

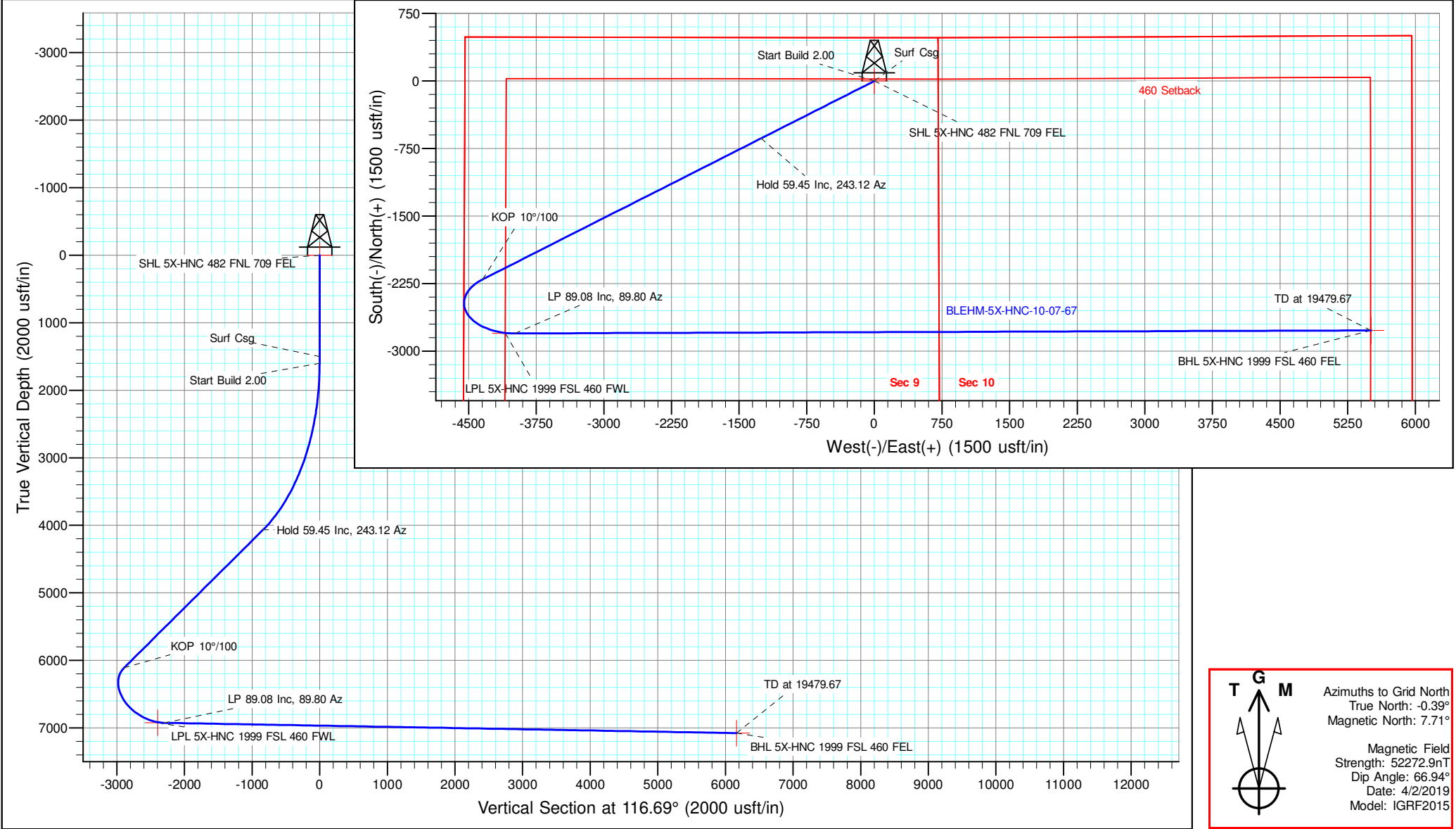
Well Name:
BLEHM-5X-HNC-10-07-67

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	
4572.47	59.45	243.12	4067.10	-636.98	-1256.37	-836.33	1408.62	Hold 59.45 Inc, 243.12 Az	
8591.80	59.45	243.12	6110.13	-2202.21	-4343.62	-2891.44	4869.99	KOP 10°/100	
9987.50	89.08	89.80	6926.00	-2802.74	-3983.00	-2299.48	5944.66	LP 89.08 Inc, 89.80 Az	
19479.67	89.08	89.80	7077.98	-2769.36	5506.89	6164.03	15434.61	TD at 19479.67	

