

# **VERDAD RESOURCES**

**WATTENBERG FIELD  
2N-64W-32 KIWI 2920 PAD  
KIWI 2920-02H**

**Wellbore #1**

**Plan: Design #2**

## **Standard Planning Report**

**15 December, 2022**

Project: WATTENBERG FIELD  
Site: 2N-64W-32 KIWI 2920 PAD  
Well: KIWI 2920-02H  
Wellbore: Wellbore #1  
Design: Design #2

# VERDAD RESOURCES

## CASING DETAILS

TVD	MD	Name	Size
2486.00	2601.72	9 5/8"	9-5/8

SHL  
1955' FNL  
2576' FWL

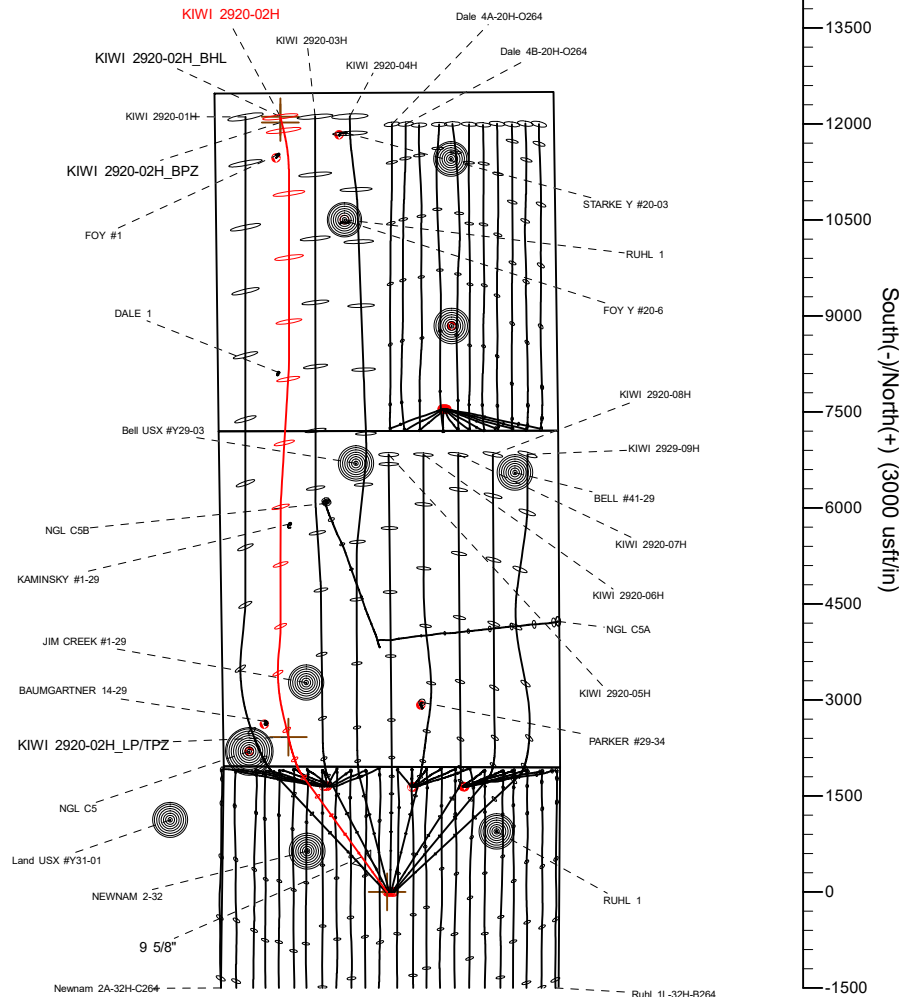
LP/TPZ  
460' FSL  
1017' FWL

BPZ  
460' FNL  
1023' FWL

BHL  
370' FNL  
1023' FWL

West(-)/East(+) (3000 usft/in)

