

HRM RESOURCES

Location: COLORADO Slot: SLOT#06 ALMA 1S-66-2524-6NH (337°FSL & 1919°FEL, SEC.25)
Field: ADAMS COUNTY Well: ALMA 1S-66-2524-6NH
Facility: SEC.25-T01S-R66W Wellbore: ALMA 1S-66-2524-6NH PWB

Plot reference wellpath is ALMA 1S-66-2524-6NH PWP (REV-A.0)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
True vertical depths are referenced to RIG (RKB)	* = Wellpath was transformed from a different geoidic datum
Measured depths are referenced to RIG (RKB)	North Reference: True north
RIG (RKB) to Mean Sea Level: 5194 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#06 ALMA 1S-66-2524-6NH (337°FSL & 1919°FEL, SEC.25)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: ingram on 2016-10-14
	Database: WA_DEN_Denver_Defn

Location Information

Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.25-T01S-R66W	3218416.711	1218223.151	39°55'47.172"N	104°43'16.176"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
SLOT#06 ALMA 1S-66-2524-6NH (337°FSL & 1919°FEL, SEC.25)	0.00	-75.72	3218340.995	1218222.486
RIG (RKB) to Mud line (At Slot: SLOT#06 ALMA 1S-66-2524-6NH (337°FSL & 1919°FEL, SEC.25))				5194ft
Mean Sea Level to Mud line (At Slot: SLOT#06 ALMA 1S-66-2524-6NH (337°FSL & 1919°FEL, SEC.25))				0ft
RIG (RKB) to Mean Sea Level				5194ft

Well Profile Data

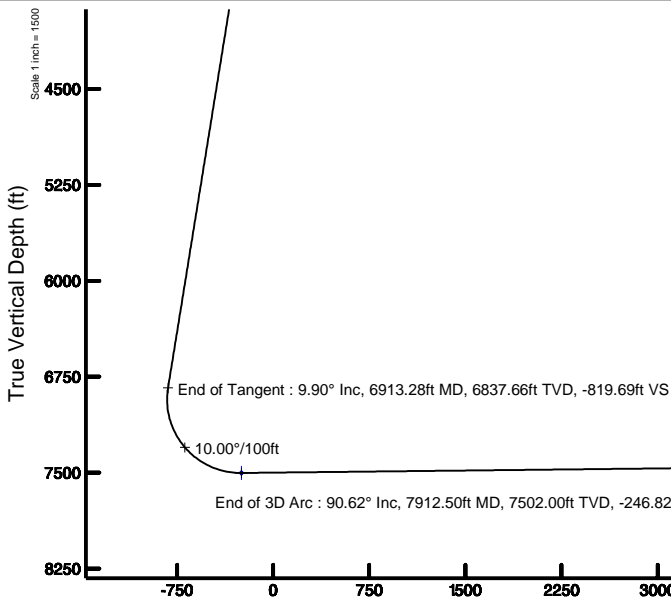
Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	14.00	0.000	160.563	14.00	0.00	0.00	0.00	0.00
End of Tangent	1500.00	0.000	160.563	1500.00	0.00	0.00	0.00	0.00
End of Build	1994.76	9.895	160.563	1992.30	-40.19	14.18	2.00	-39.35
End of Tangent	6913.28	9.895	160.563	6837.66	-837.25	295.44	0.00	-819.69
End of 3D Arc	7912.50	90.621	0.413	7502.00	-265.92	339.35	10.00	-246.82
End of Tangent	15289.85	90.621	0.413	7422.00	7110.80	392.52	0.00	7121.63

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC.24-T1S-R66W		-1.00	0.00	75.72	3218416.71	1218223.15	39°55'47.172"N	104°43'16.176"W
SEC.24-T1S-R66W SOUTH 1/2 SECTION		-1.00	0.00	75.72	3218416.71	1218223.15	39°55'47.172"N	104°43'16.176"W
SEC.25-T1S-R66W		-1.00	0.00	75.72	3218416.71	1218223.15	39°55'47.172"N	104°43'16.176"W
ALMA 1S-66-2524-6NH BHL ON PLAT (2160°FSL & 1530°FEL, SEC.24)	15289.85	7422.00	7110.80	392.52	3218671.06	1225336.25	39°56'57.444"N	104°43'12.108"W
ALMA 1S-66-2524-6NH ENTRY POINT	7912.50	7502.00	-265.92	339.35	3218862.65	1217959.55	39°55'44.544"N	104°43'12.792"W
SEC.24/25-T1S-R66W HARD LINES (400°FNL 1/2 SEC.24)		7796.00	0.00	75.72	3218416.71	1218223.15	39°55'47.172"N	104°43'16.176"W