Geodetic Datum:				Elevation:				
North American Datum 1983 US State Plane 1983, Colorado Northern Zone				Ground Elevation: 5088.00 KB Elevation: KB @ 5115.00usft				
DESIGN TARGET DETAILS								
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
SHL 5X-HNC 482 FNL 709 FEL	0.00	0.00	0.00	1460046.961	3169073.967	40.594634	-104.891182	Point
LPL 5X-HNC 1999 FSL 460 FWL	6924.00	-2802.74	-4090.88	1457244.219	3164983.087	40.587017	-104.905980	Point
plan misses target center by 9.64usft at 9880.87usft MD (6916.36 TVD, -2797.21 N, -4088.89 E)								
BHL 5X-HNC 1999 FSL 460 FEL	7078.00	-2769.36	5507.89	1457277.602	3174581.856	40.586927	-104.871420	Point



NICKEL ROAD

O P E R A T I N G

Nickel Road Operating

Sec. 9-T7N-R67W

BLEHM Pad

BLEHM-5X-HNC-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-5X-HNC-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-5X-HNC-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-5X-HNC-10-07-67					
Well Position	+N/-S	0.00 usft	Northing:	1,460,046.961 usft	Latitude:	40.594634
	+E/-W	0.00 usft	Easting:	3,169,073.968 usft	Longitude:	-104.891182
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	52,272.89601643

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	116.69

Plan Survey Tool Program	Date	7/20/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,478.68 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	
4,572.47	59.45	243.12	4,067.10	-636.98	-1,256.37	2.00	2.00	0.00	243.12	
8,591.80	59.45	243.12	6,110.13	-2,202.21	-4,343.62	0.00	0.00	0.00	0.00	
9,987.50	89.08	89.80	6,926.00	-2,802.74	-3,983.00	10.00	2.12	-10.98	-136.18	
19,479.67	89.08	89.80	7,078.00	-2,769.36	5,507.89	0.00	0.00	0.00	-54.34	BHL 5X-HNC 1999 Fc

