

# Chevron DJ Basin

DRAKE 18N

Drake Pad

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

Ground Elevation: 4736.0

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	1358303.38	3256488.79	40.313292	-104.580229

P272 - RKB 28.5' Well @ 4764.5ft (P272 - RKB 28.5')



Drake Pad  
DRAKE 18N  
Drake 18N Final Surveys  
10:30, March 25 2024



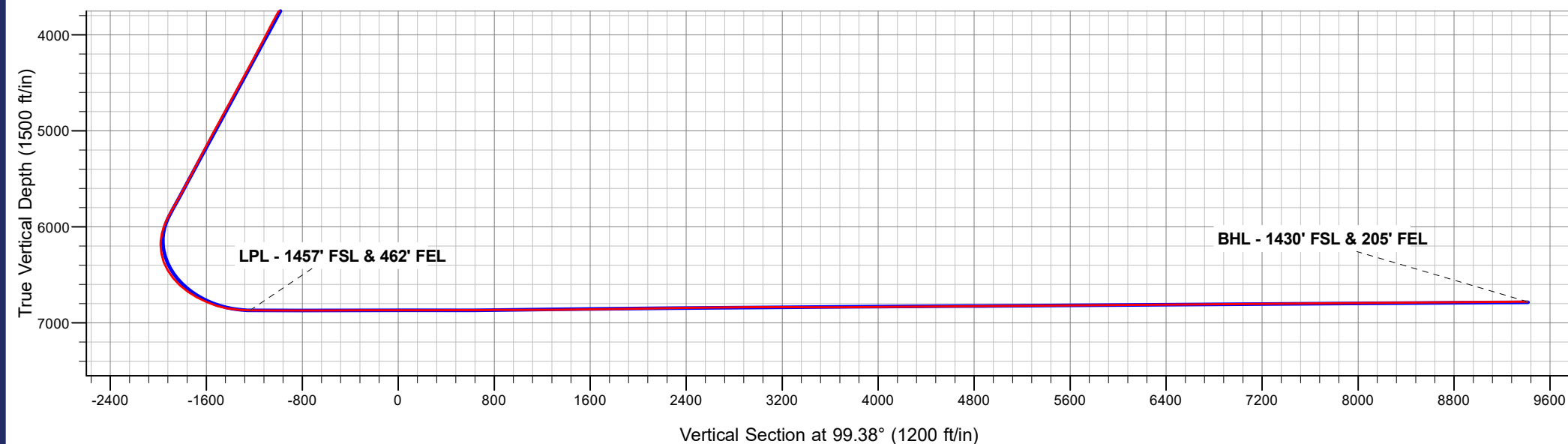
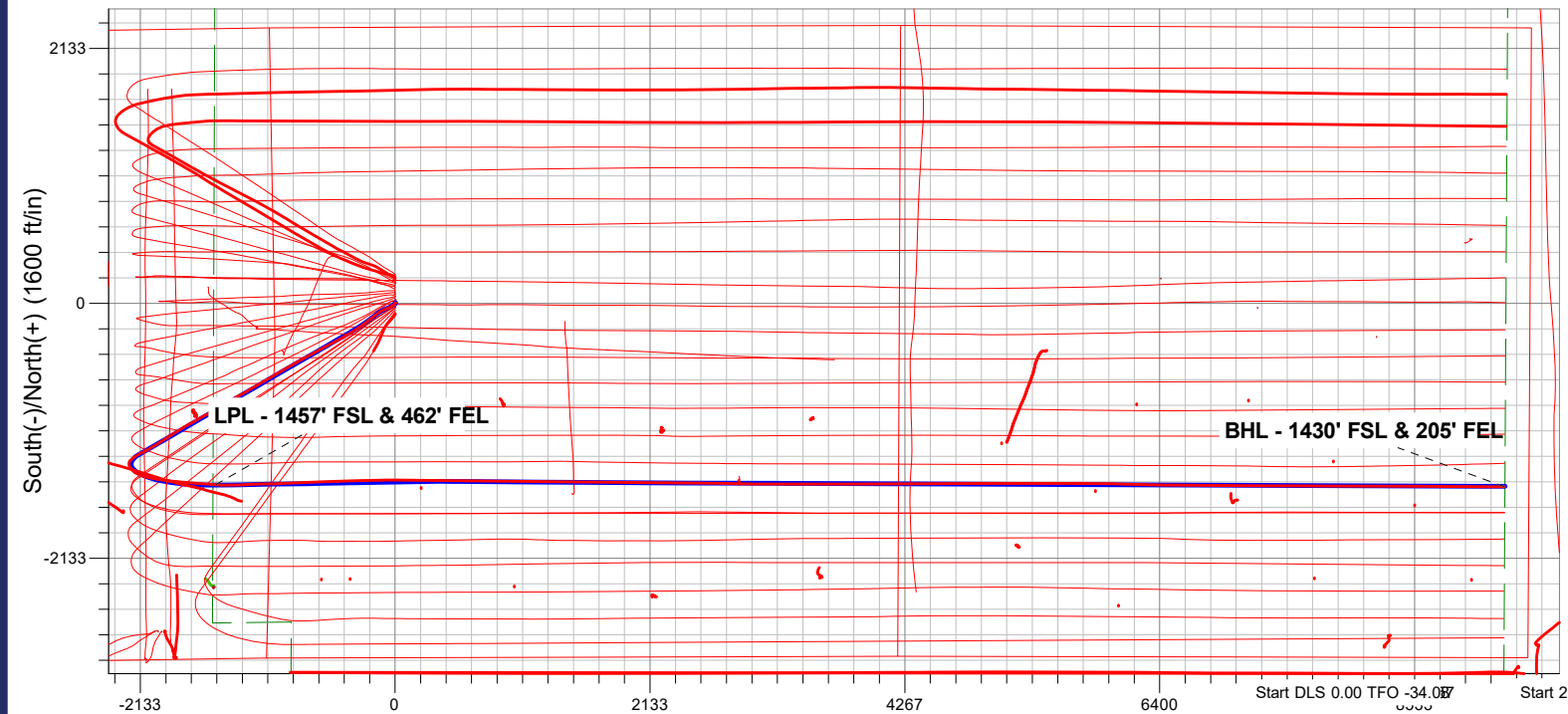
Azimuths to True North  
Magnetic North: 7.67°

Magnetic Field  
Strength: 51672.0nT  
Dip Angle: 66.54°  
Date: 12/13/2023  
Model: HRGM

### ANNOTATIONS

MD	TVD	Annotation
7957.0	6869.3	LPL - 1457' FSL & 462' FEL
18747.0	6779.4	BHL - 1430' FSL & 205' FEL

**FINAL SURVEY**  
**Projected Bottom Hole Location**  
**18747.0' MD / 6779.4' TVD**  
**90.62° INC / 89.68° AZM**  
**1430' FSL / 205' FEL**



Vertical Section at 99.38° (1200 ft/in)

# **Chevron DJ Basin**

**SEC.17-T4N-R64W**

**Drake Pad**

**DRAKE 18N**

**Drake 18N**

**Design: Drake 18N Final Surveys**

## **Survey Report - Geographic**

**25 March, 2024**

# Ensign

## Survey Report - Geographic

<b>Company:</b> Chevron DJ Basin	<b>Local Co-ordinate Reference:</b> Well DRAKE 18N
<b>Project:</b> SEC.17-T4N-R64W	<b>TVD Reference:</b> Well @ 4764.5ft (P272 - RKB 28.5')
<b>Site:</b> Drake Pad	<b>MD Reference:</b> Well @ 4764.5ft (P272 - RKB 28.5')
<b>Well:</b> DRAKE 18N	<b>North Reference:</b> True
<b>Wellbore:</b> Drake 18N	<b>Survey Calculation Method:</b> Minimum Curvature
<b>Design:</b> Drake 18N Final Surveys	<b>Database:</b> US_EDM

<b>Project</b> SEC.17-T4N-R64W, Weld County, Colorado	
<b>Map System:</b> US State Plane 1983	<b>System Datum:</b> Mean Sea Level
<b>Geo Datum:</b> North American Datum 1983	
<b>Map Zone:</b> Colorado Northern Zone	Using geodetic scale factor

<b>Site</b> Drake Pad		
<b>Site Position:</b>	<b>Northing:</b> 1,358,393.41 usft	<b>Latitude:</b> 40.313539
<b>From:</b> Lat/Long	<b>Easting:</b> 3,256,487.58 usft	<b>Longitude:</b> -104.580230
<b>Position Uncertainty:</b> 0.0 ft	<b>Slot Radius:</b> 13-3/16 "	<b>Grid Convergence:</b> 0.59 °

<b>Well</b> DRAKE 18N		
<b>Well Position</b> +N/-S 0.0 ft	<b>Northing:</b> 1,358,303.38 usft	<b>Latitude:</b> 40.313292
+E/-W 0.0 ft	<b>Easting:</b> 3,256,488.79 usft	<b>Longitude:</b> -104.580229
<b>Position Uncertainty</b> 0.0 ft	<b>Wellhead Elevation:</b> ft	<b>Ground Level:</b> 4,736.0 ft

<b>Wellbore</b> Drake 18N					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HRGM	12/13/2023	7.67	66.54	51,671.99017463

<b>Design</b> Drake 18N Final Surveys				
<b>Audit Notes:</b>				
<b>Version:</b> 1.0	<b>Phase:</b> ACTUAL	<b>Tie On Depth:</b> 0.0		
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.0	0.0	0.0	99.38

<b>Survey Program</b>		<b>Date</b> 03/25/2024		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
161.5	18,747.0	Survey #1 (Drake 18N)	MWD	MWD - Standard

<b>Survey</b>									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	1,358,303.38	3,256,488.79	40.313292	-104.580229
161.5	0.79	4.54	161.5	1.1	0.1	1,358,304.49	3,256,488.86	40.313295	-104.580229
252.5	1.23	2.25	252.5	2.7	0.2	1,358,306.10	3,256,488.94	40.313299	-104.580229
344.5	0.97	44.61	344.5	4.3	0.8	1,358,307.64	3,256,489.51	40.313304	-104.580227
461.5	0.70	202.47	461.5	4.3	1.2	1,358,307.69	3,256,489.93	40.313304	-104.580225
548.5	0.97	196.49	548.5	3.1	0.8	1,358,306.49	3,256,489.53	40.313300	-104.580226
635.5	2.46	213.19	635.4	0.8	-0.5	1,358,304.21	3,256,488.32	40.313294	-104.580231
722.5	3.34	218.29	722.3	-2.7	-3.1	1,358,300.63	3,256,485.76	40.313284	-104.580240
809.5	3.96	222.68	809.1	-6.9	-6.7	1,358,296.40	3,256,482.20	40.313273	-104.580253
896.5	6.16	230.41	895.8	-12.1	-12.3	1,358,291.15	3,256,476.62	40.313259	-104.580273
981.5	8.62	235.86	980.1	-18.6	-21.1	1,358,284.58	3,256,467.90	40.313241	-104.580305
1,069.5	10.29	242.02	1,066.9	-26.0	-33.5	1,358,277.06	3,256,455.58	40.313221	-104.580349

