

# EXTRACTION OIL & GAS

Location:	COLORADO	Slot:	SLOT#17 LAUNER 8C (699'FSL & 412'FEL,SEC.26)
Field:	WELD COUNTY (NAD83/TRUE NORTH)	Well:	LAUNER 8C
Facility:	SEC.26-T07N-R67W	Wellbore:	LAUNER 8C PWB

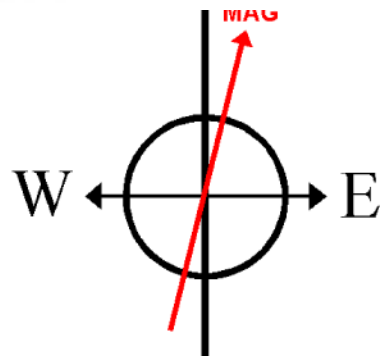
Plot reference wellpath is LAUNER 8C (REV-C.0) PWP	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to CYCLONE 37 (28'KB) (RKB)	North Reference: True north
Measured depths are referenced to CYCLONE 37 (28'KB) (RKB)	Scale: True distance
CYCLONE 37 (28'KB) (RKB) to Mean Sea Level: 4954 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#17 LAUNER 8C (699'FSL & 412'FEL,SEC.26)): 0 feet	Created by: ingmjamm on 2017-08-25
Coordinates are in feet referenced to Slot	Database: WA_DEN_Denver_Defn

## Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.26-T07N-R67W			3179860.101	1444245.219	40°33'03.784"N	104°51'09.932"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#17 LAUNER 8C (699'FSL & 412'FEL,SEC.26)	-4093.92	89.47	3179979.443	1440152.193	40°32'23.330"N	104°51'08.773"W
CYCLONE 37 (28'KB) (RKB) to Mud line (At Slot: SLOT#17 LAUNER 8C (699'FSL & 412'FEL,SEC.26))					4954ft	
Mean Sea Level to Mud line (At Slot: SLOT#17 LAUNER 8C (699'FSL & 412'FEL,SEC.26))					0ft	
CYCLONE 37 (28'KB) (RKB) to Mean Sea Level					4954ft	

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
28.00	15004.00	ISCWSA MWD, Rev. 4	ISCWSA MWD, Rev. 4 (Standard)		LAUNER 8C PWB



BGGM (1900.0 to 2019.0) Dip: 66.95° Field: 52463.9 nT  
Magnetic North is 8.42 degrees East of True North (at 8/22/2017)

To correct azimuth from Magnetic to True add 8.42 degrees

Scale 1 inch = 500

True Vertical Depth (ft)

End of Tangent : 0.00° Inc, 1900.00ft MD, 1900.00ft TVD, 0.00ft VS  
2.00°/100ft  
End of Build : 7.09° Inc, 2254.69ft MD, 2253.79ft TVD, -13.95ft VS

End of Tangent : 7.09° Inc, 6675.98ft MD, 6641.23ft TVD, -361.19ft VS  
10.00°/100ft  
End of 3D Arc : 90.00° Inc, 7624.40ft MD, 7260.00ft TVD, 212.14ft VS

LAUNER 8 LANDING REV-2 (1171'FSL & 592'FEL, SEC.26)

End of Tangent : 90.00° Inc, 14880.20ft MD, 7260.00ft TVD, 7453.45ft VS

LAUNER 8 BHL ON PLAT REV-2 (1234'FSL & 2561'FEL,SEC.27)

