

# **EXTRACTION OIL & GAS**

**WELD COUNTY  
SEC 28-T5N-66W  
T-BONE 22N-20-15**

**OWB**

**Plan: PROPOSAL 1**

## **Standard Planning Report**

**11 February, 2025**



**Project: WELD COUNTY**  
**Site: SEC 28-T5N-66W**  
**Well: T-BONE 22N-20-15**  
**Wellbore: OWB**  
**Design: PROPOSAL 1**

**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: 7.48°

Magnetic Field  
 Strength: 51551.4nT  
 Dip Angle: 66.47°  
 Date: 1/30/2025  
 Model: IGRF2020

**WELL DETAILS: T-BONE 22N-20-15**

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	1376476.39	3198975.55	40.364630°N	104.785937°W	

**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	
3	1941.07	55.23	57.22	1668.89	444.37	690.05	3.00	57.22	689.30	
4	10933.96	55.23	57.22	6797.12	4444.00	6901.04	0.00	0.00	6893.50	
5	11570.72	90.00	359.89	7000.00	4958.00	7146.08	10.00	-69.91	7462.81	LP-T-BONE 22N-20-15
6	22362.28	90.00	359.89	7000.00	15749.55	7125.42	0.00	0.00	17286.41	PBHL-T-BONE 22N-20-15

**ANNOTATIONS**

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSec	Departure	Annotation
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	Start Build 3.00
1941.07	55.23	57.22	1668.89	444.37	690.05	689.30	820.75	Start 8992.90 hold at 1941.07 MD
10933.96	55.23	57.22	6797.12	4444.00	6901.04	6893.50	8208.13	Start DLS 10.00 TFO -69.91
11570.72	90.00	359.89	7000.00	4958.00	7146.08	7462.81	8801.01	Start 10791.56 hold at 11570.72 MD
22362.28	90.00	359.89	7000.00	15749.55	7125.42	17286.41	19592.57	TD at 22362.28