# Ensign

## Survey Report - Geographic

<b>Company:</b>	Chevron DJ Basin	<b>Local Co-ordinate Reference:</b>	Well DRAKE 18N
<b>Project:</b>	SEC.17-T4N-R64W	<b>TVD Reference:</b>	Well @ 4764.5ft (P272 - RKB 28.5')
<b>Site:</b>	Drake Pad	<b>MD Reference:</b>	Well @ 4764.5ft (P272 - RKB 28.5')
<b>Well:</b>	DRAKE 18N	<b>North Reference:</b>	True
<b>Wellbore:</b>	Drake 18N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Drake 18N Final Surveys	<b>Database:</b>	US_EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
1,156.5	10.99	245.53	1,152.4	-33.1	-47.9	1,358,269.83	3,256,441.24	40.313201	-104.580401	
1,245.5	11.70	246.41	1,239.6	-40.2	-63.9	1,358,262.54	3,256,425.33	40.313182	-104.580458	
1,332.5	12.22	248.52	1,324.7	-47.1	-80.5	1,358,255.47	3,256,408.75	40.313163	-104.580518	
1,417.5	13.19	245.71	1,407.7	-54.4	-97.7	1,358,248.01	3,256,391.62	40.313143	-104.580580	
1,504.5	15.12	240.26	1,492.0	-64.1	-116.6	1,358,238.10	3,256,372.82	40.313116	-104.580648	
1,593.5	16.44	235.16	1,577.7	-77.0	-137.1	1,358,224.94	3,256,352.54	40.313080	-104.580721	
1,658.5	19.61	232.35	1,639.5	-89.0	-153.3	1,358,212.85	3,256,336.47	40.313048	-104.580779	
1,738.0	20.34	231.17	1,714.2	-105.8	-174.6	1,358,195.82	3,256,315.32	40.313002	-104.580855	
1,802.0	19.32	233.48	1,774.4	-119.0	-191.8	1,358,182.36	3,256,298.29	40.312965	-104.580917	
1,897.0	19.85	231.11	1,863.9	-138.5	-216.9	1,358,162.63	3,256,273.31	40.312912	-104.581007	
1,992.0	22.33	232.26	1,952.5	-159.7	-243.8	1,358,141.17	3,256,246.70	40.312854	-104.581103	
2,086.0	24.34	233.08	2,038.8	-182.3	-273.4	1,358,118.30	3,256,217.32	40.312792	-104.581210	
2,180.0	26.10	237.47	2,123.9	-205.0	-306.3	1,358,095.20	3,256,184.64	40.312729	-104.581328	
2,274.0	28.94	238.24	2,207.2	-228.1	-343.1	1,358,071.73	3,256,148.10	40.312666	-104.581459	
2,369.0	29.57	240.27	2,290.1	-251.8	-383.0	1,358,047.59	3,256,108.45	40.312601	-104.581603	
2,464.0	30.02	238.93	2,372.6	-275.7	-423.7	1,358,023.28	3,256,067.99	40.312535	-104.581749	
2,559.0	30.50	239.51	2,454.6	-300.2	-464.8	1,357,998.36	3,256,027.12	40.312468	-104.581896	
2,654.0	30.24	242.81	2,536.6	-323.4	-506.9	1,357,974.76	3,255,985.31	40.312404	-104.582047	
2,748.0	30.61	240.53	2,617.6	-346.0	-548.8	1,357,951.74	3,255,943.66	40.312342	-104.582197	
2,843.0	30.11	242.64	2,699.6	-368.8	-591.0	1,357,928.45	3,255,901.68	40.312279	-104.582348	
2,938.0	30.44	242.91	2,781.7	-390.7	-633.6	1,357,906.10	3,255,859.32	40.312219	-104.582501	
3,032.0	29.77	244.06	2,863.0	-411.8	-675.8	1,357,884.62	3,255,817.36	40.312162	-104.582652	
3,127.0	30.46	241.31	2,945.2	-433.7	-718.1	1,357,862.30	3,255,775.25	40.312101	-104.582804	
3,222.0	30.27	241.69	3,027.1	-456.6	-760.3	1,357,838.95	3,255,733.29	40.312039	-104.582956	
3,316.0	30.44	239.03	3,108.3	-480.1	-801.6	1,357,815.04	3,255,692.26	40.311974	-104.583104	