Vertical Section (ft)  
Azimuth 274.05° with reference 0.00°N, 0.00°E

## Well Profile Data

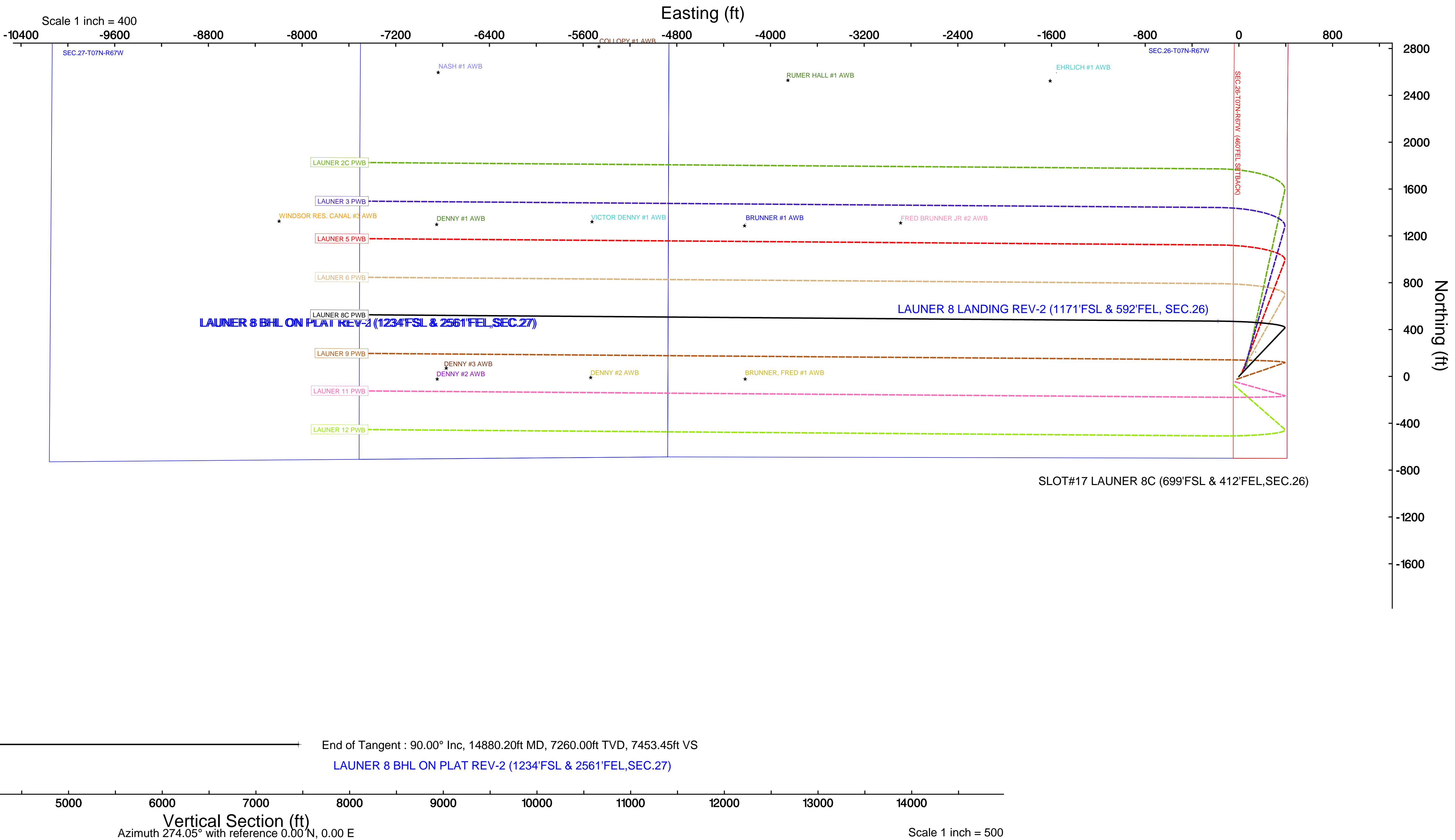
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	28.00	0.000	43.539	28.00	0.00	0.00	0.00	0.00
End of Tangent	1900.00	0.000	43.539	1900.00	0.00	0.00	0.00	0.00
End of Build	2254.69	7.094	43.539	2253.79	15.90	15.11	2.00	-13.95
End of Tangent	6675.98	7.094	43.539	6641.23	411.70	391.22	0.00	-361.19
End of 3D Arc	7624.40	90.000	270.426	7260.00	472.16	-179.26	10.00	212.14
End of Tangent	14880.20	90.000	270.426	7260.00	526.11	-7434.85	0.00	7453.45

## Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.26-T07N-R67W		-18.00	4093.88	-89.48	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W
SEC.27-T07N-R67W		-18.00	4093.88	-89.48	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W
LAUNER 8 BHL ON PLAT REV-1(1234'FSL & 2561'FEL,SEC.27)		7034.00	526.11	-7434.87	3172541.17	1440623.98	40°32'28.518"N	104°52'45.073"W
LAUNER 8 LANDING		7034.00	472.16	-47.81	3179928.19	1440623.98	40°32'27.996"N	104°51'09.392"W
LAUNER 8 LANDING REV-1		7034.00	472.16	-179.31	3179796.69	1440623.02	40°32'27.996"N	104°51'11.096"W
SEC.26-T07N-R67W 460'FEL SETBACK		7257.00	92.54	63.37	3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W
SEC.27-T07N-R67W (MIDDLE SECTION)		7257.00	92.54	63.37	3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W
LAUNER 8 BHL ON PLAT REV-2 (1234'FSL & 2561'FEL,SEC.27)	14880.20	7260.00	526.11	-7434.85	3172541.19	1440623.98	40°32'28.518"N	104°52'45.073"W
LAUNER 8 LANDING REV-2 (1171'FSL & 592'FEL, SEC.26)	7624.40	7260.00	472.16	-179.26	3179796.75	1440623.02	40°32'27.996"N	104°51'11.095"W