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-5X-HNC-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-5X-HNC-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	1,460,046.961	3,169,073.968	40.594634	-104.891182
SHL 5X-HNC 482 FNL 709 FEL									
100.00	0.00	0.00	100.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
200.00	0.00	0.00	200.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
300.00	0.00	0.00	300.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
400.00	0.00	0.00	400.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
500.00	0.00	0.00	500.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
600.00	0.00	0.00	600.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
700.00	0.00	0.00	700.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
800.00	0.00	0.00	800.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
900.00	0.00	0.00	900.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
1,000.00	0.00	0.00	1,000.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
1,100.00	0.00	0.00	1,100.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
1,200.00	0.00	0.00	1,200.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
1,300.00	0.00	0.00	1,300.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
1,400.00	0.00	0.00	1,400.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
1,500.00	0.00	0.00	1,500.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
Surf Csg									
1,600.00	0.00	0.00	1,600.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
Start Build 2.00									
1,700.00	2.00	243.12	1,699.98	-0.79	-1.56	1,460,046.172	3,169,072.411	40.594632	-104.891188
1,800.00	4.00	243.12	1,799.84	-3.16	-6.22	1,460,043.805	3,169,067.743	40.594625	-104.891205
1,900.00	6.00	243.12	1,899.45	-7.10	-14.00	1,460,039.864	3,169,059.970	40.594615	-104.891233
2,000.00	8.00	243.12	1,998.70	-12.61	-24.87	1,460,034.353	3,169,049.101	40.594600	-104.891272
2,100.00	10.00	243.12	2,097.47	-19.68	-38.82	1,460,027.280	3,169,035.149	40.594581	-104.891323
2,200.00	12.00	243.12	2,195.62	-28.31	-55.84	1,460,018.652	3,169,018.131	40.594557	-104.891384
2,300.00	14.00	243.12	2,293.06	-38.48	-75.90	1,460,008.480	3,168,998.069	40.594530	-104.891457
2,400.00	16.00	243.12	2,389.64	-50.18	-98.98	1,459,996.777	3,168,974.985	40.594498	-104.891540
2,500.00	18.00	243.12	2,485.27	-63.40	-125.06	1,459,983.556	3,168,948.910	40.594462	-104.891634
2,600.00	20.00	243.12	2,579.82	-78.13	-154.09	1,459,968.835	3,168,919.873	40.594422	-104.891739
2,700.00	22.00	243.12	2,673.17	-94.33	-186.06	1,459,952.630	3,168,887.911	40.594379	-104.891855
2,800.00	24.00	243.12	2,765.21	-112.00	-220.90	1,459,934.962	3,168,853.063	40.594331	-104.891980
2,900.00	26.00	243.12	2,855.84	-131.11	-258.60	1,459,915.853	3,168,815.371	40.594279	-104.892117
3,000.00	28.00	243.12	2,944.94	-151.64	-299.09	1,459,895.324	3,168,774.881	40.594223	-104.892263
3,100.00	30.00	243.12	3,032.39	-173.56	-342.33	1,459,873.402	3,168,731.642	40.594164	-104.892419
3,200.00	32.00	243.12	3,118.11	-196.85	-388.26	1,459,850.113	3,168,685.707	40.594101	-104.892585
3,300.00	34.00	243.12	3,201.97	-221.47	-436.84	1,459,825.486	3,168,637.133	40.594034	-104.892761
3,400.00	36.00	243.12	3,283.88	-247.41	-487.99	1,459,799.550	3,168,585.976	40.593964	-104.892946
3,500.00	38.00	243.12	3,363.74	-274.62	-541.66	1,459,772.338	3,168,532.302	40.593890	-104.893139
3,600.00	40.00	243.12	3,441.45	-303.08	-597.79	1,459,743.881	3,168,476.175	40.593813	-104.893342
3,700.00	42.00	243.12	3,516.92	-332.75	-656.30	1,459,714.216	3,168,417.663	40.593733	-104.893554
3,800.00	44.00	243.12	3,590.05	-363.58	-717.13	1,459,683.377	3,168,356.837	40.593649	-104.893773
3,900.00	46.00	243.12	3,660.76	-395.56	-780.19	1,459,651.403	3,168,293.772	40.593563	-104.894001
4,000.00	48.00	243.12	3,728.95	-428.63	-845.42	1,459,618.333	3,168,228.545	40.593473	-104.894237
4,100.00	50.00	243.12	3,794.56	-462.75	-912.73	1,459,584.207	3,168,161.235	40.593381	-104.894480
4,200.00	52.00	243.12	3,857.48	-497.89	-982.04	1,459,549.066	3,168,091.923	40.593286	-104.894731
4,300.00	54.00	243.12	3,917.66	-534.01	-1,053.27	1,459,512.954	3,168,020.695	40.593188	-104.894988
4,400.00	56.00	243.12	3,975.02	-571.05	-1,126.33	1,459,475.914	3,167,947.637	40.593088	-104.895252
4,500.00	58.00	243.12	4,029.48	-608.97	-1,201.13	1,459,437.991	3,167,872.839	40.592985	-104.895522
4,572.47	59.45	243.12	4,067.10	-636.98	-1,256.37	1,459,409.984	3,167,817.599	40.592909	-104.895722
Hold 59.45 Inc, 243.12 Az									
4,600.00	59.45	243.12	4,081.09	-647.70	-1,277.52	1,459,399.262	3,167,796.450	40.592880	-104.895798
4,700.00	59.45	243.12	4,131.92	-686.64	-1,354.33	1,459,360.319	3,167,719.640	40.592775	-104.896076
4,800.00	59.45	243.12	4,182.75	-725.58	-1,431.14	1,459,321.377	3,167,642.830	40.592669	-104.896353

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-5X-HNC-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-5X-HNC-10-07-67	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #2		