-6000 -4500 -3000 -1500 0 1500 3000 4500 6000



## SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
218.90	0.00	0.00	218.90	0.00	0.00	0.00	0.00	0.00	
1291.90	21.46	323.98	1266.99	160.64	-116.79	2.00	323.98	162.15	
7003.53	21.46	323.98	6582.65	1850.74	-1345.63	0.00	0.00	1868.19	
7784.90	90.00	347.00	7000.00	2420.38	-1542.98	9.00	24.54	2440.37	
8184.89	90.00	347.00	7000.00	2810.13	-1632.96	0.00	0.00	2831.27	
9134.89	90.00	6.00	7000.00	3754.02	-1690.70	2.00	90.00	3775.83	
9234.89	90.00	6.00	7000.00	3853.47	-1680.24	0.00	0.00	3875.13	
9534.89	90.00	0.00	7000.00	4152.92	-1664.55	2.00	-90.00	4174.36	
11334.89	90.00	0.00	7000.00	5952.92	-1664.55	0.00	0.00	5974.20	
11507.39	90.00	3.45	7000.00	6125.32	-1659.36	2.00	90.00	6146.51	
13507.39	90.00	3.45	7000.00	8121.69	-1539.00	0.00	0.00	8141.14	
13679.89	90.00	0.00	7000.00	8294.09	-1533.81	2.00	-90.00	8313.46	
16600.00	90.00	0.00	7000.00	11214.20	-1533.81	0.00	0.00	11233.31	
17290.46	90.00	346.19	7000.00	11897.99	-1616.61	2.00	-90.00	11918.14	
17510.42	90.00	346.19	7000.00	12111.59	-1669.12	0.00	0.00	12132.40	KIWI 2920-02H_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
KIWI 2920-02H_SHL	0.00	1279507.67	3258741.14	40.096936	-104.575100
KIWI 2920-02H_LP/TPZ	7000.00	1281911.72	3257172.88	40.103580	-104.580616
KIWI 2920-02H_BPZ	7000.00	1291511.21	3256947.90	40.129937	-104.581065
KIWI 2920-02H_BHL	7000.00	1291601.19	3256945.79	40.130184	-104.581069

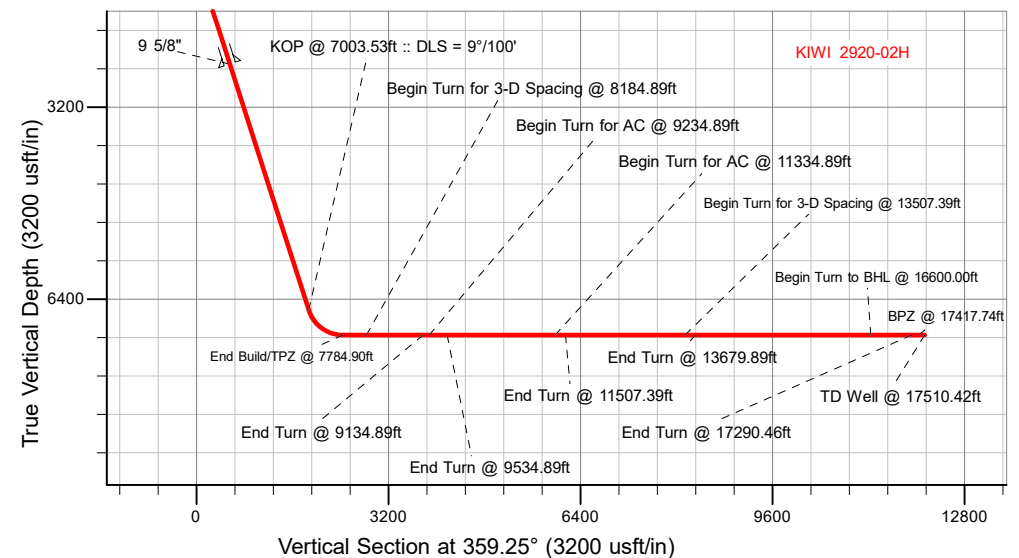
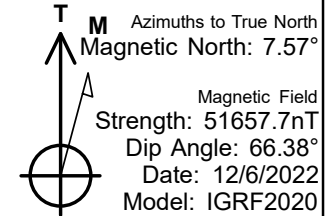
## WELL DETAILS: KIWI 2920-02H

GL = 4971'

RKB = 20' @ 4991.00usft (RIG)

Plan: Design #2 (KIWI 2920-02H/Wellbore #1)

Date: 12/16/2022



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well KIWI 2920-02H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Site:</b>	2N-64W-32 KIWI 2920 PAD	<b>North Reference:</b>	True
<b>Well:</b>	KIWI 2920-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

<b>Project</b>	WATTENBERG FIELD		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

Site		2N-64W-32 KIWI 2920 PAD				
Site Position:		Northing:	1,279,507.68	usft	Latitude:	40.096937
From:	Map	Easting:	3,258,725.14	usft	Longitude:	-104.575157
Position Uncertainty:		0.00	usft	Slot Radius:	13-3/16	"

Well		KIWI 2920-02H				
Well Position	+N/-S	0.00 usft	Northing:	1,279,507.66 usft	Latitude:	40.096936
	+E/-W	0.00 usft	Easting:	3,258,741.14 usft	Longitude:	-104.575100
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	4,971.00 usft
Grid Convergence:		0.60 °				

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF202013	12/6/2022	7.57	66.38	51,657.70967913

<b>Design</b>	Design #2				
<b>Audit Notes:</b>					
<b>Version:</b>		<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	359.25	

<b>Plan Survey Tool Program</b>	<b>Date</b>	12/15/2022			
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	2,436.00	Design #2 (Wellbore #1)	ISCWSA MWD	Fixed:v2:standard declination
2	2,436.00	17,510.42	Design #2 (Wellbore #1)	ISCWSA MWD	Fixed:v2:standard declination

