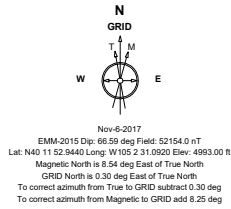


# Cub Creek Energy, LLC

Location **Weld County, CO** Slot **KNIGHT 11**  
 Field **WATTENBERG** Well **W KNIGHT 11**  
 Installation **Knight Pad** Wellbore **W KNIGHT 11 (PWB)**



Created by sean.dolfinger  
 Date plotted 14-Jul-2020  
 Plot reference is W KNIGHT 11 (PWB).  
 Ref wellpath is W KNIGHT 11 (PWP#1).  
 Coordinates are in Feet reference KNIGHT 11.  
 True Vertical Depths are reference Rig Datum.  
 Measured Depths are reference Rig Datum.  
 Rig Datum: Planned Datum #1  
 Rig Datum to Mean Sea Level: 5011.00 ft.  
 Plot North is aligned to GRID North.

Scale 1 cm = 400 ft East (Feet) ->

-1600 -800 0 800

Surface 0.00 N 0.00 E 1600

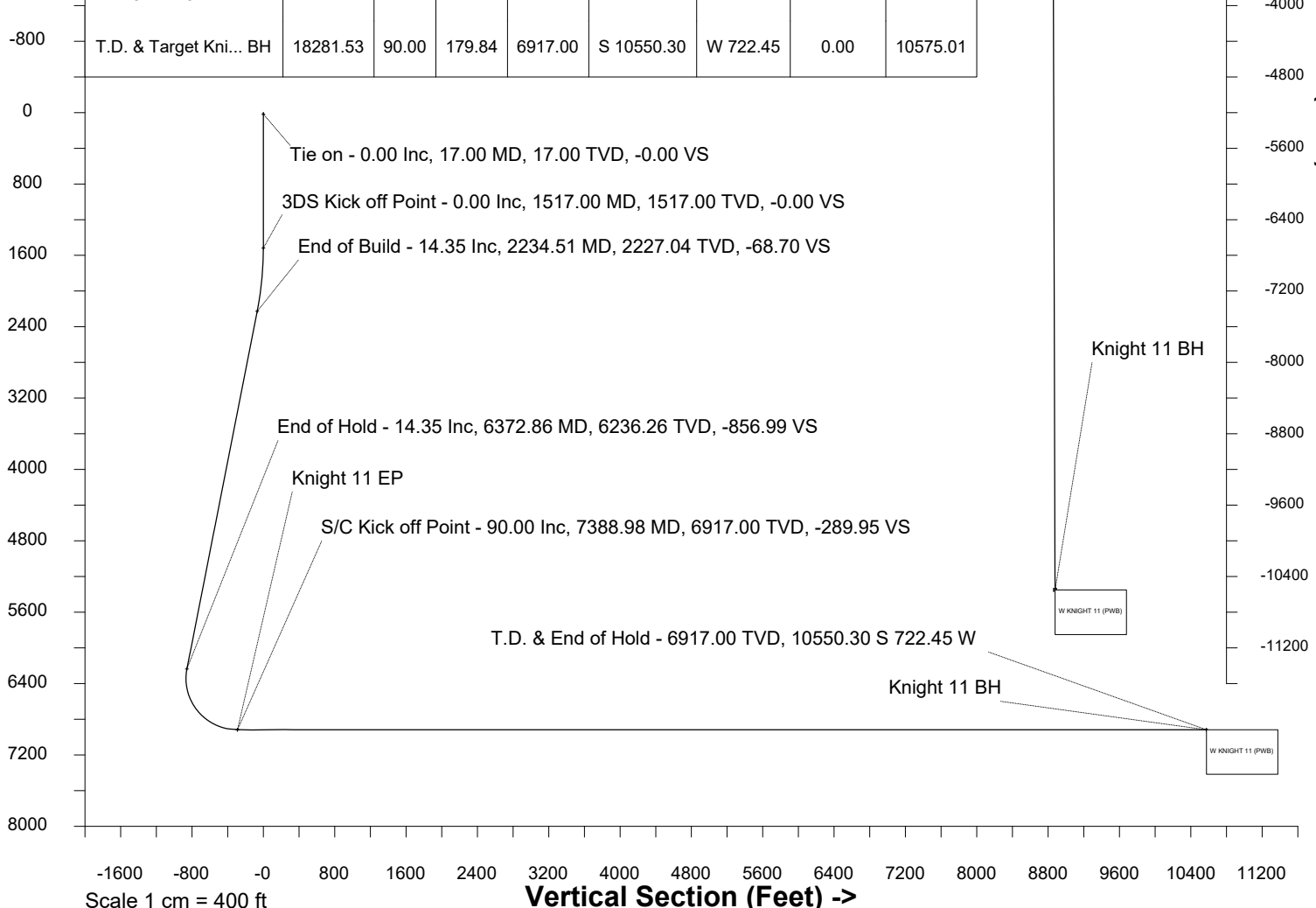
Knight 11 EP

## WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	17.00	0.00	0.00	17.00	S 0.00	W 0.00		-0.00
KOP	1517.00	0.00	324.14	1517.00	S 0.00	W 0.00	0.00	-0.00
End of Build	2234.51	14.35	324.14	2227.04	N 72.44	W 52.36	2.00	-68.70
End of Hold	6372.86	14.35	324.14	6236.26	N 903.73	W 653.19	0.00	-856.99
Target Knight 11 EP	7388.98	90.00	179.84	6917.00	N 342.21	W 753.23	10.00	-289.95
T.D. & Target Kni... BH	18281.53	90.00	179.84	6917.00	S 10550.30	W 722.45	0.00	10575.01