Planned Survey										
Measured			Vertical			Map				
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,900.00	59.45	243.12	4,233.58	-764.53	-1,507.95	1,459,282.434	3,167,566.020	40.592564	-104.896631	
5,000.00	59.45	243.12	4,284.41	-803.47	-1,584.76	1,459,243.492	3,167,489.210	40.592458	-104.896908	
5,100.00	59.45	243.12	4,335.24	-842.41	-1,661.57	1,459,204.549	3,167,412.400	40.592353	-104.897186	
5,200.00	59.45	243.12	4,386.07	-881.35	-1,738.38	1,459,165.606	3,167,335.590	40.592247	-104.897463	
5,300.00	59.45	243.12	4,436.90	-920.30	-1,815.19	1,459,126.664	3,167,258.780	40.592142	-104.897741	
5,400.00	59.45	243.12	4,487.73	-959.24	-1,892.00	1,459,087.721	3,167,181.970	40.592036	-104.898018	
5,500.00	59.45	243.12	4,538.56	-998.18	-1,968.81	1,459,048.779	3,167,105.160	40.591931	-104.898296	
5,600.00	59.45	243.12	4,589.39	-1,037.12	-2,045.62	1,459,009.836	3,167,028.350	40.591826	-104.898573	
5,700.00	59.45	243.12	4,640.22	-1,076.07	-2,122.43	1,458,970.894	3,166,951.540	40.591720	-104.898851	
5,800.00	59.45	243.12	4,691.05	-1,115.01	-2,199.24	1,458,931.951	3,166,874.730	40.591615	-104.899128	
5,900.00	59.45	243.12	4,741.88	-1,153.95	-2,276.05	1,458,893.008	3,166,797.919	40.591509	-104.899406	
6,000.00	59.45	243.12	4,792.71	-1,192.89	-2,352.86	1,458,854.066	3,166,721.109	40.591404	-104.899683	
6,100.00	59.45	243.12	4,843.54	-1,231.84	-2,429.67	1,458,815.123	3,166,644.299	40.591298	-104.899961	
6,200.00	59.45	243.12	4,894.37	-1,270.78	-2,506.48	1,458,776.181	3,166,567.489	40.591193	-104.900239	
6,300.00	59.45	243.12	4,945.20	-1,309.72	-2,583.29	1,458,737.238	3,166,490.679	40.591087	-104.900516	
6,400.00	59.45	243.12	4,996.03	-1,348.67	-2,660.10	1,458,698.296	3,166,413.869	40.590982	-104.900794	
6,500.00	59.45	243.12	5,046.86	-1,387.61	-2,736.91	1,458,659.353	3,166,337.059	40.590876	-104.901071	
6,600.00	59.45	243.12	5,097.69	-1,426.55	-2,813.72	1,458,620.410	3,166,260.249	40.590771	-104.901349	
6,700.00	59.45	243.12	5,148.52	-1,465.49	-2,890.53	1,458,581.468	3,166,183.439	40.590665	-104.901626	
6,800.00	59.45	243.12	5,199.35	-1,504.44	-2,967.34	1,458,542.525	3,166,106.629	40.590560	-104.901904	
6,900.00	59.45	243.12	5,250.18	-1,543.38	-3,044.15	1,458,503.583	3,166,029.819	40.590454	-104.902181	
7,000.00	59.45	243.12	5,301.01	-1,582.32	-3,120.96	1,458,464.640	3,165,953.009	40.590349	-104.902459	
7,100.00	59.45	243.12	5,351.84	-1,621.26	-3,197.77	1,458,425.698	3,165,876.199	40.590244	-104.902736	
7,200.00	59.45	243.12	5,402.67	-1,660.21	-3,274.58	1,458,386.755	3,165,799.389	40.590138	-104.903014	
7,300.00	59.45	243.12	5,453.50	-1,699.15	-3,351.39	1,458,347.812	3,165,722.579	40.590033	-104.903291	
7,400.00	59.45	243.12	5,504.33	-1,738.09	-3,428.20	1,458,308.870	3,165,645.769	40.589927	-104.903569	