## Bottom Hole Location

MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
14880.20	90.000	270.426	7260.00	526.11	-7434.85	3172541.19	1440623.98	40°32'28.518"N	104°52'45.073"W





# Planned Wellpath Report

LAUNER 8C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 LAUNER 8C (699'FSL & 412'FEL,SEC.26)
Area	COLORADO	Well	LAUNER 8C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 8C PWB
Facility	SEC.26-T07N-R67W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Ingmjmr
Scale	0.999970	Report Generated	8/25/2017 at 10:13:05 AM
Convergence at slot	0.42° East	Database/Source file	WA_DEN_Denver_Defn/LAUNER_8C__REV-C.0__PWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4093.92	89.47	3179979.44	1440152.19	40°32'23.330"N	104°51'08.773"W
Facility Reference Pt			3179860.10	1444245.22	40°33'03.784"N	104°51'09.932"W
Field Reference Pt			3185481.27	1419166.81	40°28'55.560"N	104°49'59.556"W

## WELLPATH DATUM

Calculation method	Minimum curvature	CYCLONE 37 (28'KB) (RKB) to Facility Vertical Datum	4954.00ft
Horizontal Reference Pt	Slot	CYCLONE 37 (28'KB) (RKB) to Mean Sea Level	4954.00ft
Vertical Reference Pt	CYCLONE 37 (28'KB) (RKB)	CYCLONE 37 (28'KB) (RKB) to Mud Line at Slot (SLOT#17 LAUNER 8C (699'FSL & 412'FEL,SEC.26))	4954.00ft
MD Reference Pt	CYCLONE 37 (28'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	274.05°



# Planned Wellpath Report

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Area	COLORADO	Well	LAUNER 8C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 8C PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	43.539	0.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
28.00	0.000	43.539	28.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	Tie On
128.00†	0.000	43.539	128.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
228.00†	0.000	43.539	228.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
328.00†	0.000	43.539	328.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
428.00†	0.000	43.539	428.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
528.00†	0.000	43.539	528.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
628.00†	0.000	43.539	628.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
728.00†	0.000	43.539	728.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
828.00†	0.000	43.539	828.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
928.00†	0.000	43.539	928.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
1028.00†	0.000	43.539	1028.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
1128.00†	0.000	43.539	1128.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
1228.00†	0.000	43.539	1228.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
1328.00†	0.000	43.539	1328.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
1428.00†	0.000	43.539	1428.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
1528.00†	0.000	43.539	1528.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
1628.00†	0.000	43.539	1628.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
1728.00†	0.000	43.539	1728.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
1828.00†	0.000	43.539	1828.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	
1900.00	0.000	43.539	1900.00	0.00	0.00	0.00	40°32'23.330"N	104°51'08.773"W	0.00	End of Tangent
1928.00†	0.560	43.539	1928.00	-0.09	0.10	0.09	40°32'23.331"N	104°51'08.772"W	2.00	
2028.00†	2.560	43.539	2027.96	-1.82	2.07	1.97	40°32'23.351"N	104°51'08.748"W	2.00	
2128.00†	4.560	43.539	2127.76	-5.77	6.57	6.25	40°32'23.395"N	104°51'08.692"W	2.00	
2228.00†	6.560	43.539	2227.28	-11.93	13.60	12.92	40°32'23.465"N	104°51'08.606"W	2.00	
2254.69	7.094	43.539	2253.79	-13.95	15.90	15.11	40°32'23.487"N	104°51'08.578"W	2.00	End of Build
2328.00†	7.094	43.539	2326.53	-19.70	22.46	21.34	40°32'23.552"N	104°51'08.497"W	0.00	
2428.00†	7.094	43.539	2425.77	-27.56	31.41	29.85	40°32'23.641"N	104°51'08.387"W	0.00	
2528.00†	7.094	43.539	2525.00	-35.41	40.36	38.36	40°32'23.729"N	104°51'08.276"W	0.00	
2628.00†	7.094	43.539	2624.24	-43.27	49.32	46.86	40°32'23.818"N	104°51'08.166"W	0.00	