3,411.0	29.94	240.25	3,190.4	-504.2	-842.8	1,357,790.46	3,255,651.30	40.311908	-104.583251	
3,505.0	30.55	240.47	3,271.6	-527.6	-884.0	1,357,766.62	3,255,610.39	40.311844	-104.583399	
3,600.0	29.03	240.50	3,354.0	-550.9	-925.0	1,357,742.95	3,255,569.57	40.311780	-104.583546	
3,695.0	29.22	238.97	3,437.0	-574.2	-965.0	1,357,719.23	3,255,529.88	40.311716	-104.583689	
3,790.0	28.83	239.34	3,520.1	-597.8	-1,004.5	1,357,695.19	3,255,490.56	40.311651	-104.583831	
3,884.0	29.20	241.17	3,602.3	-620.4	-1,044.1	1,357,672.17	3,255,451.21	40.311589	-104.583973	
3,979.0	29.61	240.73	3,685.0	-643.1	-1,084.9	1,357,649.10	3,255,410.68	40.311527	-104.584119	
4,073.0	29.56	240.56	3,766.8	-665.8	-1,125.3	1,357,625.93	3,255,370.47	40.311464	-104.584264	
4,168.0	29.39	239.01	3,849.5	-689.4	-1,165.7	1,357,601.99	3,255,330.32	40.311400	-104.584409	
4,262.0	28.97	238.55	3,931.6	-713.1	-1,204.9	1,357,577.83	3,255,291.38	40.311334	-104.584550	
4,357.0	28.90	238.69	4,014.7	-737.1	-1,244.2	1,357,553.50	3,255,252.39	40.311269	-104.584690	
4,452.0	28.81	239.88	4,097.9	-760.5	-1,283.6	1,357,529.67	3,255,213.23	40.311204	-104.584832	
4,547.0	28.85	238.86	4,181.1	-783.8	-1,323.0	1,357,505.93	3,255,174.06	40.311140	-104.584973	
4,641.0	29.18	239.04	4,263.3	-807.3	-1,362.1	1,357,482.01	3,255,135.24	40.311076	-104.585113	
4,736.0	28.81	241.62	4,346.4	-830.1	-1,402.1	1,357,458.80	3,255,095.48	40.311013	-104.585257	
4,831.0	29.39	240.11	4,429.4	-852.6	-1,442.4	1,357,435.89	3,255,055.37	40.310951	-104.585401	
4,926.0	29.00	242.41	4,512.4	-874.9	-1,483.0	1,357,413.19	3,255,014.98	40.310890	-104.585547	
5,020.0	29.19	239.21	4,594.5	-897.2	-1,522.9	1,357,390.49	3,254,975.33	40.310829	-104.585690	
5,115.0	29.43	240.70	4,677.4	-920.5	-1,563.2	1,357,366.79	3,254,935.32	40.310765	-104.585834	
5,209.0	29.30	240.02	4,759.3	-943.3	-1,603.2	1,357,343.58	3,254,895.50	40.310703	-104.585978	
5,304.0	28.70	240.76	4,842.4	-966.0	-1,643.3	1,357,320.41	3,254,855.70	40.310640	-104.586121	
5,399.0	29.11	242.60	4,925.5	-987.8	-1,683.7	1,357,298.22	3,254,815.51	40.310580	-104.586266	
5,493.0	29.52	240.44	5,007.5	-1,009.7	-1,724.1	1,357,275.85	3,254,775.29	40.310520	-104.586411	
5,588.0	29.44	236.42	5,090.2	-1,034.2	-1,764.0	1,357,250.98	3,254,735.74	40.310453	-104.586554	
5,683.0	29.14	239.81	5,173.1	-1,058.8	-1,803.4	1,357,226.03	3,254,696.55	40.310386	-104.586696	
5,777.0	29.18	237.83	5,255.2	-1,082.5	-1,842.6	1,357,201.91	3,254,657.62	40.310320	-104.586836	
5,872.0	29.16	238.51	5,338.1	-1,106.9	-1,881.9	1,357,177.09	3,254,618.54	40.310253	-104.586977	
5,967.0	29.32	236.70	5,421.0	-1,131.7	-1,921.1	1,357,151.82	3,254,579.62	40.310185	-104.587118	
6,061.0	29.57	237.66	5,502.9	-1,156.8	-1,959.9	1,357,126.38	3,254,541.05	40.310116	-104.587257	
6,156.0	29.57	238.00	5,585.5	-1,181.8	-1,999.6	1,357,101.01	3,254,501.63	40.310048	-104.587399	