7,500.00	59.45	243.12	5,555.16	-1,777.03	-3,505.01	1,458,269.927	3,165,568.959	40.589822	-104.903846	
7,600.00	59.45	243.12	5,605.99	-1,815.98	-3,581.82	1,458,230.985	3,165,492.149	40.589716	-104.904124	
7,700.00	59.45	243.12	5,656.82	-1,854.92	-3,658.63	1,458,192.042	3,165,415.339	40.589611	-104.904401	
7,800.00	59.45	243.12	5,707.65	-1,893.86	-3,735.44	1,458,153.100	3,165,338.528	40.589505	-104.904679	
7,900.00	59.45	243.12	5,758.48	-1,932.80	-3,812.25	1,458,114.157	3,165,261.718	40.589400	-104.904956	
8,000.00	59.45	243.12	5,809.31	-1,971.75	-3,889.06	1,458,075.214	3,165,184.908	40.589294	-104.905234	
8,100.00	59.45	243.12	5,860.14	-2,010.69	-3,965.87	1,458,036.272	3,165,108.098	40.589189	-104.905511	
8,200.00	59.45	243.12	5,910.97	-2,049.63	-4,042.68	1,457,997.329	3,165,031.288	40.589083	-104.905789	
8,300.00	59.45	243.12	5,961.81	-2,088.57	-4,119.49	1,457,958.387	3,164,954.478	40.588978	-104.906066	
8,400.00	59.45	243.12	6,012.64	-2,127.52	-4,196.30	1,457,919.444	3,164,877.668	40.588872	-104.906344	
8,500.00	59.45	243.12	6,063.47	-2,166.46	-4,273.11	1,457,880.502	3,164,800.858	40.588767	-104.906621	
8,591.80	59.45	243.12	6,110.13	-2,202.21	-4,343.62	1,457,844.751	3,164,730.343	40.588670	-104.906876	
KOP 10°/100										
8,600.00	58.86	242.45	6,114.33	-2,205.43	-4,349.88	1,457,841.533	3,164,724.086	40.588661	-104.906898	
8,700.00	51.98	233.62	6,171.13	-2,248.70	-4,419.72	1,457,798.265	3,164,654.252	40.588544	-104.907151	
8,800.00	45.90	223.07	6,236.89	-2,298.41	-4,476.09	1,457,748.547	3,164,597.875	40.588408	-104.907355	
8,900.00	40.99	210.37	6,309.61	-2,353.07	-4,517.30	1,457,693.887	3,164,556.669	40.588259	-104.907505	
9,000.00	37.74	195.42	6,387.09	-2,411.01	-4,542.08	1,457,635.947	3,164,531.885	40.588101	-104.907595	
9,100.00	36.60	178.94	6,466.98	-2,470.47	-4,549.69	1,457,576.487	3,164,524.277	40.587938	-104.907624	
9,200.00	37.78	162.48	6,546.83	-2,529.65	-4,539.89	1,457,517.314	3,164,534.076	40.587775	-104.907590	
9,300.00	41.07	147.57	6,624.24	-2,586.73	-4,512.98	1,457,460.226	3,164,560.983	40.587618	-104.907495	
9,400.00	46.01	134.92	6,696.84	-2,640.00	-4,469.79	1,457,406.958	3,164,604.182	40.587471	-104.907341	
9,500.00	52.12	124.42	6,762.43	-2,687.83	-4,411.61	1,457,359.128	3,164,662.359	40.587338	-104.907132	
9,600.00	59.01	115.61	6,819.02	-2,728.77	-4,340.22	1,457,318.189	3,164,733.748	40.587225	-104.906876	
9,700.00	66.41	108.04	6,864.89	-2,761.58	-4,257.79	1,457,285.385	3,164,816.178	40.587133	-104.906580	
9,800.00	74.15	101.30	6,898.64	-2,785.25	-4,166.82	1,457,261.713	3,164,907.146	40.587066	-104.906253	
9,881.32	80.58	96.20	6,916.43	-2,797.26	-4,088.46	1,457,249.703	3,164,985.508	40.587032	-104.905971	
LPL 5X-HNC 1999 FSL 460 FWL										