# Planned Wellpath Report

LAUNER 8C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 LAUNER 8C (699'FSL & 412'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 8C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 8C PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2728.00†	7.094	43.539	2723.47	-51.12	58.27	55.37	40°32'23.906"N	104°51'08.056"W	0.00	
2828.00†	7.094	43.539	2822.71	-58.97	67.22	63.88	40°32'23.995"N	104°51'07.946"W	0.00	
2928.00†	7.094	43.539	2921.94	-66.83	76.17	72.38	40°32'24.083"N	104°51'07.836"W	0.00	
3028.00†	7.094	43.539	3021.17	-74.68	85.13	80.89	40°32'24.172"N	104°51'07.725"W	0.00	
3128.00†	7.094	43.539	3120.41	-82.53	94.08	89.40	40°32'24.260"N	104°51'07.615"W	0.00	
3228.00†	7.094	43.539	3219.64	-90.39	103.03	97.91	40°32'24.348"N	104°51'07.505"W	0.00	
3328.00†	7.094	43.539	3318.88	-98.24	111.98	106.41	40°32'24.437"N	104°51'07.395"W	0.00	
3428.00†	7.094	43.539	3418.11	-106.10	120.93	114.92	40°32'24.525"N	104°51'07.285"W	0.00	
3528.00†	7.094	43.539	3517.35	-113.95	129.89	123.43	40°32'24.614"N	104°51'07.175"W	0.00	
3628.00†	7.094	43.539	3616.58	-121.80	138.84	131.93	40°32'24.702"N	104°51'07.064"W	0.00	
3728.00†	7.094	43.539	3715.82	-129.66	147.79	140.44	40°32'24.791"N	104°51'06.954"W	0.00	
3828.00†	7.094	43.539	3815.05	-137.51	156.74	148.95	40°32'24.879"N	104°51'06.844"W	0.00	
3928.00†	7.094	43.539	3914.29	-145.37	165.70	157.45	40°32'24.968"N	104°51'06.734"W	0.00	
4028.00†	7.094	43.539	4013.52	-153.22	174.65	165.96	40°32'25.056"N	104°51'06.624"W	0.00	
4128.00†	7.094	43.539	4112.75	-161.07	183.60	174.47	40°32'25.145"N	104°51'06.513"W	0.00	
4228.00†	7.094	43.539	4211.99	-168.93	192.55	182.97	40°32'25.233"N	104°51'06.403"W	0.00	
4328.00†	7.094	43.539	4311.22	-176.78	201.51	191.48	40°32'25.322"N	104°51'06.293"W	0.00	
4428.00†	7.094	43.539	4410.46	-184.63	210.46	199.99	40°32'25.410"N	104°51'06.183"W	0.00	
4528.00†	7.094	43.539	4509.69	-192.49	219.41	208.50	40°32'25.498"N	104°51'06.073"W	0.00	
4628.00†	7.094	43.539	4608.93	-200.34	228.36	217.00	40°32'25.587"N	104°51'05.963"W	0.00	
4728.00†	7.094	43.539	4708.16	-208.20	237.31	225.51	40°32'25.675"N	104°51'05.852"W	0.00	
4828.00†	7.094	43.539	4807.40	-216.05	246.27	234.02	40°32'25.764"N	104°51'05.742"W	0.00	
4928.00†	7.094	43.539	4906.63	-223.90	255.22	242.52	40°32'25.852"N	104°51'05.632"W	0.00	
5028.00†	7.094	43.539	5005.87	-231.76	264.17	251.03	40°32'25.941"N	104°51'05.522"W	0.00	
5128.00†	7.094	43.539	5105.10	-239.61	273.12	259.54	40°32'26.029"N	104°51'05.412"W	0.00	
5228.00†	7.094	43.539	5204.33	-247.47	282.08	268.04	40°32'26.118"N	104°51'05.301"W	0.00	
5328.00†	7.094	43.539	5303.57	-255.32	291.03	276.55	40°32'26.206"N	104°51'05.191"W	0.00	
5428.00†	7.094	43.539	5402.80	-263.17	299.98	285.06	40°32'26.295"N	104°51'05.081"W	0.00	
5528.00†	7.094	43.539	5502.04	-271.03	308.93	293.57	40°32'26.383"N	104°51'04.971"W	0.00	
5628.00†	7.094	43.539	5601.27	-278.88	317.89	302.07	40°32'26.472"N	104°51'04.861"W	0.00	