Bottom Hole Location

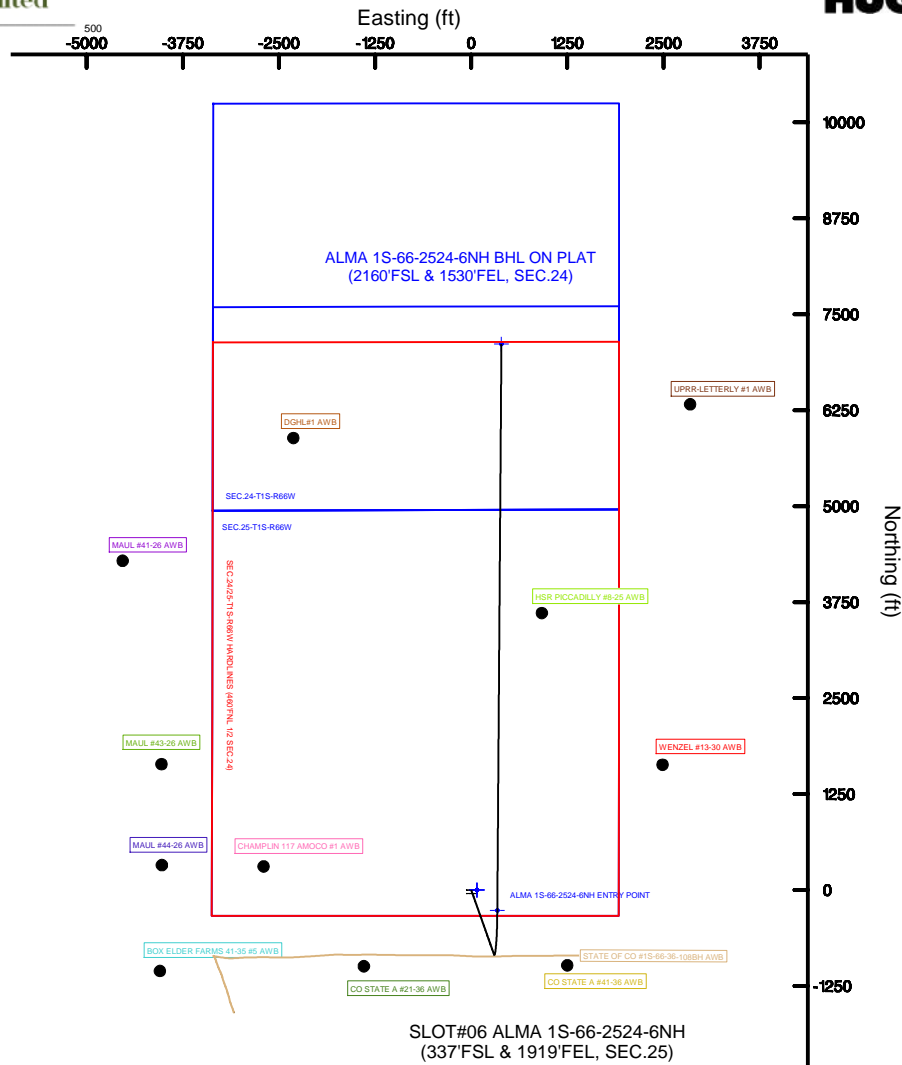
MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
15289.85	90.621	0.413	7422.00	7110.80	392.52	3218671.06	1225336.25	39°56'57.444"N	104°43'12.108"W



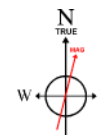
Vertical Section (ft)
Azimuth 3.16° with reference 0.00 N, 0.00 E



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SLOT#06 ALMA 1S-66-2524-6NH
(337°FSL & 1919°FEL, SEC.25)



BGGM (1900.0 to 2018.0) Dip: 66.55° Field: 52266.2 nT
Magnetic North is 8.40 degrees East of True North (at 10/7/2016)

To correct azimuth from Magnetic to True add 8.40 degrees

Scale 1 inch = 1500



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Planned Wellpath Report

ALMA 1S-66-2524-6NH PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	HRM RESOURCES	Slot	SLOT#06 ALMA 1S-66-2524-6NH (337'FSL & 1919'FEL, SEC.25)
Area	COLORADO	Well	ALMA 1S-66-2524-6NH
Field	ADAMS COUNTY	Wellbore	ALMA 1S-66-2524-6NH PWB
Facility	SEC.25-T01S-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Ingmjmr
Scale	0.999972	Report Generated	10/14/2016 at 12:29:29 PM
Convergence at slot	0.51° East	Database/Source file	WA_DEN_Denver_Defn/ALMA_1S-66-2524-6NH_PWP_REV-A.0_.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	-75.72	3218341.00	1218222.49	39°55'47.172"N	104°43'17.148"W
Facility Reference Pt			3218416.71	1218223.15	39°55'47.172"N	104°43'16.176"W
Field Reference Pt			3218416.71	1218223.15	39°55'47.172"N	104°43'16.176"W

WELLPATH DATUM

Calculation method	Minimum curvature	RIG (RKB) to Facility Vertical Datum	5194.00ft
Horizontal Reference Pt	Slot	RIG (RKB) to Mean Sea Level	5194.00ft
Vertical Reference Pt	RIG (RKB)	RIG (RKB) to Mud Line at Slot (SLOT#06 ALMA 1S-66-2524-6NH (337'FSL & 1919'FEL, SEC.25))	5194.00ft
MD Reference Pt	RIG (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	3.16°



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ALMA 1S-66-2524-6NH PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	HRM RESOURCES	Slot	SLOT#06 ALMA 1S-66-2524-6NH (337'FSL & 1919'FEL, SEC.25)
Area	COLORADO	Well	ALMA 1S-66-2524-6NH
Field	ADAMS COUNTY	Wellbore	ALMA 1S-66-2524-6NH PWB
Facility	SEC.25-T01S-R66W		

WELLPATH DATA (159 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	160.563	0.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
14.00	0.000	160.563	14.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	Tie On
114.00†	0.000	160.563	114.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
214.00†	0.000	160.563	214.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
314.00†	0.000	160.563	314.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
414.00†	0.000	160.563	414.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
514.00†	0.000	160.563	514.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
614.00†	0.000	160.563	614.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
714.00†	0.000	160.563	714.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
814.00†	0.000	160.563	814.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
914.00†	0.000	160.563	914.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
1014.00†	0.000	160.563	1014.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
1114.00†	0.000	160.563	1114.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
1214.00†	0.000	160.563	1214.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
1314.00†	0.000	160.563	1314.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
1414.00†	0.000	160.563	1414.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	
1500.00	0.000	160.563	1500.00	0.00	0.00	0.00	39°55'47.172"N	104°43'17.148"W	0.00	End of Tangent
1514.00†	0.280	160.563	1514.00	-0.03	-0.03	0.01	39°55'47.172"N	104°43'17.148"W	2.00	
1614.00†	2.280	160.563	1613.97	-2.09	-2.14	0.75	39°55'47.151"N	104°43'17.138"W	2.00	
1714.00†	4.280	160.563	1713.80	-7.38	-7.53	2.66	39°55'47.098"N	104°43'17.114"W	2.00	
1814.00†	6.280	160.563	1813.37	-15.87	-16.21	5.72	39°55'47.012"N	104°43'17.075"W	2.00	
1914.00†	8.280	160.563	1912.56	-27.57	-28.16	9.94	39°55'46.894"N	104°43'17.020"W	2.00	
1994.76	9.895	160.563	1992.30	-39.35	-40.19	14.18	39°55'46.775"N	104°43'16.966"W	2.00	End of Build
2014.00†	9.895	160.563	2011.26	-42.40	-43.31	15.28	39°55'46.744"N	104°43'16.952"W	0.00	
2114.00†	9.895	160.563	2109.77	-58.26	-59.51	21.00	39°55'46.584"N	104°43'16.878"W	0.00	
2214.00†	9.895	160.563	2208.28	-74.13	-75.72	26.72	39°55'46.424"N	104°43'16.805"W	0.00	
2314.00†	9.895	160.563	2306.80	-89.99	-91.92	32.44	39°55'46.264"N	104°43'16.732"W	0.00	
2414.00†	9.895	160.563	2405.31	-105.86	-108.13	38.16	39°55'46.103"N	104°43'16.658"W	0.00	
2514.00†	9.895	160.563	2503.82	-121.73	-124.33	43.87	39°55'45.943"N	104°43'16.585"W	0.00	
2614.00†	9.895	160.563	2602.33	-137.59	-140.54	49.59	39°55'45.783"N	104°43'16.511"W	0.00	
2714.00†	9.895	160.563	2700.84	-153.46	-156.74	55.31	39°55'45.623"N	104°43'16.438"W	0.00	
2814.00†	9.895	160.563	2799.36	-169.32	-172.95	61.03	39°55'45.463"N	104°43'16.365"W	0.00	
2914.00†	9.895	160.563	2897.87	-185.19	-189.15	66.75	39°55'45.303"N	104°43'16.291"W	0.00	
3014.00†	9.895	160.563	2996.38	-201.05	-205.36	72.47	39°55'45.143"N	104°43'16.218"W	0.00	
3114.00†	9.895	160.563	3094.89	-216.92	-221.56	78.18	39°55'44.982"N	104°43'16.144"W	0.00	
3214.00†	9.895	160.563	3193.41	-232.78	-237.77	83.90	39°55'44.822"N	104°43'16.071"W	0.00	
3314.00†	9.895	160.563	3291.92	-248.65	-253.98	89.62	39°55'44.662"N	104°43'15.998"W	0.00	
3414.00†	9.895	160.563	3390.43	-264.51	-270.18	95.34	39°55'44.502"N	104°43'15.924"W	0.00	
3514.00†	9.895	160.563	3488.94	-280.38	-286.39	101.06	39°55'44.342"N	104°43'15.851"W	0.00	
3614.00†	9.895	160.563	3587.46	-296.25	-302.59	106.78	39°55'44.182"N	104°43'15.777"W	0.00	
3714.00†	9.895	160.563	3685.97	-312.11	-318.80	112.49	39°55'44.022"N	104°43'15.704"W	0.00	
3814.00†	9.895	160.563	3784.48	-327.98	-335.00	118.21	39°55'43.861"N	104°43'15.631"W	0.00	
3914.00†	9.895	160.563	3882.99	-343.84	-351.21	123.93	39°55'43.701"N	104°43'15.557"W	0.00	
4014.00†	9.895	160.563	3981.51	-359.71	-367.41	129.65	39°55'43.541"N	104°43'15.484"W	0.00	
4114.00†	9.895	160.563	4080.02	-375.57	-383.62	135.37	39°55'43.381"N	104°43'15.410"W	0.00	



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Planned Wellpath Report

ALMA 1S-66-2524-6NH PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	HRM RESOURCES	Slot	SLOT#06 ALMA 1S-66-2524-6NH (337'FSL & 1919'FEL, SEC.25)
Area	COLORADO	Well	ALMA 1S-66-2524-6NH
Field	ADAMS COUNTY	Wellbore	ALMA 1S-66-2524-6NH PWB
Facility	SEC.25-T01S-R66W		

WELLPATH DATA (159 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4214.00†	9.895	160.563	4178.53	-391.44	-399.82	141.09	39°55'43.221"N	104°43'15.337"W	0.00	
4314.00†	9.895	160.563	4277.04	-407.30	-416.03	146.80	39°55'43.061"N	104°43'15.264"W	0.00	
4414.00†	9.895	160.563	4375.56	-423.17	-432.23	152.52	39°55'42.900"N	104°43'15.190"W	0.00	
4514.00†	9.895	160.563	4474.07	-439.03	-448.44	158.24	39°55'42.740"N	104°43'15.117"W	0.00	
4614.00†	9.895	160.563	4572.58	-454.90	-464.64	163.96	39°55'42.580"N	104°43'15.043"W	0.00	
4714.00†	9.895	160.563	4671.09	-470.77	-480.85	169.68	39°55'42.420"N	104°43'14.970"W	0.00	
4814.00†	9.895	160.563	4769.60	-486.63	-497.05	175.40	39°55'42.260"N	104°43'14.897"W	0.00	
4914.00†	9.895	160.563	4868.12	-502.50	-513.26	181.11	39°55'42.100"N	104°43'14.823"W	0.00	
5014.00†	9.895	160.563	4966.63	-518.36	-529.46	186.83	39°55'41.940"N	104°43'14.750"W	0.00	
5114.00†	9.895	160.563	5065.14	-534.23	-545.67	192.55	39°55'41.779"N	104°43'14.676"W	0.00	
5214.00†	9.895	160.563	5163.65	-550.09	-561.88	198.27	39°55'41.619"N	104°43'14.603"W	0.00	
5314.00†	9.895	160.563	5262.17	-565.96	-578.08	203.99	39°55'41.459"N	104°43'14.530"W	0.00	
5414.00†	9.895	160.563	5360.68	-581.82	-594.29	209.71	39°55'41.299"N	104°43'14.456"W	0.00	
5514.00†	9.895	160.563	5459.19	-597.69	-610.49	215.43	39°55'41.139"N	104°43'14.383"W	0.00	
5614.00†	9.895	160.563	5557.70	-613.55	-626.70	221.14	39°55'40.979"N	104°43'14.309"W	0.00	
5714.00†	9.895	160.563	5656.22	-629.42	-642.90	226.86	39°55'40.819"N	104°43'14.236"W	0.00	
5814.00†	9.895	160.563	5754.73	-645.29	-659.11	232.58	39°55'40.658"N	104°43'14.163"W	0.00	
5914.00†	9.895	160.563	5853.24	-661.15	-675.31	238.30	39°55'40.498"N	104°43'14.089"W	0.00	
6014.00†	9.895	160.563	5951.75	-677.02	-691.52	244.02	39°55'40.338"N	104°43'14.016"W	0.00	
6114.00†	9.895	160.563	6050.27	-692.88	-707.72	249.74	39°55'40.178"N	104°43'13.942"W	0.00	
6214.00†	9.895	160.563	6148.78	-708.75	-723.93	255.45	39°55'40.018"N	104°43'13.869"W	0.00	
6314.00†	9.895	160.563	6247.29	-724.61	-740.13	261.17	39°55'39.858"N	104°43'13.796"W	0.00	
6414.00†	9.895	160.563	6345.80	-740.48	-756.34	266.89	39°55'39.698"N	104°43'13.722"W	0.00	
6514.00†	9.895	160.563	6444.32	-756.34	-772.54	272.61	39°55'39.537"N	104°43'13.649"W	0.00	
6614.00†	9.895	160.563	6542.83	-772.21	-788.75	278.33	39°55'39.377"N	104°43'13.575"W	0.00	
6714.00†	9.895	160.563	6641.34	-788.07	-804.95	284.05	39°55'39.217"N	104°43'13.502"W	0.00	
6814.00†	9.895	160.563	6739.85	-803.94	-821.16	289.76	39°55'39.057"N	104°43'13.429"W	0.00	
6913.28	9.895	160.563	6837.66	-819.69	-837.25	295.44	39°55'38.898"N	104°43'13.356"W	0.00	End of Tangent
6914.00†	9.828	160.418	6838.36	-819.81	-837.36	295.48	39°55'38.897"N	104°43'13.355"W	10.00	
7014.00†	3.482	77.629	6937.79	-826.88	-844.77	301.32	39°55'38.824"N	104°43'13.280"W	10.00	
7114.00†	11.289	17.743	7036.98	-816.57	-834.77	307.29	39°55'38.922"N	104°43'13.204"W	10.00	
7214.00†	21.036	9.325	7132.93	-789.18	-807.67	313.19	39°55'39.190"N	104°43'13.128"W	10.00	
7314.00†	30.941	6.131	7222.71	-745.56	-764.29	318.86	39°55'39.619"N	104°43'13.055"W	10.00	
7414.00†	40.889	4.379	7303.60	-687.01	-705.95	324.12	39°55'40.195"N	104°43'12.988"W	10.00	
7514.00†	50.854	3.218	7373.14	-615.33	-634.42	328.81	39°55'40.902"N	104°43'12.927"W	10.00	
7614.00†	60.829	2.348	7429.22	-532.69	-551.87	332.78	39°55'41.718"N	104°43'12.876"W	10.00	
7714.00†	70.807	1.633	7470.13	-441.60	-460.82	335.93	39°55'42.618"N	104°43'12.836"W	10.00	
7814.00†	80.789	1.001	7494.63	-344.83	-364.02	338.14	39°55'43.575"N	104°43'12.808"W	10.00	
7912.50	90.621	0.413	7502.00†	-246.82	-265.92	339.35	39°55'44.544"N	104°43'12.792"W	10.00	End of 3D Arc
7914.00†	90.621	0.413	7501.98	-245.32	-264.43	339.36	39°55'44.559"N	104°43'12.792"W	0.00	
8014.00†	90.621	0.413	7500.90	-145.44	-164.43	340.08	39°55'45.547"N	104°43'12.783"W	0.00	
8114.00†	90.621	0.413	7499.81	-45.56	-64.44	340.80	39°55'46.535"N	104°43'12.773"W	0.00	
8214.00†	90.621	0.413	7498.73	54.32	35.55	341.52	39°55'47.523"N	104°43'12.764"W	0.00	
8314.00†	90.621	0.413	7497.65	154.20	135.54	342.24	39°55'48.511"N	104°43'12.755"W	0.00	
8414.00†	90.621	0.413	7496.56	254.08	235.53	342.96	39°55'49.500"N	104°43'12.746"W	0.00	



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**BAKER
HUGHES**

REFERENCE WELLPATH IDENTIFICATION

Operator	HRM RESOURCES	Slot	SLOT#06 ALMA 1S-66-2524-6NH (337'FSL & 1919'FEL, SEC.25)
Area	COLORADO	Well	ALMA 1S-66-2524-6NH
Field	ADAMS COUNTY	Wellbore	ALMA 1S-66-2524-6NH PWB
Facility	SEC.25-T01S-R66W		

WELLPATH DATA (159 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8514.00†	90.621	0.413	7495.48	353.96	335.52	343.68	39°55'50.488"N	104°43'12.736"W	0.00	
8614.00†	90.621	0.413	7494.39	453.84	435.52	344.40	39°55'51.476"N	104°43'12.727"W	0.00	
8714.00†	90.621	0.413	7493.31	553.72	535.51	345.13	39°55'52.464"N	104°43'12.718"W	0.00	
8814.00†	90.621	0.413	7492.22	653.59	635.50	345.85	39°55'53.452"N	104°43'12.708"W	0.00	
8914.00†	90.621	0.413	7491.14	753.47	735.49	346.57	39°55'54.440"N	104°43'12.699"W	0.00	
9014.00†	90.621	0.413	7490.06	853.35	835.48	347.29	39°55'55.429"N	104°43'12.690"W	0.00	
9114.00†	90.621	0.413	7488.97	953.23	935.47	348.01	39°55'56.417"N	104°43'12.681"W	0.00	
9214.00†	90.621	0.413	7487.89	1053.11	1035.46	348.73	39°55'57.405"N	104°43'12.671"W	0.00	
9314.00†	90.621	0.413	7486.80	1152.99	1135.46	349.45	39°55'58.393"N	104°43'12.662"W	0.00	
9414.00†	90.621	0.413	7485.72	1252.87	1235.45	350.17	39°55'59.381"N	104°43'12.653"W	0.00	
9514.00†	90.621	0.413	7484.63	1352.75	1335.44	350.89	39°56'00.369"N	104°43'12.644"W	0.00	
9614.00†	90.621	0.413	7483.55	1452.63	1435.43	351.61	39°56'01.358"N	104°43'12.634"W	0.00	
9714.00†	90.621	0.413	7482.46	1552.51	1535.42	352.33	39°56'02.346"N	104°43'12.625"W	0.00	
9814.00†	90.621	0.413	7481.38	1652.39	1635.41	353.05	39°56'03.334"N	104°43'12.616"W	0.00	
9914.00†	90.621	0.413	7480.30	1752.27	1735.41	353.77	39°56'04.322"N	104°43'12.606"W	0.00	
10014.00†	90.621	0.413	7479.21	1852.15	1835.40	354.49	39°56'05.310"N	104°43'12.597"W	0.00	
10114.00†	90.621	0.413	7478.13	1952.02	1935.39	355.22	39°56'06.298"N	104°43'12.588"W	0.00	
10214.00†	90.621	0.413	7477.04	2051.90	2035.38	355.94	39°56'07.286"N	104°43'12.579"W	0.00	
10314.00†	90.621	0.413	7475.96	2151.78	2135.37	356.66	39°56'08.275"N	104°43'12.569"W	0.00	
10414.00†	90.621	0.413	7474.87	2251.66	2235.36	357.38	39°56'09.263"N	104°43'12.560"W	0.00	
10514.00†	90.621	0.413	7473.79	2351.54	2335.35	358.10	39°56'10.251"N	104°43'12.551"W	0.00	
10614.00†	90.621	0.413	7472.70	2451.42	2435.35	358.82	39°56'11.239"N	104°43'12.542"W	0.00	
10714.00†	90.621	0.413	7471.62	2551.30	2535.34	359.54	39°56'12.227"N	104°43'12.532"W	0.00	
10814.00†	90.621	0.413	7470.54	2651.18	2635.33	360.26	39°56'13.215"N	104°43'12.523"W	0.00	
10914.00†	90.621	0.413	7469.45	2751.06	2735.32	360.98	39°56'14.204"N	104°43'12.514"W	0.00	
11014.00†	90.621	0.413	7468.37	2850.94	2835.31	361.70	39°56'15.192"N	104°43'12.504"W	0.00	
11114.00†	90.621	0.413	7467.28	2950.82	2935.30	362.42	39°56'16.180"N	104°43'12.495"W	0.00	
11214.00†	90.621	0.413	7466.20	3050.70	3035.30	363.14	39°56'17.168"N	104°43'12.486"W	0.00	
11314.00†	90.621	0.413	7465.11	3150.58	3135.29	363.86	39°56'18.156"N	104°43'12.477"W	0.00	
11414.00†	90.621	0.413	7464.03	3250.45	3235.28	364.58	39°56'19.144"N	104°43'12.467"W	0.00	
11514.00†	90.621	0.413	7462.95	3350.33	3335.27	365.31	39°56'20.133"N	104°43'12.458"W	0.00	
11614.00†	90.621	0.413	7461.86	3450.21	3435.26	366.03	39°56'21.121"N	104°43'12.449"W	0.00	
11714.00†	90.621	0.413	7460.78	3550.09	3535.25	366.75	39°56'22.109"N	104°43'12.440"W	0.00	
11814.00†	90.621	0.413	7459.69	3649.97	3635.24	367.47	39°56'23.097"N	104°43'12.430"W	0.00	
11914.00†	90.621	0.413	7458.61	3749.85	3735.24	368.19	39°56'24.085"N	104°43'12.421"W	0.00	
12014.00†	90.621	0.413	7457.52	3849.73	3835.23	368.91	39°56'25.073"N	104°43'12.412"W	0.00	
12114.00†	90.621	0.413	7456.44	3949.61	3935.22	369.63	39°56'26.062"N	104°43'12.403"W	0.00	
12214.00†	90.621	0.413	7455.35	4049.49	4035.21	370.35	39°56'27.050"N	104°43'12.393"W	0.00	
12314.00†	90.621	0.413	7454.27	4149.37	4135.20	371.07	39°56'28.038"N	104°43'12.384"W	0.00	
12414.00†	90.621	0.413	7453.19	4249.25	4235.19	371.79	39°56'29.026"N	104°43'12.375"W	0.00	
12514.00†	90.621	0.413	7452.10	4349.13	4335.18	372.51	39°56'30.014"N	104°43'12.365"W	0.00	
12614.00†	90.621	0.413	7451.02	4449.01	4435.18	373.23	39°56'31.002"N	104°43'12.356"W	0.00	
12714.00†	90.621	0.413	7449.93	4548.89	4535.17	373.95	39°56'31.990"N	104°43'12.347"W	0.00	
12814.00†	90.621	0.413	7448.85	4648.76	4635.16	374.67	39°56'32.979"N	104°43'12.338"W	0.00	
12914.00†	90.621	0.413	7447.76	4748.64	4735.15	375.40	39°56'33.967"N	104°43'12.328"W	0.00	



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**BAKER
HUGHES****REFERENCE WELLPATH IDENTIFICATION**

Operator	HRM RESOURCES	Slot	SLOT#06 ALMA 1S-66-2524-6NH (337'FSL & 1919'FEL, SEC.25)
Area	COLORADO	Well	ALMA 1S-66-2524-6NH
Field	ADAMS COUNTY	Wellbore	ALMA 1S-66-2524-6NH PWB
Facility	SEC.25-T01S-R66W		

WELLPATH DATA (159 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13014.00†	90.621	0.413	7446.68	4848.52	4835.14	376.12	39°56'34.955"N	104°43'12.319"W	0.00	
13114.00†	90.621	0.413	7445.59	4948.40	4935.13	376.84	39°56'35.943"N	104°43'12.310"W	0.00	
13214.00†	90.621	0.413	7444.51	5048.28	5035.13	377.56	39°56'36.931"N	104°43'12.301"W	0.00	
13314.00†	90.621	0.413	7443.43	5148.16	5135.12	378.28	39°56'37.919"N	104°43'12.291"W	0.00	
13414.00†	90.621	0.413	7442.34	5248.04	5235.11	379.00	39°56'38.908"N	104°43'12.282"W	0.00	
13514.00†	90.621	0.413	7441.26	5347.92	5335.10	379.72	39°56'39.896"N	104°43'12.273"W	0.00	
13614.00†	90.621	0.413	7440.17	5447.80	5435.09	380.44	39°56'40.884"N	104°43'12.263"W	0.00	
13714.00†	90.621	0.413	7439.09	5547.68	5535.08	381.16	39°56'41.872"N	104°43'12.254"W	0.00	
13814.00†	90.621	0.413	7438.00	5647.56	5635.07	381.88	39°56'42.860"N	104°43'12.245"W	0.00	
13914.00†	90.621	0.413	7436.92	5747.44	5735.07	382.60	39°56'43.848"N	104°43'12.236"W	0.00	
14014.00†	90.621	0.413	7435.84	5847.32	5835.06	383.32	39°56'44.837"N	104°43'12.226"W	0.00	
14114.00†	90.621	0.413	7434.75	5947.19	5935.05	384.04	39°56'45.825"N	104°43'12.217"W	0.00	
14214.00†	90.621	0.413	7433.67	6047.07	6035.04	384.76	39°56'46.813"N	104°43'12.208"W	0.00	
14314.00†	90.621	0.413	7432.58	6146.95	6135.03	385.49	39°56'47.801"N	104°43'12.199"W	0.00	
14414.00†	90.621	0.413	7431.50	6246.83	6235.02	386.21	39°56'48.789"N	104°43'12.189"W	0.00	
14514.00†	90.621	0.413	7430.41	6346.71	6335.02	386.93	39°56'49.777"N	104°43'12.180"W	0.00	
14614.00†	90.621	0.413	7429.33	6446.59	6435.01	387.65	39°56'50.766"N	104°43'12.171"W	0.00	
14714.00†	90.621	0.413	7428.24	6546.47	6535.00	388.37	39°56'51.754"N	104°43'12.161"W	0.00	
14814.00†	90.621	0.413	7427.16	6646.35	6634.99	389.09	39°56'52.742"N	104°43'12.152"W	0.00	
14914.00†	90.621	0.413	7426.08	6746.23	6734.98	389.81	39°56'53.730"N	104°43'12.143"W	0.00	
15014.00†	90.621	0.413	7424.99	6846.11	6834.97	390.53	39°56'54.718"N	104°43'12.134"W	0.00	
15114.00†	90.621	0.413	7423.91	6945.99	6934.96	391.25	39°56'55.706"N	104°43'12.124"W	0.00	
15214.00†	90.621	0.413	7422.82	7045.87	7034.96	391.97	39°56'56.694"N	104°43'12.115"W	0.00	
15289.85	90.621	0.413	7422.00 ²	7121.63	7110.80	392.52	39°56'57.444"N	104°43'12.108"W	0.00	End of Tangent