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-5X-HNC-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-5X-HNC-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
9,900.00	82.07	95.06	6,919.25	-2,799.07	-4,070.08	1,457,247.893	3,165,003.888	40.587027	-104.905905
9,987.50	89.08	89.80	6,926.00	-2,802.74	-3,983.00	1,457,244.219	3,165,090.967	40.587015	-104.905592
LP 89.08 Inc, 89.80 Az									
10,000.00	89.08	89.80	6,926.20	-2,802.70	-3,970.50	1,457,244.262	3,165,103.462	40.587015	-104.905547
10,100.00	89.08	89.80	6,927.80	-2,802.35	-3,870.52	1,457,244.610	3,165,203.449	40.587014	-104.905187
10,200.00	89.08	89.80	6,929.41	-2,802.00	-3,770.53	1,457,244.958	3,165,303.436	40.587013	-104.904827
10,300.00	89.08	89.80	6,931.01	-2,801.66	-3,670.54	1,457,245.306	3,165,403.422	40.587012	-104.904467
10,400.00	89.08	89.80	6,932.62	-2,801.31	-3,570.56	1,457,245.654	3,165,503.409	40.587011	-104.904107
10,500.00	89.08	89.80	6,934.22	-2,800.96	-3,470.57	1,457,246.002	3,165,603.395	40.587011	-104.903747
10,600.00	89.08	89.80	6,935.82	-2,800.61	-3,370.59	1,457,246.350	3,165,703.382	40.587010	-104.903387
10,700.00	89.08	89.80	6,937.43	-2,800.26	-3,270.60	1,457,246.698	3,165,803.368	40.587009	-104.903027
10,800.00	89.08	89.80	6,939.03	-2,799.91	-3,170.61	1,457,247.047	3,165,903.355	40.587008	-104.902667
10,900.00	89.08	89.80	6,940.64	-2,799.57	-3,070.63	1,457,247.395	3,166,003.341	40.587007	-104.902307
11,000.00	89.08	89.80	6,942.24	-2,799.22	-2,970.64	1,457,247.744	3,166,103.328	40.587006	-104.901947
11,100.00	89.08	89.80	6,943.84	-2,798.87	-2,870.65	1,457,248.092	3,166,203.314	40.587005	-104.901587
11,200.00	89.08	89.80	6,945.45	-2,798.52	-2,770.67	1,457,248.441	3,166,303.301	40.587004	-104.901227
11,300.00	89.08	89.80	6,947.05	-2,798.17	-2,670.68	1,457,248.790	3,166,403.287	40.587003	-104.900867
11,400.00	89.08	89.80	6,948.65	-2,797.82	-2,570.69	1,457,249.139	3,166,503.274	40.587002	-104.900507
11,500.00	89.08	89.80	6,950.26	-2,797.47	-2,470.71	1,457,249.488	3,166,603.260	40.587002	-104.900147
11,600.00	89.08	89.80	6,951.86	-2,797.12	-2,370.72	1,457,249.837	3,166,703.247	40.587001	-104.899787
11,700.00	89.08	89.80	6,953.46	-2,796.78	-2,270.73	1,457,250.186	3,166,803.233	40.587000	-104.899427
11,800.00	89.08	89.80	6,955.07	-2,796.43	-2,170.75	1,457,250.535	3,166,903.220	40.586999	-104.899067
11,900.00	89.08	89.80	6,956.67	-2,796.08	-2,070.76	1,457,250.884	3,167,003.207	40.586998	-104.898707
12,000.00	89.08	89.80	6,958.27	-2,795.73	-1,970.77	1,457,251.234	3,167,103.193	40.586997	-104.898347
12,100.00	89.08	89.80	6,959.87	-2,795.38	-1,870.79	1,457,251.583	3,167,203.180	40.586996	-104.897987
12,200.00	89.08	89.80	6,961.48	-2,795.03	-1,770.80	1,457,251.933	3,167,303.166	40.586995	-104.897627
12,300.00	89.08	89.80	6,963.08	-2,794.68	-1,670.81	1,457,252.282	3,167,403.153	40.586994	-104.897267
12,400.00	89.08	89.80	6,964.68	-2,794.33	-1,570.83	1,457,252.632	3,167,503.139	40.586993	-104.896907
12,500.00	89.08	89.80	6,966.29	-2,793.98	-1,470.84	1,457,252.982	3,167,603.126	40.586993	-104.896547
12,600.00	89.08	89.80	6,967.89	-2,793.63	-1,370.85	1,457,253.332	3,167,703.112	40.586992	-104.896187
12,700.00	89.08	89.80	6,969.49	-2,793.28	-1,270.87	1,457,253.682	3,167,803.099	40.586991	-104.895827
12,800.00	89.08	89.80	6,971.09	-2,792.93	-1,170.88	1,457,254.032	3,167,903.085	40.586990	-104.895467
12,900.00	89.08	89.80	6,972.70	-2,792.58	-1,070.89	1,457,254.382	3,168,003.072	40.586989	-104.895107
13,000.00	89.08	89.80	6,974.30	-2,792.23	-970.91	1,457,254.732	3,168,103.058	40.586988	-104.894747
13,100.00	89.08	89.80	6,975.90	-2,791.88	-870.92	1,457,255.082	3,168,203.045	40.586987	-104.894387
13,200.00	89.08	89.80	6,977.50	-2,791.53	-770.94	1,457,255.433	3,168,303.032	40.586986	-104.894027
13,300.00	89.08	89.80	6,979.11	-2,791.18	-670.95	1,457,255.783	3,168,403.018	40.586985	-104.893667
13,400.00	89.08	89.80	6,980.71	-2,790.83	-570.96	1,457,256.134	3,168,503.005	40.586984	-104.893307
13,500.00	89.08	89.80	6,982.31	-2,790.48	-470.98	1,457,256.484	3,168,602.992	40.586983	-104.892947
13,600.00	89.08	89.80	6,983.91	-2,790.13	-370.99	1,457,256.835	3,168,702.979	40.586983	-104.892587
13,700.00	89.08	89.80	6,985.51	-2,789.78	-271.00	1,457,257.186	3,168,802.965	40.586982	-104.892227
13,800.00	89.08	89.80	6,987.12	-2,789.42	-171.02	1,457,257.537	3,168,902.952	40.586981	-104.891867
13,900.00	89.08	89.80	6,988.72	-2,789.07	-71.03	1,457,257.888	3,169,002.938	40.586980	-104.891507
14,000.00	89.08	89.80	6,990.32	-2,788.72	28.96	1,457,258.239	3,169,102.925	40.586979	-104.891147
14,100.00	89.08	89.80	6,991.92	-2,788.37	128.94	1,457,258.590	3,169,202.911	40.586978	-104.890787
14,200.00	89.08	89.80	6,993.52	-2,788.02	228.93	1,457,258.941	3,169,302.898	40.586977	-104.890427
14,300.00	89.08	89.80	6,995.12	-2,787.67	328.92	1,457,259.292	3,169,402.885	40.586976	-104.890067
14,400.00	89.08	89.80	6,996.73	-2,787.32	428.90	1,457,259.644	3,169,502.871	40.586975	-104.889707
14,500.00	89.08	89.80	6,998.33	-2,786.97	528.89	1,457,259.995	3,169,602.858	40.586974	-104.889347
14,600.00	89.08	89.80	6,999.93	-2,786.61	628.88	1,457,260.347	3,169,702.844	40.586973	-104.888987
14,700.00	89.08	89.80	7,001.53	-2,786.26	728.86	1,457,260.698	3,169,802.831	40.586972	-104.888627
14,800.00	89.08	89.80	7,003.13	-2,785.91	828.85	1,457,261.050	3,169,902.817	40.586971	-104.888267
14,900.00	89.08	89.80	7,004.73	-2,785.56	928.84	1,457,261.402	3,170,002.804	40.586971	-104.887907
15,000.00	89.08	89.80	7,006.33	-2,785.21	1,028.82	1,457,261.754	3,170,102.790	40.586970	-104.887547

