



RECEIVED

Well Name: JAYHAWK 7-6 FED FEE COM 7H

Sub-Division DELAWARE BASIN		Region LEA COUNTY CORE		Field Name RATTLESNAKE DBBU		County LEA		State/Province NM					
Surface Legal Location 7-26S-34E		API/UWI 3002545538		Latitude (°) 32° 3' 8.487" N		Longitude (°) 103° 30' 25.866" W		Orig KB Elevation (ft) 3,397.50		Ground Elev MSL (ft) 3,372.50		KB - GL (ft) 25.00	
Wellbores													
Wellbore Name OH		Parent Wellbore				SAP Well ID				Vertical Section Direction (°) 5.90			
Kick Offs & Key Depths													
Date 4/17/2019				Type CURVE				Top Depth (ftKB) 12,459.1					
Date 4/25/2019				Type CURVE				Top Depth (ftKB) 12,316.0					
Actual Deviation Survey				Definitive?		Proposed?		Proposed Deviation Survey					
Deviation Survey													
Date		Description											
MD Tie In (ftKB)		TVD Tie In (ftKB)		Inclination Tie In (°)		Azimuth Tie In (°)		NSTie In (ft)		EWTie In (ft)			
Survey Data													
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company			
Wellbore Name ST01													
Parent Wellbore OH		SAP Well ID				Vertical Section Direction (°) 359.54							
Kick Offs & Key Depths													
Date				Type				Top Depth (ftKB)					
Actual Deviation Survey COMPOSITE ST01, Proposed? No				Definitive? No		Proposed? No		Proposed Deviation Survey COMPOSITE WELL PLAN - OH, Proposed? Yes					
Deviation Survey													
Date 2/15/2019		Description COMPOSITE ST01											
MD Tie In (ftKB) 0.00		TVD Tie In (ftKB) 0.00		Inclination Tie In (°) 0.00		Azimuth Tie In (°) 0.00		NSTie In (ft) 0.00		EWTie In (ft) 0.00			
Survey Data													
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company			
2/15/2019	124.00	0.50	149.50	124.00	-0.47	-0.47	0.27	0.40	MWD	TOTAL DIRECTIONAL SERV...			
2/15/2019	216.00	0.80	146.60	215.99	-1.35	-1.35	0.83	0.33	MWD	TOTAL DIRECTIONAL SERV...			
2/15/2019	307.00	0.90	147.80	306.98	-2.50	-2.48	1.56	0.11	MWD	TOTAL DIRECTIONAL SERV...			
2/15/2019	399.00	1.00	147.20	398.97	-3.79	-3.77	2.38	0.11	MWD	TOTAL DIRECTIONAL SERV...			
2/15/2019	490.00	1.00	145.90	489.96	-5.12	-5.09	3.26	0.02	MWD	TOTAL DIRECTIONAL SERV...			
2/15/2019	582.00	1.00	139.60	581.94	-6.40	-6.37	4.23	0.12	MWD	TOTAL DIRECTIONAL SERV...			
2/15/2019	674.00	1.00	139.40	673.93	-7.63	-7.59	5.27	0.00	MWD	TOTAL DIRECTIONAL SERV...			
2/15/2019	765.00	1.30	139.00	764.91	-9.03	-8.97	6.46	0.33	MWD	TOTAL DIRECTIONAL SERV...			
2/16/2019	838.00	1.30	138.30	837.89	-10.28	-10.22	7.56	0.02	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	965.00	1.00	107.80	964.87	-11.71	-11.63	9.57	0.53	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,057.00	1.00	111.00	1,056.85	-12.25	-12.16	11.09	0.06	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,147.00	2.70	115.50	1,146.80	-13.47	-13.36	13.73	1.89	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,239.00	4.50	130.90	1,238.62	-16.80	-16.65	18.42	2.20	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,331.00	6.50	134.20	1,330.19	-22.85	-22.65	24.88	2.20	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,423.00	7.10	135.10	1,421.54	-30.57	-30.31	32.63	0.66	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,515.00	7.20	140.10	1,512.83	-39.08	-38.76	40.34	0.68	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,607.00	7.20	141.10	1,604.10	-48.05	-47.67	47.66	0.14	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,701.00	7.00	143.70	1,697.38	-57.31	-56.87	54.75	0.40	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,796.00	8.00	140.10	1,791.57	-67.10	-66.60	62.41	1.16	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,889.00	9.60	136.40	1,883.47	-77.76	-77.19	71.91	1.82	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	1,984.00	11.00	135.60	1,976.94	-90.07	-89.40	83.72	1.48	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	2,078.00	11.20	135.80	2,069.18	-103.12	-102.35	96.36	0.22	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	2,172.00	11.50	128.10	2,161.35	-115.56	-114.68	110.10	1.64	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	2,266.00	12.40	121.40	2,253.31	-126.73	-125.72	126.09	1.76	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	2,361.00	12.80	113.40	2,346.03	-136.37	-135.21	144.45	1.88	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	2,455.00	13.40	112.70	2,437.59	-144.86	-143.55	164.06	0.66	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	2,549.00	13.90	113.50	2,528.93	-153.73	-152.26	184.46	0.57	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	2,643.00	12.90	112.70	2,620.37	-162.45	-160.81	204.49	1.08	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	2,738.00	11.60	109.90	2,713.21	-169.94	-168.15	223.26	1.50	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	2,832.00	11.60	107.60	2,805.29	-176.16	-174.23	241.15	0.49	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	2,927.00	12.20	108.90	2,898.25	-182.45	-180.37	259.75	0.69	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,021.00	12.70	109.00	2,990.03	-189.18	-186.95	278.92	0.53	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,115.00	