Scale 1 cm = 400 ft

<- True Vertical Depth (Feet)



<- North(Feet)

Scale 1 cm = 400 ft

Vertical Section (Feet) ->

Azimuth 183.92 with reference 0.00 N, 0.00 E from KNIGHT 11

SYSDRILL  
Well Design Combined Report  
Wellbore: W KNIGHT 11 (PWB)



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
KNIGHT 11	40.19788000	-105.04197000	1315260.6177	3127945.8500	58.29S	0.30E	0.00

Declination		
Date	Source	Time
Nov-6-2017	EMM-2015	14:52

Installation Details						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
Knight Pad	40.19804000	-105.04197000	1315318.9022	3127945.5490	NAD83 Based Colorado State Planes, Northern Zone, US Feet	Grid

Summary Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	Vertical Depth SS	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
17.00	0.00	0.00	17.00	-4994.00	0.00N	0.00E		0.00
1517.00	0.00	324.14	1517.00	-3494.00	0.00N	0.00E	==>	0.00
2234.51	14.35	324.14	2227.04	-2783.96	72.44N	52.36W	2.00	-68.70
6372.86	14.35	324.14	6236.26	1225.26	903.73N	653.19W	==>	-856.99
7388.98	90.00	179.84	6917.00	1906.00	342.21N	753.23W	10.00	-289.95
18281.53	90.00	179.84	6917.00	1906.00	10550.30S	722.45W	==>	10575.01