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-5X-HNC-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-5X-HNC-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	89.08	89.80	7,007.93	-2,784.86	1,128.81	1,457,262.106	3,170,202.777	40.586969	-104.887187	
15,200.00	89.08	89.80	7,009.54	-2,784.50	1,228.80	1,457,262.458	3,170,302.764	40.586968	-104.886827	
15,300.00	89.08	89.80	7,011.14	-2,784.15	1,328.78	1,457,262.810	3,170,402.750	40.586967	-104.886467	
15,400.00	89.08	89.80	7,012.74	-2,783.80	1,428.77	1,457,263.162	3,170,502.737	40.586966	-104.88610	
15,500.00	89.08	89.80	7,014.34	-2,783.45	1,528.76	1,457,263.514	3,170,602.723	40.586965	-104.885747	
15,600.00	89.08	89.80	7,015.94	-2,783.09	1,628.74	1,457,263.867	3,170,702.710	40.586964	-104.885387	
15,700.00	89.08	89.80	7,017.54	-2,782.74	1,728.73	1,457,264.219	3,170,802.696	40.586963	-104.885027	
15,800.00	89.08	89.80	7,019.14	-2,782.39	1,828.72	1,457,264.572	3,170,902.683	40.586962	-104.884667	
15,900.00	89.08	89.80	7,020.74	-2,782.04	1,928.70	1,457,264.924	3,171,002.669	40.586961	-104.884307	
16,000.00	89.08	89.80	7,022.34	-2,781.68	2,028.69	1,457,265.277	3,171,102.656	40.586960	-104.883947	
16,100.00	89.08	89.80	7,023.94	-2,781.33	2,128.68	1,457,265.630	3,171,202.643	40.586959	-104.883587	
16,200.00	89.08	89.80	7,025.54	-2,780.98	2,228.66	1,457,265.983	3,171,302.629	40.586958	-104.883227	
16,300.00	89.08	89.80	7,027.14	-2,780.63	2,328.65	1,457,266.336	3,171,402.616	40.586957	-104.882867	
16,400.00	89.08	89.80	7,028.74	-2,780.27	2,428.63	1,457,266.689	3,171,502.602	40.586956	-104.882507	
16,500.00	89.08	89.80	7,030.34	-2,779.92	2,528.62	1,457,267.042	3,171,602.589	40.586956	-104.882147	
16,600.00	89.08	89.80	7,031.94	-2,779.57	2,628.61	1,457,267.395	3,171,702.575	40.586955	-104.881787	
16,700.00	89.08	89.80	7,033.54	-2,779.21	2,728.59	1,457,267.748	3,171,802.562	40.586954	-104.881427	
16,800.00	89.08	89.80	7,035.14	-2,778.86	2,828.58	1,457,268.102	3,171,902.549	40.586953	-104.881067	
16,900.00	89.08	89.80	7,036.74	-2,778.51	2,928.57	1,457,268.455	3,172,002.535	40.586952	-104.880707	
17,000.00	89.08	89.80	7,038.34	-2,778.15	3,028.55	1,457,268.809	3,172,102.522	40.586951	-104.880347	
17,100.00	89.08	89.80	7,039.94	-2,777.80	3,128.54	1,457,269.162	3,172,202.508	40.586950	-104.879987	
17,200.00	89.08	89.80	7,041.54	-2,777.44	3,228.53	1,457,269.516	3,172,302.495	40.586949	-104.879627	
17,300.00	89.08	89.80	7,043.14	-2,777.09	3,328.51	1,457,269.870	3,172,402.481	40.586948	-104.879267	
17,400.00	89.08	89.80	7,044.74	-2,776.74	3,428.50	1,457,270.224	3,172,502.468	40.586947	-104.878907	
17,500.00	89.08	89.80	7,046.34	-2,776.38	3,528.49	1,457,270.578	3,172,602.455	40.586946	-104.878547	
17,600.00	89.08	89.80	7,047.94	-2,776.03	3,628.47	1,457,270.932	3,172,702.441	40.586945	-104.878187	
17,700.00	89.08	89.80	7,049.54	-2,775.68	3,728.46	1,457,271.286	3,172,802.428	40.586944	-104.877827	