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well KIWI 2920-02H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Site:</b>	2N-64W-32 KIWI 2920 PAD	<b>North Reference:</b>	True
<b>Well:</b>	KIWI 2920-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
218.90	0.00	0.00	218.90	0.00	0.00	0.00	0.00	0.00	0.00	
1,291.90	21.46	323.98	1,266.99	160.64	-116.79	2.00	2.00	0.00	323.98	
7,003.53	21.46	323.98	6,582.65	1,850.74	-1,345.63	0.00	0.00	0.00	0.00	
7,784.90	90.00	347.00	7,000.00	2,420.38	-1,542.98	9.00	8.77	2.95	24.54	
8,184.89	90.00	347.00	7,000.00	2,810.13	-1,632.96	0.00	0.00	0.00	0.00	
9,134.90	90.00	6.00	7,000.00	3,754.02	-1,690.70	2.00	0.00	2.00	90.00	
9,234.89	90.00	6.00	7,000.00	3,853.47	-1,680.24	0.00	0.00	0.00	0.00	
9,534.89	90.00	0.00	7,000.00	4,152.92	-1,664.55	2.00	0.00	-2.00	-90.00	
11,334.89	90.00	0.00	7,000.00	5,952.92	-1,664.55	0.00	0.00	0.00	0.00	
11,507.39	90.00	3.45	7,000.00	6,125.32	-1,659.36	2.00	0.00	2.00	90.00	
13,507.39	90.00	3.45	7,000.00	8,121.69	-1,539.00	0.00	0.00	0.00	0.00	
13,679.89	90.00	0.00	7,000.00	8,294.09	-1,533.81	2.00	0.00	-2.00	-90.00	
16,600.00	90.00	0.00	7,000.00	11,214.20	-1,533.81	0.00	0.00	0.00	0.00	
17,290.46	90.00	346.19	7,000.00	11,897.99	-1,616.62	2.00	0.00	-2.00	-90.00	
17,510.42	90.00	346.19	7,000.00	12,111.59	-1,669.12	0.00	0.00	0.00	0.00	KIWI 2920-02H_BHL

# Planning Report

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<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Site:</b>	2N-64W-32 KIWI 2920 PAD	<b>North Reference:</b>	True
<b>Well:</b>	KIWI 2920-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
218.90	0.00	0.00	218.90	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 218.90ft									
300.00	1.62	323.98	299.99	0.93	-0.68	0.94	2.00	2.00	0.00
400.00	3.62	323.98	399.88	4.63	-3.37	4.67	2.00	2.00	0.00
500.00	5.62	323.98	499.55	11.15	-8.10	11.25	2.00	2.00	0.00
600.00	7.62	323.98	598.88	20.47	-14.88	20.67	2.00	2.00	0.00
700.00	9.62	323.98	697.74	32.60	-23.70	32.90	2.00	2.00	0.00
800.00	11.62	323.98	796.02	47.50	-34.54	47.95	2.00	2.00	0.00
900.00	13.62	323.98	893.60	65.18	-47.39	65.79	2.00	2.00	0.00
1,000.00	15.62	323.98	990.36	85.59	-62.23	86.40	2.00	2.00	0.00
1,100.00	17.62	323.98	1,086.17	108.73	-79.05	109.76	2.00	2.00	0.00
1,200.00	19.62	323.98	1,180.93	134.56	-97.83	135.82	2.00	2.00	0.00
1,291.90	21.46	323.98	1,266.99	160.64	-116.79	162.15	2.00	2.00	0.00
Hold Tangent @ 1291.90ft									
1,300.00	21.46	323.98	1,274.53	163.03	-118.54	164.57	0.00	0.00	0.00
1,400.00	21.46	323.98	1,367.59	192.62	-140.05	194.44	0.00	0.00	0.00
1,500.00	21.46	323.98	1,460.66	222.21	-161.57	224.31	0.00	0.00	0.00
1,600.00	21.46	323.98	1,553.73	251.80	-183.08	254.18	0.00	0.00	0.00
1,700.00	21.46	323.98	1,646.80	281.39	-204.59	284.05	0.00	0.00	0.00
1,800.00	21.46	323.98	1,739.86	310.98	-226.11	313.92	0.00	0.00	0.00
1,900.00	21.46	323.98	1,832.93	340.58	-247.62	343.79	0.00	0.00	0.00
2,000.00	21.46	323.98	1,926.00	370.17	-269.14	373.66	0.00	0.00	0.00
2,100.00	21.46	323.98	2,019.06	399.76	-290.65	403.53	0.00	0.00	0.00
2,200.00	21.46	323.98	2,112.13	429.35	-312.17	433.40	0.00	0.00	0.00
2,300.00	21.46	323.98	2,205.20	458.94	-333.68	463.27	0.00	0.00	0.00
2,400.00	21.46	323.98	2,298.27	488.53	-355.20	493.14	0.00	0.00	0.00
2,500.00	21.46	323.98	2,391.33	518.12	-376.71	523.00	0.00	0.00	0.00
2,600.00	21.46	323.98	2,484.40	547.71	-398.23	552.87	0.00	0.00	0.00
2,601.72	21.46	323.98	2,486.00	548.22	-398.60	553.39	0.00	0.00	0.00
9 5/8"									
2,700.00	21.46	323.98	2,577.47	577.30	-419.74	582.74	0.00	0.00	0.00
2,800.00	21.46	323.98	2,670.54	606.89	-441.26	612.61	0.00	0.00	0.00
2,900.00	21.46	323.98	2,763.60	636.48	-462.77	642.48	0.00	0.00	0.00
3,000.00	21.46	323.98	2,856.67	666.07	-484.28	672.35	0.00	0.00	0.00
3,100.00	21.46	323.98	2,949.74	695.66	-505.80	702.22	0.00	0.00	0.00
3,200.00	21.46	323.98	3,042.81	725.25	-527.31	732.09	0.00	0.00	0.00
3,300.00	21.46	323.98	3,135.87	754.84	-548.83	761.96	0.00	0.00	0.00
3,400.00	21.46	323.98	3,228.94	784.43	-570.34	791.83	0.00	0.00	0.00
3,500.00	21.46	323.98	3,322.01	814.02	-591.86	821.70	0.00	0.00	0.00
3,600.00	21.46	323.98	3,415.07	843.61	-613.37	851.57	0.00	0.00	0.00
3,700.00	21.46	323.98	3,508.14	873.20	-634.89	881.44	0.00	0.00	0.00
3,800.00	21.46	323.98	3,601.21	902.79	-656.40	911.31	0.00	0.00	0.00
3,900.00	21.46	323.98	3,694.28	932.39	-677.92	941.18	0.00	0.00	0.00
4,000.00	21.46	323.98	3,787.34	961.98	-699.43	971.05	0.00	0.00	0.00
4,100.00	21.46	323.98	3,880.41	991.57	-720.94	1,000.92	0.00	0.00	0.00
4,200.00	21.46	323.98	3,973.48	1,021.16	-742.46	1,030.79	0.00	0.00	0.00
4,300.00	21.46	323.98	4,066.55	1,050.75	-763.97	1,060.66	0.00	0.00	0.00
4,400.00	21.46	323.98	4,159.61	1,080.34	-785.49	1,090.53	0.00	0.00	0.00
4,500.00	21.46	323.98	4,252.68	1,109.93	-807.00	1,120.40	0.00	0.00	0.00
4,600.00	21.46	323.98	4,345.75	1,139.52	-828.52	1,150.27	0.00	0.00	0.00