# Planned Wellpath Report

LAUNER 8C (REV-C.0) PWP

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Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 LAUNER 8C (699'FSL & 412'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 8C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 8C PWB
Facility	SEC.26-T07N-R67W		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
5728.00†	7.094	43.539	5700.51	-286.73	326.84	310.58	40°32'26.560"N	104°51'04.750"W	0.00	
5828.00†	7.094	43.539	5799.74	-294.59	335.79	319.09	40°32'26.648"N	104°51'04.640"W	0.00	
5928.00†	7.094	43.539	5898.98	-302.44	344.74	327.59	40°32'26.737"N	104°51'04.530"W	0.00	
6028.00†	7.094	43.539	5998.21	-310.30	353.69	336.10	40°32'26.825"N	104°51'04.420"W	0.00	
6128.00†	7.094	43.539	6097.44	-318.15	362.65	344.61	40°32'26.914"N	104°51'04.310"W	0.00	
6228.00†	7.094	43.539	6196.68	-326.00	371.60	353.11	40°32'27.002"N	104°51'04.200"W	0.00	
6328.00†	7.094	43.539	6295.91	-333.86	380.55	361.62	40°32'27.091"N	104°51'04.089"W	0.00	
6428.00†	7.094	43.539	6395.15	-341.71	389.50	370.13	40°32'27.179"N	104°51'03.979"W	0.00	
6528.00†	7.094	43.539	6494.38	-349.57	398.46	378.64	40°32'27.268"N	104°51'03.869"W	0.00	
6628.00†	7.094	43.539	6593.62	-357.42	407.41	387.14	40°32'27.356"N	104°51'03.759"W	0.00	
6675.98	7.094	43.539	6641.23	-361.19	411.70	391.22	40°32'27.399"N	104°51'03.706"W	0.00	End of Tangent
6728.00†	5.203	356.451	6692.98	-362.92	416.39	393.29	40°32'27.445"N	104°51'03.679"W	10.00	
6828.00†	11.575	296.757	6792.01	-353.04	425.46	384.03	40°32'27.534"N	104°51'03.799"W	10.00	
6928.00†	20.984	284.127	6887.92	-326.09	434.36	357.64	40°32'27.623"N	104°51'04.141"W	10.00	
7028.00†	30.759	279.206	6977.80	-282.88	442.85	314.93	40°32'27.706"N	104°51'04.694"W	10.00	
7128.00†	40.636	276.503	7058.91	-224.73	450.65	257.18	40°32'27.783"N	104°51'05.442"W	10.00	
7228.00†	50.555	274.713	7128.80	-153.41	457.52	186.17	40°32'27.851"N	104°51'06.362"W	10.00	
7328.00†	60.494	273.373	7185.34	-71.08	463.27	104.04	40°32'27.908"N	104°51'07.426"W	10.00	
7428.00†	70.444	272.275	7226.80	19.76	467.71	13.29	40°32'27.952"N	104°51'08.601"W	10.00	
7528.00†	80.400	271.306	7251.94	116.34	470.72	-83.32	40°32'27.982"N	104°51'09.852"W	10.00	
7624.40	90.000	270.426	7260.00†	212.14	472.16	-179.26	40°32'27.996"N	104°51'11.095"W	10.00	End of 3D Arc
7628.00†	90.000	270.426	7260.00	215.73	472.19	-182.86	40°32'27.996"N	104°51'11.142"W	0.00	
7728.00†	90.000	270.426	7260.00	315.53	472.93	-282.85	40°32'28.004"N	104°51'12.437"W	0.00	
7828.00†	90.000	270.426	7260.00	415.33	473.67	-382.85	40°32'28.011"N	104°51'13.732"W	0.00	
7928.00†	90.000	270.426	7260.00	515.13	474.42	-482.85	40°32'28.018"N	104°51'15.027"W	0.00	
8028.00†	90.000	270.426	7260.00	614.93	475.16	-582.85	40°32'28.026"N	104°51'16.322"W	0.00	
8128.00†	90.000	270.426	7260.00	714.73	475.90	-682.84	40°32'28.033"N	104°51'17.618"W	0.00	
8228.00†	90.000	270.426	7260.00	814.53	476.65	-782.84	40°32'28.040"N	104°51'18.913"W	0.00	
8328.00†	90.000	270.426	7260.00	914.33	477.39	-882.84	40°32'28.048"N	104°51'20.208"W	0.00	
8428.00†	90.000	270.426	7260.00	1014.13	478.14	-982.84	40°32'28.055"N	104°51'21.503"W	0.00	



