

BISON OIL & GAS II

**WELD COUNTY
SEC 18-T8N-R60W
ROSS 8-60 18-7-1**

OWB

Design: FINAL SURVEY

Standard Survey Report

19 July, 2022

PROJECT DETAILS: WELD COUNTY

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone

System Datum: Mean Sea Level



Azimuths to True North
Magnetic North: 7.44°
Magnetic Field
Strength: 52056.4nT
Dip Angle: 66.91°
Date: 5/4/2022
Model: IGRF2020

WELL DETAILS: ROSS 8-60 18-7-1

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1484914.99	3378672.26	40.656487°N	104.135148°W	

ANNOTATIONS

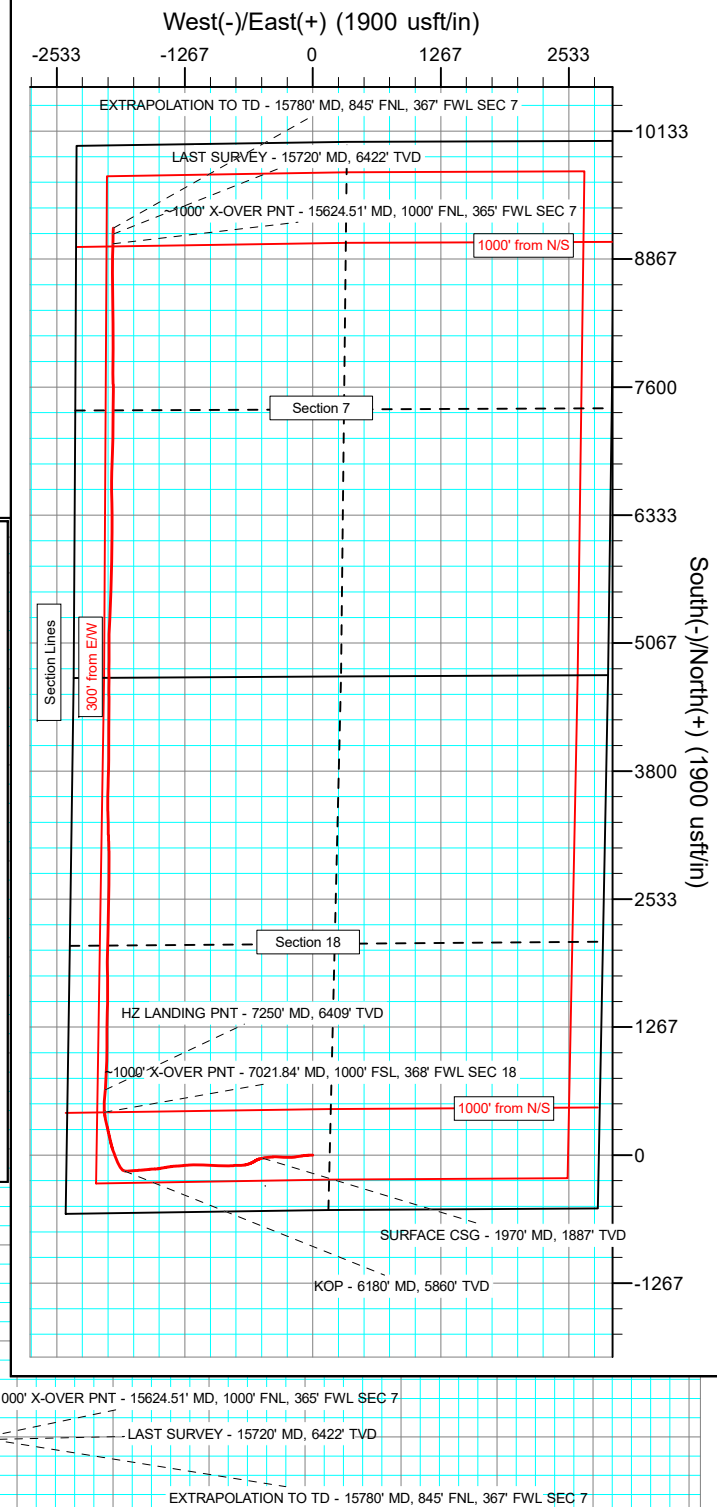
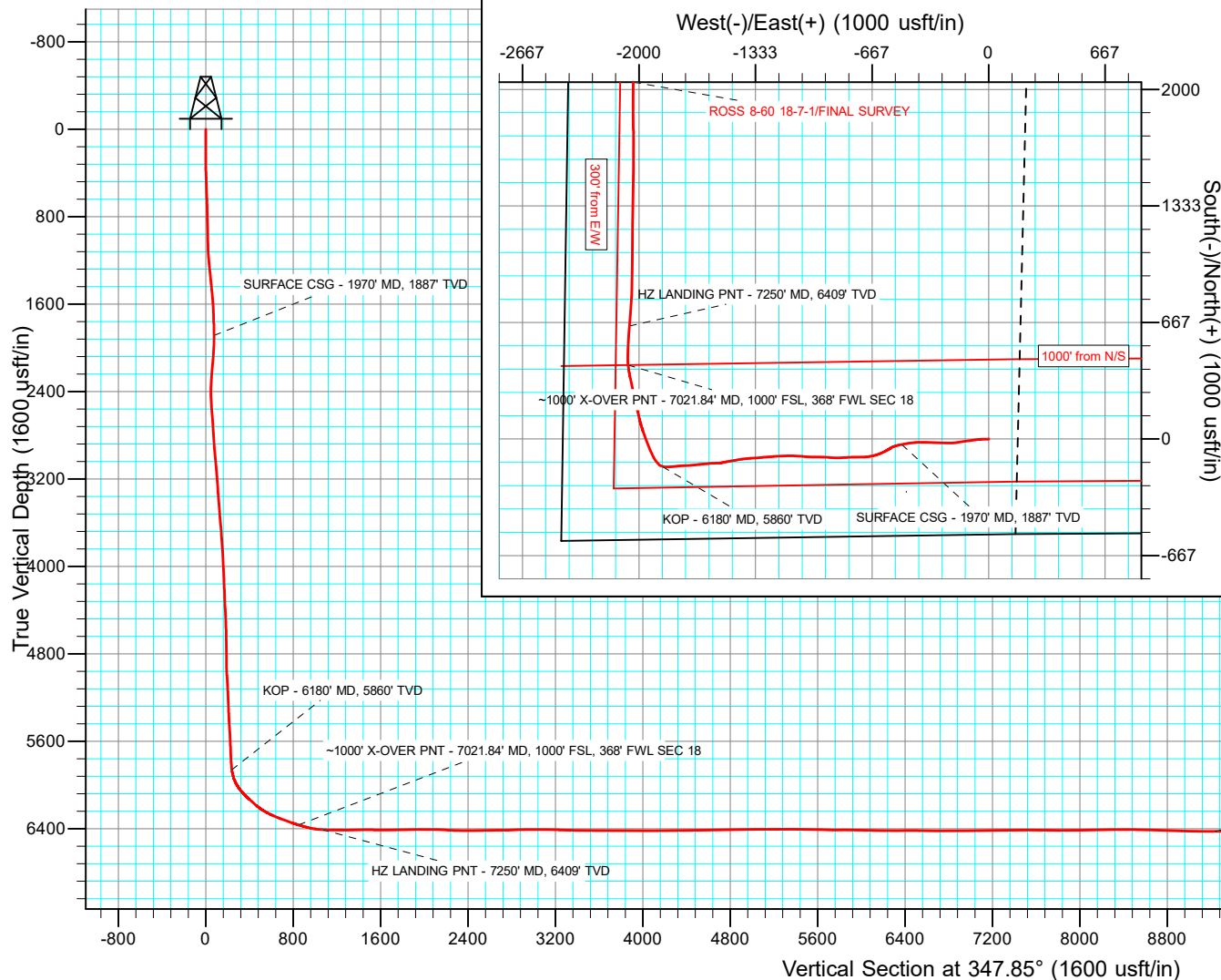
MD	Inc	Azi	TVD	+N/-S	+E/-W	Vsect	Departure	Annotation
1970.00	18.53	258.83	1886.85	-31.02	-496.69	74.21	499.77	SURFACE CSG - 1970' MD, 1887' TVD
6180.00	18.09	282.96	5860.10	-158.37	-1864.39	237.57	1886.90	KOP - 6180' MD, 5860' TVD
7021.84	86.22	354.44	6365.47	-40.08	-1066.37	847.59	1111.11	1000' FSL, 360' FNL, 365' FNL SEC 8
7250.00	86.22	4.44	6408.52	646.07	-2053.87	1063.87	2737.86	HZ LANDING PNT - 7250' MD, 6409' TVD
15624.51	90.64	1.54	6424.20	9017.23	-1978.12	9321.58	1111.11	1000' X-OVER PNT - 15624.51' MD, 1000' FNL, 365' FNL SEC 7
15720.00	91.52	1.11	6422.46	9112.68	-1975.95	9324.44	11206.59	LAST SURVEY - 15720' MD, 6422' TVD
15780.00	91.52	1.11	6420.86	9172.65	-1974.79	9382.82	11266.56	EXTRAPOLATION TO TD - 15780' MD, 845' FNL, 367' FNL SEC 7