## Planning Report

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<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Site:</b>	2N-64W-32 KIWI 2920 PAD	<b>North Reference:</b>	True
<b>Well:</b>	KIWI 2920-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.00	21.46	323.98	4,438.82	1,169.11	-850.03	1,180.14	0.00	0.00	0.00
4,800.00	21.46	323.98	4,531.88	1,198.70	-871.55	1,210.01	0.00	0.00	0.00
4,900.00	21.46	323.98	4,624.95	1,228.29	-893.06	1,239.88	0.00	0.00	0.00
5,000.00	21.46	323.98	4,718.02	1,257.88	-914.58	1,269.74	0.00	0.00	0.00
5,100.00	21.46	323.98	4,811.08	1,287.47	-936.09	1,299.61	0.00	0.00	0.00
5,200.00	21.46	323.98	4,904.15	1,317.06	-957.60	1,329.48	0.00	0.00	0.00
5,300.00	21.46	323.98	4,997.22	1,346.65	-979.12	1,359.35	0.00	0.00	0.00
5,400.00	21.46	323.98	5,090.29	1,376.24	-1,000.63	1,389.22	0.00	0.00	0.00
5,500.00	21.46	323.98	5,183.35	1,405.83	-1,022.15	1,419.09	0.00	0.00	0.00
5,600.00	21.46	323.98	5,276.42	1,435.42	-1,043.66	1,448.96	0.00	0.00	0.00
5,700.00	21.46	323.98	5,369.49	1,465.01	-1,065.18	1,478.83	0.00	0.00	0.00
5,800.00	21.46	323.98	5,462.56	1,494.61	-1,086.69	1,508.70	0.00	0.00	0.00
5,900.00	21.46	323.98	5,555.62	1,524.20	-1,108.21	1,538.57	0.00	0.00	0.00
6,000.00	21.46	323.98	5,648.69	1,553.79	-1,129.72	1,568.44	0.00	0.00	0.00
6,100.00	21.46	323.98	5,741.76	1,583.38	-1,151.24	1,598.31	0.00	0.00	0.00
6,200.00	21.46	323.98	5,834.82	1,612.97	-1,172.75	1,628.18	0.00	0.00	0.00
6,300.00	21.46	323.98	5,927.89	1,642.56	-1,194.26	1,658.05	0.00	0.00	0.00
6,400.00	21.46	323.98	6,020.96	1,672.15	-1,215.78	1,687.92	0.00	0.00	0.00
6,500.00	21.46	323.98	6,114.03	1,701.74	-1,237.29	1,717.79	0.00	0.00	0.00
6,600.00	21.46	323.98	6,207.09	1,731.33	-1,258.81	1,747.66	0.00	0.00	0.00
6,700.00	21.46	323.98	6,300.16	1,760.92	-1,280.32	1,777.53	0.00	0.00	0.00
6,800.00	21.46	323.98	6,393.23	1,790.51	-1,301.84	1,807.40	0.00	0.00	0.00
6,900.00	21.46	323.98	6,486.30	1,820.10	-1,323.35	1,837.27	0.00	0.00	0.00
7,003.53	21.46	323.98	6,582.65	1,850.74	-1,345.63	1,868.19	0.00	0.00	0.00
<b>KOP @ 7003.53ft :: DLS = 9°/100'</b>									
7,050.00	25.32	328.04	6,625.29	1,866.05	-1,355.89	1,883.64	9.00	8.31	8.74
7,100.00	29.57	331.28	6,669.66	1,885.95	-1,367.48	1,903.69	9.00	8.49	6.48
7,150.00	33.88	333.76	6,712.18	1,909.28	-1,379.58	1,927.17	9.00	8.61	4.97
7,200.00	38.22	335.74	6,752.60	1,935.89	-1,392.10	1,953.95	9.00	8.69	3.96
7,250.00	42.60	337.38	6,790.66	1,965.63	-1,404.97	1,983.85	9.00	8.75	3.26
7,300.00	46.99	338.76	6,826.14	1,998.30	-1,418.11	2,016.70	9.00	8.79	2.76
7,350.00	51.40	339.95	6,858.80	2,033.72	-1,431.44	2,052.28	9.00	8.82	2.39
7,400.00	55.82	341.01	6,888.46	2,071.64	-1,444.87	2,090.38	9.00	8.84	2.11