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
0.00	0.00	0.00	0.00	0.00N	0.00E		0.00	40.19788000	-105.04197000
17.00	0.00	0.00	17.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
100.00	0.00	0.00	100.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
200.00	0.00	0.00	200.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
300.00	0.00	0.00	300.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
400.00	0.00	0.00	400.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
500.00	0.00	0.00	500.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
600.00	0.00	0.00	600.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
700.00	0.00	0.00	700.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
800.00	0.00	0.00	800.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
900.00	0.00	0.00	900.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
1000.00	0.00	0.00	1000.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
1100.00	0.00	0.00	1100.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
1200.00	0.00	0.00	1200.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
1300.00	0.00	0.00	1300.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
1400.00	0.00	0.00	1400.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
1500.00	0.00	0.00	1500.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
1517.00	0.00	324.14	1517.00	0.00N	0.00E	==>	0.00	40.19788000	-105.04197000
1617.00	2.00	324.14	1616.98	1.41N	1.02W	2.00	-1.34	40.19788390	-105.04197363
1717.00	4.00	324.14	1716.84	5.66N	4.09W	2.00	-5.36	40.19789558	-105.04198453
1817.00	6.00	324.14	1816.45	12.72N	9.19W	2.00	-12.06	40.19791504	-105.04200267
1917.00	8.00	324.14	1915.70	22.60N	16.33W	2.00	-21.43	40.19794226	-105.04202804
2017.00	10.00	324.14	2014.47	35.27N	25.49W	2.00	-33.45	40.19797719	-105.04206061
2117.00	12.00	324.14	2112.62	50.74N	36.67W	2.00	-48.11	40.19801979	-105.04210033
2217.00	14.00	324.14	2210.06	68.97N	49.85W	2.00	-65.40	40.19807002	-105.04214717
2234.51	14.35	324.14	2227.04	72.44N	52.36W	2.00	-68.70	40.19807960	-105.04215609
2317.00	14.35	324.14	2306.95	89.01N	64.34W	==>	-84.41	40.19812525	-105.04219866
2417.00	14.35	324.14	2403.83	109.10N	78.86W	==>	-103.46	40.19818059	-105.04225026
2517.00	14.35	324.14	2500.71	129.19N	93.37W	==>	-122.51	40.19823594	-105.04230186
2617.00	14.35	324.14	2597.59	149.27N	107.89W	==>	-141.56	40.19829128	-105.04235346
2717.00	14.35	324.14	2694.47	169.36N	122.41W	==>	-160.60	40.19834663	-105.04240506
2817.00	14.35	324.14	2791.35	189.45N	136.93W	==>	-179.65	40.19840197	-105.04245666

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 5011.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 183.92 degrees  
Bottom hole distance is 10575.01 Feet on azimuth 183.92 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by  
Date Printed: 14-Jul-2020

SYSDRILL  
Well Design Combined Report  
Wellbore: W KNIGHT 11 (PWB)



Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
2917.00	14.35	324.14	2888.23	209.54N	151.45W	==>	-198.70	40.19845732	-105.04250826
3017.00	14.35	324.14	2985.11	229.62N	165.97W	==>	-217.75	40.19851266	-105.04255987
3117.00	14.35	324.14	3081.99	249.71N	180.49W	==>	-236.80	40.19856800	-105.04261147
3217.00	14.35	324.14	3178.87	269.80N	195.01W	==>	-255.85	40.19862335	-105.04266307
3317.00	14.35	324.14	3275.75	289.89N	209.52W	==>	-274.89	40.19867869	-105.04271467
3417.00	14.35	324.14	3372.63	309.97N	224.04W	==>	-293.94	40.19873404	-105.04276627
3517.00	14.35	324.14	3469.51	330.06N	238.56W	==>	-312.99	40.19878938	-105.04281787
3617.00	14.35	324.14	3566.39	350.15N	253.08W	==>	-332.04	40.19884473	-105.04286948
3717.00	14.35	324.14	3663.27	370.24N	267.60W	==>	-351.09	40.19890007	-105.04292108
3817.00	14.35	324.14	3760.15	390.32N	282.12W	==>	-370.14	40.19895541	-105.04297268
3917.00	14.35	324.14	3857.03	410.41N	296.64W	==>	-389.19	40.19901076	-105.04302428
4017.00	14.35	324.14	3953.91	430.50N	311.15W	==>	-408.23	40.19906610	-105.04307588
4117.00	14.35	324.14	4050.79	450.58N	325.67W	==>	-427.28	40.19912145	-105.04312749
4217.00	14.35	324.14	4147.67	470.67N	340.19W	==>	-446.33	40.19917679	-105.04317909
4317.00	14.35	324.14	4244.55	490.76N	354.71W	==>	-465.38	40.19923214	-105.04323069
4417.00	14.35	324.14	4341.43	510.85N	369.23W	==>	-484.43	40.19928748	-105.04328229
4517.00	14.35	324.14	4438.31	530.93N	383.75W	==>	-503.48	40.19934282	-105.04333390
4617.00	14.35	324.14	4535.18	551.02N	398.27W	==>	-522.53	40.19939817	-105.04338550
4717.00	14.35	324.14	4632.06	571.11N	412.79W	==>	-541.57	40.19945351	-105.04343710
4817.00	14.35	324.14	4728.94	591.20N	427.30W	==>	-560.62	40.19950886	-105.04348871
4917.00	14.35	324.14	4825.82	611.28N	441.82W	==>	-579.67	40.19956420	-105.04354031
5017.00	14.35	324.14	4922.70	631.37N	456.34W	==>	-598.72	40.19961954	-105.04359191
5117.00	14.35	324.14	5019.58	651.46N	470.86W	==>	-617.77	40.19967489	-105.04364351
5217.00	14.35	324.14	5116.46	671.54N	485.38W	==>	-636.82	40.19973023	-105.04369512
5317.00	14.35	324.14	5213.34	691.63N	499.90W	==>	-655.87	40.19978558	-105.04374672
5417.00	14.35	324.14	5310.22	711.72N	514.42W	==>	-674.91	40.19984092	-105.04379832
5517.00	14.35	324.14	5407.10	731.81N	528.94W	==>	-693.96	40.19989626	-105.04384993
5617.00	14.35	324.14	5503.98	751.89N	543.45W	==>	-713.01	40.19995161	-105.04390153
5717.00	14.35	324.14	5600.86	771.98N	557.97W	==>	-732.06	40.20000695	-105.04395313
5817.00	14.35	324.14	5697.74	792.07N	572.49W	==>	-751.11	40.20006229	-105.04400474
5917.00	14.35	324.14	5794.62	812.16N	587.01W	==>	-770.16	40.20011764	-105.04405634
6017.00	14.35	324.14	5891.50	832.24N	601.53W	==>	-789.20	40.20017298	-105.04410795
6117.00	14.35	324.14	5988.38	852.33N	616.05W	==>	-808.25	40.20022833	-105.04415955
6217.00	14.35	324.14	6085.26	872.42N	630.57W	==>	-827.30	40.20028367	-105.04421115
6317.00	14.35	324.14	6182.14	892.51N	645.08W	==>	-846.35	40.20033901	-105.04426276
6372.86	14.35	324.14	6236.26	903.73N	653.19W	==>	-856.99	40.20036993	-105.04429158
6417.00	11.11	310.38	6279.32	910.92N	659.64W	10.00	-863.73	40.20038976	-105.04431453
6517.00	8.94	251.50	6378.02	914.71N	674.39W	10.00	-866.50	40.20040037	-105.04436725
6617.00	15.32	212.85	6475.89	901.11N	688.96W	10.00	-851.94	40.20036325	-105.04441966
6717.00	24.25	199.19	6569.94	870.53N	702.91W	10.00	-820.48	40.20027952	-105.04447017
6817.00	33.76	192.74	6657.31	823.91N	715.82W	10.00	-773.09	40.20015173	-105.04451725
6917.00	43.48	188.90	6735.36	762.67N	727.30W	10.00	-711.20	40.19998377	-105.04455946
7017.00	53.28	186.23	6801.71	688.65N	737.00W	10.00	-636.69	40.19978073	-105.04459553
7117.00	63.12	184.18	6854.34	604.11N	744.61W	10.00	-551.83	40.19954879	-105.04462435
7217.00	73.00	182.45	6891.66	511.63N	749.92W	10.00	-459.20	40.19929500	-105.04464506
7317.00	82.88	180.91	6912.53	414.00N	752.76W	10.00	-361.61	40.19902706	-105.04465702
7388.98	90.00	179.84	6917.00	342.21N	753.23W	10.00	-289.95	40.19883000	-105.04466000
7417.00	90.00	179.84	6917.00	314.19N	753.15W	==>	-262.00	40.19875308	-105.04466023
7517.00	90.00	179.84	6917.00	214.19N	752.87W	==>	-162.26	40.19847858	-105.04466106
7617.00	90.00	179.84	6917.00	114.19N	752.58W	==>	-62.51	40.19820408	-105.04466188
7717.00	90.00	179.84	6917.00	14.19N	752.30W	==>	37.24	40.19792959	-105.04466271
7817.00	90.00	179.84	6917.00	85.81S	752.02W	==>	136.98	40.19765509	-105.04466354
7917.00	90.00	179.84	6917.00	185.81S	751.74W	==>	236.73	40.19738059	-105.04466436
8017.00	90.00	179.84	6917.00	285.81S	751.45W	==>	336.48	40.19710609	-105.04466519
8117.00	90.00	179.84	6917.00	385.81S	751.17W	==>	436.22	40.19683159	-105.04466602
8217.00	90.00	179.84	6917.00	485.81S	750.89W	==>	535.97	40.19655709	-105.04466684
8317.00	90.00	179.84	6917.00	585.81S	750.60W	==>	635.72	40.19628259	-105.04466767
8417.00	90.00	179.84	6917.00	685.81S	750.32W	==>	735.46	40.19600809	-105.04466850