SHL:
546' FSL, 2436' FWL
Sec 18-T8N-R60W

~1000' X-OVER PNT:
1000' FSL, 368' FWL
Sec 18-T8N-R60W

~1000' X-OVER PNT:
1000' FNL, 365' FWL
Sec 7-T8N-R60W

BHL:
845' FNL, 367' FWL
Sec 7-T8N-R60W



Survey Report

Company:	BISON OIL & GAS II	Local Co-ordinate Reference:	Well ROSS 8-60 18-7-1
Project:	WELD COUNTY	TVD Reference:	KB 24' @ 4974.00usft
Site:	SEC 18-T8N-R60W	MD Reference:	KB 24' @ 4974.00usft
Well:	ROSS 8-60 18-7-1	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Project	WELD COUNTY		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		Using geodetic scale factor

Site		SEC 18-T8N-R60W					
Site Position:		Northing:	1,484,295.38	usft	Latitude:	40.654889°N	
From:	Lat/Long	Easting:	3,376,236.78	usft	Longitude:	104.143959°W	
Position Uncertainty:	0.00	usft	Slot Radius:	13.200	in	Grid Convergence:	0.88 °

Well	ROSS 8-60 18-7-1					
Well Position	+N/-S	0.00 usft	Northing:	1,484,914.99 usft	Latitude:	40.656487°N
	+E/-W	0.00 usft	Easting:	3,378,672.26 usft	Longitude:	104.135148°W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	4,950.00 usft

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/4/2022	7.44	66.91	52,056.38961324

Design	FINAL SURVEY				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	347.85	

Survey Program	Date	7/19/2022			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
157.00	1,904.00	SURFACE SURVEY (OWB)	MWD	OWSG MWD - Standard	
2,029.00	15,780.00	FINAL SURVEY (OWB)	MWD	OWSG MWD - Standard	

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
157.00	0.22	157.88	157.00	-0.28	0.11	-0.30	0.14	0.14	0.00	
246.00	0.93	249.49	246.00	-0.69	-0.50	-0.57	1.08	0.80	102.93	
335.00	4.24	269.23	334.89	-0.99	-4.47	-0.03	3.80	3.72	22.18	
424.00	5.97	274.87	423.54	-0.64	-12.37	1.98	2.02	1.94	6.34	
513.00	8.93	269.67	511.78	-0.29	-23.89	4.75	3.41	3.33	-5.84	
602.00	12.28	266.68	599.25	-0.87	-40.25	7.62	3.81	3.76	-3.36	
691.00	15.33	263.55	685.67	-2.74	-61.40	10.24	3.53	3.43	-3.52	
780.00	17.68	262.67	770.99	-5.79	-86.49	12.54	2.66	2.64	-0.99	
869.00	18.60	261.43	855.57	-9.63	-113.93	14.57	1.12	1.03	-1.39	