7,450.00	60.24	341.96	6,914.93	2,111.86	-1,458.33	2,130.76	9.00	8.85	1.90
7,500.00	64.68	342.83	6,938.04	2,154.11	-1,471.73	2,173.19	9.00	8.87	1.74
7,550.00	69.12	343.64	6,957.66	2,198.13	-1,484.99	2,217.38	9.00	8.88	1.62
7,600.00	73.56	344.40	6,973.65	2,243.66	-1,498.03	2,263.08	9.00	8.88	1.52
7,650.00	78.00	345.13	6,985.93	2,290.41	-1,510.76	2,309.99	9.00	8.89	1.46
7,700.00	82.45	345.83	6,994.42	2,338.10	-1,523.11	2,357.84	9.00	8.89	1.41
7,750.00	86.90	346.52	6,999.06	2,386.43	-1,535.00	2,406.32	9.00	8.89	1.38
7,784.90	90.00	347.00	7,000.00	2,420.38	-1,542.98	2,440.37	9.00	8.90	1.37
<b>End Build/TPZ @ 7784.90ft</b>									
7,800.00	90.00	347.00	7,000.00	2,435.10	-1,546.38	2,455.13	0.00	0.00	0.00
7,900.00	90.00	347.00	7,000.00	2,532.54	-1,568.88	2,552.86	0.00	0.00	0.00
8,000.00	90.00	347.00	7,000.00	2,629.98	-1,591.37	2,650.58	0.00	0.00	0.00
8,100.00	90.00	347.00	7,000.00	2,727.41	-1,613.87	2,748.30	0.00	0.00	0.00
8,184.89	90.00	347.00	7,000.00	2,810.13	-1,632.96	2,831.27	0.00	0.00	0.00
<b>Begin Turn for 3-D Spacing @ 8184.89ft</b>									
8,200.00	90.00	347.30	7,000.00	2,824.86	-1,636.32	2,846.03	2.00	0.00	2.00
8,300.00	90.00	349.30	7,000.00	2,922.78	-1,656.60	2,944.21	2.00	0.00	2.00
8,400.00	90.00	351.30	7,000.00	3,021.34	-1,673.44	3,042.99	2.00	0.00	2.00
8,500.00	90.00	353.30	7,000.00	3,120.44	-1,686.84	3,142.25	2.00	0.00	2.00
8,600.00	90.00	355.30	7,000.00	3,219.94	-1,696.76	3,241.87	2.00	0.00	2.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well KIWI 2920-02H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Site:</b>	2N-64W-32 KIWI 2920 PAD	<b>North Reference:</b>	True
<b>Well:</b>	KIWI 2920-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,700.00	90.00	357.30	7,000.00	3,319.72	-1,703.21	3,341.73	2.00	0.00	2.00
8,800.00	90.00	359.30	7,000.00	3,419.67	-1,706.18	3,441.71	2.00	0.00	2.00
8,900.00	90.00	1.30	7,000.00	3,519.67	-1,705.65	3,541.69	2.00	0.00	2.00
9,000.00	90.00	3.30	7,000.00	3,619.58	-1,701.63	3,641.55	2.00	0.00	2.00
9,100.00	90.00	5.30	7,000.00	3,719.30	-1,694.13	3,741.15	2.00	0.00	2.00
9,134.90	90.00	6.00	7,000.00	3,754.02	-1,690.70	3,775.83	2.00	0.00	2.00
End Turn @ 9134.89ft									
9,200.00	90.00	6.00	7,000.00	3,818.77	-1,683.89	3,840.48	0.00	0.00	0.00
9,234.89	90.00	6.00	7,000.00	3,853.47	-1,680.24	3,875.13	0.00	0.00	0.00
Begin Turn for AC @ 9234.89ft									
9,300.00	90.00	4.70	7,000.00	3,918.29	-1,674.17	3,939.87	2.00	0.00	-2.00
9,400.00	90.00	2.70	7,000.00	4,018.08	-1,667.72	4,039.57	2.00	0.00	-2.00
9,500.00	90.00	0.70	7,000.00	4,118.03	-1,664.76	4,139.47	2.00	0.00	-2.00
9,534.89	90.00	0.00	7,000.00	4,152.92	-1,664.55	4,174.36	2.00	0.00	-2.00
End Turn @ 9534.89ft									
9,600.00	90.00	0.00	7,000.00	4,218.03	-1,664.55	4,239.46	0.00	0.00	0.00
