

WELL DETAILS: Duck Club 12W-20-10N

Ground Elevation:: 5037.00
RKB Elevation: Kb=29 @ 5066.00usft (Patt 901)
Rig Name: Patt 901

Northing

1236044.17

Easting

3215510.92

Latitude


39.97876

Longitude

-104.73097

Extraction Oil & Gas

Project: Adams County (NAD 83)
Site: Sec 12-T01S-R66W
Well: Duck Club 12W-20-10N
Wellbore: Wellbore #1
Plan: Plan #2 (Duck Club 12W-20-10N/Wellbore #1)

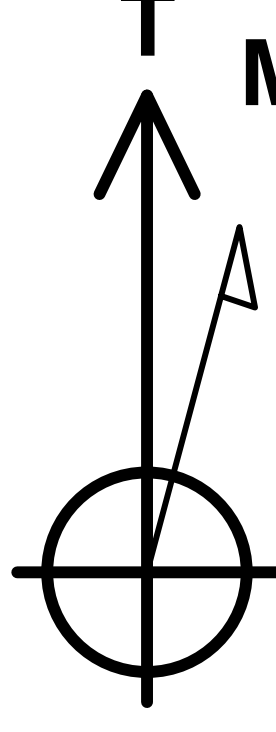


Planned Section Details									
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
1	1607.00	23.69	117.26	1574.79	-110.77	215.07	0.00	0.00	-198.89
2	1634.21	24.19	117.79	1599.66	-115.88	224.86	2.00	23.52	-207.94
3	6062.20	24.19	117.79	5638.84	-961.82	1830.02	0.00	0.00	-1689.87
4	7271.70	0.00	0.00	6812.72	-1079.10	2052.56	2.00	-180.00	-1895.32
5	7301.70	0.00	0.00	6842.72	-1079.10	2052.56	0.00	0.00	-1895.32
6	8189.53	89.67	270.09	7410.00	-1078.20	1488.54	10.10	270.09	-1336.18
7	17802.77	89.67	270.10	7465.00	-1062.34	-8124.53	0.00	51.59	8193.69

PROJECT DETAILS: Adams County (NAD 83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: Colorado Northern Zone
System Datum: Mean Sea Level
Local North: Grid

T

M



Azimuths to True North

Magnetic North: 8.20°

Magnetic Field

Strength: 51945.4snT

Dip Angle: 66.32°

Date: 11/6/2018

Model: HDGM

The figure displays two primary wellbore survey plots for the Duck Club 12W-20-10N wellbore.

Top Plot: True Vertical Depth (400 usft/in) vs West(-)/East(+) (400 usft/in)

- Y-axis:** True Vertical Depth (400 usft/in), ranging from 0 to 8000.
- X-axis:** West(-)/East(+) (400 usft/in), ranging from -8800 to 3200.
- Wellbore Path:** The path is shown in red, starting at the surface (0 MD) and curving to the right, then becoming horizontal at approximately 7200 MD.
- Key Points:**
 - First Surface Survey
 - Tie into Surface Surveys @ 1607' MD
 - Last Surface Survey
 - First MWD Survey @ 1758' MD
 - 30° Inclination @ 7,538.62' MD
 - 70° Inclination @ 8,030.76' MD
 - Cross @ 10310.96' MD
 - Cross @ 15584.61' MD
 - Project to TD @ 17700' MD 1,330' FSL/ 2,122' FEL
 - Last MWD Survey @ 17637' MD

Bottom Plot: Vertical Section at 262.55° (400 usft/in)

- Y-axis:** South(-)/North(+) (400 usft/in), ranging from -2400 to 2800.
- X-axis:** West(-)/East(+) (400 usft/in), ranging from -8800 to 3200.
- Wellbore Path:** The path is shown in red, starting at the surface (0 MD) and curving to the right, then becoming horizontal at approximately 7200 MD.
- Key Points:**
 - 2180' From E/W
 - ABND Vert Ben Stevenson Gas Unit 1/Design #1
 - Duck Club 12W-20-8C/Plan #1
 - Duck Club 12W-20-9N/Wellbore #1
 - Project to TD @ 17700' MD 1,330' FSL/ 2,122' FEL
 - ABND Vert Shaw A #1/Design #1
 - Last MWD Survey @ 17637' MD
 - Cross @ 15584.61' MD
 - Duck Club 12W-20-11N/Plan #1
 - Duck Club 12W-20-12C/Plan #1
 - ABND Vert Shaw E Unit #1/Design #1
 - Cross @ 10310.96' MD
 - LP Duck Club 12W-20-10N
 - 30° Inclination @ 7,538.62' MD
 - 70° Inclination @ 8,030.76' MD