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Site:	SEC 18-T8N-R60W	MD Reference:	KB 24' @ 4974.00usft
Well:	ROSS 8-60 18-7-1	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
958.00	18.47	261.83	939.95	-13.75	-141.92	16.43	0.20	-0.15	0.45
1,047.00	19.13	260.77	1,024.20	-18.09	-170.27	18.15	0.83	0.74	-1.19
1,136.00	20.19	264.70	1,108.02	-21.85	-199.96	20.73	1.90	1.19	4.42
1,225.00	21.52	271.13	1,191.20	-22.95	-231.58	26.31	2.97	1.49	7.22
1,314.00	22.40	272.32	1,273.74	-21.94	-264.85	34.30	1.11	0.99	1.34
1,403.00	21.83	272.10	1,356.19	-20.65	-298.33	42.61	0.65	-0.64	-0.25
1,492.00	22.80	272.01	1,438.52	-19.43	-332.10	50.90	1.09	1.09	-0.10
1,581.00	21.30	271.92	1,521.01	-18.29	-365.49	59.05	1.69	-1.69	-0.10
1,670.00	20.72	267.65	1,604.10	-18.39	-397.38	65.66	1.84	-0.65	-4.80
1,760.00	19.62	263.95	1,688.58	-20.64	-428.31	69.97	1.87	-1.22	-4.11
1,849.00	19.53	262.36	1,772.44	-24.19	-457.92	72.73	0.61	-0.10	-1.79
1,904.00	19.00	259.54	1,824.36	-27.04	-475.83	73.72	1.95	-0.96	-5.13
1,970.00	18.53	258.83	1,886.85	-31.02	-496.69	74.21	0.79	-0.71	-1.07
SURFACE CSG - 1970' MD, 1887' TVD									
2,029.00	18.12	258.17	1,942.86	-34.72	-514.87	74.43	0.79	-0.70	-1.12
2,118.00	17.94	249.76	2,027.50	-42.30	-541.28	72.57	2.93	-0.20	-9.45
2,207.00	15.86	235.96	2,112.69	-53.85	-564.23	66.11	5.06	-2.34	-15.51
2,295.00	20.86	242.49	2,196.19	-67.83	-588.11	57.47	6.14	5.68	7.42
2,385.00	22.40	247.42	2,279.86	-81.82	-618.16	50.12	2.65	1.71	5.48
2,474.00	22.58	254.74	2,362.11	-92.83	-650.31	46.12	3.15	0.20	8.22
2,563.00	22.45	261.57	2,444.34	-99.82	-683.61	46.29	2.94	-0.15	7.67
2,652.00	22.45	269.06	2,526.61	-102.59	-717.42	50.70	3.21	0.00	8.42
2,742.00	21.87	269.15	2,609.96	-103.12	-751.36	57.33	0.65	-0.64	0.10
2,831.00	21.39	268.09	2,692.69	-103.91	-784.15	63.46	0.70	-0.54	-1.19
2,920.00	20.95	267.03	2,775.69	-105.27	-816.27	68.88	0.66	-0.49	-1.19
3,009.00	20.99	266.46	2,858.79	-107.08	-848.07	73.81	0.23	0.04	-0.64
3,098.00	19.75	273.46	2,942.24	-107.16	-878.99	80.24	3.07	-1.39	7.87
3,187.00	19.35	273.20	3,026.11	-105.43	-908.72	88.19	0.46	-0.45	-0.29
3,276.00	18.91	272.72	3,110.19	-103.92	-937.85	95.80	0.53	-0.49	-0.54
3,365.00	18.38	271.31	3,194.52	-102.91	-966.28	102.76	0.78	-0.60	-1.58
3,454.00	17.37	268.75	3,279.23	-102.88	-993.59	108.54	1.44	-1.13	-2.88
3,543.00	16.35	274.35	3,364.40	-102.22	-1,019.37	114.61	2.15	-1.15	6.29
3,632.00	16.04	273.99	3,449.87	-100.42	-1,044.13	121.59	0.37	-0.35	-0.40
3,722.00	16.31	273.86	3,536.31	-98.70	-1,069.14	128.53	0.30	0.30	-0.14
3,811.00	16.22	273.33	3,621.75	-97.14	-1,094.02	135.29	0.20	-0.10	-0.60
3,900.00	16.00	272.54	3,707.25	-95.87	-1,118.68	141.72	0.35	-0.25	-0.89
3,989.00	19.89	268.75	3,791.91	-95.66	-1,146.08	147.70	4.56	4.37	-4.26
4,078.00	19.80	267.30	3,875.63	-96.70	-1,176.27	153.03	0.56	-0.10	-1.63
4,167.00	19.35	266.46	3,959.48	-98.32	-1,206.05	157.72	0.60	-0.51	-0.94
4,256.00	18.34	266.24	4,043.71	-100.15	-1,234.74	161.97	1.14	-1.13	-0.25
4,345.00	17.45	265.49	4,128.40	-102.12	-1,262.01	165.78	1.03	-1.00	-0.84
4,434.00	19.00	264.83	4,212.94	-104.47	-1,289.75	169.32	1.76	1.74	-0.74
4,523.00	17.72	264.12	4,297.40	-107.16	-1,317.65	172.56	1.46	-1.44	-0.80