# Ensign

## Survey Report - Geographic

<b>Company:</b>	Chevron DJ Basin	<b>Local Co-ordinate Reference:</b>	Well DRAKE 18N
<b>Project:</b>	SEC.17-T4N-R64W	<b>TVD Reference:</b>	Well @ 4764.5ft (P272 - RKB 28.5')
<b>Site:</b>	Drake Pad	<b>MD Reference:</b>	Well @ 4764.5ft (P272 - RKB 28.5')
<b>Well:</b>	DRAKE 18N	<b>North Reference:</b>	True
<b>Wellbore:</b>	Drake 18N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Drake 18N Final Surveys	<b>Database:</b>	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,251.0	29.88	240.40	5,668.0	-1,205.9	-2,040.1	1,357,076.48	3,254,461.43	40.309982	-104.587544
6,346.0	29.62	241.31	5,750.5	-1,228.8	-2,081.2	1,357,053.09	3,254,420.50	40.309919	-104.587692
6,441.0	29.26	243.44	5,833.2	-1,250.5	-2,122.6	1,357,031.02	3,254,379.37	40.309859	-104.587840
6,535.0	28.06	238.80	5,915.7	-1,272.2	-2,162.1	1,357,008.88	3,254,340.13	40.309800	-104.587982
6,630.0	21.99	231.08	6,001.8	-1,295.0	-2,195.1	1,356,985.76	3,254,307.38	40.309737	-104.588100
6,725.0	15.91	221.96	6,091.6	-1,315.9	-2,217.6	1,356,964.65	3,254,285.03	40.309680	-104.588181
6,820.0	12.41	191.48	6,183.8	-1,335.6	-2,228.4	1,356,944.82	3,254,274.48	40.309626	-104.588219
6,915.0	16.03	159.60	6,276.0	-1,357.9	-2,225.8	1,356,922.51	3,254,277.26	40.309564	-104.588210
7,010.0	23.09	145.08	6,365.5	-1,385.5	-2,210.6	1,356,895.05	3,254,292.80	40.309488	-104.588155
7,105.0	28.09	125.87	6,451.3	-1,414.0	-2,181.7	1,356,866.91	3,254,321.95	40.309410	-104.588052
7,199.0	33.16	110.06	6,532.3	-1,435.8	-2,139.5	1,356,845.51	3,254,364.35	40.309350	-104.587901
7,294.0	40.79	104.87	6,608.2	-1,452.7	-2,085.0	1,356,829.18	3,254,419.01	40.309304	-104.587705
7,389.0	48.62	101.10	6,675.7	-1,467.6	-2,020.0	1,356,815.00	3,254,484.24	40.309263	-104.587472
7,484.0	55.80	97.42	6,733.9	-1,479.5	-1,945.9	1,356,803.82	3,254,558.40	40.309231	-104.587207
7,578.0	61.73	95.53	6,782.6	-1,488.5	-1,866.1	1,356,795.63	3,254,638.31	40.309206	-104.586920
7,673.0	68.19	94.19	6,822.8	-1,495.8	-1,780.4	1,356,789.26	3,254,724.10	40.309186	-104.586613
7,767.0	77.39	95.54	6,850.6	-1,503.4	-1,691.0	1,356,782.55	3,254,813.53	40.309165	-104.586293
7,862.0	85.11	93.28	6,865.0	-1,510.6	-1,597.5	1,356,776.33	3,254,907.14	40.309145	-104.585957
7,957.0	89.68	93.74	6,869.3	-1,516.4	-1,502.8	1,356,771.50	3,255,001.89	40.309129	-104.585618
<b>LPL - 1457' FSL &amp; 462' FEL</b>									
8,052.0	89.60	91.77	6,869.9	-1,521.0	-1,407.9	1,356,767.92	3,255,096.81	40.309117	-104.585277
8,147.0	89.18	86.80	6,870.9	-1,519.8	-1,312.9	1,356,770.09	3,255,191.75	40.309120	-104.584937
8,241.0	90.06	88.09	6,871.6	-1,515.6	-1,219.0	1,356,775.25	3,255,285.59	40.309132	-104.584600
8,336.0	89.87	88.11	6,871.6	-1,512.5	-1,124.1	1,356,779.39	3,255,380.50	40.309140	-104.584260
8,431.0	89.88	88.44	6,871.8	-1,509.6	-1,029.1	1,356,783.23	3,255,475.42	40.309148	-104.583919
8,525.0	90.08	87.76	6,871.9	-1,506.5	-935.2	1,356,787.32	3,255,569.32	40.309157	-104.583582
8,620.0	90.69	88.08	6,871.2	-1,503.1	-840.2	1,356,791.76	3,255,664.21	40.309166	-104.583242
8,715.0	90.65	88.04	6,870.1	-1,499.8	-745.3	1,356,795.96	3,255,759.11	40.309175	-104.582902
8,809.0	89.80	86.55	6,869.7	-1,495.4	-651.4	1,356,801.37	3,255,852.95	40.309187	-104.582565
8,904.0	90.64	88.05	6,869.4	-1,490.9	-556.5	1,356,806.82	3,255,947.78	40.309199	-104.582225
8,999.0	90.27	87.99	6,868.6	-1,487.7	-461.6	1,356,811.09	3,256,042.68	40.309208	-104.581884
9,093.0	89.91	88.77	6,868.5	-1,485.0	-367.6	1,356,814.72	3,256,136.60	40.309216	-104.581547
9,188.0	89.98	89.07	6,868.6	-1,483.2	-272.6	1,356,817.50	3,256,231.56	40.309221	-104.581207
9,282.0	90.09	88.11	6,868.5	-1,480.9	-178.7	1,356,820.79	3,256,325.49	40.309227	-104.580870
9,377.0	90.08	89.59	6,868.4	-1,479.0	-83.7	1,356,823.68	3,256,420.44	40.309232	-104.580529
9,472.0	90.20	89.09	6,868.1	-1,477.9	11.3	1,356,825.76	3,256,515.42	40.309235	-104.580189
9,566.0	90.09	90.29	6,867.9	-1,477.4	105.3	1,356,827.24	3,256,609.40	40.309237	-104.579852
9,661.0	90.04	90.63	6,867.8	-1,478.1	200.3	1,356,827.46	3,256,704.39	40.309235	-104.579511
9,755.0	90.31	90.93	6,867.5	-1,479.4	294.3	1,356,827.16	3,256,798.39	40.309231	-104.579174
9,850.0	90.08	90.98	6,867.2	-1,481.0	389.3	1,356,826.56	3,256,893.38	40.309227	-104.578834
9,945.0	90.77	91.05	6,866.5	-1,482.7	484.3	1,356,825.86	3,256,988.37	40.309222	-104.578493
10,040.0	89.96	90.78	6,865.9	-1,484.2	579.2	1,356,825.33	3,257,083.36	40.309218	-104.578152
10,135.0	89.59	91.21	6,866.2	-1,485.9	674.2	1,356,824.67	3,257,178.35	40.309213	-104.577812
10,230.0	89.98	90.63	6,866.6	-1,487.4	769.2	1,356,824.13	3,257,273.35	40.309209	-104.577471
10,324.0	90.59	90.61	6,866.1	-1,488.4	863.2	1,356,824.08	3,257,367.34	40.309206	-104.577134
10,418.0	90.74	90.23	6,865.0	-1,489.1	957.2	1,356,824.37	3,257,461.33	40.309204	-104.576797
10,513.0	90.98	90.68	6,863.6	-1,489.8	1,052.2	1,356,824.60	3,257,556.32	40.309202	-104.576457
10,608.0	90.69	91.06	6,862.2	-1,491.3	1,147.2	1,356,824.14	3,257,651.30	40.309198	-104.576116
10,703.0	90.75	90.06	6,861.0	-1,492.2	1,242.1	1,356,824.20	3,257,746.29	40.309196	-104.575775
10,797.0	90.97	90.61	6,859.6	-1,492.8	1,336.1	1,356,824.63	3,257,840.27	40.309194	-104.575438
10,892.0	90.92	90.83	6,858.0	-1,494.0	1,431.1	1,356,824.42	3,257,935.25	40.309191	-104.575098
10,987.0	90.48	89.81	6,856.9	-1,494.5	1,526.1	1,356,824.87	3,258,030.24	40.309190	-104.574757
11,082.0	91.35	90.87	6,855.4	-1,495.0	1,621.1	1,356,825.29	3,258,125.22	40.309188	-104.574417
11,176.0	91.54	91.00	6,853.0	-1,496.6	1,715.0	1,356,824.73	3,258,219.18	40.309184	-104.574080
11,271.0	90.77	90.47	6,851.1	-1,497.8	1,810.0	1,356,824.50	3,258,314.16	40.309180	-104.573739