17,800.00	89.08	89.80	7,051.14	-2,775.32	3,828.45	1,457,271.640	3,172,902.414	40.586943	-104.877467	
17,900.00	89.08	89.80	7,052.74	-2,774.97	3,928.43	1,457,271.994	3,173,002.401	40.586942	-104.877107	
18,000.00	89.08	89.80	7,054.34	-2,774.61	4,028.42	1,457,272.349	3,173,102.387	40.586941	-104.876747	
18,100.00	89.08	89.80	7,055.94	-2,774.26	4,128.41	1,457,272.703	3,173,202.374	40.586940	-104.876387	
18,200.00	89.08	89.80	7,057.54	-2,773.90	4,228.39	1,457,273.058	3,173,302.361	40.586939	-104.876027	
18,300.00	89.08	89.80	7,059.14	-2,773.55	4,328.38	1,457,273.412	3,173,402.347	40.586938	-104.875667	
18,400.00	89.08	89.80	7,060.74	-2,773.19	4,428.37	1,457,273.767	3,173,502.334	40.586937	-104.875307	
18,500.00	89.08	89.80	7,062.34	-2,772.84	4,528.35	1,457,274.122	3,173,602.320	40.586937	-104.874947	
18,600.00	89.08	89.80	7,063.94	-2,772.48	4,628.34	1,457,274.477	3,173,702.307	40.586936	-104.874587	
18,700.00	89.08	89.80	7,065.54	-2,772.13	4,728.33	1,457,274.832	3,173,802.293	40.586935	-104.874227	
18,800.00	89.08	89.80	7,067.13	-2,771.77	4,828.31	1,457,275.187	3,173,902.280	40.586934	-104.873867	
18,900.00	89.08	89.80	7,068.73	-2,771.42	4,928.30	1,457,275.542	3,174,002.267	40.586933	-104.873507	
19,000.00	89.08	89.80	7,070.33	-2,771.06	5,028.29	1,457,275.897	3,174,102.253	40.586932	-104.873147	
19,100.00	89.08	89.80	7,071.93	-2,770.71	5,128.27	1,457,276.252	3,174,202.240	40.586931	-104.872787	
19,200.00	89.08	89.80	7,073.53	-2,770.35	5,228.26	1,457,276.608	3,174,302.226	40.586930	-104.872427	
19,300.00	89.08	89.80	7,075.13	-2,770.00	5,328.25	1,457,276.963	3,174,402.213	40.586929	-104.872067	
19,400.00	89.08	89.80	7,076.73	-2,769.64	5,428.23	1,457,277.319	3,174,502.200	40.586928	-104.871707	
19,479.67	89.08	89.80	7,078.00	-2,769.36	5,507.89	1,457,277.602	3,174,581.856	40.586927	-104.871420	
TD at 19479.67 - BHL 5X-HNC 1999 FSL 460 FEL										

Database:	EDM 5000.15 Single User Db	Local Co-ordinate Reference:	Well BLEHM-5X-HNC-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-5X-HNC-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 5X-HNC 482 FNL 7	0.00	0.00	0.00	0.00	0.00	1,460,046.961	3,169,073.968	40.594634	-104.891182
- plan hits target center									
- Point									
LPL 5X-HNC 1999 FSL 4	0.00	0.00	6,924.00	-2,802.74	-4,090.88	1,457,244.219	3,164,983.087	40.587017	-104.905980
- plan misses target center by 9.66usft at 9881.32usft MD (6916.43 TVD, -2797.26 N, -4088.46 E)									
- Point									
BHL 5X-HNC 1999 FSL	0.00	0.00	7,078.00	-2,769.36	5,507.89	1,457,277.602	3,174,581.856	40.586927	-104.871420
- 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
4,572.47	4,067.10	-636.98	-1,256.37	Hold 59.45 Inc, 243.12 Az
8,591.80	6,110.13	-2,202.21	-4,343.62	KOP 10°/100
9,987.50	6,926.00	-2,802.74	-3,983.00	LP 89.08 Inc, 89.80 Az
19,479.67	7,078.00	-2,769.36	5,507.89	TD at 19479.67