12.10	112.70	3,081.84	-196.50	-194.11	297.78	1.06	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,209.00	12.80	115.10	3,173.63	-204.87	-202.33	316.30	0.93	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,303.00	11.90	116.10	3,265.46	-213.69	-211.01	334.43	0.98	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,397.00	10.80	111.90	3,357.62	-221.38	-218.56	351.31	1.46	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,491.00	10.50	110.20	3,450.00	-227.75	-224.81	367.52	0.46	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,585.00	10.60	110.00	3,542.41	-233.79	-230.72	383.68	0.11	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,679.00	10.90	110.10	3,634.76	-239.94	-236.73	400.15	0.32	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,773.00	11.30	109.90	3,727.00	-246.26	-242.92	417.16	0.43	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,867.00	11.50	110.00	3,819.15	-252.74	-249.26	434.62	0.21	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	3,961.00	11.80	110.10	3,911.21	-259.39	-255.77	452.45	0.32	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	4,055.00	11.50	109.00	4,003.27	-265.89	-262.12	470.34	0.40	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	4,149.00	11.50	107.20	4,095.39	-271.85	-267.94	488.15	0.38	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	4,243.00	11.10	108.30	4,187.56	-277.61	-273.56	505.69	0.48	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	4,337.00	10.90	109.50	4,279.84	-283.55	-279.36	522.66	0.32	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	4,432.00	10.90	112.10	4,373.12	-290.06	-285.74	539.45	0.52	MWD	TOTAL DIRECTIONAL SERV...			
4/17/2019	4,526.00	11.10	109.80	4,465.40	-296.61	-292.15	556.20	0.51	MWD	TOTAL DIRECTIONAL SERV...			



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Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
4/17/2019	4,620.00	11.80	109.80	4,557.53	-303.07	-298.47	573.75	0.74	MWD	TOTAL DIRECTIONAL SERV...
4/17/2019	4,714.00	12.50	113.20	4,649.42	-310.48	-305.73	592.15	1.06	MWD	TOTAL DIRECTIONAL SERV...
4/17/2019	4,807.00	12.80	112.10	4,740.16	-318.47	-313.57	610.94	0.41	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	4,901.00	13.00	112.30	4,831.79	-326.55	-321.50	630.37	0.22	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	4,996.00	13.50	113.00	4,924.26	-335.10	-329.89	650.47	0.55	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	5,089.00	14.00	115.00	5,014.60	-344.26	-338.89	670.65	0.74	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	5,183.00	13.50	114.90	5,105.90	-353.85	-348.31	690.91	0.53	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	5,278.00	12.30	114.30	5,198.50	-362.84	-357.15	710.19	1.27	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	5,372.00	10.80	114.60	5,290.60	-370.76	-364.93	727.33	1.60	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	5,466.00	11.20	111.90	5,382.87	-377.96	-372.00	743.81	0.69	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	5,560.00	11.70	111.00	5,475.00	-384.92	-378.82	761.17	0.56	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	5,655.00	11.90	110.50	5,567.99	-391.95	-385.71	779.34	0.24	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	5,748.00	12.00	107.40	5,658.98	-398.35	-391.96	797.55	0.70	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	5,842.00	11.90	111.70	5,750.94	-405.00	-398.46	815.88	0.95	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	5,936.00	11.80	113.10	5,842.94	-412.50	-405.82	833.72	0.32	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,030.00	11.40	111.20	5,935.02	-419.77	-412.95	851.22	0.59	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,124.00	11.00	112.20	6,027.23	-426.65	-419.69	868.19	0.47	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,218.00	11.80	111.90	6,119.37	-433.76	-426.67	885.41	0.85	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,312.00	12.10	111.60	6,211.34	-441.12	-433.88	903.49	0.33	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,406.00	11.70	110.20	6,303.32	-448.18	-440.80	921.59	0.52	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,500.00	12.30	107.80	6,395.26	-454.68	-447.15	940.07	0.83	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,594.00	12.30	107.40	6,487.11	-460.89	-453.20	959.16	0.09	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,688.00	12.00	105.30	6,579.00	-466.61	-458.78	978.14	0.57	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,782.00	11.50	103.90	6,671.03	-471.59	-463.61	996.66	0.61	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,876.00	10.70	108.10	6,763.27	-476.69	-468.57	1,014.05	1.21	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	6,971.00	10.70	114.20	6,856.62	-483.18	-474.92	1,030.48	1.19	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	7,065.00	10.80	114.20	6,948.97	-490.50	-482.11	1,046.47	0.11	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	7,159.00	10.20	111.20	7,041.40	-497.24	-488.73	1,062.26	0.86	MWD	TOTAL DIRECTIONAL SERV...
