

# **EXTRACTION OIL & GAS**

**Broomfield County**

**Sec 10-T1S-R68W**

**INTERCHANGE B N35-20-1N**

**ORIGINAL WELLBORE**

**WB #1 - PATT 901**

## **Anticollision Report**

**24 September, 2019**

# Anticollision Report

<b>Company:</b>	EXTRACTION OIL & GAS	<b>Local Co-ordinate Reference:</b>	Well INTERCHANGE B N35-20-1N
<b>Project:</b>	Broomfield County	<b>TVD Reference:</b>	KB 29' @ 5265.00usft
<b>Reference Site:</b>	Sec 10-T1S-R68W	<b>MD Reference:</b>	KB 29' @ 5265.00usft
<b>Site Error:</b>	0.00 usft	<b>North Reference:</b>	True
<b>Reference Well:</b>	INTERCHANGE B N35-20-1N	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00 usft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	ORIGINAL WELLBORE	<b>Database:</b>	EDT_32Bit_ODBC
<b>Reference Design:</b>	WB #1 - PATT 901	<b>Offset TVD Reference:</b>	Offset Datum

<b>Reference</b>	WB #1 - PATT 901		
<b>Filter type:</b>	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
<b>Interpolation Method:</b>	MD + Stations Interval 100.00usft	<b>Error Model:</b>	ISCWSA
<b>Depth Range:</b>	Unlimited	<b>Scan Method:</b>	Closest Approach 3D
<b>Results Limited by:</b>	Maximum center-center distance of 9,999.98 usft	<b>Error Surface:</b>	Pedal Curve
<b>Warning Levels Evaluated at:</b>	2.00 Sigma	<b>Casing Method:</b>	Not applied

<b>Survey Program</b>	<b>Date</b>	9/24/2019		
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>
121.30	18,380.00	OWB (ORIGINAL WELLBORE)	MWD OWSG	OWSG MWD - Standard

<b>Summary</b>						
<b>Site Name</b>	<b>Reference Measured Depth (usft)</b>	<b>Offset Measured Depth (usft)</b>	<b>Distance Between Centres (usft)</b>	<b>Distance Between Ellipses (usft)</b>	<b>Separation Factor</b>	<b>Warning</b>
<b>Offset Well - Wellbore - Design</b>						
Sec 34-T1N-R68W						
ABND VERT BICKLER A UNIT 2 - Wellbore #1 - Design	15,149.53	7,776.34	1,741.76	1,422.09	5.449	CC
ABND VERT BICKLER A UNIT 2 - Wellbore #1 - Design	15,156.00	7,776.16	1,741.77	1,422.06	5.448	ES, SF
ABND VERT NIVEN GAYLE B 1 - Wellbore #1 - Design	18,380.00	5,145.00	2,664.55	2,538.36	21.116	CC, ES, SF
BICKLER 23-34 - Wellbore #1 - Wellbore #1	15,557.79	7,803.18	911.51	711.02	4.546	CC, ES, SF
BICKLER 24-34 - Wellbore #1 - Wellbore #1	14,074.12	8,103.39	896.72	707.56	4.740	CC, ES, SF
<b>BICKLER 4-4-34 - Wellbore #1 - Wellbore #1</b>	<b>16,159.15</b>	<b>7,748.04</b>	<b>146.51</b>	<b>-61.02</b>	<b>0.706</b>	<b>Level 1, CC, ES, SF</b>
BICKLER 4-6-34 - Wellbore #1 - Wellbore #1	14,884.05	7,861.97	157.15	-36.36	0.812	Level 1, CC, ES, SF
EXIST VERT BICKLER 1 - Wellbore #1 - Design #1	16,748.74	7,821.73	1,887.44	1,538.16	5.404	CC
EXIST VERT BICKLER 1 - Wellbore #1 - Design #1	16,778.00	7,821.82	1,887.62	1,538.02	5.399	ES
EXIST VERT BICKLER 1 - Wellbore #1 - Design #1	16,799.97	7,821.79	1,888.00	1,538.19	5.397	SF

Offset Design		Sec 34-T1N-R68W - ABND VERT BICKLER A UNIT 2 - Wellbore #1 - Design #1											Offset Site Error:	0.00 usft
Survey Program:		0-INC											Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	-6.79	9,270.06	-1,103.45	9,335.67					
100.00	100.00	44.00	44.00	0.13	0.52	-175.92	9,270.06	-1,103.45	9,335.69	9,335.04	0.65	N/A		
121.30	121.30	65.30	65.30	0.17	0.77	-175.92	9,270.06	-1,103.45	9,335.78	9,334.84	0.94	9,936.903		
200.00	200.00	144.00	144.00	0.44	2.19	110.17	9,270.06	-1,103.45	9,336.09	9,333.45	2.64	3,539.839		
209.30	209.30	153.30	153.30	0.48	2.41	107.44	9,270.06	-1,103.45	9,336.12	9,333.24	2.88	3,237.767		
296.30	296.29	240.29	240.29	0.79	4.32	132.94	9,270.06	-1,103.45	9,336.47	9,331.37	5.10	1,830.204		
300.00	299.99	243.99	243.99	0.80	4.39	129.05	9,270.06	-1,103.45	9,336.49	9,331.30	5.19	1,798.571		
383.30	383.29	327.29	327.29	1.09	6.11	9.72	9,270.06	-1,103.45	9,336.15	9,328.95	7.20	1,296.401		
400.00	399.99	343.99	343.99	1.15	6.45	6.82	9,270.06	-1,103.45	9,335.96	9,328.36	7.60	1,228.459		
471.30	471.29	415.29	415.29	1.39	7.91	-9.79	9,270.06	-1,103.45	9,335.22	9,325.93	9.30	1,004.036		
500.00	499.98	443.98	443.98	1.49	8.49	-32.79	9,270.06	-1,103.45	9,334.95	9,324.97	9.98	935.462		
558.30	558.28	502.28	502.28	1.69	9.67	-54.45	9,270.06	-1,103.45	9,334.32	9,322.96	11.36	821.485		
600.00	599.97	543.97	543.97	1.83	10.52	-57.06	9,270.06	-1,103.45	9,333.94	9,321.58	12.35	755.728		
645.30	645.27	589.27	589.27	1.99	11.43	-67.55	9,270.06	-1,103.45	9,333.73	9,320.31	13.42	695.273		
700.00	699.97	643.97	643.97	2.18	12.54	-58.05	9,270.06	-1,103.45	9,333.62	9,318.90	14.72	634.031		
732.30	732.27	676.27	676.27	2.30	13.19	-44.61	9,270.06	-1,103.45	9,333.57	9,318.08	15.49	602.690		
800.00	799.97	743.97	743.97	2.53	14.56	55.80	9,270.06	-1,103.45	9,333.32	9,316.23	17.09	546.120		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation