

# EXTRACTION OIL & GAS

Location:	COLORADO	Slot:	SLOT#14 LAUNER 3 (769'FSL & 364'FEL,SEC.26)
Field:	WELD COUNTY (NAD83/TRUE NORTH)	Well:	LAUNER 3
Facility:	SEC.26-T07N-R67W	Wellbore:	LAUNER 3 PWB

Plot reference wellpath is LAUNER 3 (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: 4956 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#14 LAUNER 3 (769'FSL & 364'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
SLOT#14 LAUNER 3 (769'FSL & 364'FEL,SEC.26)	-4024.33	137.00	3180026.461	1440222.121	40°32'24.018"N
CYCLONE 37 (28'KB) (RKB) to Mud line (At Slot: SLOT#14 LAUNER 3 (769'FSL & 364'FEL,SEC.26))				4956ft	
Mean Sea Level to Mud line (At Slot: SLOT#14 LAUNER 3 (769'FSL & 364'FEL,SEC.26))				0ft	
CYCLONE 37 (28'KB) (RKB) to Mean Sea Level				4956ft	

## Survey Program

Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
28.00	14681.27	ISCWSA MWD, Rev. 4	ISCWSA MWD, Rev. 4 (Standard)		LAUNER 3 PWB

## Well Profile Data

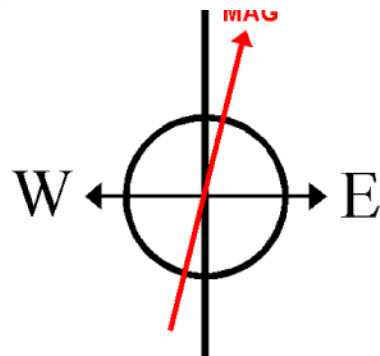
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	28.00	0.000	15.945	28.00	0.00	0.00	0.00	0.00
End of Tangent	1600.00	0.000	15.945	1600.00	0.00	0.00	0.00	0.00
End of Build	2410.08	16.202	15.945	2399.33	109.40	31.25	2.00	-10.20
End of Tangent	6484.64	16.202	15.945	6312.07	1202.54	343.57	0.00	-112.17
End of 3D Arc	7427.45	90.000	270.426	6905.00	1372.78	-226.54	10.00	479.74
End of Tangent	14681.27	90.000	270.426	6905.00	1426.74	-7480.16	0.00	7615.01

## 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		-16.00	4024.30	-137.00	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W
SEC.27-T07N-R67W		-16.00	4024.30	-137.00	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W
LAUNER 3 BHL ON PLAT REV-2 (2204'FSL & 2652'FEL,SEC.27)	14681.27	6905.00	1426.74	-7480.16	3172536.32	1441594.14	40°32'38.105"N	104°52'45.048"W
LAUNER 3 LANDING REV-2 (2141'FSL & 592'FEL, SEC.26)	7427.45	6905.00	1372.78	-226.54	3179789.90	1441593.17	40°32'37.583"N	104°51'11.092"W
LAUNER 3 BHL ON PLAT REV-1(2204'FSL & 2561'FEL,SEC.27)		7036.00	1426.72	-7480.16	3172536.32	1441594.12	40°32'38.105"N	104°52'45.048"W
LAUNER 3 LANDING		7036.00	1372.76	-94.77	3179921.67	1441594.11	40°32'37.583"N	104°51'09.385"W
LAUNER 3 LANDING REV-1		7036.00	1372.78	-226.63	3179789.81	1441593.17	40°32'37.583"N	104°51'11.093"W
SEC.26-T07N-R67W 460'FEL SETBACK	7259.00	22.95	15.84		3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W
SEC.27-T07N-R67W (MIDDLE SECTION)	7259.00	22.95	15.84		3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"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
14681.27	90.000	270.426	6905.00	1426.74	-7480.16	3172536.32	1441594.14	40°32'38.105"N	104°52'45.048"W



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, 1600.00ft MD, 1600.00ft TVD, 0.00ft VS

2.00°/100ft

End of Build : 16.20° Inc, 2410.08ft MD, 2399.33ft TVD, -10.20ft VS

End of Tangent : 16.20° Inc, 6484.64ft MD, 6312.07ft TVD, -112.17ft VS  
10.00°/100ft

End of 3D Arc : 90.00° Inc, 7427.45ft MD, 6905.00ft TVD, 479.74ft VS

LAUNER 3 LANDING REV-2 (2141'FSL & 592'FEL, SEC.26)

End of Tangent : 90.00° Inc, 14681.27ft MD, 6905.00ft TVD, 7615.01ft VS

LAUNER 3 BHL ON PLAT REV-2 (2204'FSL & 2652'FEL,SEC.27)

Vertical Section (ft)  
Azimuth 280.80° with reference 0.00 N, 0.00 E

Scale 1 inch = 500

Northing (ft)



# Planned Wellpath Report

LAUNER 3 (REV-C.0) PWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 LAUNER 3 (769'FSL & 364'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 3
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 3 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 9:26:19 AM
Convergence at slot	0.42° East	Database/Source file	WA_DEN_Denver_Defn/LAUNER_3__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	-4024.33	137.00	3180026.46	1440222.12	40°32'24.018"N	104°51'08.158"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	4956.00ft
Horizontal Reference Pt	Slot	CYCLONE 37 (28'KB) (RKB) to Mean Sea Level	4956.00ft
Vertical Reference Pt	CYCLONE 37 (28'KB) (RKB)	CYCLONE 37 (28'KB) (RKB) to Mud Line at Slot (SLOT#14 LAUNER 3 (769'FSL & 364'FEL, SEC.26))	4956.00ft
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	280.80°





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Area	COLORADO	Well	LAUNER 3
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 3 PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (153 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	15.945	0.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
28.00	0.000	15.945	28.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	Tie On
128.00†	0.000	15.945	128.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
228.00†	0.000	15.945	228.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
328.00†	0.000	15.945	328.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
428.00†	0.000	15.945	428.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
528.00†	0.000	15.945	528.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
628.00†	0.000	15.945	628.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
728.00†	0.000	15.945	728.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
828.00†	0.000	15.945	828.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
928.00†	0.000	15.945	928.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
1028.00†	0.000	15.945	1028.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
1128.00†	0.000	15.945	1128.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
1228.00†	0.000	15.945	1228.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
1328.00†	0.000	15.945	1328.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
1428.00†	0.000	15.945	1428.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
1528.00†	0.000	15.945	1528.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	
1600.00	0.000	15.945	1600.00	0.00	0.00	0.00	40°32'24.018"N	104°51'08.158"W	0.00	End of Tangent
1628.00†	0.560	15.945	1628.00	-0.01	0.13	0.04	40°32'24.019"N	104°51'08.157"W	2.00	
1728.00†	2.560	15.945	1727.96	-0.26	2.75	0.79	40°32'24.045"N	104°51'08.147"W	2.00	
1828.00†	4.560	15.945	1827.76	-0.81	8.72	2.49	40°32'24.104"N	104°51'08.125"W	2.00	
1928.00†	6.560	15.945	1927.28	-1.68	18.03	5.15	40°32'24.196"N	104°51'08.091"W	2.00	
2028.00†	8.560	15.945	2026.41	-2.86	30.68	8.77	40°32'24.321"N	104°51'08.044"W	2.00	
2128.00†	10.560	15.945	2125.02	-4.35	46.65	13.33	40°32'24.479"N	104°51'07.985"W	2.00	
2228.00†	12.560	15.945	2222.98	-6.15	65.92	18.83	40°32'24.669"N	104°51'07.914"W	2.00	
2328.00†	14.560	15.945	2320.19	-8.25	88.46	25.27	40°32'24.892"N	104°51'07.830"W	2.00	
2410.08	16.202	15.945	2399.33	-10.20	109.40	31.25	40°32'25.099"N	104°51'07.753"W	2.00	End of Build
2428.00†	16.202	15.945	2416.54	-10.65	114.20	32.63	40°32'25.146"N	104°51'07.735"W	0.00	
2528.00†	16.202	15.945	2512.56	-13.16	141.03	40.29	40°32'25.412"N	104°51'07.636"W	0.00	
2628.00†	16.202	15.945	2608.59	-15.66	167.86	47.96	40°32'25.677"N	104°51'07.536"W	0.00	



# Planned Wellpath Report

LAUNER 3 (REV-C.0) PWP

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Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 LAUNER 3 (769'FSL & 364'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 3
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 3 PWB
Facility	SEC.26-T07N-R67W		

## WELLPATH DATA (153 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
2728.00†	16.202	15.945	2704.62	-18.16	194.69	55.62	40°32'25.942"N	104°51'07.437"W	0.00	
2828.00†	16.202	15.945	2800.65	-20.66	221.52	63.29	40°32'26.207"N	104°51'07.338"W	0.00	
2928.00†	16.202	15.945	2896.68	-23.17	248.35	70.95	40°32'26.472"N	104°51'07.239"W	0.00	
3028.00†	16.202	15.945	2992.71	-25.67	275.17	78.62	40°32'26.737"N	104°51'07.139"W	0.00	
3128.00†	16.202	15.945	3088.74	-28.17	302.00	86.28	40°32'27.002"N	104°51'07.040"W	0.00	
3228.00†	16.202	15.945	3184.76	-30.67	328.83	93.95	40°32'27.267"N	104°51'06.941"W	0.00	
3328.00†	16.202	15.945	3280.79	-33.18	355.66	101.61	40°32'27.532"N	104°51'06.841"W	0.00	
3428.00†	16.202	15.945	3376.82	-35.68	382.49	109.28	40°32'27.798"N	104°51'06.742"W	0.00	
3528.00†	16.202	15.945	3472.85	-38.18	409.32	116.94	40°32'28.063"N	104°51'06.643"W	0.00	
3628.00†	16.202	15.945	3568.88	-40.68	436.14	124.61	40°32'28.328"N	104°51'06.544"W	0.00	
3728.00†	16.202	15.945	3664.91	-43.19	462.97	132.27	40°32'28.593"N	104°51'06.444"W	0.00	
3828.00†	16.202	15.945	3760.94	-45.69	489.80	139.94	40°32'28.858"N	104°51'06.345"W	0.00	
3928.00†	16.202	15.945	3856.96	-48.19	516.63	147.60	40°32'29.123"N	104°51'06.246"W	0.00	
4028.00†	16.202	15.945	3952.99	-50.69	543.46	155.27	40°32'29.388"N	104°51'06.147"W	0.00	
4128.00†	16.202	15.945	4049.02	-53.20	570.29	162.93	40°32'29.653"N	104°51'06.047"W	0.00	
4228.00†	16.202	15.945	4145.05	-55.70	597.12	170.60	40°32'29.918"N	104°51'05.948"W	0.00	
4328.00†	16.202	15.945	4241.08	-58.20	623.94	178.26	40°32'30.183"N	104°51'05.849"W	0.00	
4428.00†	16.202	15.945	4337.11	-60.71	650.77	185.93	40°32'30.449"N	104°51'05.749"W	0.00	
4528.00†	16.202	15.945	4433.14	-63.21	677.60	193.59	40°32'30.714"N	104°51'05.650"W	0.00	
4628.00†	16.202	15.945	4529.16	-65.71	704.43	201.26	40°32'30.979"N	104°51'05.551"W	0.00	
4728.00†	16.202	15.945	4625.19	-68.21	731.26	208.92	40°32'31.244"N	104°51'05.452"W	0.00	
4828.00†	16.202	15.945	4721.22	-70.72	758.09	216.59	40°32'31.509"N	104°51'05.352"W	0.00	
4928.00†	16.202	15.945	4817.25	-73.22	784.91	224.25	40°32'31.774"N	104°51'05.253"W	0.00	
5028.00†	16.202	15.945	4913.28	-75.72	811.74	231.92	40°32'32.039"N	104°51'05.154"W	0.00	
5128.00†	16.202	15.945	5009.31	-78.22	838.57	239.58	40°32'32.304"N	104°51'05.054"W	0.00	
5228.00†	16.202	15.945	5105.34	-80.73	865.40	247.25	40°32'32.569"N	104°51'04.955"W	0.00	
5328.00†	16.202	15.945	5201.36	-83.23	892.23	254.91	40°32'32.834"N	104°51'04.856"W	0.00	
5428.00†	16.202	15.945	5297.39	-85.73	919.06	262.58	40°32'33.100"N	104°51'04.757"W	0.00	
5528.00†	16.202	15.945	5393.42	-88.23	945.89	270.24	40°32'33.365"N	104°51'04.657"W	0.00	
5628.00†	16.202	15.945	5489.45	-90.74	972.71	277.90	40°32'33.630"N	104°51'04.558"W	0.00	



# Planned Wellpath Report

LAUNER 3 (REV-C.0) PWP

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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†	16.202	15.945	5585.48	-93.24	999.54	285.57	40°32'33.895"N	104°51'04.459"W	0.00	
5828.00†	16.202	15.945	5681.51	-95.74	1026.37	293.23	40°32'34.160"N	104°51'04.359"W	0.00	
5928.00†	16.202	15.945	5777.54	-98.24	1053.20	300.90	40°32'34.425"N	104°51'04.260"W	0.00	
6028.00†	16.202	15.945	5873.56	-100.75	1080.03	308.56	40°32'34.690"N	104°51'04.161"W	0.00	
6128.00†	16.202	15.945	5969.59	-103.25	1106.86	316.23	40°32'34.955"N	104°51'04.062"W	0.00	
6228.00†	16.202	15.945	6065.62	-105.75	1133.68	323.89	40°32'35.220"N	104°51'03.962"W	0.00	
6328.00†	16.202	15.945	6161.65	-108.25	1160.51	331.56	40°32'35.485"N	104°51'03.863"W	0.00	
6428.00†	16.202	15.945	6257.68	-110.76	1187.34	339.22	40°32'35.751"N	104°51'03.764"W	0.00	
6484.64	16.202	15.945	6312.07	-112.17	1202.54	343.57	40°32'35.901"N	104°51'03.707"W	0.00	End of Tangent
6528.00†	15.641	0.223	6353.78	-111.64	1214.20	345.25	40°32'36.016"N	104°51'03.686"W	10.00	
6628.00†	18.525	327.094	6449.59	-98.16	1241.09	336.65	40°32'36.282"N	104°51'03.797"W	10.00	
6728.00†	25.233	306.873	6542.46	-67.96	1267.28	310.90	40°32'36.541"N	104°51'04.130"W	10.00	
6828.00†	33.540	295.409	6629.59	-21.97	1291.99	268.79	40°32'36.785"N	104°51'04.676"W	10.00	
6928.00†	42.516	288.206	6708.31	38.43	1314.46	211.59	40°32'37.007"N	104°51'05.417"W	10.00	
7028.00†	51.809	283.149	6776.26	111.39	1334.00	141.05	40°32'37.200"N	104°51'06.331"W	10.00	
7128.00†	61.270	279.254	6831.34	194.69	1350.04	59.30	40°32'37.358"N	104°51'07.389"W	10.00	
7228.00†	70.823	276.014	6871.91	285.81	1362.06	-31.17	40°32'37.477"N	104°51'08.561"W	10.00	
7328.00†	80.427	273.133	6896.71	381.98	1369.73	-127.61	40°32'37.553"N	104°51'09.811"W	10.00	
7427.45	90.000	270.426	6905.00†	479.74	1372.78	-226.54	40°32'37.583"N	104°51'11.092"W	10.00	End of 3D Arc
7428.00†	90.000	270.426	6905.00	480.27	1372.79	-227.09	40°32'37.583"N	104°51'11.099"W	0.00	
7528.00†	90.000	270.426	6905.00	578.64	1373.53	-327.09	40°32'37.590"N	104°51'12.394"W	0.00	
7628.00†	90.000	270.426	6905.00	677.01	1374.28	-427.08	40°32'37.598"N	104°51'13.690"W	0.00	
7728.00†	90.000	270.426	6905.00	775.37	1375.02	-527.08	40°32'37.605"N	104°51'14.985"W	0.00	
7828.00†	90.000	270.426	6905.00	873.74	1375.76	-627.08	40°32'37.612"N	104°51'16.280"W	0.00	
7928.00†	90.000	270.426	6905.00	972.10	1376.51	-727.08	40°32'37.620"N	104°51'17.575"W	0.00	
8028.00†	90.000	270.426	6905.00	1070.47	1377.25	-827.07	40°32'37.627"N	104°51'18.871"W	0.00	
8128.00†	90.000	270.426	6905.00	1168.83	1377.99	-927.07	40°32'37.634"N	104°51'20.166"W	0.00	
8228.00†	90.000	270.426	6905.00	1267.20	1378.74	-1027.07	40°32'37.642"N	104°51'21.461"W	0.00	
8328.00†	90.000	270.426	6905.00	1365.57	1379.48	-1127.07	40°32'37.649"N	104°51'22.756"W	0.00	
8428.00†	90.000	270.426	6905.00	1463.93	1380.23	-1227.06	40°32'37.656"N	104°51'24.052"W	0.00	



# Planned Wellpath Report

LAUNER 3 (REV-C.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 LAUNER 3 (769'FSL & 364'FEL,SEC.26)
Area	COLORADO	Well	LAUNER 3
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 3 PWB
Facility	SEC.26-T07N-R67W		

WELLPATH DATA (153 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	6905.00	1562.30	1380.97	-1327.06	40°32'37.664"N	104°51'25.347"W	0.00	
8628.00†	90.000	270.426	6905.00	1660.66	1381.71	-1427.06	40°32'37.671"N	104°51'26.642"W	0.00	
8728.00†	90.000	270.426	6905.00	1759.03	1382.46	-1527.05	40°32'37.678"N	104°51'27.937"W	0.00	
8828.00†	90.000	270.426	6905.00	1857.39	1383.20	-1627.05	40°32'37.685"N	104°51'29.233"W	0.00	
8928.00†	90.000	270.426	6905.00	1955.76	1383.95	-1727.05	40°32'37.693"N	104°51'30.528"W	0.00	
9028.00†	90.000	270.426	6905.00	2054.13	1384.69	-1827.05	40°32'37.700"N	104°51'31.823"W	0.00	
9128.00†	90.000	270.426	6905.00	2152.49	1385.43	-1927.04	40°32'37.707"N	104°51'33.119"W	0.00	
9228.00†	90.000	270.426	6905.00	2250.86	1386.18	-2027.04	40°32'37.715"N	104°51'34.414"W	0.00	
9328.00†	90.000	270.426	6905.00	2349.22	1386.92	-2127.04	40°32'37.722"N	104°51'35.709"W	0.00	
9428.00†	90.000	270.426	6905.00	2447.59	1387.67	-2227.03	40°32'37.729"N	104°51'37.004"W	0.00	
9528.00†	90.000	270.426	6905.00	2545.96	1388.41	-2327.03	40°32'37.736"N	104°51'38.300"W	0.00	
9628.00†	90.000	270.426	6905.00	2644.32	1389.15	-2427.03	40°32'37.744"N	104°51'39.595"W	0.00	
9728.00†	90.000	270.426	6905.00	2742.69	1389.90	-2527.03	40°32'37.751"N	104°51'40.890"W	0.00	
9828.00†	90.000	270.426	6905.00	2841.05	1390.64	-2627.02	40°32'37.758"N	104°51'42.185"W	0.00	
9928.00†	90.000	270.426	6905.00	2939.42	1391.38	-2727.02	40°32'37.765"N	104°51'43.481"W	0.00	
10028.00†	90.000	270.426	6905.00	3037.78	1392.13	-2827.02	40°32'37.773"N	104°51'44.776"W	0.00	
10128.00†	90.000	270.426	6905.00	3136.15	1392.87	-2927.02	40°32'37.780"N	104°51'46.071"W	0.00	
10228.00†	90.000	270.426	6905.00	3234.52	1393.62	-3027.01	40°32'37.787"N	104°51'47.366"W	0.00	
10328.00†	90.000	270.426	6905.00	3332.88	1394.36	-3127.01	40°32'37.794"N	104°51'48.662"W	0.00	
10428.00†	90.000	270.426	6905.00	3431.25	1395.10	-3227.01	40°32'37.801"N	104°51'49.957"W	0.00	
10528.00†	90.000	270.426	6905.00	3529.61	1395.85	-3327.00	40°32'37.809"N	104°51'51.252"W	0.00	
10628.00†	90.000	270.426	6905.00	3627.98	1396.59	-3427.00	40°32'37.816"N	104°51'52.547"W	0.00	
10728.00†	90.000	270.426	6905.00	3726.34	1397.34	-3527.00	40°32'37.823"N	104°51'53.843"W	0.00	
10828.00†	90.000	270.426	6905.00	3824.71	1398.08	-3627.00	40°32'37.830"N	104°51'55.138"W	0.00	
10928.00†	90.000	270.426	6905.00	3923.08	1398.82	-3726.99	40°32'37.838"N	104°51'56.433"W	0.00	
11028.00†	90.000	270.426	6905.00	4021.44	1399.57	-3826.99	40°32'37.845"N	104°51'57.729"W	0.00	
11128.00†	90.000	270.426	6905.00	4119.81	1400.31	-3926.99	40°32'37.852"N	104°51'59.024"W	0.00	
11228.00†	90.000	270.426	6905.00	4218.17	1401.06	-4026.99	40°32'37.859"N	104°52'00.319"W	0.00	
11328.00†	90.000	270.426	6905.00	4316.54	1401.80	-4126.98	40°32'37.866"N	104°52'01.614"W	0.00	
11428.00†	90.000	270.426	6905.00	4414.91	1402.54	-4226.98	40°32'37.873"N	104°52'02.910"W	0.00	