4/18/2019	7,253.00	8.90	103.70	7,134.10	-502.09	-493.46	1,077.09	1.91	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	7,347.00	7.90	102.00	7,227.09	-505.27	-496.53	1,090.47	1.10	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	7,441.00	7.00	102.80	7,320.30	-507.98	-499.14	1,102.38	0.96	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	7,535.00	5.70	104.10	7,413.72	-510.46	-501.55	1,112.49	1.39	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	7,630.00	4.30	107.00	7,508.35	-512.72	-503.74	1,120.47	1.50	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	7,724.00	3.30	123.80	7,602.15	-515.30	-506.27	1,126.09	1.58	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	7,818.00	1.80	151.60	7,696.06	-518.13	-509.08	1,129.04	2.02	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	7,912.00	0.90	154.80	7,790.03	-520.10	-511.04	1,130.06	0.96	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	8,006.00	0.90	149.50	7,884.02	-521.41	-512.35	1,130.75	0.09	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	8,100.00	1.00	153.90	7,978.00	-522.79	-513.72	1,131.48	0.13	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	8,195.00	0.90	156.70	8,072.99	-524.22	-515.15	1,132.14	0.12	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	8,289.00	0.80	159.80	8,166.98	-525.52	-516.44	1,132.66	0.12	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	8,383.00	0.80	163.30	8,260.97	-526.77	-517.69	1,133.08	0.05	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	8,478.00	0.90	171.70	8,355.96	-528.14	-519.06	1,133.38	0.17	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	8,572.00	0.70	183.50	8,449.95	-529.45	-520.37	1,133.45	0.27	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	8,666.00	0.80	196.90	8,543.94	-530.65	-521.57	1,133.22	0.21	MWD	TOTAL DIRECTIONAL SERV...
4/19/2019	8,760.00	0.70	192.80	8,637.94	-531.83	-522.75	1,132.90	0.12	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	8,854.00	0.80	197.60	8,731.93	-533.02	-523.94	1,132.58	0.13	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	8,948.00	0.80	203.40	8,825.92	-534.24	-525.17	1,132.12	0.09	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,042.00	0.90	201.80	8,919.91	-535.52	-526.46	1,131.58	0.11	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,136.00	0.80	199.00	9,013.90	-536.83	-527.76	1,131.10	0.12	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,230.00	0.90	204.50	9,107.89	-538.11	-529.05	1,130.58	0.14	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,324.00	0.90	211.10	9,201.88	-539.41	-530.36	1,129.89	0.11	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,418.00	0.80	212.00	9,295.87	-540.59	-531.55	1,129.16	0.11	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,513.00	0.90	216.10	9,390.86	-541.75	-532.71	1,128.37	0.12	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,608.00	0.90	225.50	9,485.84	-542.87	-533.84	1,127.40	0.16	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,702.00	0.80	241.70	9,579.83	-543.69	-534.67	1,126.29	0.28	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,796.00	0.90	255.60	9,673.82	-544.18	-535.16	1,125.00	0.24	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,890.00	1.20	262.20	9,767.81	-544.48	-535.48	1,123.31	0.34	MWD	TOTAL DIRECTIONAL SERV...
4/20/2019	9,984.00	1.00	265.10	9,861.79	-544.67	-535.68	1,121.52	0.22	MWD	TOTAL DIRECTIONAL SERV...
4/21/2019	10,078.00	1.00	241.60	9,955.78	-545.12	-536.14	1,119.98	0.43	MWD	TOTAL DIRECTIONAL SERV...
4/21/2019	10,172.00	1.00	252.60	10,049.76	-545.74	-536.78	1,118.47	0.20	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	10,275.00	0.80	230.40	10,152.75	-546.46	-537.50	1,117.06	0.39	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	10,369.00	1.50	220.00	10,246.73	-547.81	-538.86	1,115.77	0.77	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	10,463.00	2.40	202.40	10,340.68	-550.56	-541.63	1,114.22	1.14	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	10,556.00	1.90	215.50	10,433.61	-553.60	-544.68	1,112.59	0.75	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	10,650.00	0.80	230.60	10,527.58	-555.27	-546.37	1,111.18	1.22	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	10,744.00	0.90	263.20	10,621.57	-555.77	-546.87	1,109.94	0.52	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	10,838.00	1.00	264.80	10,715.56	-555.91	-547.03	1,108.39	0.11	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	10,932.00	1.50	303.50	10,809.54	-555.29	-546.43	1,106.54	1.01	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	11,026.00	0.70	76.30	10,903.53	-554.48	-545.61	1,106.07	2.17	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	11,120.00	0.90	120.00	10,997.52	-554.72	-545.85	1,107.27	0.66	MWD	TOTAL DIRECTIONAL SERV...
4/22/2019	11,214.00	0.60	159.70	11,091.51	-555.56	-546.68	1,108.08	0.62	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	11,308.00	0.80	150.40	11,185.51	-556.59	-547.71	1,108.58	0.24	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	11,403.00	0.80	174.70	11,280.50	-557.83	-548.95	1,108.97	0.35	MWD	TOTAL DIRECTIONAL SERV...



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Sub-Division DELAWARE BASIN	Region LEA COUNTY CORE	Field Name RATTLESNAKE DBBU	County LEA	State/Province NM
Surface Legal Location 7-26S-34E	API/UWI 3002545538	Latitude (°) 32° 3' 8.487" N	Longitude (°) 103° 30' 25.866" W	Orig KB Elevation (ft) 3,397.50
			Ground Elev MSL (ft) 3,372.50	KB - GL (ft) 25.00

Survey Data

Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS ("/100ft)	Survey Tool	Survey Company
4/23/2019	11,497.00	0.80	141.90	11,374.49	-559.01	-550.12	1,109.43	0.48	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	11,590.00	1.50	151.90	11,467.47	-560.60	-551.70	1,110.40	0.78	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	11,684.00	0.80	130.10	11,561.45	-562.11	-553.21	1,111.49	0.87	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	11,779.00	0.80	105.50	11,656.44	-562.73	-553.81	1,112.63	0.36	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	11,873.00	0.80	114.70	11,750.43	-563.19	-554.26	1,113.86	0.14	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	11,976.00	0.90	130.40	11,853.42	-564.02	-555.09	1,115.13	0.25	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	12,061.00	0.80	91.60	11,938.41	-564.48	-555.54	1,116.23	0.67	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	12,155.00	0.50	77.90	12,032.41	-564.42	-555.47	1,117.29	0.36	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	12,249.00	0.40	63.80	12,126.40	-564.20	-555.24	1,117.98	0.16	MWD	TOTAL DIRECTIONAL SERV...
4/23/2019	12,268.00	0.40	73.40	12,145.40	-564.15	-555.19	1,118.11	0.35	MWD	TOTAL DIRECTIONAL SERV...
4/26/2019	12,336.00	0.50	56.60	12,213.40	-563.92	-554.96	1,118.58	0.24	MWD	TOTAL DIRECTIONAL SERV...
4/26/2019	12,430.00	3.80	5.50	12,307.33	-560.60	-551.63	1,119.22	3.73	MWD	TOTAL DIRECTIONAL SERV...
4/26/2019	12,524.00	14.60	357.90	12,399.98	-545.61	-536.65	1,119.09	11.54	MWD	TOTAL DIRECTIONAL SERV...
4/26/2019	12,618.00	27.70	354.70	12,487.46	-511.85	-502.91	1,116.62	13.99	MWD	TOTAL DIRECTIONAL SERV...
4/26/2019	12,712.00	38.20	356.00	12,566.23	-460.93	-452.01	1,112.57	11.19	MWD	TOTAL DIRECTIONAL SERV...
4/26/2019	12,806.00	46.50	357.50	12,635.64	-397.74	-388.85	1,109.05	8.89	MWD	TOTAL DIRECTIONAL SERV...
4/26/2019	12,900.00	51.70	1.00	12,697.18	-326.73	-317.85	1,108.20	6.21	MWD	TOTAL DIRECTIONAL SERV...
4/26/2019	12,994.00	59.80	1.90	12,750.04	-249.14	-240.24	1,110.20	8.65	MWD	TOTAL DIRECTIONAL SERV...
4/27/2019	13,089.00	72.00	0.40	12,788.76	-162.63	-153.70	1,111.88	12.92	MWD	TOTAL DIRECTIONAL SERV...
4/27/2019	13,183.00	79.50	359.80	12,811.88	-71.59	-62.66	1,112.03	8.00	MWD	TOTAL DIRECTIONAL SERV...
4/27/2019	13,277.00	87.30	359.40	12,822.68	21.72	30.64	1,111.38	8.31	MWD	TOTAL DIRECTIONAL SERV...
4/27/2019	13,356.00	89.90	358.50	12,824.61	100.68	109.60	1,109.93	3.48	MWD	TOTAL DIRECTIONAL SERV...
4/29/2019	13,396.00	91.10	359.60	12,824.26	140.68	149.59	1,109.27	4.07	MWD	TOTAL DIRECTIONAL SERV...
4/29/2019	13,490.00	88.70	358.70	12,824.42	234.67	243.57	1,107.87	2.73	MWD	TOTAL DIRECTIONAL SERV...
4/29/2019	13,584.00	88.40	358.70	12,826.80	328.63	337.52	1,105.74	0.32	MWD	TOTAL DIRECTIONAL SERV...
5/3/2019	13,678.00	87.40	354.20	12,830.25	422.40	431.25	1,099.93	4.90	MWD	TOTAL DIRECTIONAL SERV...
5/3/2019	13,772.00	87.10	354.00	12,834.76	515.87	524.64	1,090.27	0.38	MWD	TOTAL DIRECTIONAL SERV...
5/3/2019	13,866.00	86.30	352.80	12,840.17	609.17	617.86	1,079.49	1.53	MWD	TOTAL DIRECTIONAL SERV...
5/3/2019	13,960.00	87.40	354.00	12,845.33	702.49	711.09	1,068.70	1.73	MWD	TOTAL DIRECTIONAL SERV...
5/3/2019	14,054.00	89.50	357.80	12,847.88	796.24	804.80	1,061.99	4.62	MWD	TOTAL DIRECTIONAL SERV...
5/3/2019	14,148.00	90.20	358.60	12,848.12	890.22	898.75	1,059.03	1.13	MWD	TOTAL DIRECTIONAL SERV...
5/3/2019	14,242.00	90.60	1.70	12,847.47	984.20	992.73	1,059.28	3.33	MWD	TOTAL DIRECTIONAL SERV...
5/3/2019	14,336.00	89.40	358.60	12,847.47	1,078.18	1,086.72	1,059.53	3.54	MWD	TOTAL DIRECTIONAL SERV...
5/3/2019	14,430.00	90.40	1.30	12,847.63	1,172.17	1,180.71	1,059.44	3.06	MWD	TOTAL DIRECTIONAL SERV...
5/3/2019	14,524.00	88.30	358.70	12,848.70	1,266.14	1,274.69	1,059.45	3.56	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	14,618.00	87.70	358.00	12,851.98	1,360.07	1,368.59	1,056.74	0.98	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	14,712.00	91.30	358.20	12,852.80	1,454.02	1,462.52	1,053.62	3.84	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	14,806.00	89.60	357.70	12,852.06	1,547.97	1,556.46	1,050.26	1.89	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	14,900.00	88.80	357.60	12,853.37	1,641.91	1,650.37	1,046.41	0.86	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	14,995.00	89.10	358.40	12,855.11	1,736.86	1,745.29	1,043.09	0.90	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	15,089.00	90.50	359.50	12,855.44	1,830.85	1,839.27	1,041.37	1.89	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	15,183.00	92.10	0.70	12,853.31	1,924.82	1,933.24	1,041.53	2.13	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	15,277.00	91.00	359.80	12,850.76	2,018.78	2,027.21	1,041.94	1.51	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	15,371.00	90.50	0.10	12,849.53	2,112.76	2,121.20	1,041.86	0.62	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	15,465.00	89.90	359.40	12,849.21	2,206.76	2,215.20	1,041.45	0.98	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	15,559.00	90.40	0.40	12,848.96	2,300.76	2,309.19	1,041.29	1.19	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	15,654.00	92.00	1.80	12,846.97	2,395.70	2,404.15	1,043.11	2.24	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	15,747.00	91.30	1.00	12,844.29	2,488.61	2,497.08	1,045.38	1.14	MWD	TOTAL DIRECTIONAL SERV...
5/4/2019	15,841.00	91.50	2.30	12,842.00	2,582.51	2,591.01	1,048.09	1.40	MWD	TOTAL DIRECTIONAL SERV...
5/5/2019	15,935.00	89.70	4.70	12,841.01	2,676.27	2,684.82	1,053.83	3.19	MWD	TOTAL DIRECTIONAL SERV...
5/5/2019	16,029.00	89.40	4.90	12,841.75	2,769.88	2,778.49	1,061.69	0.38	MWD	TOTAL DIRECTIONAL SERV...
5/5/2019	16,124.00	90.70	3.70	12,841.67	2,864.54	2,873.22	1,068.81	1.86	MWD	TOTAL DIRECTIONAL SERV...
5/5/2019	16,217.00	89.50	3.80	12,841.50	2,957.29	2,966.02	1,074.90	1.29	MWD	TOTAL DIRECTIONAL SERV...
