19,100.00	89.05	89.80	7,003.19	-4,219.85	4,384.24	1,455,734.517	3,173,503.554	40.582712	-104.875342
19,200.00	89.05	89.80	7,004.86	-4,219.50	4,484.22	1,455,734.868	3,173,603.539	40.582712	-104.874982
19,300.00	89.05	89.80	7,006.52	-4,219.15	4,584.21	1,455,735.220	3,173,703.525	40.582711	-104.874622
19,400.00	89.05	89.80	7,008.19	-4,218.80	4,684.19	1,455,735.572	3,173,803.510	40.582710	-104.874262
19,500.00	89.05	89.80	7,009.85	-4,218.45	4,784.18	1,455,735.924	3,173,903.496	40.582709	-104.873902
19,600.00	89.05	89.80	7,011.52	-4,218.09	4,884.17	1,455,736.276	3,174,003.481	40.582708	-104.873542
19,700.00	89.05	89.80	7,013.18	-4,217.74	4,984.15	1,455,736.627	3,174,103.467	40.582707	-104.873182
19,800.00	89.05	89.80	7,014.85	-4,217.39	5,084.14	1,455,736.979	3,174,203.452	40.582706	-104.872822
19,900.00	89.05	89.80	7,016.51	-4,217.04	5,184.12	1,455,737.331	3,174,303.438	40.582705	-104.872462
20,000.00	89.05	89.80	7,018.18	-4,216.69	5,284.11	1,455,737.683	3,174,403.423	40.582704	-104.872102
20,100.00	89.05	89.80	7,019.84	-4,216.34	5,384.09	1,455,738.034	3,174,503.409	40.582703	-104.871742
20,178.26	89.05	89.80	7,021.00	-4,215.67	5,462.34	1,455,738.702	3,174,581.654	40.582703	-104.871460
TD at 20178.26 - BHL 8X-HNB 460 FSL 460 FEL									

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-8X-HNB-10-07-67
Company:	Nickel Road Operating	TVD Reference:	KB @ 5115.00usft
Project:	Sec. 9-T7N-R67W	MD Reference:	KB @ 5115.00usft
Site:	BLEHM Pad	North Reference:	Grid
Well:	BLEHM-8X-HNB-10-07-67	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
SHL 8X-HNB 575 FNL 6	0.00	0.00	0.00	0.00	0.00	1,459,954.370	3,169,119.316	40.594379	-104.891021
- plan hits target center									
- Point									
LPL 8X-HNB 460 FSL 46	0.00	0.01	6,861.00	-4,249.47	-4,145.36	1,455,704.898	3,164,973.955	40.582792	-104.906050
- plan misses target center by 10.35usft at 10570.85usft MD (6854.44 TVD, -4241.85 N, -4142.92 E)									
- Point									
BHL 8X-HNB 460 FSL 46	0.00	0.00	7,021.00	-4,215.67	5,462.34	1,455,738.702	3,174,581.654	40.582703	-104.871460
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
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
4,754.42	4,154.55	-972.49	-1,230.18	Hold 63.09 Inc, 231.67 Az
9,341.20	6,230.59	-3,508.97	-4,438.74	KOP 10°/100
10,680.54	6,863.00	-4,249.47	-4,034.00	LP 89.05 Inc, 89.80 Az
20,178.26	7,021.00	-4,215.67	5,462.34	TD at 20178.26