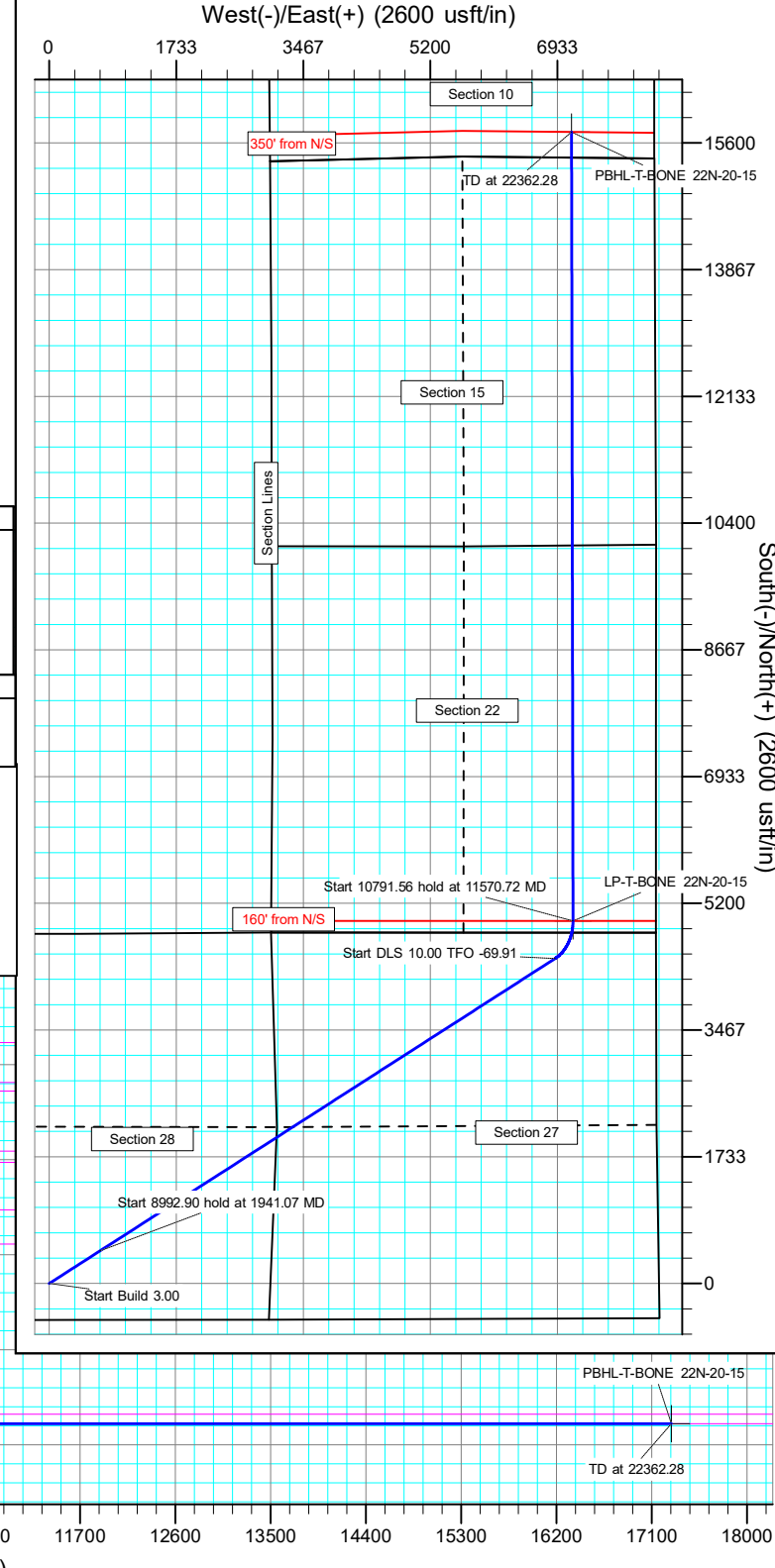
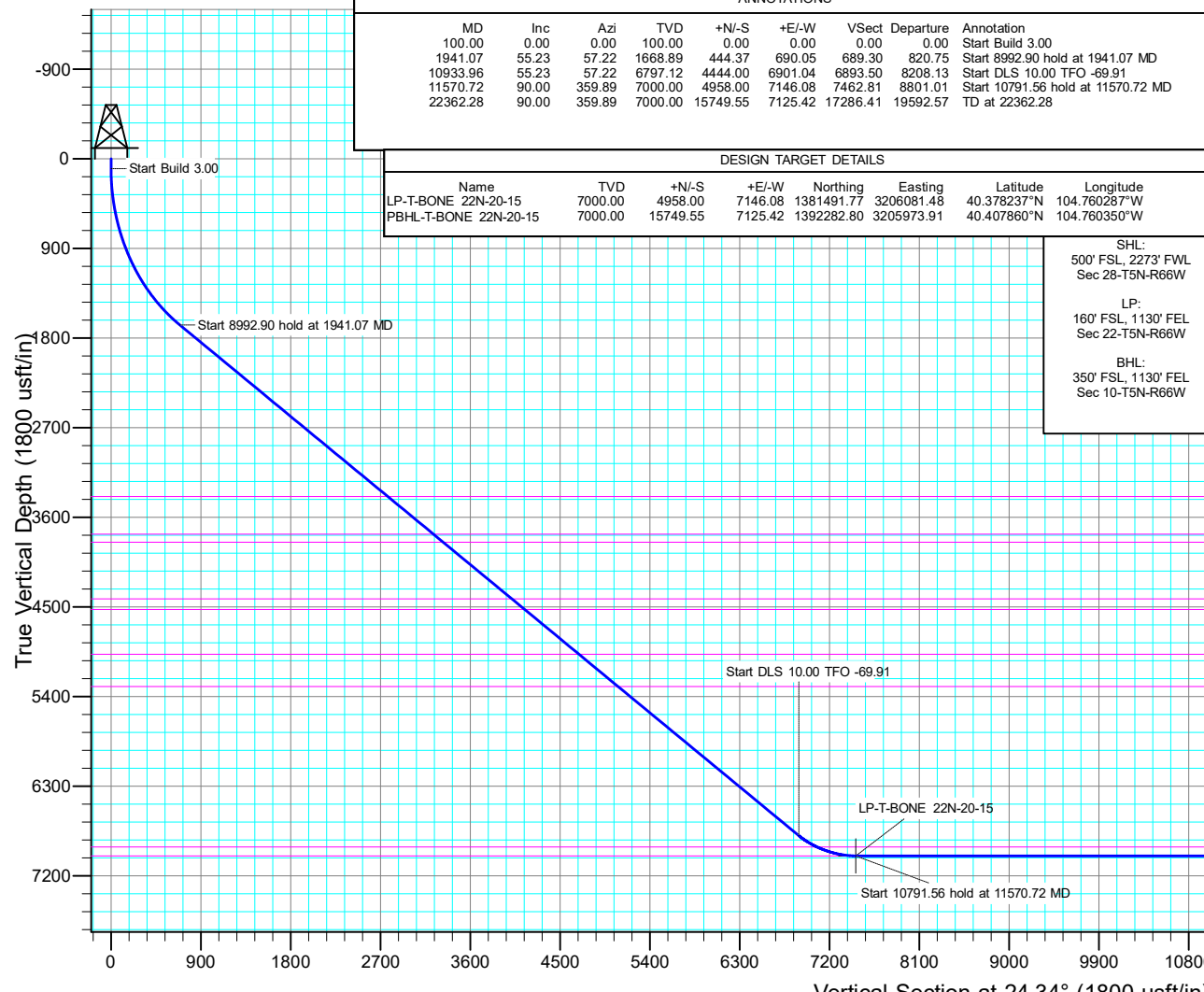
**DESIGN TARGET DETAILS**

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP-T-BONE 22N-20-15	7000.00	4958.00	7146.08	1381491.77	3206081.48	40.378237°N	104.760287°W
PBHL-T-BONE 22N-20-15	7000.00	15749.55	7125.42	1392282.80	3205973.91	40.407860°N	104.760350°W

SHL:  
 500' FSL, 2273' FWL  
 Sec 28-T5N-R66W

LP:  
 160' FSL, 1130' FEL  
 Sec 22-T5N-R66W

BHL:  
 350' FSL, 1130' FEL  
 Sec 10-T5N-R66W



# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well T-BONE 22N-20-15
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 4837.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4837.00usft
<b>Site:</b>	SEC 28-T5N-66W	<b>North Reference:</b>	True
<b>Well:</b>	T-BONE 22N-20-15	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

<b>Project</b>	WELD COUNTY		
<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		

<b>Site</b>	SEC 28-T5N-66W				
<b>Site Position:</b>		<b>Northing:</b>	1,375,980.59 usft	<b>Latitude:</b>	40.363261°N
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,199,339.03 usft	<b>Longitude:</b>	104.784647°W
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.46 °

<b>Well</b>	T-BONE 22N-20-15					
<b>Well Position</b>	<b>+N/-S</b>	498.71 usft	<b>Northing:</b>	1,376,476.39 usft	<b>Latitude:</b>	40.364630°N
	<b>+E/-W</b>	-359.47 usft	<b>Easting:</b>	3,198,975.55 usft	<b>Longitude:</b>	104.785937°W
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	4,812.00 usft

<b>Wellbore</b>	OWB				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2020	1/30/2025	7.48	66.47	51,551.39453558

<b>Design</b>	PROPOSAL 1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	24.34

<b>Plan Survey Tool Program</b>	<b>Date</b>	2/11/2025			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	22,362.28	PROPOSAL 1 (OWB)	MWD OWSG	
				OWSG MWD - Standard	