5/5/2019	16,312.00	89.70	2.00	12,842.17	3,052.12	3,060.89	1,079.70	1.91	MWD	TOTAL DIRECTIONAL SERV...
5/5/2019	16,406.00	91.60	1.80	12,841.10	3,146.03	3,154.83	1,082.82	2.03	MWD	TOTAL DIRECTIONAL SERV...
5/5/2019	16,500.00	88.70	359.40	12,840.86	3,240.00	3,248.80	1,083.80	4.00	MWD	TOTAL DIRECTIONAL SERV...
5/6/2019	16,595.00	93.10	359.50	12,839.36	3,334.96	3,343.76	1,082.89	4.63	MWD	TOTAL DIRECTIONAL SERV...
5/6/2019	16,688.00	89.50	359.50	12,837.25	3,427.92	3,436.72	1,082.08	3.87	MWD	TOTAL DIRECTIONAL SERV...
5/7/2019	16,782.00	90.20	6.10	12,837.50	3,521.72	3,530.56	1,086.67	7.06	MWD	TOTAL DIRECTIONAL SERV...
5/7/2019	16,876.00	91.00	9.90	12,836.52	3,614.67	3,623.62	1,099.75	4.13	MWD	TOTAL DIRECTIONAL SERV...
5/7/2019	16,971.00	89.10	5.80	12,836.43	3,708.65	3,717.70	1,112.72	4.76	MWD	TOTAL DIRECTIONAL SERV...
5/7/2019	17,065.00	87.00	1.80	12,839.63	3,802.31	3,811.42	1,118.95	4.80	MWD	TOTAL DIRECTIONAL SERV...
5/7/2019	17,159.00	85.80	359.10	12,845.54	3,896.10	3,905.22	1,119.68	3.14	MWD	TOTAL DIRECTIONAL SERV...
5/7/2019	17,253.00	88.90	356.60	12,849.88	3,989.94	3,999.03	1,116.16	4.23	MWD	TOTAL DIRECTIONAL SERV...
5/7/2019	17,347.00	90.60	356.30	12,850.29	4,083.80	4,092.85	1,110.34	1.84	MWD	TOTAL DIRECTIONAL SERV...
5/7/2019	17,441.00	89.50	356.50	12,850.21	4,177.66	4,186.66	1,104.44	1.19	MWD	TOTAL DIRECTIONAL SERV...
5/8/2019	17,535.00	91.70	356.00	12,849.23	4,271.49	4,280.45	1,098.29	2.40	MWD	TOTAL DIRECTIONAL SERV...
5/8/2019	17,629.00	91.10	355.90	12,846.93	4,365.28	4,374.19	1,091.65	0.65	MWD	TOTAL DIRECTIONAL SERV...
5/9/2019	17,724.00	89.20	356.70	12,846.68	4,460.12	4,468.98	1,085.52	2.17	MWD	TOTAL DIRECTIONAL SERV...
5/9/2019	17,818.00	91.10	357.10	12,846.43	4,554.02	4,562.84	1,080.44	2.07	MWD	TOTAL DIRECTIONAL SERV...
5/9/2019	17,912.00	89.50	357.30	12,845.94	4,647.94	4,656.72	1,075.85	1.72	MWD	TOTAL DIRECTIONAL SERV...
5/9/2019	18,006.00	92.30	359.40	12,844.47	4,741.89	4,750.66	1,073.14	3.72	MWD	TOTAL DIRECTIONAL SERV...
5/9/2019	18,100.00	88.50	357.10	12,843.81	4,835.84	4,844.59	1,070.27	4.73	MWD	TOTAL DIRECTIONAL SERV...



Well Name: JAYHAWK 7-6 FED FEE COM 7H

Sub-Division DELAWARE BASIN	Region LEA COUNTY CORE	Field Name RATTLESNAKE DBBU	County LEA	State/Province NM
Surface Legal Location 7-26S-34E	API/UWI 3002545538	Latitude (°) 32° 3' 8.487" N	Longitude (°) 103° 30' 25.866" W	Orig KB Elevation (ft) 3,397.50
				Ground Elev MSL (ft) 3,372.50
				KB - GL (ft) 25.00

Survey Data										
Date	MD (ftKB)	Incl (°)	Azm (°)	TVD (ftKB)	VS (ft)	N/S (ft)	E/W (ft)	DLS (°/100ft)	Survey Tool	Survey Company
5/10/2019	18,194.00	94.00	359.90	12,841.76	4,929.76	4,938.49	1,067.81	6.56	MWD	TOTAL DIRECTIONAL SERV...
5/10/2019	18,288.00	93.10	359.80	12,835.94	5,023.58	5,032.31	1,067.56	0.96	MWD	TOTAL DIRECTIONAL SERV...