# Ensign

## Survey Report - Geographic

<b>Company:</b>	Chevron DJ Basin	<b>Local Co-ordinate Reference:</b>	Well DRAKE 18N
<b>Project:</b>	SEC.17-T4N-R64W	<b>TVD Reference:</b>	Well @ 4764.5ft (P272 - RKB 28.5')
<b>Site:</b>	Drake Pad	<b>MD Reference:</b>	Well @ 4764.5ft (P272 - RKB 28.5')
<b>Well:</b>	DRAKE 18N	<b>North Reference:</b>	True
<b>Wellbore:</b>	Drake 18N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Drake 18N Final Surveys	<b>Database:</b>	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,365.0	91.29	90.48	6,849.4	-1,498.6	1,904.0	1,356,824.70	3,258,408.14	40.309178	-104.573402
11,459.0	90.53	90.01	6,847.9	-1,499.0	1,998.0	1,356,825.27	3,258,502.12	40.309177	-104.573065
11,554.0	90.72	90.10	6,846.9	-1,499.1	2,093.0	1,356,826.16	3,258,597.11	40.309177	-104.572725
11,648.0	91.32	90.83	6,845.2	-1,499.8	2,187.0	1,356,826.38	3,258,691.09	40.309175	-104.572388
11,743.0	91.14	90.49	6,843.2	-1,500.9	2,281.9	1,356,826.27	3,258,786.06	40.309172	-104.572047
11,838.0	90.66	90.00	6,841.7	-1,501.3	2,376.9	1,356,826.85	3,258,881.04	40.309171	-104.571707
11,932.0	90.85	91.08	6,840.4	-1,502.2	2,470.9	1,356,826.94	3,258,975.03	40.309168	-104.571370
12,027.0	91.17	90.83	6,838.7	-1,503.8	2,565.9	1,356,826.34	3,259,070.01	40.309164	-104.571029
12,122.0	91.11	90.93	6,836.9	-1,505.3	2,660.8	1,356,825.86	3,259,164.98	40.309160	-104.570689
12,217.0	90.13	90.97	6,835.8	-1,506.8	2,755.8	1,356,825.27	3,259,259.97	40.309155	-104.570348
12,311.0	90.27	91.22	6,835.5	-1,508.6	2,849.8	1,356,824.45	3,259,353.96	40.309150	-104.570011
12,405.0	89.81	91.16	6,835.4	-1,510.6	2,943.8	1,356,823.48	3,259,447.95	40.309145	-104.569674
12,499.0	89.69	91.06	6,835.8	-1,512.4	3,037.8	1,356,822.63	3,259,541.94	40.309140	-104.569337
12,594.0	89.72	90.55	6,836.3	-1,513.7	3,132.8	1,356,822.28	3,259,636.94	40.309136	-104.568997
12,689.0	89.83	89.58	6,836.7	-1,513.9	3,227.8	1,356,823.16	3,259,731.93	40.309136	-104.568656
12,784.0	89.38	89.48	6,837.4	-1,513.1	3,322.7	1,356,824.92	3,259,826.90	40.309138	-104.568315
12,878.0	90.63	89.63	6,837.4	-1,512.3	3,416.7	1,356,826.63	3,259,920.88	40.309140	-104.567978
12,973.0	90.69	89.52	6,836.3	-1,511.6	3,511.7	1,356,828.32	3,260,015.86	40.309142	-104.567638
13,068.0	90.49	89.67	6,835.3	-1,511.0	3,606.7	1,356,829.97	3,260,110.83	40.309144	-104.567297
13,163.0	90.32	90.05	6,834.6	-1,510.7	3,701.7	1,356,831.19	3,260,205.82	40.309144	-104.566956
13,258.0	90.35	90.14	6,834.1	-1,510.9	3,796.7	1,356,832.02	3,260,300.81	40.309144	-104.566616
13,352.0	90.41	90.14	6,833.4	-1,511.1	3,890.7	1,356,832.76	3,260,394.80	40.309143	-104.566279
13,448.0	90.76	89.75	6,832.5	-1,511.0	3,986.7	1,356,833.85	3,260,490.78	40.309143	-104.565935
13,542.0	90.91	89.72	6,831.1	-1,510.6	4,080.7	1,356,835.26	3,260,584.76	40.309145	-104.565598
13,637.0	90.62	89.54	6,829.8	-1,510.0	4,175.7	1,356,836.86	3,260,679.73	40.309146	-104.565257