# Planned Wellpath Report

LAUNER 8C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 LAUNER 8C (699'FSL & 412'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 8C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 8C PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8528.00†	90.000	270.426	7260.00	1113.93	478.88	-1082.83	40°32'28.062"N	104°51'22.799"W	0.00	
8628.00†	90.000	270.426	7260.00	1213.73	479.62	-1182.83	40°32'28.069"N	104°51'24.094"W	0.00	
8728.00†	90.000	270.426	7260.00	1313.53	480.37	-1282.83	40°32'28.077"N	104°51'25.389"W	0.00	
8828.00†	90.000	270.426	7260.00	1413.33	481.11	-1382.82	40°32'28.084"N	104°51'26.684"W	0.00	
8928.00†	90.000	270.426	7260.00	1513.13	481.85	-1482.82	40°32'28.091"N	104°51'27.979"W	0.00	
9028.00†	90.000	270.426	7260.00	1612.94	482.60	-1582.82	40°32'28.099"N	104°51'29.275"W	0.00	
9128.00†	90.000	270.426	7260.00	1712.74	483.34	-1682.82	40°32'28.106"N	104°51'30.570"W	0.00	
9228.00†	90.000	270.426	7260.00	1812.54	484.08	-1782.81	40°32'28.113"N	104°51'31.865"W	0.00	
9328.00†	90.000	270.426	7260.00	1912.34	484.83	-1882.81	40°32'28.120"N	104°51'33.160"W	0.00	
9428.00†	90.000	270.426	7260.00	2012.14	485.57	-1982.81	40°32'28.128"N	104°51'34.455"W	0.00	
9528.00†	90.000	270.426	7260.00	2111.94	486.31	-2082.80	40°32'28.135"N	104°51'35.751"W	0.00	
9628.00†	90.000	270.426	7260.00	2211.74	487.06	-2182.80	40°32'28.142"N	104°51'37.046"W	0.00	
9728.00†	90.000	270.426	7260.00	2311.54	487.80	-2282.80	40°32'28.150"N	104°51'38.341"W	0.00	
9828.00†	90.000	270.426	7260.00	2411.34	488.54	-2382.80	40°32'28.157"N	104°51'39.636"W	0.00	
9928.00†	90.000	270.426	7260.00	2511.14	489.29	-2482.79	40°32'28.164"N	104°51'40.931"W	0.00	
10028.00†	90.000	270.426	7260.00	2610.94	490.03	-2582.79	40°32'28.171"N	104°51'42.227"W	0.00	
10128.00†	90.000	270.426	7260.00	2710.74	490.78	-2682.79	40°32'28.179"N	104°51'43.522"W	0.00	
10228.00†	90.000	270.426	7260.00	2810.54	491.52	-2782.79	40°32'28.186"N	104°51'44.817"W	0.00	
10328.00†	90.000	270.426	7260.00	2910.34	492.26	-2882.78	40°32'28.193"N	104°51'46.112"W	0.00	
10428.00†	90.000	270.426	7260.00	3010.14	493.01	-2982.78	40°32'28.200"N	104°51'47.408"W	0.00	
10528.00†	90.000	270.426	7260.00	3109.94	493.75	-3082.78	40°32'28.207"N	104°51'48.703"W	0.00	
10628.00†	90.000	270.426	7260.00	3209.74	494.49	-3182.77	40°32'28.215"N	104°51'49.998"W	0.00	
10728.00†	90.000	270.426	7260.00	3309.54	495.24	-3282.77	40°32'28.222"N	104°51'51.293"W	0.00	
10828.00†	90.000	270.426	7260.00	3409.34	495.98	-3382.77	40°32'28.229"N	104°51'52.588"W	0.00	
10928.00†	90.000	270.426	7260.00	3509.14	496.72	-3482.77	40°32'28.236"N	104°51'53.884"W	0.00	
11028.00†	90.000	270.426	7260.00	3608.94	497.47	-3582.76	40°32'28.243"N	104°51'55.179"W	0.00	
11128.00†	90.000	270.426	7260.00	3708.74	498.21	-3682.76	40°32'28.251"N	104°51'56.474"W	0.00	
11228.00†	90.000	270.426	7260.00	3808.54	498.95	-3782.76	40°32'28.258"N	104°51'57.769"W	0.00	
11328.00†	90.000	270.426	7260.00	3908.34	499.70	-3882.76	40°32'28.265"N	104°51'59.064"W	0.00	
11428.00†	90.000	270.426	7260.00	4008.14	500.44	-3982.75	40°32'28.272"N	104°52'00.360"W	0.00	