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,941.07	55.23	57.22	1,668.89	444.37	690.05	3.00	3.00	0.00	57.22	
10,933.96	55.23	57.22	6,797.12	4,444.00	6,901.04	0.00	0.00	0.00	0.00	
11,570.72	90.00	359.89	7,000.00	4,958.00	7,146.08	10.00	5.46	-9.00	-69.91	LP-T-BONE 22N-20-1
22,362.28	90.00	359.89	7,000.00	15,749.55	7,125.42	0.00	0.00	0.00	0.00	PBHL-T-BONE 22N-2

# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well T-BONE 22N-20-15
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 4837.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4837.00usft
<b>Site:</b>	SEC 28-T5N-66W	<b>North Reference:</b>	True
<b>Well:</b>	T-BONE 22N-20-15	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned 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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Start Build 3.00</b>									
200.00	3.00	57.22	199.95	1.42	2.20	2.20	3.00	3.00	0.00
300.00	6.00	57.22	299.63	5.66	8.80	8.79	3.00	3.00	0.00
400.00	9.00	57.22	398.77	12.73	19.77	19.75	3.00	3.00	0.00
500.00	12.00	57.22	497.08	22.60	35.09	35.05	3.00	3.00	0.00
600.00	15.00	57.22	594.31	35.23	54.71	54.65	3.00	3.00	0.00
700.00	18.00	57.22	690.18	50.61	78.59	78.50	3.00	3.00	0.00
800.00	21.00	57.22	784.43	68.68	106.65	106.54	3.00	3.00	0.00
900.00	24.00	57.22	876.81	89.40	138.82	138.67	3.00	3.00	0.00
1,000.00	27.00	57.22	967.06	112.70	175.01	174.82	3.00	3.00	0.00
1,100.00	30.00	57.22	1,054.93	138.53	215.13	214.89	3.00	3.00	0.00
1,200.00	33.00	57.22	1,140.18	166.82	259.05	258.77	3.00	3.00	0.00
1,300.00	36.00	57.22	1,222.59	197.48	306.67	306.33	3.00	3.00	0.00
1,400.00	39.00	57.22	1,301.91	230.44	357.84	357.45	3.00	3.00	0.00
1,500.00	42.00	57.22	1,377.94	265.60	412.44	411.99	3.00	3.00	0.00
1,600.00	45.00	57.22	1,450.47	302.86	470.31	469.79	3.00	3.00	0.00
1,700.00	48.00	57.22	1,519.30	342.13	531.29	530.71	3.00	3.00	0.00
1,800.00	51.00	57.22	1,584.24	383.29	595.21	594.56	3.00	3.00	0.00
1,900.00	54.00	57.22	1,645.11	426.24	661.90	661.18	3.00	3.00	0.00
1,941.07	55.23	57.22	1,668.89	444.37	690.05	689.30	3.00	3.00	0.00
<b>Start 8992.90 hold at 1941.07 MD</b>									
2,000.00	55.23	57.22	1,702.49	470.58	730.76	729.96	0.00	0.00	0.00
2,100.00	55.23	57.22	1,759.52	515.05	799.82	798.95	0.00	0.00	0.00
2,200.00	55.23	57.22	1,816.54	559.53	868.89	867.94	0.00	0.00	0.00
2,300.00	55.23	57.22	1,873.57	604.01	937.95	936.93	0.00	0.00	0.00
2,400.00	55.23	57.22	1,930.60	648.48	1,007.02	1,005.92	0.00	0.00	0.00
2,500.00	55.23	57.22	1,987.62	692.96	1,076.08	1,074.91	0.00	0.00	0.00
2,600.00	55.23	57.22	2,044.65	737.43	1,145.15	1,143.90	0.00	0.00	0.00
2,700.00	55.23	57.22	2,101.67	781.91	1,214.21	1,212.89	0.00	0.00	0.00
2,800.00	55.23	57.22	2,158.70	826.38	1,283.28	1,281.88	0.00	0.00	0.00
2,900.00	55.23	57.22	2,215.72	870.86	1,352.35	1,350.87	0.00	0.00	0.00
3,000.00	55.23	57.22	2,272.75	915.33	1,421.41	1,419.86	0.00	0.00	0.00
3,100.00	55.23	57.22	2,329.77	959.81	1,490.48	1,488.85	0.00	0.00	0.00
3,200.00	55.23	57.22	2,386.80	1,004.28	1,559.54	1,557.84	0.00	0.00	0.00
3,300.00	55.23	57.22	2,443.82	1,048.76	1,628.61	1,626.83	0.00	0.00	0.00
3,400.00	55.23	57.22	2,500.85	1,093.24	1,697.67	1,695.82	0.00	0.00	0.00
3,500.00	55.23	57.22	2,557.87	1,137.71	1,766.74	1,764.81	0.00	0.00	0.00
3,600.00	55.23	57.22	2,614.90	1,182.19	1,835.80	1,833.80	0.00	0.00	0.00
3,700.00	55.23	57.22	2,671.93	1,226.66	1,904.87	1,902.79	0.00	0.00	0.00
3,800.00	55.23	57.22	2,728.95	1,271.14	1,973.93	1,971.78	0.00	0.00	0.00
3,900.00	55.23	57.22	2,785.98	1,315.61	2,043.00	2,040.77	0.00	0.00	0.00
4,000.00	55.23	57.22	2,843.00	1,360.09	2,112.07	2,109.76	0.00	0.00	0.00
4,100.00	55.23	57.22	2,900.03	1,404.56	2,181.13	2,178.75	0.00	0.00	0.00
4,200.00	55.23	57.22	2,957.05	1,449.04	2,250.20	2,247.74	0.00	0.00	0.00
4,300.00	55.23	57.22	3,014.08	1,493.51	2,319.26	2,316.73	0.00	0.00	0.00
4,400.00	55.23	57.22	3,071.10	1,537.99	2,388.33	2,385.72	0.00	0.00	0.00
4,500.00	55.23	57.22	3,128.13	1,582.47	2,457.39	2,454.71	0.00	0.00	0.00
4,600.00	55.23	57.22	3,185.15	1,626.94	2,526.46	2,523.70	0.00	0.00	0.00
4,700.00	55.23	57.22	3,242.18	1,671.42	2,595.52	2,592.69	0.00	0.00	0.00
4,800.00	55.23	57.22	3,299.20	1,715.89	2,664.59	2,661.68	0.00	0.00	0.00
4,900.00	55.23	57.22	3,356.23	1,760.37	2,733.65	2,730.67	0.00	0.00	0.00

# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well T-BONE 22N-20-15
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<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4837.00usft
<b>Site:</b>	SEC 28-T5N-66W	<b>North Reference:</b>	True
<b>Well:</b>	T-BONE 22N-20-15	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned 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)	
4,962.73	55.23	57.22	3,392.00	1,788.27	2,776.98	2,773.94	0.00	0.00	0.00	
<b>Base of Upper Pierre aquifer</b>										
5,000.00	55.23	57.22	3,413.26	1,804.84	2,802.72	2,799.66	0.00	0.00	0.00	
5,100.00	55.23	57.22	3,470.28	1,849.32	2,871.79	2,868.65	0.00	0.00	0.00	
5,200.00	55.23	57.22	3,527.31	1,893.79	2,940.85	2,937.64	0.00	0.00	0.00	
5,300.00	55.23	57.22	3,584.33	1,938.27	3,009.92	3,006.63	0.00	0.00	0.00	
5,400.00	55.23	57.22	3,641.36	1,982.75	3,078.98	3,075.62	0.00	0.00	0.00	
5,500.00	55.23	57.22	3,698.38	2,027.22	3,148.05	3,144.61	0.00	0.00	0.00	
5,600.00	55.23	57.22	3,755.41	2,071.70	3,217.11	3,213.60	0.00	0.00	0.00	
5,625.59	55.23	57.22	3,770.00	2,083.08	3,234.79	3,231.25	0.00	0.00	0.00	
<b>Larimer ("Parkman") sandstone</b>										
5,700.00	55.23	57.22	3,812.43	2,116.17	3,286.18	3,282.59	0.00	0.00	0.00	
5,765.88	55.23	57.22	3,850.00	2,145.47	3,331.68	3,328.04	0.00	0.00	0.00	
<b>Larimer ("Parkman") sandstone Base</b>										
5,800.00	55.23	57.22	3,869.46	2,160.65	3,355.24	3,351.58	0.00	0.00	0.00	
5,900.00	55.23	57.22	3,926.48	2,205.12	3,424.31	3,420.57	0.00	0.00	0.00	
6,000.00	55.23	57.22	3,983.51	2,249.60	3,493.38	3,489.56	0.00	0.00	0.00	
6,100.00	55.23	57.22	4,040.53	2,294.07	3,562.44	3,558.55	0.00	0.00	0.00	
6,200.00	55.23	57.22	4,097.56	2,338.55	3,631.51	3,627.54	0.00	0.00	0.00	
6,300.00	55.23	57.22	4,154.59	2,383.02	3,700.57	3,696.53	0.00	0.00	0.00	
6,400.00	55.23	57.22	4,211.61	2,427.50	3,769.64	3,765.52	0.00	0.00	0.00	
6,500.00	55.23	57.22	4,268.64	2,471.98	3,838.70	3,834.51	0.00	0.00	0.00	
6,600.00	55.23	57.22	4,325.66	2,516.45	3,907.77	3,903.50	0.00	0.00	0.00	
6,700.00	55.23	57.22	4,382.69	2,560.93	3,976.83	3,972.49	0.00	0.00	0.00	
6,765.43	55.23	57.22	4,420.00	2,590.03	4,022.02	4,017.63	0.00	0.00	0.00	
<b>Terry ("Sussex") sandstone</b>										
6,800.00	55.23	57.22	4,439.71	2,605.40	4,045.90	4,041.48	0.00	0.00	0.00	
6,900.00	55.23	57.22	4,496.74	2,649.88	4,114.96	4,110.47	0.00	0.00	0.00	
6,949.56	55.23	57.22	4,525.00	2,671.92	4,149.19	4,144.66	0.00	0.00	0.00	
<b>Terry ("Sussex") sandstone Base</b>										
7,000.00	55.23	57.22	4,553.76	2,694.35	4,184.03	4,179.46	0.00	0.00	0.00	
7,100.00	55.23	57.22	4,610.79	2,738.83	4,253.10	4,248.45	0.00	0.00	0.00	
7,200.00	55.23	57.22	4,667.81	2,783.30	4,322.16	4,317.44	0.00	0.00	0.00	
7,300.00	55.23	57.22	4,724.84	2,827.78	4,391.23	4,386.43	0.00	0.00	0.00	
7,400.00	55.23	57.22	4,781.86	2,872.25	4,460.29	4,455.42	0.00	0.00	0.00	
7,500.00	55.23	57.22	4,838.89	2,916.73	4,529.36	4,524.41	0.00	0.00	0.00	
7,600.00	55.23	57.22	4,895.92	2,961.21	4,598.42	4,593.40	0.00	0.00	0.00	
7,700.00	55.23	57.22	4,952.94	3,005.68	4,667.49	4,662.39	0.00	0.00	0.00	
7,738.68	55.23	57.22	4,975.00	3,022.89	4,694.20	4,689.07	0.00	0.00	0.00	
<b>Hygiene ("Shannon") sandstone</b>										
7,800.00	55.23	57.22	5,009.97	3,050.16	4,736.55	4,731.38	0.00	0.00	0.00	
7,900.00	55.23	57.22	5,066.99	3,094.63	4,805.62	4,800.37	0.00	0.00	0.00	
8,000.00	55.23	57.22	5,124.02	3,139.11	4,874.68	4,869.36	0.00	0.00	0.00	
8,100.00	55.23	57.22	5,181.04	3,183.58	4,943.75	4,938.35	0.00	0.00	0.00	
8,200.00	55.23	57.22	5,238.07	3,228.06	5,012.82	5,007.34	0.00	0.00	0.00	
8,300.00	55.23	57.22	5,295.09	3,272.53	5,081.88	5,076.33	0.00	0.00	0.00	
8,308.61	55.23	57.22	5,300.00	3,276.36	5,087.82	5,082.26	0.00	0.00	0.00	
<b>Hygiene ("Shannon") sandstone Base</b>										
8,400.00	55.23	57.22	5,352.12	3,317.01	5,150.95	5,145.32	0.00	0.00	0.00	
8,500.00	55.23	57.22	5,409.14	3,361.48	5,220.01	5,214.31	0.00	0.00	0.00	
8,600.00	55.23	57.22	5,466.17	3,405.96	5,289.08	5,283.30	0.00	0.00	0.00	
8,700.00	55.23	57.22	5,523.19	3,450.44	5,358.14	5,352.29	0.00	0.00	0.00	
8,800.00	55.23	57.22	5,580.22	3,494.91	5,427.21	5,421.28	0.00	0.00	0.00	

# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well T-BONE 22N-20-15
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 4837.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4837.00usft
<b>Site:</b>	SEC 28-T5N-66W	<b>North Reference:</b>	True
<b>Well:</b>	T-BONE 22N-20-15	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned 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)	
8,900.00	55.23	57.22	5,637.25	3,539.39	5,496.27	5,490.27	0.00	0.00	0.00	
9,000.00	55.23	57.22	5,694.27	3,583.86	5,565.34	5,559.26	0.00	0.00	0.00	
9,100.00	55.23	57.22	5,751.30	3,628.34	5,634.40	5,628.25	0.00	0.00	0.00	
9,200.00	55.23	57.22	5,808.32	3,672.81	5,703.47	5,697.24	0.00	0.00	0.00	
9,300.00	55.23	57.22	5,865.35	3,717.29	5,772.54	5,766.23	0.00	0.00	0.00	
9,400.00	55.23	57.22	5,922.37	3,761.76	5,841.60	5,835.22	0.00	0.00	0.00	
9,500.00	55.23	57.22	5,979.40	3,806.24	5,910.67	5,904.21	0.00	0.00	0.00	
9,600.00	55.23	57.22	6,036.42	3,850.72	5,979.73	5,973.20	0.00	0.00	0.00	
9,700.00	55.23	57.22	6,093.45	3,895.19	6,048.80	6,042.19	0.00	0.00	0.00	
9,800.00	55.23	57.22	6,150.47	3,939.67	6,117.86	6,111.18	0.00	0.00	0.00	
9,900.00	55.23	57.22	6,207.50	3,984.14	6,186.93	6,180.17	0.00	0.00	0.00	
10,000.00	55.23	57.22	6,264.52	4,028.62	6,255.99	6,249.16	0.00	0.00	0.00	
10,100.00	55.23	57.22	6,321.55	4,073.09	6,325.06	6,318.15	0.00	0.00	0.00	
10,200.00	55.23	57.22	6,378.58	4,117.57	6,394.12	6,387.14	0.00	0.00	0.00	
10,300.00	55.23	57.22	6,435.60	4,162.04	6,463.19	6,456.13	0.00	0.00	0.00	
10,400.00	55.23	57.22	6,492.63	4,206.52	6,532.26	6,525.12	0.00	0.00	0.00	
10,500.00	55.23	57.22	6,549.65	4,250.99	6,601.32	6,594.11	0.00	0.00	0.00	
10,600.00	55.23	57.22	6,606.68	4,295.47	6,670.39	6,663.10	0.00	0.00	0.00	
10,700.00	55.23	57.22	6,663.70	4,339.95	6,739.45	6,732.09	0.00	0.00	0.00	
10,800.00	55.23	57.22	6,720.73	4,384.42	6,808.52	6,801.08	0.00	0.00	0.00	
10,900.00	55.23	57.22	6,777.75	4,428.90	6,877.58	6,870.07	0.00	0.00	0.00	
10,933.96	55.23	57.22	6,797.12	4,444.00	6,901.04	6,893.50	0.00	0.00	0.00	
<b>Start DLS 10.00 TFO -69.91</b>										
10,950.00	55.80	55.40	6,806.20	4,451.33	6,912.04	6,904.71	10.00	3.52	-11.36	
11,000.00	57.72	49.88	6,833.62	4,476.71	6,945.24	6,941.52	10.00	3.85	-11.04	
11,050.00	59.88	44.60	6,859.54	4,505.75	6,976.61	6,980.90	10.00	4.31	-10.55	
11,100.00	62.23	39.56	6,883.74	4,538.22	7,005.90	7,022.56	10.00	4.71	-10.08	
11,150.00	64.77	34.75	6,906.06	4,573.87	7,032.90	7,066.18	10.00	5.06	-9.64	
11,159.32	65.26	33.87	6,910.00	4,580.85	7,037.66	7,074.50	10.00	5.25	-9.39	
<b>Sharon Springs</b>										
11,200.00	67.45	30.13	6,926.32	4,612.45	7,057.39	7,111.42	10.00	5.39	-9.20	
11,250.00	70.26	25.69	6,944.37	4,653.65	7,079.20	7,157.94	10.00	5.62	-8.87	
11,300.00	73.17	21.41	6,960.06	4,697.16	7,098.14	7,205.39	10.00	5.83	-8.56	
11,350.00	76.17	17.26	6,973.29	4,742.64	7,114.09	7,253.41	10.00	6.00	-8.30	
11,400.00	79.24	13.22	6,983.94	4,789.76	7,126.92	7,301.63	10.00	6.13	-8.08	
11,450.00	82.35	9.26	6,991.94	4,838.16	7,136.53	7,349.68	10.00	6.24	-7.92	
11,500.00	85.51	5.36	6,997.23	4,887.46	7,142.85	7,397.21	10.00	6.31	-7.80	
11,550.00	88.68	1.49	6,999.76	4,937.29	7,145.83	7,443.83	10.00	6.35	-7.74	
11,570.72	90.00	359.89	7,000.00	4,958.00	7,146.08	7,462.81	10.00	6.36	-7.72	
<b>Start 10791.56 hold at 11570.72 MD - Niobrara A Chalk</b>										
11,600.00	90.00	359.89	7,000.00	4,987.29	7,146.03	7,489.47	0.00	0.00	0.00	
11,700.00	90.00	359.89	7,000.00	5,087.29	7,145.84	7,580.50	0.00	0.00	0.00	
11,800.00	90.00	359.89	7,000.00	5,187.29	7,145.65	7,671.53	0.00	0.00	0.00	
11,900.00	90.00	359.89	7,000.00	5,287.29	7,145.46	7,762.56	0.00	0.00	0.00	
12,000.00	90.00	359.89	7,000.00	5,387.29	7,145.28	7,853.59	0.00	0.00	0.00	
12,100.00	90.00	359.89	7,000.00	5,487.29	7,145.09	7,944.62	0.00	0.00	0.00	
12,200.00	90.00	359.89	7,000.00	5,587.29	7,144.90	8,035.66	0.00	0.00	0.00	
12,300.00	90.00	359.89	7,000.00	5,687.29	7,144.71	8,126.69	0.00	0.00	0.00	
12,400.00	90.00	359.89	7,000.00	5,787.29	7,144.52	8,217.72	0.00	0.00	0.00	
12,500.00	90.00	359.89	7,000.00	5,887.28	7,144.33	8,308.75	0.00	0.00	0.00	
12,600.00	90.00	359.89	7,000.00	5,987.28	7,144.15	8,399.78	0.00	0.00	0.00	
12,700.00	90.00	359.89	7,000.00	6,087.28	7,143.96	8,490.81	0.00	0.00	0.00	
12,800.00	90.00	359.89	7,000.00	6,187.28	7,143.77	8,581.85	0.00	0.00	0.00	

# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well T-BONE 22N-20-15
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 4837.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4837.00usft
<b>Site:</b>	SEC 28-T5N-66W	<b>North Reference:</b>	True
<b>Well:</b>	T-BONE 22N-20-15	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned 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)	
12,900.00	90.00	359.89	7,000.00	6,287.28	7,143.58	8,672.88	0.00	0.00	0.00	
13,000.00	90.00	359.89	7,000.00	6,387.28	7,143.39	8,763.91	0.00	0.00	0.00	
13,100.00	90.00	359.89	7,000.00	6,487.28	7,143.20	8,854.94	0.00	0.00	0.00	
13,200.00	90.00	359.89	7,000.00	6,587.28	7,143.02	8,945.97	0.00	0.00	0.00	
13,300.00	90.00	359.89	7,000.00	6,687.28	7,142.83	9,037.00	0.00	0.00	0.00	
13,400.00	90.00	359.89	7,000.00	6,787.28	7,142.64	9,128.04	0.00	0.00	0.00	
13,500.00	90.00	359.89	7,000.00	6,887.28	7,142.45	9,219.07	0.00	0.00	0.00	
13,600.00	90.00	359.89	7,000.00	6,987.28	7,142.26	9,310.10	0.00	0.00	0.00	
13,700.00	90.00	359.89	7,000.00	7,087.28	7,142.07	9,401.13	0.00	0.00	0.00	
13,800.00	90.00	359.89	7,000.00	7,187.28	7,141.88	9,492.16	0.00	0.00	0.00	
13,900.00	90.00	359.89	7,000.00	7,287.28	7,141.70	9,583.19	0.00	0.00	0.00	
14,000.00	90.00	359.89	7,000.00	7,387.28	7,141.51	9,674.23	0.00	0.00	0.00	
14,100.00	90.00	359.89	7,000.00	7,487.28	7,141.32	9,765.26	0.00	0.00	0.00	
14,200.00	90.00	359.89	7,000.00	7,587.28	7,141.13	9,856.29	0.00	0.00	0.00	
14,300.00	90.00	359.89	7,000.00	7,687.28	7,140.94	9,947.32	0.00	0.00	0.00	
14,400.00	90.00	359.89	7,000.00	7,787.28	7,140.75	10,038.35	0.00	0.00	0.00	
14,500.00	90.00	359.89	7,000.00	7,887.28	7,140.57	10,129.38	0.00	0.00	0.00	
14,600.00	90.00	359.89	7,000.00	7,987.28	7,140.38	10,220.41	0.00	0.00	0.00	
14,700.00	90.00	359.89	7,000.00	8,087.28	7,140.19	10,311.45	0.00	0.00	0.00	
14,800.00	90.00	359.89	7,000.00	8,187.28	7,140.00	10,402.48	0.00	0.00	0.00	
14,900.00	90.00	359.89	7,000.00	8,287.28	7,139.81	10,493.51	0.00	0.00	0.00	
15,000.00	90.00	359.89	7,000.00	8,387.28	7,139.62	10,584.54	0.00	0.00	0.00	
15,100.00	90.00	359.89	7,000.00	8,487.28	7,139.44	10,675.57	0.00	0.00	0.00	
15,200.00	90.00	359.89	7,000.00	8,587.28	7,139.25	10,766.60	0.00	0.00	0.00	
15,300.00	90.00	359.89	7,000.00	8,687.28	7,139.06	10,857.64	0.00	0.00	0.00	
15,400.00	90.00	359.89	7,000.00	8,787.28	7,138.87	10,948.67	0.00	0.00	0.00	
15,500.00	90.00	359.89	7,000.00	8,887.28	7,138.68	11,039.70	0.00	0.00	0.00	
15,600.00	90.00	359.89	7,000.00	8,987.28	7,138.49	11,130.73	0.00	0.00	0.00	
15,700.00	90.00	359.89	7,000.00	9,087.28	7,138.31	11,221.76	0.00	0.00	0.00	
15,800.00	90.00	359.89	7,000.00	9,187.28	7,138.12	11,312.79	0.00	0.00	0.00	
15,900.00	90.00	359.89	7,000.00	9,287.28	7,137.93	11,403.83	0.00	0.00	0.00	
16,000.00	90.00	359.89	7,000.00	9,387.28	7,137.74	11,494.86	0.00	0.00	0.00	
16,100.00	90.00	359.89	7,000.00	9,487.28	7,137.55	11,585.89	0.00	0.00	0.00	
16,200.00	90.00	359.89	7,000.00	9,587.28	7,137.36	11,676.92	0.00	0.00	0.00	
16,300.00	90.00	359.89	7,000.00	9,687.28	7,137.18	11,767.95	0.00	0.00	0.00	
16,400.00	90.00	359.89	7,000.00	9,787.28	7,136.99	11,858.98	0.00	0.00	0.00	
16,500.00	90.00	359.89	7,000.00	9,887.28	7,136.80	11,950.02	0.00	0.00	0.00	
16,600.00	90.00	359.89	7,000.00	9,987.28	7,136.61	12,041.05	0.00	0.00	0.00	
16,700.00	90.00	359.89	7,000.00	10,087.28	7,136.42	12,132.08	0.00	0.00	0.00	
16,800.00	90.00	359.89	7,000.00	10,187.28	7,136.23	12,223.11	0.00	0.00	0.00	
16,900.00	90.00	359.89	7,000.00	10,287.28	7,136.05	12,314.14	0.00	0.00	0.00	
17,000.00	90.00	359.89	7,000.00	10,387.28	7,135.86	12,405.17	0.00	0.00	0.00	
17,100.00	90.00	359.89	7,000.00	10,487.28	7,135.67	12,496.21	0.00	0.00	0.00	
17,200.00	90.00	359.89	7,000.00	10,587.28	7,135.48	12,587.24	0.00	0.00	0.00	
17,300.00	90.00	359.89	7,000.00	10,687.28	7,135.29	12,678.27	0.00	0.00	0.00	
17,400.00	90.00	359.89	7,000.00	10,787.28	7,135.10	12,769.30	0.00	0.00	0.00	
17,500.00	90.00	359.89	7,000.00	10,887.28	7,134.92	12,860.33	0.00	0.00	0.00	
17,600.00	90.00	359.89	7,000.00	10,987.28	7,134.73	12,951.36	0.00	0.00	0.00	
17,700.00	90.00	359.89	7,000.00	11,087.28	7,134.54	13,042.40	0.00	0.00	0.00	
17,800.00	90.00	359.89	7,000.00	11,187.28	7,134.35	13,133.43	0.00	0.00	0.00	
17,900.00	90.00	359.89	7,000.00	11,287.28	7,134.16	13,224.46	0.00	0.00	0.00	
18,000.00	90.00	359.89	7,000.00	11,387.28	7,133.97	13,315.49	0.00	0.00	0.00	
18,100.00	90.00	359.89	7,000.00	11,487.28	7,133.79	13,406.52	0.00	0.00	0.00	
18,200.00	90.00	359.89	7,000.00	11,587.27	7,133.60	13,497.55	0.00	0.00	0.00	

# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well T-BONE 22N-20-15
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 4837.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4837.00usft
<b>Site:</b>	SEC 28-T5N-66W	<b>North Reference:</b>	True
<b>Well:</b>	T-BONE 22N-20-15	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Planned 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)	
18,300.00	90.00	359.89	7,000.00	11,687.27	7,133.41	13,588.59	0.00	0.00	0.00	
18,400.00	90.00	359.89	7,000.00	11,787.27	7,133.22	13,679.62	0.00	0.00	0.00	
18,500.00	90.00	359.89	7,000.00	11,887.27	7,133.03	13,770.65	0.00	0.00	0.00	
18,600.00	90.00	359.89	7,000.00	11,987.27	7,132.84	13,861.68	0.00	0.00	0.00	
18,700.00	90.00	359.89	7,000.00	12,087.27	7,132.65	13,952.71	0.00	0.00	0.00	
18,800.00	90.00	359.89	7,000.00	12,187.27	7,132.47	14,043.74	0.00	0.00	0.00	
18,900.00	90.00	359.89	7,000.00	12,287.27	7,132.28	14,134.78	0.00	0.00	0.00	
19,000.00	90.00	359.89	7,000.00	12,387.27	7,132.09	14,225.81	0.00	0.00	0.00	
19,100.00	90.00	359.89	7,000.00	12,487.27	7,131.90	14,316.84	0.00	0.00	0.00	
19,200.00	90.00	359.89	7,000.00	12,587.27	7,131.71	14,407.87	0.00	0.00	0.00	
19,300.00	90.00	359.89	7,000.00	12,687.27	7,131.52	14,498.90	0.00	0.00	0.00	
19,400.00	90.00	359.89	7,000.00	12,787.27	7,131.34	14,589.93	0.00	0.00	0.00	
19,500.00	90.00	359.89	7,000.00	12,887.27	7,131.15	14,680.97	0.00	0.00	0.00	
19,600.00	90.00	359.89	7,000.00	12,987.27	7,130.96	14,772.00	0.00	0.00	0.00	
19,700.00	90.00	359.89	7,000.00	13,087.27	7,130.77	14,863.03	0.00	0.00	0.00	
19,800.00	90.00	359.89	7,000.00	13,187.27	7,130.58	14,954.06	0.00	0.00	0.00	
19,900.00	90.00	359.89	7,000.00	13,287.27	7,130.39	15,045.09	0.00	0.00	0.00	
20,000.00	90.00	359.89	7,000.00	13,387.27	7,130.21	15,136.12	0.00	0.00	0.00	
20,100.00	90.00	359.89	7,000.00	13,487.27	7,130.02	15,227.16	0.00	0.00	0.00	
20,200.00	90.00	359.89	7,000.00	13,587.27	7,129.83	15,318.19	0.00	0.00	0.00	
20,300.00	90.00	359.89	7,000.00	13,687.27	7,129.64	15,409.22	0.00	0.00	0.00	
20,400.00	90.00	359.89	7,000.00	13,787.27	7,129.45	15,500.25	0.00	0.00	0.00	
20,500.00	90.00	359.89	7,000.00	13,887.27	7,129.26	15,591.28	0.00	0.00	0.00	
20,600.00	90.00	359.89	7,000.00	13,987.27	7,129.08	15,682.31	0.00	0.00	0.00	
20,700.00	90.00	359.89	7,000.00	14,087.27	7,128.89	15,773.34	0.00	0.00	0.00	
20,800.00	90.00	359.89	7,000.00	14,187.27	7,128.70	15,864.38	0.00	0.00	0.00	
20,900.00	90.00	359.89	7,000.00	14,287.27	7,128.51	15,955.41	0.00	0.00	0.00	
21,000.00	90.00	359.89	7,000.00	14,387.27	7,128.32	16,046.44	0.00	0.00	0.00	
21,100.00	90.00	359.89	7,000.00	14,487.27	7,128.13	16,137.47	0.00	0.00	0.00	
21,200.00	90.00	359.89	7,000.00	14,587.27	7,127.95	16,228.50	0.00	0.00	0.00	
21,300.00	90.00	359.89	7,000.00	14,687.27	7,127.76	16,319.53	0.00	0.00	0.00	
21,400.00	90.00	359.89	7,000.00	14,787.27	7,127.57	16,410.57	0.00	0.00	0.00	
21,500.00	90.00	359.89	7,000.00	14,887.27	7,127.38	16,501.60	0.00	0.00	0.00	
21,600.00	90.00	359.89	7,000.00	14,987.27	7,127.19	16,592.63	0.00	0.00	0.00	
21,700.00	90.00	359.89	7,000.00	15,087.27	7,127.00	16,683.66	0.00	0.00	0.00	
21,800.00	90.00	359.89	7,000.00	15,187.27	7,126.82	16,774.69	0.00	0.00	0.00	
21,900.00	90.00	359.89	7,000.00	15,287.27	7,126.63	16,865.72	0.00	0.00	0.00	
22,000.00	90.00	359.89	7,000.00	15,387.27	7,126.44	16,956.76	0.00	0.00	0.00	
22,100.00	90.00	359.89	7,000.00	15,487.27	7,126.25	17,047.79	0.00	0.00	0.00	
22,200.00	90.00	359.89	7,000.00	15,587.27	7,126.06	17,138.82	0.00	0.00	0.00	
22,300.00	90.00	359.89	7,000.00	15,687.27	7,125.87	17,229.85	0.00	0.00	0.00	
22,362.28	90.00	359.89	7,000.00	15,749.55	7,125.42	17,286.41	0.00	0.00	0.00	
<b>TD at 22362.28</b>										