# Planned Wellpath Report

LAUNER 3 (REV-C.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 LAUNER 3 (769'FSL & 364'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 3
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 3 PWB
Facility	SEC.26-T07N-R67W		

WELLPATH DATA (153 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	6905.00	4513.27	1403.29	-4326.98	40°32'37.881"N	104°52'04.205"W	0.00	
11628.00†	90.000	270.426	6905.00	4611.64	1404.03	-4426.97	40°32'37.888"N	104°52'05.500"W	0.00	
11728.00†	90.000	270.426	6905.00	4710.00	1404.77	-4526.97	40°32'37.895"N	104°52'06.795"W	0.00	
11828.00†	90.000	270.426	6905.00	4808.37	1405.52	-4626.97	40°32'37.902"N	104°52'08.091"W	0.00	
11928.00†	90.000	270.426	6905.00	4906.73	1406.26	-4726.97	40°32'37.909"N	104°52'09.386"W	0.00	
12028.00†	90.000	270.426	6905.00	5005.10	1407.01	-4826.96	40°32'37.917"N	104°52'10.681"W	0.00	
12128.00†	90.000	270.426	6905.00	5103.47	1407.75	-4926.96	40°32'37.924"N	104°52'11.976"W	0.00	
12228.00†	90.000	270.426	6905.00	5201.83	1408.49	-5026.96	40°32'37.931"N	104°52'13.272"W	0.00	
12328.00†	90.000	270.426	6905.00	5300.20	1409.24	-5126.95	40°32'37.938"N	104°52'14.567"W	0.00	
12428.00†	90.000	270.426	6905.00	5398.56	1409.98	-5226.95	40°32'37.945"N	104°52'15.862"W	0.00	
12528.00†	90.000	270.426	6905.00	5496.93	1410.73	-5326.95	40°32'37.952"N	104°52'17.157"W	0.00	
12628.00†	90.000	270.426	6905.00	5595.30	1411.47	-5426.95	40°32'37.959"N	104°52'18.453"W	0.00	
12728.00†	90.000	270.426	6905.00	5693.66	1412.21	-5526.94	40°32'37.967"N	104°52'19.748"W	0.00	
12828.00†	90.000	270.426	6905.00	5792.03	1412.96	-5626.94	40°32'37.974"N	104°52'21.043"W	0.00	
12928.00†	90.000	270.426	6905.00	5890.39	1413.70	-5726.94	40°32'37.981"N	104°52'22.339"W	0.00	
13028.00†	90.000	270.426	6905.00	5988.76	1414.45	-5826.94	40°32'37.988"N	104°52'23.634"W	0.00	
13128.00†	90.000	270.426	6905.00	6087.12	1415.19	-5926.93	40°32'37.995"N	104°52'24.929"W	0.00	
13228.00†	90.000	270.426	6905.00	6185.49	1415.93	-6026.93	40°32'38.002"N	104°52'26.224"W	0.00	
13328.00†	90.000	270.426	6905.00	6283.86	1416.68	-6126.93	40°32'38.009"N	104°52'27.520"W	0.00	
13428.00†	90.000	270.426	6905.00	6382.22	1417.42	-6226.92	40°32'38.016"N	104°52'28.815"W	0.00	
13528.00†	90.000	270.426	6905.00	6480.59	1418.16	-6326.92	40°32'38.023"N	104°52'30.110"W	0.00	
13628.00†	90.000	270.426	6905.00	6578.95	1418.91	-6426.92	40°32'38.031"N	104°52'31.405"W	0.00	
13728.00†	90.000	270.426	6905.00	6677.32	1419.65	-6526.92	40°32'38.038"N	104°52'32.701"W	0.00	
13828.00†	90.000	270.426	6905.00	6775.68	1420.40	-6626.91	40°32'38.045"N	104°52'33.996"W	0.00	
13928.00†	90.000	270.426	6905.00	6874.05	1421.14	-6726.91	40°32'38.052"N	104°52'35.291"W	0.00	
14028.00†	90.000	270.426	6905.00	6972.42	1421.88	-6826.91	40°32'38.059"N	104°52'36.586"W	0.00	
14128.00†	90.000	270.426	6905.00	7070.78	1422.63	-6926.90	40°32'38.066"N	104°52'37.882"W	0.00	
14228.00†	90.000	270.426	6905.00	7169.15	1423.37	-7026.90	40°32'38.073"N	104°52'39.177"W	0.00	
14328.00†	90.000	270.426	6905.00	7267.51	1424.12	-7126.90	40°32'38.080"N	104°52'40.472"W	0.00	
14428.00†	90.000	270.426	6905.00	7365.88	1424.86	-7226.90	40°32'38.087"N	104°52'41.768"W	0.00	