9,700.00	90.00	0.00	7,000.00	4,318.03	-1,664.55	4,339.45	0.00	0.00	0.00
9,800.00	90.00	0.00	7,000.00	4,418.03	-1,664.55	4,439.44	0.00	0.00	0.00
9,900.00	90.00	0.00	7,000.00	4,518.03	-1,664.55	4,539.43	0.00	0.00	0.00
10,000.00	90.00	0.00	7,000.00	4,618.03	-1,664.55	4,639.42	0.00	0.00	0.00
10,100.00	90.00	0.00	7,000.00	4,718.03	-1,664.55	4,739.41	0.00	0.00	0.00
10,200.00	90.00	0.00	7,000.00	4,818.03	-1,664.55	4,839.41	0.00	0.00	0.00
10,300.00	90.00	0.00	7,000.00	4,918.03	-1,664.55	4,939.40	0.00	0.00	0.00
10,400.00	90.00	0.00	7,000.00	5,018.03	-1,664.55	5,039.39	0.00	0.00	0.00
10,500.00	90.00	0.00	7,000.00	5,118.03	-1,664.55	5,139.38	0.00	0.00	0.00
10,600.00	90.00	0.00	7,000.00	5,218.03	-1,664.55	5,239.37	0.00	0.00	0.00
10,700.00	90.00	0.00	7,000.00	5,318.03	-1,664.55	5,339.36	0.00	0.00	0.00
10,800.00	90.00	0.00	7,000.00	5,418.03	-1,664.55	5,439.35	0.00	0.00	0.00
10,900.00	90.00	0.00	7,000.00	5,518.03	-1,664.55	5,539.35	0.00	0.00	0.00
11,000.00	90.00	0.00	7,000.00	5,618.03	-1,664.55	5,639.34	0.00	0.00	0.00
11,100.00	90.00	0.00	7,000.00	5,718.03	-1,664.55	5,739.33	0.00	0.00	0.00
11,200.00	90.00	0.00	7,000.00	5,818.03	-1,664.55	5,839.32	0.00	0.00	0.00
11,300.00	90.00	0.00	7,000.00	5,918.03	-1,664.55	5,939.31	0.00	0.00	0.00
11,334.89	90.00	0.00	7,000.00	5,952.92	-1,664.55	5,974.20	0.00	0.00	0.00
Begin Turn for AC @ 11334.89ft									
11,400.00	90.00	1.30	7,000.00	6,018.02	-1,663.81	6,039.29	2.00	0.00	2.00
11,507.39	90.00	3.45	7,000.00	6,125.32	-1,659.36	6,146.51	2.00	0.00	2.00
End Turn @ 11507.39ft									
11,600.00	90.00	3.45	7,000.00	6,217.76	-1,653.78	6,238.87	0.00	0.00	0.00
11,700.00	90.00	3.45	7,000.00	6,317.58	-1,647.77	6,338.60	0.00	0.00	0.00
11,800.00	90.00	3.45	7,000.00	6,417.40	-1,641.75	6,438.34	0.00	0.00	0.00
11,900.00	90.00	3.45	7,000.00	6,517.21	-1,635.73	6,538.07	0.00	0.00	0.00
12,000.00	90.00	3.45	7,000.00	6,617.03	-1,629.71	6,637.80	0.00	0.00	0.00
12,100.00	90.00	3.45	7,000.00	6,716.85	-1,623.70	6,737.53	0.00	0.00	0.00
12,200.00	90.00	3.45	7,000.00	6,816.67	-1,617.68	6,837.26	0.00	0.00	0.00
12,300.00	90.00	3.45	7,000.00	6,916.49	-1,611.66	6,936.99	0.00	0.00	0.00
12,400.00	90.00	3.45	7,000.00	7,016.31	-1,605.64	7,036.72	0.00	0.00	0.00
12,500.00	90.00	3.45	7,000.00	7,116.13	-1,599.62	7,136.46	0.00	0.00	0.00
12,600.00	90.00	3.45	7,000.00	7,215.95	-1,593.61	7,236.19	0.00	0.00	0.00
12,700.00	90.00	3.45	7,000.00	7,315.76	-1,587.59	7,335.92	0.00	0.00	0.00
12,800.00	90.00	3.45	7,000.00	7,415.58	-1,581.57	7,435.65	0.00	0.00	0.00
12,900.00	90.00	3.45	7,000.00	7,515.40	-1,575.55	7,535.38	0.00	0.00	0.00
13,000.00	90.00	3.45	7,000.00	7,615.22	-1,569.54	7,635.11	0.00	0.00	0.00
13,100.00	90.00	3.45	7,000.00	7,715.04	-1,563.52	7,734.84	0.00	0.00	0.00

## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well KIWI 2920-02H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Site:</b>	2N-64W-32 KIWI 2920 PAD	<b>North Reference:</b>	True
<b>Well:</b>	KIWI 2920-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,200.00	90.00	3.45	7,000.00	7,814.86	-1,557.50	7,834.58	0.00	0.00	0.00
13,300.00	90.00	3.45	7,000.00	7,914.68	-1,551.48	7,934.31	0.00	0.00	0.00
13,400.00	90.00	3.45	7,000.00	8,014.50	-1,545.46	8,034.04	0.00	0.00	0.00
13,507.39	90.00	3.45	7,000.00	8,121.69	-1,539.00	8,141.14	0.00	0.00	0.00
<b>Begin Turn for 3-D Spacing @ 13507.39ft</b>									
13,600.00	90.00	1.60	7,000.00	8,214.21	-1,534.92	8,233.59	2.00	0.00	-2.00
13,679.89	90.00	360.00	7,000.00	8,294.09	-1,533.81	8,313.46	2.00	0.00	-2.00
<b>End Turn @ 13679.89ft</b>									
13,700.00	90.00	0.00	7,000.00	8,314.20	-1,533.81	8,333.56	0.00	0.00	0.00
13,800.00	90.00	0.00	7,000.00	8,414.20	-1,533.81	8,433.55	0.00	0.00	0.00
13,900.00	90.00	0.00	7,000.00	8,514.20	-1,533.81	8,533.54	0.00	0.00	0.00
14,000.00	90.00	0.00	7,000.00	8,614.20	-1,533.81	8,633.54	0.00	0.00	0.00
14,100.00	90.00	0.00	7,000.00	8,714.20	-1,533.81	8,733.53	0.00	0.00	0.00
14,200.00	90.00	0.00	7,000.00	8,814.20	-1,533.81	8,833.52	0.00	0.00	0.00
14,300.00	90.00	0.00	7,000.00	8,914.20	-1,533.81	8,933.51	0.00	0.00	0.00
14,400.00	90.00	0.00	7,000.00	9,014.20	-1,533.81	9,033.50	0.00	0.00	0.00
14,500.00	90.00	0.00	7,000.00	9,114.20	-1,533.81	9,133.49	0.00	0.00	0.00
14,600.00	90.00	0.00	7,000.00	9,214.20	-1,533.81	9,233.48	0.00	0.00	0.00
14,700.00	90.00	0.00	7,000.00	9,314.20	-1,533.81	9,333.48	0.00	0.00	0.00
14,800.00	90.00	0.00	7,000.00	9,414.20	-1,533.81	9,433.47	0.00	0.00	0.00
14,900.00	90.00	0.00	7,000.00	9,514.20	-1,533.81	9,533.46	0.00	0.00	0.00
15,000.00	90.00	0.00	7,000.00	9,614.20	-1,533.81	9,633.45	0.00	0.00	0.00
15,100.00	90.00	0.00	7,000.00	9,714.20	-1,533.81	9,733.44	0.00	0.00	0.00
15,200.00	90.00	0.00	7,000.00	9,814.20	-1,533.81	9,833.43	0.00	0.00	0.00
15,300.00	90.00	0.00	7,000.00	9,914.20	-1,533.81	9,933.42	0.00	0.00	0.00
15,400.00	90.00	0.00	7,000.00	10,014.20	-1,533.81	10,033.42	0.00	0.00	0.00
15,500.00	90.00	0.00	7,000.00	10,114.20	-1,533.81	10,133.41	0.00	0.00	0.00
15,600.00	90.00	0.00	7,000.00	10,214.20	-1,533.81	10,233.40	0.00	0.00	0.00
15,700.00	90.00	0.00	7,000.00	10,314.20	-1,533.81	10,333.39	0.00	0.00	0.00
15,800.00	90.00	0.00	7,000.00	10,414.20	-1,533.81	10,433.38	0.00	0.00	0.00
15,900.00	90.00	0.00	7,000.00	10,514.20	-1,533.81	10,533.37	0.00	0.00	0.00
16,000.00	90.00	0.00	7,000.00	10,614.20	-1,533.81	10,633.36	0.00	0.00	0.00
16,100.00	90.00	0.00	7,000.00	10,714.20	-1,533.81	10,733.36	0.00	0.00	0.00
16,200.00	90.00	0.00	7,000.00	10,814.20	-1,533.81	10,833.35	0.00	0.00	0.00
16,300.00	90.00	0.00	7,000.00	10,914.20	-1,533.81	10,933.34	0.00	0.00	0.00
16,400.00	90.00	0.00	7,000.00	11,014.20	-1,533.81	11,033.33	0.00	0.00	0.00
16,500.00	90.00	0.00	7,000.00	11,114.20	-1,533.81	11,133.32	0.00	0.00	0.00
16,600.00	90.00	0.00	7,000.00	11,214.20	-1,533.81	11,233.31	0.00	0.00	0.00
<b>Begin Turn to BHL @ 16600.00ft</b>									
16,700.00	90.00	358.00	7,000.00	11,314.18	-1,535.56	11,333.31	2.00	0.00	-2.00
16,800.00	90.00	356.00	7,000.00	11,414.03	-1,540.79	11,433.22	2.00	0.00	-2.00
16,900.00	90.00	354.00	7,000.00	11,513.65	-1,549.50	11,532.94	2.00	0.00	-2.00
17,000.00	90.00	352.00	7,000.00	11,612.90	-1,561.69	11,632.35	2.00	0.00	-2.00
17,100.00	90.00	350.00	7,000.00	11,711.66	-1,577.33	11,731.31	2.00	0.00	-2.00
17,200.00	90.00	348.00	7,000.00	11,809.82	-1,596.41	11,829.70	2.00	0.00	-2.00
17,290.46	90.00	346.19	7,000.00	11,897.99	-1,616.61	11,918.13	2.00	0.00	-2.00
<b>End Turn @ 17290.46ft</b>									
17,300.00	90.00	346.19	7,000.00	11,907.26	-1,618.89	11,927.43	0.00	0.00	0.00
17,400.00	90.00	346.19	7,000.00	12,004.37	-1,642.76	12,024.84	0.00	0.00	0.00
17,417.74	90.00	346.19	7,000.00	12,021.59	-1,646.99	12,042.12	0.00	0.00	0.00
<b>BPZ @ 17417.74ft</b>									
17,500.00	90.00	346.19	7,000.00	12,101.48	-1,666.63	12,122.25	0.00	0.00	0.00
17,510.42	90.00	346.19	7,000.00	12,111.59	-1,669.12	12,132.40	0.00	0.00	0.00