# Planned Wellpath Report

LAUNER 8C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 LAUNER 8C (699'FSL & 412'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 8C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 8C PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (155 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11528.00†	90.000	270.426	7260.00	4107.94	501.18	-4082.75	40°32'28.279"N	104°52'01.655"W	0.00	
11628.00†	90.000	270.426	7260.00	4207.74	501.93	-4182.75	40°32'28.287"N	104°52'02.950"W	0.00	
11728.00†	90.000	270.426	7260.00	4307.54	502.67	-4282.74	40°32'28.294"N	104°52'04.245"W	0.00	
11828.00†	90.000	270.426	7260.00	4407.34	503.41	-4382.74	40°32'28.301"N	104°52'05.541"W	0.00	
11928.00†	90.000	270.426	7260.00	4507.14	504.16	-4482.74	40°32'28.308"N	104°52'06.836"W	0.00	
12028.00†	90.000	270.426	7260.00	4606.94	504.90	-4582.74	40°32'28.315"N	104°52'08.131"W	0.00	
12128.00†	90.000	270.426	7260.00	4706.74	505.65	-4682.73	40°32'28.322"N	104°52'09.426"W	0.00	
12228.00†	90.000	270.426	7260.00	4806.54	506.39	-4782.73	40°32'28.330"N	104°52'10.721"W	0.00	
12328.00†	90.000	270.426	7260.00	4906.34	507.13	-4882.73	40°32'28.337"N	104°52'12.017"W	0.00	
12428.00†	90.000	270.426	7260.00	5006.15	507.88	-4982.72	40°32'28.344"N	104°52'13.312"W	0.00	
12528.00†	90.000	270.426	7260.00	5105.95	508.62	-5082.72	40°32'28.351"N	104°52'14.607"W	0.00	
12628.00†	90.000	270.426	7260.00	5205.75	509.36	-5182.72	40°32'28.358"N	104°52'15.902"W	0.00	
12728.00†	90.000	270.426	7260.00	5305.55	510.11	-5282.72	40°32'28.365"N	104°52'17.197"W	0.00	
12828.00†	90.000	270.426	7260.00	5405.35	510.85	-5382.71	40°32'28.373"N	104°52'18.493"W	0.00	
12928.00†	90.000	270.426	7260.00	5505.15	511.59	-5482.71	40°32'28.380"N	104°52'19.788"W	0.00	
13028.00†	90.000	270.426	7260.00	5604.95	512.34	-5582.71	40°32'28.387"N	104°52'21.083"W	0.00	
13128.00†	90.000	270.426	7260.00	5704.75	513.08	-5682.71	40°32'28.394"N	104°52'22.378"W	0.00	
13228.00†	90.000	270.426	7260.00	5804.55	513.82	-5782.70	40°32'28.401"N	104°52'23.674"W	0.00	
13328.00†	90.000	270.426	7260.00	5904.35	514.57	-5882.70	40°32'28.408"N	104°52'24.969"W	0.00	
13428.00†	90.000	270.426	7260.00	6004.15	515.31	-5982.70	40°32'28.415"N	104°52'26.264"W	0.00	
13528.00†	90.000	270.426	7260.00	6103.95	516.05	-6082.69	40°32'28.422"N	104°52'27.559"W	0.00	
13628.00†	90.000	270.426	7260.00	6203.75	516.80	-6182.69	40°32'28.429"N	104°52'28.854"W	0.00	
13728.00†	90.000	270.426	7260.00	6303.55	517.54	-6282.69	40°32'28.437"N	104°52'30.150"W	0.00	
13828.00†	90.000	270.426	7260.00	6403.35	518.28	-6382.69	40°32'28.444"N	104°52'31.445"W	0.00	
13928.00†	90.000	270.426	7260.00	6503.15	519.03	-6482.68	40°32'28.451"N	104°52'32.740"W	0.00	
14028.00†	90.000	270.426	7260.00	6602.95	519.77	-6582.68	40°32'28.458"N	104°52'34.035"W	0.00	
14128.00†	90.000	270.426	7260.00	6702.75	520.52	-6682.68	40°32'28.465"N	104°52'35.330"W	0.00	
14228.00†	90.000	270.426	7260.00	6802.55	521.26	-6782.68	40°32'28.472"N	104°52'36.626"W	0.00	
14328.00†	90.000	270.426	7260.00	6902.35	522.00	-6882.67	40°32'28.479"N	104°52'37.921"W	0.00	
14428.00†	90.000	270.426	7260.00	7002.15	522.75	-6982.67	40°32'28.486"N	104°52'39.216"W	0.00	