Survey Report

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Site:	SEC 18-T8N-R60W	MD Reference:	KB 24' @ 4974.00usft
Well:	ROSS 8-60 18-7-1	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,612.00	18.07	268.13	4,382.10	-109.00	-1,344.92	176.50	1.44	0.39	4.51	
4,702.00	20.46	264.96	4,467.06	-110.84	-1,374.54	180.94	2.90	2.66	-3.52	
4,791.00	19.09	262.80	4,550.81	-114.03	-1,404.48	184.12	1.74	-1.54	-2.43	
4,880.00	17.54	259.72	4,635.30	-118.25	-1,432.12	185.82	2.05	-1.74	-3.46	
4,969.00	19.00	260.38	4,719.81	-123.06	-1,459.60	186.89	1.66	1.64	0.74	
5,058.00	20.55	260.60	4,803.56	-128.04	-1,489.29	188.28	1.74	1.74	0.25	
5,147.00	18.29	257.12	4,887.49	-133.70	-1,518.32	188.85	2.85	-2.54	-3.91	
5,236.00	19.00	267.65	4,971.85	-137.41	-1,546.42	191.14	3.86	0.80	11.83	
5,325.00	21.30	267.96	5,055.39	-138.58	-1,577.06	196.45	2.59	2.58	0.35	
5,415.00	19.22	263.95	5,139.82	-140.72	-1,608.13	200.89	2.78	-2.31	-4.46	
5,526.00	20.95	265.09	5,244.07	-144.35	-1,646.07	205.33	1.60	1.56	1.03	
5,615.00	19.18	262.45	5,327.67	-147.63	-1,676.42	208.51	2.23	-1.99	-2.97	
5,705.00	20.28	267.25	5,412.39	-150.32	-1,706.66	212.24	2.18	1.22	5.33	
5,794.00	21.92	267.47	5,495.42	-151.79	-1,738.66	217.54	1.84	1.84	0.25	
5,883.00	20.68	264.92	5,578.34	-153.92	-1,770.92	222.25	1.74	-1.39	-2.87	
5,971.00	18.25	263.20	5,661.30	-156.93	-1,800.08	225.45	2.84	-2.76	-1.95	
6,060.00	17.76	267.47	5,745.95	-159.18	-1,827.48	229.02	1.58	-0.55	4.80	
6,150.00	18.12	271.13	5,831.58	-159.51	-1,855.19	234.52	1.31	0.40	4.07	
6,180.00	18.09	282.96	5,860.10	-158.37	-1,864.39	237.57	12.23	-0.11	39.43	
KOP - 6180' MD, 5860' TVD										
6,239.00	20.02	304.40	5,915.93	-150.60	-1,881.67	248.81	12.23	3.28	36.34	
6,328.00	31.46	328.55	5,996.18	-122.01	-1,906.51	281.98	17.21	12.85	27.13	
6,417.00	42.38	335.64	6,067.26	-74.71	-1,931.08	333.40	13.15	12.27	7.97	
6,506.00	48.96	339.87	6,129.43	-15.79	-1,955.04	396.04	8.13	7.39	4.75	
6,595.00	49.49	340.71	6,187.56	47.66	-1,977.77	462.85	0.93	0.60	0.94	
6,684.00	59.88	346.75	6,238.97	117.29	-1,997.83	535.15	12.91	11.67	6.79	
6,773.00	66.02	347.23	6,279.42	194.49	-2,015.66	614.36	6.92	6.90	0.54	
6,862.00	69.91	347.67	6,312.81	275.00	-2,033.58	696.84	4.39	4.37	0.49	
6,951.00	70.08	347.63	6,343.25	356.69	-2,051.47	780.47	0.20	0.19	-0.04	
7,021.84	73.40	354.25	6,365.47	423.08	-2,062.01	847.59	10.03	4.68	9.35	
~1000' X-OVER PNT - 7021.84' MD, 1000' FSL, 368' FWL SEC 18										
7,040.00	74.28	355.91	6,370.53	440.46	-2,063.51	864.89	10.03	4.87	9.13	
7,129.00	77.51	4.16	6,392.25	526.68	-2,063.41	949.16	9.69	3.63	9.27	
7,218.00	84.71	4.90	6,405.99	614.28	-2,056.47	1,033.34	8.13	8.09	0.83	
7,250.00	86.22	4.44	6,408.52	646.07	-2,053.87	1,063.87	4.93	4.72	-1.43	
HZ LANDING PNT - 7250' MD, 6409' TVD										
7,307.00	88.91	3.63	6,410.95	702.87	-2,049.86	1,118.56	4.93	4.72	-1.42	
7,396.00	89.93	3.14	6,411.85	791.71	-2,044.61	1,204.30	1.27	1.15	-0.55	
7,485.00	90.19	1.64	6,411.75	880.63	-2,040.89	1,290.45	1.71	0.29	-1.69	
7,574.00	90.94	1.56	6,410.88	969.59	-2,038.41	1,376.89	0.85	0.84	-0.09	
7,663.00	90.15	359.62	6,410.03	1,058.57	-2,037.49	1,463.69	2.35	-0.89	-2.18	
7,752.00	89.09	0.10	6,410.62	1,147.57	-2,037.71	1,550.74	1.31	-1.19	0.54	
7,841.00	89.93	1.20	6,411.38	1,236.56	-2,036.70	1,637.52	1.56	0.94	1.24	
7,931.00	90.54	1.07	6,411.01	1,326.54	-2,034.92	1,725.11	0.69	0.68	-0.14	