# Planned Wellpath Report

LAUNER 3 (REV-C.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 LAUNER 3 (769'FSL & 364'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 3
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 3 PWB
Facility	SEC.26-T07N-R67W		

WELLPATH DATA (153 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	6905.00	7464.25	1425.60	-7326.89	40°32'38.094"N	104°52'43.063"W	0.00	
14628.00†	90.000	270.426	6905.00	7562.61	1426.35	-7426.89	40°32'38.101"N	104°52'44.358"W	0.00	
14681.27	90.000	270.426	6905.00 <sup>2</sup>	7615.01	1426.74	-7480.16	40°32'38.105"N	104°52'45.048"W	0.00	End of Tangent





# Planned Wellpath Report

LAUNER 3 (REV-C.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 LAUNER 3 (769'FSL & 364'FEL, SEC.26)
Area	COLORADO	Well	LAUNER 3
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 3 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		-16.00	4024.30	-137.00	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W	polygon
SEC.27-T07N-R67W		-16.00	4024.30	-137.00	3179860.07	1444245.18	40°33'03.784"N	104°51'09.932"W	polygon
2) LAUNER 3 BHL ON PLAT REV-2 (2204'FSL & 2652'FEL, SEC.27)	14681.27	6905.00	1426.74	-7480.16	3172536.32	1441594.14	40°32'38.105"N	104°52'45.048"W	point
1) LAUNER 3 LANDING REV-2 (2141'FSL & 592'FEL, SEC.26)	7427.45	6905.00	1372.78	-226.54	3179789.90	1441593.17	40°32'37.583"N	104°51'11.092"W	point
LAUNER 3 BHL ON PLAT REV-1 (2204'FSL & 2561'FEL, SEC.27)		7036.00	1426.72	-7480.16	3172536.32	1441594.12	40°32'38.105"N	104°52'45.048"W	point
LAUNER 3 LANDING		7036.00	1372.76	-94.77	3179921.67	1441594.11	40°32'37.583"N	104°51'09.385"W	point
LAUNER 3 LANDING REV-1		7036.00	1372.78	-226.63	3179789.81	1441593.17	40°32'37.583"N	104°51'11.093"W	point
SEC.26-T07N-R67W 460'FEL SETBACK		7259.00	22.95	15.84	3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W	polygon
SEC.27-T07N-R67W (MIDDLE SECTION)		7259.00	22.95	15.84	3180042.13	1440245.19	40°32'24.245"N	104°51'07.952"W	polygon

SURVEY PROGRAM - Ref Wellbore: LAUNER 3 PWB Ref Wellpath: LAUNER 3 (REV-C.0) PWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
28.00	14681.27	ISCWSA MWD, Rev. 4 (Standard)		LAUNER 3 PWB



# Planned Wellpath Report

LAUNER 3 (REV-C.0) PWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	EXTRACTION OIL & GAS	Slot	SLOT#14 LAUNER 3 (769'FSL & 364'FEL,SEC.26)
Area	COLORADO	Well	LAUNER 3
Field	WELD COUNTY (NAD83/TRUE NORTH)	Wellbore	LAUNER 3 PWB
Facility	SEC.26-T07N-R67W		

DESIGN COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
28.00	0.000	15.945	28.00	Tie On
1600.00	0.000	15.945	1600.00	End of Tangent
2410.08	16.202	15.945	2399.33	End of Build
6484.64	16.202	15.945	6312.07	End of Tangent
7427.45	90.000	270.426	6905.00	End of 3D Arc
14681.27	90.000	270.426	6905.00	End of Tangent