# Planned Wellpath Report

LAUNER 8C (REV-C.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 LAUNER 8C (699'FSL & 412'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 8C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 8C PWB
Facility	SEC.26-T07N-R67W		

WELLPATH DATA (155 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
14528.00†	90.000	270.426	7260.00	7101.95	523.49	-7082.67	40°32'28.493"N	104°52'40.511"W	0.00	
14628.00†	90.000	270.426	7260.00	7201.75	524.23	-7182.66	40°32'28.500"N	104°52'41.807"W	0.00	
14728.00†	90.000	270.426	7260.00	7301.55	524.98	-7282.66	40°32'28.507"N	104°52'43.102"W	0.00	
14828.00†	90.000	270.426	7260.00	7401.35	525.72	-7382.66	40°32'28.514"N	104°52'44.397"W	0.00	
14880.20	90.000	270.426	7260.00 <sup>2</sup>	7453.45	526.11	-7434.85	40°32'28.518"N	104°52'45.073"W	0.00	End of Tangent



# Planned Wellpath Report

LAUNER 8C (REV-C.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 LAUNER 8C (699'FSL & 412'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 8C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 8C PWB
Facility	SEC.26-T07N-R67W		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.26-T07N-R67W		-18.00	4093.88	-89.48	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W	polygon
SEC.27-T07N-R67W		-18.00	4093.88	-89.48	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W	polygon
LAUNER 8 BHL ON PLAT REV-1 (1234'FSL & 2561'FEL, SEC.27)		7034.00	526.11	-7434.87	3172541.17	1440623.98	40°32'28.518"N	104°52'45.073"W	point
LAUNER 8 LANDING		7034.00	472.16	-47.81	3179928.19	1440623.98	40°32'27.996"N	104°51'09.392"W	point
LAUNER 8 LANDING REV-1		7034.00	472.16	-179.31	3179796.69	1440623.02	40°32'27.996"N	104°51'11.096"W	point
SEC.26-T07N-R67W 460'FEL SETBACK		7257.00	92.54	63.37	3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W	polygon
SEC.27-T07N-R67W (MIDDLE SECTION)		7257.00	92.54	63.37	3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W	polygon
2) LAUNER 8 BHL ON PLAT REV-2 (1234'FSL & 2561'FEL, SEC.27)	14880.20	7260.00	526.11	-7434.85	3172541.19	1440623.98	40°32'28.518"N	104°52'45.073"W	point
1) LAUNER 8 LANDING REV-2 (1171'FSL & 592'FEL, SEC.26)	7624.40	7260.00	472.16	-179.26	3179796.75	1440623.02	40°32'27.996"N	104°51'11.095"W	point

SURVEY PROGRAM - Ref Wellbore: LAUNER 8C PWB					Ref Wellpath: LAUNER 8C (REV-C.0) PWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore	
28.00	15004.00	ISCWSA MWD, Rev. 4 (Standard)			LAUNER 8C PWB	



# Planned Wellpath Report

LAUNER 8C (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#17 LAUNER 8C (699'FSL & 412'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 8C
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 8C PWB
Facility	SEC.26-T07N-R67W		

## DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
28.00	0.000	43.539	28.00	Tie On
1900.00	0.000	43.539	1900.00	End of Tangent
2254.69	7.094	43.539	2253.79	End of Build
6675.98	7.094	43.539	6641.23	End of Tangent
7624.40	90.000	270.426	7260.00	End of 3D Arc
14880.20	90.000	270.426	7260.00	End of Tangent