13,732.0	90.59	89.62	6,828.8	-1,509.3	4,270.7	1,356,838.54	3,260,774.71	40.309148	-104.564916
13,827.0	90.45	90.38	6,827.9	-1,509.3	4,365.7	1,356,839.53	3,260,869.69	40.309148	-104.564576
13,921.0	90.57	90.51	6,827.1	-1,510.0	4,459.7	1,356,839.77	3,260,963.68	40.309146	-104.564239
14,016.0	90.35	89.49	6,826.4	-1,510.0	4,554.7	1,356,840.76	3,261,058.67	40.309146	-104.563898
14,111.0	90.46	89.93	6,825.7	-1,509.5	4,649.7	1,356,842.22	3,261,153.65	40.309147	-104.563558
14,206.0	90.35	89.96	6,825.0	-1,509.4	4,744.7	1,356,843.30	3,261,248.64	40.309147	-104.563217
14,300.0	90.61	89.78	6,824.2	-1,509.2	4,838.7	1,356,844.49	3,261,342.63	40.309148	-104.562880
14,395.0	90.71	89.45	6,823.1	-1,508.6	4,933.7	1,356,846.11	3,261,437.60	40.309150	-104.562539
14,490.0	90.60	89.57	6,822.0	-1,507.8	5,028.6	1,356,847.91	3,261,532.57	40.309152	-104.562199
14,585.0	90.34	89.70	6,821.3	-1,507.2	5,123.6	1,356,849.50	3,261,627.55	40.309153	-104.561858
14,679.0	90.49	90.10	6,820.6	-1,507.0	5,217.6	1,356,850.64	3,261,721.54	40.309154	-104.561521
14,774.0	90.70	89.85	6,819.6	-1,507.0	5,312.6	1,356,851.66	3,261,816.52	40.309154	-104.561180
14,869.0	90.67	89.43	6,818.5	-1,506.4	5,407.6	1,356,853.25	3,261,911.50	40.309155	-104.560840
14,963.0	90.47	89.80	6,817.5	-1,505.7	5,501.6	1,356,854.85	3,262,005.48	40.309157	-104.560503
15,058.0	90.74	90.25	6,816.5	-1,505.8	5,596.6	1,356,855.80	3,262,100.46	40.309157	-104.560162
15,153.0	90.43	90.10	6,815.5	-1,506.1	5,691.6	1,356,856.49	3,262,195.45	40.309156	-104.559822
15,247.0	90.70	90.40	6,814.6	-1,506.5	5,785.6	1,356,857.06	3,262,289.44	40.309155	-104.559485
15,342.0	90.50	90.82	6,813.6	-1,507.5	5,880.6	1,356,857.03	3,262,384.43	40.309152	-104.559144
15,437.0	90.49	90.80	6,812.8	-1,508.8	5,975.6	1,356,856.67	3,262,479.42	40.309148	-104.558803
15,532.0	90.56	93.16	6,811.9	-1,512.1	6,070.5	1,356,854.38	3,262,574.38	40.309139	-104.558463
15,626.0	90.62	91.51	6,811.0	-1,515.9	6,164.4	1,356,851.52	3,262,668.32	40.309129	-104.558126
15,721.0	90.57	90.66	6,810.0	-1,517.7	6,259.4	1,356,850.71	3,262,763.31	40.309124	-104.557786
15,815.0	90.62	90.65	6,809.0	-1,518.8	6,353.4	1,356,850.61	3,262,857.30	40.309121	-104.557449
15,910.0	90.62	90.74	6,808.0	-1,520.0	6,448.4	1,356,850.44	3,262,952.29	40.309117	-104.557108
16,004.0	90.41	90.44	6,807.1	-1,520.9	6,542.4	1,356,850.45	3,263,046.28	40.309115	-104.556771
16,099.0	90.32	90.75	6,806.5	-1,521.9	6,637.4	1,356,850.45	3,263,141.28	40.309112	-104.556431
16,193.0	90.67	90.55	6,805.7	-1,523.0	6,731.3	1,356,850.36	3,263,235.27	40.309109	-104.556094
16,288.0	90.83	90.20	6,804.5	-1,523.6	6,826.3	1,356,850.72	3,263,330.25	40.309107	-104.555753
16,383.0	90.48	90.31	6,803.4	-1,524.0	6,921.3	1,356,851.28	3,263,425.24	40.309106	-104.555412
16,477.0	90.72	90.13	6,802.4	-1,524.4	7,015.3	1,356,851.90	3,263,519.23	40.309105	-104.555075