5/10/2019	18,382.00	94.60	0.20	12,829.63	5,117.36	5,126.09	1,067.56	1.65	MWD	TOTAL DIRECTIONAL SERV...
5/10/2019	18,477.00	89.50	358.70	12,826.23	5,212.26	5,220.99	1,066.65	5.60	MWD	TOTAL DIRECTIONAL SERV...
5/10/2019	18,571.00	87.70	359.40	12,828.53	5,306.23	5,314.95	1,065.09	2.05	MWD	TOTAL DIRECTIONAL SERV...
5/10/2019	18,665.00	87.80	359.90	12,832.22	5,400.15	5,408.87	1,064.52	0.54	MWD	TOTAL DIRECTIONAL SERV...
5/10/2019	18,759.00	91.10	0.60	12,833.12	5,494.13	5,502.86	1,064.93	3.59	MWD	TOTAL DIRECTIONAL SERV...
5/10/2019	18,853.00	92.60	1.40	12,830.08	5,588.05	5,596.79	1,066.57	1.81	MWD	TOTAL DIRECTIONAL SERV...
5/11/2019	18,947.00	92.50	0.40	12,825.90	5,681.92	5,690.68	1,068.04	1.07	MWD	TOTAL DIRECTIONAL SERV...
5/11/2019	19,041.00	91.10	359.50	12,822.95	5,775.87	5,784.63	1,067.96	1.77	MWD	TOTAL DIRECTIONAL SERV...
5/11/2019	19,135.00	90.20	359.20	12,821.88	5,869.86	5,878.62	1,066.90	1.01	MWD	TOTAL DIRECTIONAL SERV...
5/11/2019	19,229.00	89.80	358.60	12,821.88	5,963.86	5,972.60	1,065.09	0.77	MWD	TOTAL DIRECTIONAL SERV...
5/11/2019	19,323.00	91.90	0.70	12,820.49	6,057.84	6,066.58	1,064.52	3.16	MWD	TOTAL DIRECTIONAL SERV...
5/11/2019	19,417.00	90.40	359.80	12,818.60	6,151.81	6,160.56	1,064.93	1.86	MWD	TOTAL DIRECTIONAL SERV...
5/11/2019	19,512.00	91.50	359.90	12,817.03	6,246.79	6,255.54	1,064.68	1.16	MWD	TOTAL DIRECTIONAL SERV...
5/11/2019	19,605.00	89.80	358.00	12,815.97	6,339.77	6,348.51	1,062.97	2.74	MWD	TOTAL DIRECTIONAL SERV...
5/11/2019	19,699.00	91.40	359.50	12,814.99	6,433.75	6,442.48	1,060.92	2.33	MWD	TOTAL DIRECTIONAL SERV...
5/12/2019	19,793.00	89.40	357.90	12,814.33	6,527.73	6,536.44	1,058.79	2.72	MWD	TOTAL DIRECTIONAL SERV...
5/12/2019	19,888.00	89.20	358.40	12,815.49	6,622.70	6,631.39	1,055.72	0.57	MWD	TOTAL DIRECTIONAL SERV...
5/12/2019	19,982.00	90.70	357.30	12,815.57	6,716.65	6,725.32	1,052.20	1.98	MWD	TOTAL DIRECTIONAL SERV...
5/12/2019	20,075.00	90.30	358.30	12,814.76	6,809.60	6,818.24	1,048.63	1.16	MWD	TOTAL DIRECTIONAL SERV...
5/13/2019	20,169.00	85.40	356.40	12,818.29	6,903.44	6,912.04	1,044.29	5.59	MWD	TOTAL DIRECTIONAL SERV...
5/13/2019	20,263.00	86.90	356.90	12,824.60	6,997.10	7,005.67	1,038.81	1.68	MWD	TOTAL DIRECTIONAL SERV...
5/16/2019	20,358.00	87.90	357.80	12,828.91	7,091.93	7,100.47	1,034.42	1.42	MWD	TOTAL DIRECTIONAL SERV...
5/16/2019	20,453.00	88.30	357.70	12,832.06	7,186.83	7,195.34	1,030.69	0.43	MWD	TOTAL DIRECTIONAL SERV...
5/16/2019	20,547.00	90.00	358.20	12,833.45	7,280.78	7,289.27	1,027.33	1.89	MWD	TOTAL DIRECTIONAL SERV...
5/16/2019	20,642.00	89.30	356.90	12,834.03	7,375.72	7,384.18	1,023.27	1.55	MWD	TOTAL DIRECTIONAL SERV...
5/16/2019	20,736.00	90.60	359.10	12,834.12	7,469.68	7,478.11	1,019.99	2.72	MWD	TOTAL DIRECTIONAL SERV...
5/17/2019	20,830.00	90.00	358.80	12,833.62	7,563.67	7,572.09	1,018.27	0.71	MWD	TOTAL DIRECTIONAL SERV...
5/17/2019	20,924.00	91.00	359.30	12,832.80	7,657.67	7,666.08	1,016.71	1.19	MWD	TOTAL DIRECTIONAL SERV...
5/17/2019	21,018.00	91.30	358.70	12,830.92	7,751.64	7,760.04	1,015.07	0.71	MWD	TOTAL DIRECTIONAL SERV...
5/17/2019	21,111.00	91.90	0.70	12,828.32	7,844.60	7,853.00	1,014.58	2.24	MWD	TOTAL DIRECTIONAL SERV...
5/17/2019	21,205.00	90.40	1.70	12,826.43	7,938.54	7,946.96	1,016.55	1.92	MWD	TOTAL DIRECTIONAL SERV...
5/17/2019	21,300.00	90.00	1.80	12,826.10	8,033.47	8,041.91	1,019.45	0.43	MWD	TOTAL DIRECTIONAL SERV...
5/18/2019	21,394.00	91.40	3.80	12,824.95	8,127.30	8,135.78	1,024.04	2.60	MWD	TOTAL DIRECTIONAL SERV...
5/18/2019	21,488.00	91.20	3.10	12,822.82	8,221.06	8,229.59	1,029.70	0.77	MWD	TOTAL DIRECTIONAL SERV...
5/18/2019	21,582.00	89.80	1.20	12,822.00	8,314.95	8,323.51	1,033.22	2.51	MWD	TOTAL DIRECTIONAL SERV...
5/18/2019	21,676.00	88.90	359.70	12,823.07	8,408.93	8,417.50	1,033.96	1.86	MWD	TOTAL DIRECTIONAL SERV...
5/18/2019	21,770.00	89.50	0.50	12,824.38	8,502.91	8,511.49	1,034.13	1.06	MWD	TOTAL DIRECTIONAL SERV...
5/18/2019	21,865.00	89.00	359.90	12,825.62	8,597.90	8,606.48	1,034.46	0.82	MWD	TOTAL DIRECTIONAL SERV...
5/18/2019	21,958.00	89.60	360.00	12,826.76	8,690.89	8,699.47	1,034.38	0.65	MWD	TOTAL DIRECTIONAL SERV...
5/19/2019	22,052.00	89.50	1.50	12,827.50	8,784.86	8,793.46	1,035.61	1.60	MWD	TOTAL DIRECTIONAL SERV...
5/19/2019	22,146.00	89.70	358.60	12,828.15	8,878.84	8,887.45	1,035.69	3.09	MWD	TOTAL DIRECTIONAL SERV...
5/19/2019	22,240.00	91.20	0.20	12,827.42	8,972.84	8,981.43	1,034.70	2.33	MWD	TOTAL DIRECTIONAL SERV...
5/19/2019	22,334.00	91.10	1.00	12,825.53	9,066.80	9,075.41	1,035.69	0.86	MWD	TOTAL DIRECTIONAL SERV...
5/19/2019	22,428.00	91.70	1.60	12,823.23	9,160.73	9,169.35	1,037.82	0.90	MWD	TOTAL DIRECTIONAL SERV...
5/19/2019	22,522.00	92.30	2.40	12,819.95	9,254.58	9,263.24	1,041.10	1.06	MWD	TOTAL DIRECTIONAL SERV...
5/19/2019	22,617.00	90.80	0.30	12,817.38	9,349.49	9,358.17	1,043.34	2.72	MWD	TOTAL DIRECTIONAL SERV...
5/20/2019	22,711.00	90.70	360.00	12,816.15	9,443.48	9,452.16	1,043.58	0.34	MWD	TOTAL DIRECTIONAL SERV...
5/20/2019	22,805.00	90.30	358.80	12,815.33	9,537.47	9,546.15	1,042.60	1.35	MWD	TOTAL DIRECTIONAL SERV...
5/20/2019	22,899.00	89.30	358.20	12,815.66	9,631.45	9,640.12	1,040.14	1.24	MWD	TOTAL DIRECTIONAL SERV...
5/20/2019	22,993.00	88.40	358.00	12,817.55	9,725.41	9,734.04	1,037.02	0.98	MWD	TOTAL DIRECTIONAL SERV...
5/20/2019	23,087.00	88.20	357.54	12,820.33	9,819.32	9,827.93	1,033.36	0.53	MWD	TOTAL DIRECTIONAL SERV...
5/20/2019	23,142.00	88.50	357.10	12,821.92	9,874.25	9,882.85	1,030.79	0.97	MWD	TOTAL DIRECTIONAL SERV...
6/6/2019	23,194.00	88.50	357.10	12,823.28	9,926.19	9,934.76	1,028.16	0.00	BIT	