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Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
8,020.00	92.00	0.98	6,409.04	1,415.50	-2,033.33	1,811.75	1.64	1.64	-0.10	
8,109.00	90.37	0.32	6,407.20	1,504.47	-2,032.32	1,898.51	1.98	-1.83	-0.74	
8,198.00	89.57	0.28	6,407.24	1,593.47	-2,031.85	1,985.42	0.90	-0.90	-0.04	
8,287.00	90.10	0.14	6,407.50	1,682.47	-2,031.53	2,072.36	0.62	0.60	-0.16	
8,376.00	87.14	359.22	6,409.64	1,771.43	-2,032.02	2,159.43	3.48	-3.33	-1.03	
8,465.00	87.23	359.26	6,414.01	1,860.32	-2,033.20	2,246.57	0.11	0.10	0.04	
8,554.00	89.22	0.01	6,416.77	1,949.27	-2,033.77	2,333.65	2.39	2.24	0.84	
8,643.00	90.28	2.17	6,417.16	2,038.24	-2,032.07	2,420.28	2.70	1.19	2.43	
8,732.00	90.81	2.13	6,416.31	2,127.18	-2,028.74	2,506.52	0.60	0.60	-0.04	
8,821.00	91.83	2.30	6,414.26	2,216.09	-2,025.30	2,592.71	1.16	1.15	0.19	
8,910.00	90.41	0.67	6,412.52	2,305.03	-2,022.99	2,679.18	2.43	-1.60	-1.83	
8,999.00	90.23	0.45	6,412.03	2,394.03	-2,022.12	2,766.00	0.32	-0.20	-0.25	
9,088.00	92.00	1.42	6,410.29	2,483.00	-2,020.67	2,852.67	2.27	1.99	1.09	
9,177.00	90.59	0.01	6,408.28	2,571.96	-2,019.56	2,939.40	2.24	-1.58	-1.58	
9,267.00	89.22	0.14	6,408.43	2,661.96	-2,019.44	3,027.36	1.53	-1.52	0.14	
9,356.00	90.37	1.07	6,408.75	2,750.95	-2,018.50	3,114.16	1.66	1.29	1.04	
9,445.00	88.56	1.64	6,409.58	2,839.92	-2,016.40	3,200.69	2.13	-2.03	0.64	
9,534.00	88.42	359.48	6,411.93	2,928.88	-2,015.53	3,287.48	2.43	-0.16	-2.43	
9,623.00	88.86	358.03	6,414.04	3,017.83	-2,017.46	3,374.84	1.70	0.49	-1.63	
9,712.00	89.40	357.46	6,415.39	3,106.75	-2,020.96	3,462.51	0.88	0.61	-0.64	
9,801.00	89.44	359.53	6,416.29	3,195.71	-2,023.30	3,549.97	2.33	0.04	2.33	
9,890.00	89.66	358.87	6,416.99	3,284.70	-2,024.54	3,637.22	0.78	0.25	-0.74	
9,979.00	90.01	357.28	6,417.25	3,373.64	-2,027.53	3,724.81	1.83	0.39	-1.79	
10,068.00	89.17	0.23	6,417.88	3,462.61	-2,029.47	3,812.19	3.45	-0.94	3.31	
10,157.00	89.66	0.85	6,418.79	3,551.60	-2,028.63	3,899.01	0.89	0.55	0.70	
10,247.00	90.28	2.08	6,418.84	3,641.57	-2,026.33	3,986.48	1.53	0.69	1.37	
10,336.00	90.81	1.47	6,417.99	3,730.52	-2,023.57	4,072.86	0.91	0.60	-0.69	
10,425.00	91.38	0.81	6,416.29	3,819.49	-2,021.80	4,159.46	0.98	0.64	-0.74	
10,514.00	89.88	0.54	6,415.31	3,908.47	-2,020.75	4,246.23	1.71	-1.69	-0.30	
10,603.00	90.06	0.41	6,415.36	3,997.47	-2,020.01	4,333.08	0.25	0.20	-0.15	
10,692.00	90.77	359.70	6,414.72	4,086.47	-2,019.93	4,420.06	1.13	0.80	-0.80	
10,781.00	91.38	0.19	6,413.05	4,175.45	-2,020.01	4,507.07	0.88	0.69	0.55	
10,870.00	90.28	1.25	6,411.76	4,264.43	-2,018.89	4,593.82	1.72	-1.24	1.19	
10,959.00	90.59	0.89	6,411.08	4,353.41	-2,017.23	4,680.46	0.53	0.35	-0.40	
11,048.00	90.99	359.92	6,409.85	4,442.40	-2,016.60	4,767.32	1.18	0.45	-1.09	
11,137.00	92.22	359.44	6,407.36	4,531.36	-2,017.10	4,854.40	1.48	1.38	-0.54	
11,226.00	89.66	0.41	6,405.90	4,620.34	-2,017.22	4,941.41	3.08	-2.88	1.09	
11,315.00	89.84	359.79	6,406.29	4,709.34	-2,017.06	5,028.38	0.73	0.20	-0.70	
11,404.00	89.75	359.84	6,406.61	4,798.34	-2,017.35	5,115.45	0.12	-0.10	0.06	
11,493.00	89.70	0.59	6,407.04	4,887.34	-2,017.01	5,202.38	0.84	-0.06	0.84	
11,582.00	90.32	0.01	6,407.02	4,976.33	-2,016.55	5,289.29	0.95	0.70	-0.65	
11,671.00	91.34	359.18	6,405.73	5,065.32	-2,017.18	5,376.41	1.48	1.15	-0.93	
11,760.00	89.62	2.70	6,404.99	5,154.29	-2,015.72	5,463.08	4.40	-1.93	3.96	