# Civitas Resources

## Planning Report

<b>Database:</b>	EDM	<b>Local Co-ordinate Reference:</b>	Well T-BONE 22N-20-15
<b>Company:</b>	EXTRACTION OIL & GAS	<b>TVD Reference:</b>	KB 25' @ 4837.00usft
<b>Project:</b>	WELD COUNTY	<b>MD Reference:</b>	KB 25' @ 4837.00usft
<b>Site:</b>	SEC 28-T5N-66W	<b>North Reference:</b>	True
<b>Well:</b>	T-BONE 22N-20-15	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OWB		
<b>Design:</b>	PROPOSAL 1		

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL-T-BONE 22N-20- - plan hits target center - Point	0.00	0.00	7,000.00	15,749.55	7,125.42	1,392,282.80	3,205,973.91	40.407860°N	104.760350°W
LP-T-BONE 22N-20-15 - plan hits target center - Point	0.00	0.00	7,000.00	4,958.00	7,146.08	1,381,491.77	3,206,081.48	40.378237°N	104.760287°W

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
4,962.73	3,392.00	Base of Upper Pierre aquifer			
5,625.59	3,770.00	Larimer ("Parkman") sandstone			
5,765.88	3,850.00	Larimer ("Parkman") sandstone Base			
6,765.43	4,420.00	Terry ("Sussex") sandstone			
6,949.56	4,525.00	Terry ("Sussex") sandstone Base			
7,738.68	4,975.00	Hygiene ("Shannon") sandstone			
8,308.61	5,300.00	Hygiene ("Shannon") sandstone Base			
11,159.32	6,910.00	Sharon Springs			
11,570.72	7,000.00	Niobrara A Chalk			

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
100.00	100.00	0.00	0.00	Start Build 3.00	
1,941.07	1,668.89	444.37	690.05	Start 8992.90 hold at 1941.07 MD	
10,933.96	6,797.12	4,444.00	6,901.04	Start DLS 10.00 TFO -69.91	
11,570.72	7,000.00	4,958.00	7,146.08	Start 10791.56 hold at 11570.72 MD	
22,362.28	7,000.00	15,749.55	7,125.42	TD at 22362.28	