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.24-T1S-R66W		-1.00	0.00	75.72	3218416.71	1218223.15	39°55'47.172"N	104°43'16.176"W	polygon
SEC.24-T1S-R66W SOUTH 1/2 SECTION		-1.00	0.00	75.72	3218416.71	1218223.15	39°55'47.172"N	104°43'16.176"W	polygon
SEC.25-T1S-R66W		-1.00	0.00	75.72	3218416.71	1218223.15	39°55'47.172"N	104°43'16.176"W	polygon
2) ALMA 1S-66-2524-6NH BHL ON PLAT (2160'FSL & 1530'FEL, SEC.24)	15289.85	7422.00	7110.80	392.52	3218671.06	1225336.25	39°56'57.444"N	104°43'12.108"W	point
1) ALMA 1S-66-2524-6NH ENTRY POINT	7912.50	7502.00	-265.92	339.35	3218682.65	1217959.56	39°55'44.544"N	104°43'12.792"W	point
SEC.24/25-T1S-R66W HARDLINES (460'FNL 1/2 SEC.24)		7799.00	0.00	75.72	3218416.71	1218223.15	39°55'47.172"N	104°43'16.176"W	polygon



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Planned Wellpath Report

ALMA 1S-66-2524-6NH PWP (REV-A.0)

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REFERENCE WELLPATH IDENTIFICATION

Operator	HRM RESOURCES	Slot	SLOT#06 ALMA 1S-66-2524-6NH (337'FSL & 1919'FEL, SEC.25)
Area	COLORADO	Well	ALMA 1S-66-2524-6NH
Field	ADAMS COUNTY	Wellbore	ALMA 1S-66-2524-6NH PWB
Facility	SEC.25-T01S-R66W		

SURVEY PROGRAM -

Ref Wellbore: ALMA 1S-66-2524-6NH PWB Ref Wellpath: ALMA 1S-66-2524-6NH PWP (REV-A.0)

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
14.00	15289.85	Custom BHI AutoTrak Curve (Axial Corr, Short spacing) (Rockies 0.03Gt model)		ALMA 1S-66-2524-6NH PWB



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REFERENCE WELLPATH IDENTIFICATION

Operator	HRM RESOURCES	Slot	SLOT#06 ALMA 1S-66-2524-6NH (337'FSL & 1919'FEL, SEC.25)
Area	COLORADO	Well	ALMA 1S-66-2524-6NH
Field	ADAMS COUNTY	Wellbore	ALMA 1S-66-2524-6NH PWB
Facility	SEC.25-T01S-R66W		

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
14.00	0.000	160.563	14.00	Tie On
1500.00	0.000	160.563	1500.00	End of Tangent
1994.76	9.895	160.563	1992.30	End of Build
6913.28	9.895	160.563	6837.66	End of Tangent
7912.50	90.621	0.413	7502.00	End of 3D Arc
15289.85	90.621	0.413	7422.00	End of Tangent