# Ensign

## Survey Report - Geographic

<b>Company:</b>	Chevron DJ Basin	<b>Local Co-ordinate Reference:</b>	Well DRAKE 18N
<b>Project:</b>	SEC.17-T4N-R64W	<b>TVD Reference:</b>	Well @ 4764.5ft (P272 - RKB 28.5')
<b>Site:</b>	Drake Pad	<b>MD Reference:</b>	Well @ 4764.5ft (P272 - RKB 28.5')
<b>Well:</b>	DRAKE 18N	<b>North Reference:</b>	True
<b>Wellbore:</b>	Drake 18N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	Drake 18N Final Surveys	<b>Database:</b>	US_EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,572.0	90.69	90.46	6,801.2	-1,524.9	7,110.3	1,356,852.39	3,263,614.22	40.309103	-104.554735
16,667.0	90.63	90.52	6,800.1	-1,525.7	7,205.3	1,356,852.56	3,263,709.21	40.309101	-104.554394
16,761.0	90.48	89.55	6,799.2	-1,525.8	7,299.3	1,356,853.48	3,263,803.19	40.309101	-104.554057
16,855.0	90.55	90.82	6,798.4	-1,526.1	7,393.3	1,356,854.15	3,263,897.18	40.309100	-104.553720
16,949.0	90.30	90.34	6,797.7	-1,527.0	7,487.3	1,356,854.18	3,263,991.17	40.309097	-104.553383
17,044.0	90.79	90.36	6,796.8	-1,527.6	7,582.3	1,356,854.58	3,264,086.16	40.309096	-104.553043
17,139.0	90.75	89.93	6,795.5	-1,527.8	7,677.3	1,356,855.33	3,264,181.15	40.309095	-104.552702
17,233.0	90.38	90.45	6,794.6	-1,528.1	7,771.3	1,356,855.99	3,264,275.14	40.309094	-104.552365
17,328.0	90.69	90.03	6,793.7	-1,528.5	7,866.3	1,356,856.58	3,264,370.13	40.309093	-104.552024
17,423.0	90.58	90.60	6,792.6	-1,529.1	7,961.2	1,356,857.04	3,264,465.11	40.309091	-104.551684
17,517.0	90.71	90.01	6,791.6	-1,529.6	8,055.2	1,356,857.52	3,264,559.10	40.309090	-104.551347
17,612.0	90.38	90.41	6,790.7	-1,529.9	8,150.2	1,356,858.15	3,264,654.09	40.309089	-104.551006
17,707.0	90.62	90.04	6,789.8	-1,530.3	8,245.2	1,356,858.76	3,264,749.08	40.309088	-104.550665
17,802.0	90.57	90.20	6,788.9	-1,530.5	8,340.2	1,356,859.55	3,264,844.07	40.309087	-104.550325
17,897.0	90.40	90.08	6,788.1	-1,530.7	8,435.2	1,356,860.30	3,264,939.06	40.309086	-104.549984
17,991.0	90.70	90.23	6,787.2	-1,531.0	8,529.2	1,356,861.02	3,265,033.05	40.309085	-104.549647
18,086.0	90.48	90.34	6,786.2	-1,531.4	8,624.2	1,356,861.54	3,265,128.04	40.309084	-104.549307
18,181.0	90.72	90.15	6,785.2	-1,531.8	8,719.2	1,356,862.12	3,265,223.02	40.309083	-104.548966
18,275.0	90.58	90.37	6,784.1	-1,532.3	8,813.2	1,356,862.67	3,265,317.01	40.309082	-104.548629
18,369.0	90.48	90.49	6,783.2	-1,533.0	8,907.2	1,356,862.93	3,265,411.00	40.309080	-104.548292
18,464.0	90.54	90.11	6,782.4	-1,533.5	9,002.2	1,356,863.42	3,265,505.99	40.309078	-104.547951
18,559.0	90.60	90.82	6,781.5	-1,534.2	9,097.2	1,356,863.64	3,265,600.98	40.309076	-104.547611
18,652.0	90.62	89.68	6,780.5	-1,534.7	9,190.2	1,356,864.20	3,265,693.97	40.309075	-104.547277
18,747.0	90.62	89.68	6,779.4	-1,534.1	9,285.2	1,356,865.71	3,265,788.95	40.309076	-104.546937
<b>BHL - 1430' FSL &amp; 205' FEL</b>									

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name			Casing Diameter (")	Hole Diameter (")
50.0	50.0	13 3/8"			13-3/8	17-1/2

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
7,957.0	6,869.3	-1,516.4	-1,502.8	LPL - 1457' FSL & 462' FEL	
18,747.0	6,779.4	-1,534.1	9,285.2	BHL - 1430' FSL & 205' FEL	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_