## Planning Report

<b>Database:</b>	EDM 5000.16 Single User Db	<b>Local Co-ordinate Reference:</b>	Well KIWI 2920-02H
<b>Company:</b>	VERDAD RESOURCES	<b>TVD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Project:</b>	WATTENBERG FIELD	<b>MD Reference:</b>	RKB = 20' @ 4991.00usft (RIG)
<b>Site:</b>	2N-64W-32 KIWI 2920 PAD	<b>North Reference:</b>	True
<b>Well:</b>	KIWI 2920-02H	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	Design #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
TD Well @ 17510.42ft									

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
2,601.72	2,486.00	9 5/8"	9-5/8	13-1/2

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
218.90	218.90	0.00	0.00	Begin Nudge @ 218.90ft
1,291.90	1,266.99	160.64	-116.79	Hold Tangent @ 1291.90ft
7,003.53	6,582.65	1,850.74	-1,345.63	KOP @ 7003.53ft :: DLS = 9°/100'
7,784.90	7,000.00	2,420.38	-1,542.98	End Build/TPZ @ 7784.90ft
8,184.89	7,000.00	2,810.13	-1,632.96	Begin Turn for 3-D Spacing @ 8184.89ft
9,134.90	7,000.00	3,754.02	-1,690.70	End Turn @ 9134.89ft
9,234.89	7,000.00	3,853.47	-1,680.24	Begin Turn for AC @ 9234.89ft
9,534.89	7,000.00	4,152.92	-1,664.55	End Turn @ 9534.89ft
11,334.89	7,000.00	5,952.92	-1,664.55	Begin Turn for AC @ 11334.89ft
11,507.39	7,000.00	6,125.32	-1,659.36	End Turn @ 11507.39ft
13,507.39	7,000.00	8,121.69	-1,539.00	Begin Turn for 3-D Spacing @ 13507.39ft
13,679.89	7,000.00	8,294.09	-1,533.81	End Turn @ 13679.89ft
16,600.00	7,000.00	11,214.20	-1,533.81	Begin Turn to BHL @ 16600.00ft
17,290.46	7,000.00	11,897.99	-1,616.61	End Turn @ 17290.46ft
17,417.74	7,000.00	12,021.59	-1,646.99	BPZ @ 17417.74ft
17,510.42	7,000.00	12,111.59	-1,669.12	TD Well @ 17510.42ft