Survey Report

Company:	BISON OIL & GAS II	Local Co-ordinate Reference:	Well ROSS 8-60 18-7-1
Project:	WELD COUNTY	TVD Reference:	KB 24' @ 4974.00usft
Site:	SEC 18-T8N-R60W	MD Reference:	KB 24' @ 4974.00usft
Well:	ROSS 8-60 18-7-1	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
11,849.00	88.69	3.10	6,406.30	5,243.16	-2,011.22	5,549.02	1.14	-1.04	0.45
11,938.00	88.51	2.35	6,408.47	5,332.04	-2,006.99	5,635.01	0.87	-0.20	-0.84
12,027.00	89.00	1.64	6,410.41	5,420.96	-2,003.89	5,721.29	0.97	0.55	-0.80
12,116.00	89.66	1.20	6,411.45	5,509.93	-2,001.68	5,807.80	0.89	0.74	-0.49
12,206.00	90.85	1.42	6,411.05	5,599.90	-1,999.63	5,895.32	1.34	1.32	0.24
12,295.00	88.25	2.70	6,411.75	5,688.83	-1,996.43	5,981.59	3.26	-2.92	1.44
12,384.00	88.47	2.13	6,414.29	5,777.71	-1,992.68	6,067.69	0.69	0.25	-0.64
12,473.00	88.73	1.42	6,416.47	5,866.64	-1,989.92	6,154.05	0.85	0.29	-0.80
12,562.00	89.70	0.81	6,417.69	5,955.62	-1,988.19	6,240.67	1.29	1.09	-0.69
12,651.00	90.28	0.32	6,417.70	6,044.61	-1,987.31	6,327.48	0.85	0.65	-0.55
12,740.00	91.21	0.59	6,416.54	6,133.60	-1,986.61	6,414.33	1.09	1.04	0.30
12,829.00	88.78	0.14	6,416.55	6,222.59	-1,986.04	6,501.21	2.78	-2.73	-0.51
12,918.00	89.31	359.53	6,418.04	6,311.58	-1,986.30	6,588.26	0.91	0.60	-0.69
13,007.00	89.57	359.35	6,418.91	6,400.57	-1,987.17	6,675.44	0.36	0.29	-0.20
13,097.00	89.53	358.65	6,419.61	6,490.55	-1,988.74	6,763.74	0.78	-0.04	-0.78
13,186.00	90.28	358.12	6,419.76	6,579.52	-1,991.24	6,851.23	1.03	0.84	-0.60
13,275.00	90.85	1.60	6,418.88	6,668.50	-1,991.46	6,938.27	3.96	0.64	3.91
13,364.00	91.34	1.69	6,417.18	6,757.45	-1,988.91	7,024.68	0.56	0.55	0.10
13,453.00	91.78	1.07	6,414.76	6,846.39	-1,986.76	7,111.18	0.85	0.49	-0.70
13,542.00	89.75	2.13	6,413.57	6,935.34	-1,984.28	7,197.62	2.57	-2.28	1.19
13,631.00	89.97	2.52	6,413.79	7,024.26	-1,980.67	7,283.79	0.50	0.25	0.44
13,720.00	90.10	1.16	6,413.73	7,113.22	-1,977.81	7,370.15	1.54	0.15	-1.53
13,809.00	90.54	0.45	6,413.24	7,202.20	-1,976.56	7,456.88	0.94	0.49	-0.80
13,898.00	90.99	359.92	6,412.05	7,291.20	-1,976.27	7,543.82	0.78	0.51	-0.60
13,987.00	89.26	0.81	6,411.85	7,380.19	-1,975.71	7,630.70	2.19	-1.94	1.00
14,076.00	89.13	0.23	6,413.10	7,469.18	-1,974.90	7,717.53	0.67	-0.15	-0.65
14,165.00	89.70	359.88	6,414.01	7,558.17	-1,974.81	7,804.51	0.75	0.64	-0.39
14,254.00	90.15	358.87	6,414.13	7,647.16	-1,975.78	7,891.71	1.24	0.51	-1.13
14,343.00	90.72	358.78	6,413.45	7,736.14	-1,977.61	7,979.08	0.65	0.64	-0.10
14,432.00	90.77	1.33	6,412.30	7,825.13	-1,977.52	8,066.06	2.87	0.06	2.87
14,521.00	91.78	0.32	6,410.32	7,914.09	-1,976.24	8,152.76	1.60	1.13	-1.13
14,610.00	89.40	0.63	6,409.40	8,003.08	-1,975.51	8,239.60	2.70	-2.67	0.35
14,699.00	90.19	359.70	6,409.72	8,092.08	-1,975.25	8,326.55	1.37	0.89	-1.04
14,788.00	91.60	359.79	6,408.33	8,181.06	-1,975.65	8,413.62	1.59	1.58	0.10
14,877.00	88.25	359.22	6,408.44	8,270.05	-1,976.41	8,500.78	3.82	-3.76	-0.64
14,967.00	88.60	358.87	6,410.92	8,360.00	-1,977.91	8,589.03	0.55	0.39	-0.39
15,056.00	88.69	358.87	6,413.02	8,448.96	-1,979.67	8,676.36	0.10	0.10	0.00
15,145.00	88.64	358.34	6,415.10	8,537.91	-1,981.83	8,763.78	0.60	-0.06	-0.60
15,234.00	88.42	0.76	6,417.38	8,626.87	-1,982.53	8,850.89	2.73	-0.25	2.72
15,323.00	88.29	0.01	6,419.93	8,715.83	-1,981.94	8,937.73	0.85	-0.15	-0.84
15,412.00	88.47	359.75	6,422.45	8,804.79	-1,982.12	9,024.75	0.36	0.20	-0.29
15,501.00	89.26	1.20	6,424.21	8,893.77	-1,981.38	9,111.57	1.86	0.89	1.63
15,590.00	90.37	1.73	6,424.50	8,982.74	-1,979.11	9,198.07	1.38	1.25	0.60
15,624.51	90.64	1.54	6,424.20	9,017.23	-1,978.12	9,231.59	0.95	0.79	-0.54