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 5011.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 183.92 degrees  
Bottom hole distance is 10575.01 Feet on azimuth 183.92 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by  
Date Printed: 14-Jul-2020

SYSDRILL  
Well Design Combined Report  
Wellbore: W KNIGHT 11 (PWB)



Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
8517.00	90.00	179.84	6917.00	785.81S	750.04W	==>	835.21	40.19573359	-105.04466932
8617.00	90.00	179.84	6917.00	885.81S	749.76W	==>	934.96	40.19545910	-105.04467015
8717.00	90.00	179.84	6917.00	985.81S	749.47W	==>	1034.70	40.19518460	-105.04467098
8817.00	90.00	179.84	6917.00	1085.81S	749.19W	==>	1134.45	40.19491010	-105.04467180
8917.00	90.00	179.84	6917.00	1185.81S	748.91W	==>	1234.20	40.19463560	-105.04467263
9017.00	90.00	179.84	6917.00	1285.81S	748.63W	==>	1333.94	40.19436110	-105.04467346
9117.00	90.00	179.84	6917.00	1385.80S	748.34W	==>	1433.69	40.19408660	-105.04467428
9217.00	90.00	179.84	6917.00	1485.80S	748.06W	==>	1533.44	40.19381210	-105.04467511
9317.00	90.00	179.84	6917.00	1585.80S	747.78W	==>	1633.18	40.19353760	-105.04467594
9417.00	90.00	179.84	6917.00	1685.80S	747.50W	==>	1732.93	40.19326310	-105.04467676
9517.00	90.00	179.84	6917.00	1785.80S	747.21W	==>	1832.68	40.19298860	-105.04467759
9617.00	90.00	179.84	6917.00	1885.80S	746.93W	==>	1932.42	40.19271411	-105.04467842
9717.00	90.00	179.84	6917.00	1985.80S	746.65W	==>	2032.17	40.19243961	-105.04467924
9817.00	90.00	179.84	6917.00	2085.80S	746.37W	==>	2131.92	40.19216511	-105.04468007
9917.00	90.00	179.84	6917.00	2185.80S	746.08W	==>	2231.66	40.19189061	-105.04468089
10017.00	90.00	179.84	6917.00	2285.80S	745.80W	==>	2331.41	40.19161611	-105.04468172
10117.00	90.00	179.84	6917.00	2385.80S	745.52W	==>	2431.16	40.19134161	-105.04468255
10217.00	90.00	179.84	6917.00	2485.80S	745.24W	==>	2530.90	40.19106711	-105.04468337
10317.00	90.00	179.84	6917.00	2585.80S	744.95W	==>	2630.65	40.19079261	-105.04468420
10417.00	90.00	179.84	6917.00	2685.80S	744.67W	==>	2730.40	40.19051811	-105.04468503
10517.00	90.00	179.84	6917.00	2785.80S	744.39W	==>	2830.14	40.19024361	-105.04468585
10617.00	90.00	179.84	6917.00	2885.80S	744.11W	==>	2929.89	40.18996911	-105.04468668
10717.00	90.00	179.84	6917.00	2985.80S	743.82W	==>	3029.64	40.18969462	-105.04468751
10817.00	90.00	179.84	6917.00	3085.80S	743.54W	==>	3129.38	40.18942012	-105.04468833
10917.00	90.00	179.84	6917.00	3185.80S	743.26W	==>	3229.13	40.18914562	-105.04468916
11017.00	90.00	179.84	6917.00	3285.80S	742.98W	==>	3328.88	40.18887112	-105.04468999
11117.00	90.00	179.84	6917.00	3385.80S	742.69W	==>	3428.62	40.18859662	-105.04469081
11217.00	90.00	179.84	6917.00	3485.80S	742.41W	==>	3528.37	40.18832212	-105.04469164
11317.00	90.00	179.84	6917.00	3585.80S	742.13W	==>	3628.12	40.18804762	-105.04469246
11417.00	90.00	179.84	6917.00	3685.80S	741.84W	==>	3727.86	40.18777312	-105.04469329
11517.00	90.00	179.84	6917.00	3785.80S	741.56W	==>	3827.61	40.18749862	-105.04469412
11617.00	90.00	179.84	6917.00	3885.79S	741.28W	==>	3927.36	40.18722412	-105.04469494
11717.00	90.00	179.84	6917.00	3985.79S	741.00W	==>	4027.10	40.18694962	-105.04469577
11817.00	90.00	179.84	6917.00	4085.79S	740.71W	==>	4126.85	40.18667512	-105.04469660
11917.00	90.00	179.84	6917.00	4185.79S	740.43W	==>	4226.60	40.18640063	-105.04469742
12017.00	90.00	179.84	6917.00	4285.79S	740.15W	==>	4326.34	40.18612613	-105.04469825
12117.00	90.00	179.84	6917.00	4385.79S	739.87W	==>	4426.09	40.18585163	-105.04469908
12217.00	90.00	179.84	6917.00	4485.79S	739.58W	==>	4525.84	40.18557713	-105.04469990
12317.00	90.00	179.84	6917.00	4585.79S	739.30W	==>	4625.58	40.18530263	-105.04470073
12417.00	90.00	179.84	6917.00	4685.79S	739.02W	==>	4725.33	40.18502813	-105.04470155
12517.00	90.00	179.84	6917.00	4785.79S	738.74W	==>	4825.08	40.18475363	-105.04470238
12617.00	90.00	179.84	6917.00	4885.79S	738.45W	==>	4924.82	40.18447913	-105.04470321
12717.00	90.00	179.84	6917.00	4985.79S	738.17W	==>	5024.57	40.18420463	-105.04470403
12817.00	90.00	179.84	6917.00	5085.79S	737.89W	==>	5124.32	40.18393013	-105.04470486
12917.00	90.00	179.84	6917.00	5185.79S	737.61W	==>	5224.06	40.18365563	-105.04470569
13017.00	90.00	179.84	6917.00	5285.79S	737.32W	==>	5323.81	40.18338113	-105.04470651
13117.00	90.00	179.84	6917.00	5385.79S	737.04W	==>	5423.56	40.18310663	-105.04470734
13217.00	90.00	179.84	6917.00	5485.79S	736.76W	==>	5523.30	40.18283213	-105.04470816
13317.00	90.00	179.84	6917.00	5585.79S	736.48W	==>	5623.05	40.18255763	-105.04470899
13417.00	90.00	179.84	6917.00	5685.79S	736.19W	==>	5722.80	40.18228313	-105.04470982
13517.00	90.00	179.84	6917.00	5785.79S	735.91W	==>	5822.54	40.18200863	-105.04471064
13617.00	90.00	179.84	6917.00	5885.79S	735.63W	==>	5922.29	40.18173414	-105.04471147
13717.00	90.00	179.84	6917.00	5985.79S	735.35W	==>	6022.04	40.18145964	-105.04471230
13817.00	90.00	179.84	6917.00	6085.79S	735.06W	==>	6121.78	40.18118514	-105.04471312
13917.00	90.00	179.84	6917.00	6185.79S	734.78W	==>	6221.53	40.18091064	-105.04471395
14017.00	90.00	179.84	6917.00	6285.79S	734.50W	==>	6321.28	40.18063614	-105.04471477
14117.00	90.00	179.84	6917.00	6385.78S	734.22W	==>	6421.02	40.18036164	-105.04471560
14217.00	90.00	179.84	6917.00	6485.78S	733.93W	==>	6520.77	40.18008714	-105.04471643
14317.00	90.00	179.84	6917.00	6585.78S	733.65W	==>	6620.52	40.17981264	-105.04471725

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 5011.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 183.92 degrees  
Bottom hole distance is 10575.01 Feet on azimuth 183.92 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by  
Date Printed: 14-Jul-2020

SYSDRILL  
Well Design Combined Report  
Wellbore: W KNIGHT 11 (PWB)



Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
14417.00	90.00	179.84	6917.00	6685.78S	733.37W	==>	6720.26	40.17953814	-105.04471808
14517.00	90.00	179.84	6917.00	6785.78S	733.08W	==>	6820.01	40.17926364	-105.04471890
14617.00	90.00	179.84	6917.00	6885.78S	732.80W	==>	6919.76	40.17898914	-105.04471973
14717.00	90.00	179.84	6917.00	6985.78S	732.52W	==>	7019.50	40.17871464	-105.04472056
14817.00	90.00	179.84	6917.00	7085.78S	732.24W	==>	7119.25	40.17844014	-105.04472138
14917.00	90.00	179.84	6917.00	7185.78S	731.95W	==>	7219.00	40.17816564	-105.04472221
15017.00	90.00	179.84	6917.00	7285.78S	731.67W	==>	7318.74	40.17789114	-105.04472304
15117.00	90.00	179.84	6917.00	7385.78S	731.39W	==>	7418.49	40.17761664	-105.04472386
15217.00	90.00	179.84	6917.00	7485.78S	731.11W	==>	7518.24	40.17734214	-105.04472469
15317.00	90.00	179.84	6917.00	7585.78S	730.82W	==>	7617.98	40.17706764	-105.04472551
15417.00	90.00	179.84	6917.00	7685.78S	730.54W	==>	7717.73	40.17679314	-105.04472634
15517.00	90.00	179.84	6917.00	7785.78S	730.26W	==>	7817.48	40.17651864	-105.04472717
15617.00	90.00	179.84	6917.00	7885.78S	729.98W	==>	7917.22	40.17624414	-105.04472799
15717.00	90.00	179.84	6917.00	7985.78S	729.69W	==>	8016.97	40.17596964	-105.04472882
15817.00	90.00	179.84	6917.00	8085.78S	729.41W	==>	8116.72	40.17569514	-105.04472964
15917.00	90.00	179.84	6917.00	8185.78S	729.13W	==>	8216.46	40.17542064	-105.04473047
16017.00	90.00	179.84	6917.00	8285.78S	728.85W	==>	8316.21	40.17514614	-105.04473130
16117.00	90.00	179.84	6917.00	8385.78S	728.56W	==>	8415.96	40.17487164	-105.04473212
16217.00	90.00	179.84	6917.00	8485.78S	728.28W	==>	8515.70	40.17459714	-105.04473295
16317.00	90.00	179.84	6917.00	8585.78S	728.00W	==>	8615.45	40.17432264	-105.04473377
16417.00	90.00	179.84	6917.00	8685.78S	727.72W	==>	8715.20	40.17404815	-105.04473460
16517.00	90.00	179.84	6917.00	8785.78S	727.43W	==>	8814.94	40.17377365	-105.04473543
16617.00	90.00	179.84	6917.00	8885.77S	727.15W	==>	8914.69	40.17349915	-105.04473625
16717.00	90.00	179.84	6917.00	8985.77S	726.87W	==>	9014.44	40.17322465	-105.04473708
16817.00	90.00	179.84	6917.00	9085.77S	726.59W	==>	9114.18	40.17295015	-105.04473790
16917.00	90.00	179.84	6917.00	9185.77S	726.30W	==>	9213.93	40.17267565	-105.04473873
17017.00	90.00	179.84	6917.00	9285.77S	726.02W	==>	9313.68	40.17240115	-105.04473956
17117.00	90.00	179.84	6917.00	9385.77S	725.74W	==>	9413.42	40.17212665	-105.04474038
17217.00	90.00	179.84	6917.00	9485.77S	725.46W	==>	9513.17	40.17185215	-105.04474121
17317.00	90.00	179.84	6917.00	9585.77S	725.17W	==>	9612.92	40.17157765	-105.04474203
17417.00	90.00	179.84	6917.00	9685.77S	724.89W	==>	9712.66	40.17130315	-105.04474286
17517.00	90.00	179.84	6917.00	9785.77S	724.61W	==>	9812.41	40.17102865	-105.04474369
17617.00	90.00	179.84	6917.00	9885.77S	724.32W	==>	9912.16	40.17075415	-105.04474451
17717.00	90.00	179.84	6917.00	9985.77S	724.04W	==>	10011.90	40.17047965	-105.04474534
17817.00	90.00	179.84	6917.00	10085.77S	723.76W	==>	10111.65	40.17020515	-105.04474616
17917.00	90.00	179.84	6917.00	10185.77S	723.48W	==>	10211.40	40.16993065	-105.04474699
18017.00	90.00	179.84	6917.00	10285.77S	723.19W	==>	10311.14	40.16965615	-105.04474782
18117.00	90.00	179.84	6917.00	10385.77S	722.91W	==>	10410.89	40.16938165	-105.04474864
18217.00	90.00	179.84	6917.00	10485.77S	722.63W	==>	10510.64	40.16910715	-105.04474947
18281.53	90.00	179.84	6917.00	10550.30S	722.45W	==>	10575.01	40.16893000	-105.04475000

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 5011.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 183.92 degrees  
Bottom hole distance is 10575.01 Feet on azimuth 183.92 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by  
Date Printed: 14-Jul-2020

SYSDRILL  
Well Design Combined Report  
Wellbore: W KNIGHT 11 (PWB)



Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
Knight 11 BH	10550.30S	722.45W	6917.00	40.16893000	-105.04475000	1304710.79	3127223.44
Knight 11 EP	342.21N	753.23W	6917.00	40.19883000	-105.04466000	1315602.81	3127192.66

Survey Tool Program						
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model	
590251	Planned	1517.00	1517.00	WdW Rate Gyro	Standard	
590250	Planned	18281.53	6917.00	ISCWSA MWD	Rev 4 + SAG + FLT	

Notes

All data is in Feet unless otherwise stated  
Coordinates are from Slot MD's are from Rig and TVD's are from Rig ( Planned Datum #1 5011.0ft above Mean Sea Level )  
Vertical Section is from 0.00N 0.00E on azimuth 183.92 degrees  
Bottom hole distance is 10575.01 Feet on azimuth 183.92 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by  
Date Printed: 14-Jul-2020