Survey Report

Company:	BISON OIL & GAS II	Local Co-ordinate Reference:	Well ROSS 8-60 18-7-1
Project:	WELD COUNTY	TVD Reference:	KB 24' @ 4974.00usft
Site:	SEC 18-T8N-R60W	MD Reference:	KB 24' @ 4974.00usft
Well:	ROSS 8-60 18-7-1	North Reference:	True
Wellbore:	OWB	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEY	Database:	EDT_32Bit_ODBC

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
~1000' X-OVER PNT - 15624.51' MD, 1000' FNL, 365' FWL SEC 7									
15,679.00	91.07	1.25	6,423.38	9,071.70	-1,976.79	9,284.55	0.95	0.79	-0.54
15,720.00	91.52	1.11	6,422.46	9,112.68	-1,975.95	9,324.44	1.15	1.10	-0.34
LAST SURVEY - 15720' MD, 6422' TVD									
15,780.00	91.52	1.11	6,420.86	9,172.65	-1,974.79	9,382.82	0.00	0.00	0.00
EXTRAPOLATION TO TD - 15780' MD, 845' FNL, 367' FWL SEC 7									

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,970.00	1,886.85	-31.02	-496.69	SURFACE CSG - 1970' MD, 1887' TVD
6,180.00	5,860.10	-158.37	-1,864.39	KOP - 6180' MD, 5860' TVD
7,021.84	6,365.47	423.08	-2,062.01	~1000' X-OVER PNT - 7021.84' MD, 1000' FSL, 368' FWL SEC 18
7,250.00	6,408.52	646.07	-2,053.87	HZ LANDING PNT - 7250' MD, 6409' TVD
15,624.51	6,424.20	9,017.23	-1,978.12	~1000' X-OVER PNT - 15624.51' MD, 1000' FNL, 365' FWL SEC 7
15,720.00	6,422.46	9,112.68	-1,975.95	LAST SURVEY - 15720' MD, 6422' TVD
15,780.00	6,420.86	9,172.65	-1,974.79	EXTRAPOLATION TO TD - 15780' MD, 845' FNL, 367' FWL SEC 7

Checked By: _____	Approved By: _____	Date: _____
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