

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Merit Energy Company, LLC
Well Name	RIVER BEND 5
Doc ID	1426380

All Electric Logs Run

ANNULAR HOLE VOLUME
ARRAY COMPENSATED TRUE RESISTIVITY LOG
ARRAY COMPENSATED TRUE RESISTIVITY LOG 1
ARRAY COMPENSATED TRUE RESISTIVITY LOG 2
BOREHOLE COMPENSATED SONIC ARRAY LOG
DUAL SPACED NEUTRON SPECTRAL DENSITY LOG
MICROLOG
QUAD COMBO LOG
REPEAT SECTION LOG

Form	ACO1 - Well Completion
Operator	Merit Energy Company, LLC
Well Name	RIVER BEND 5
Doc ID	1426380

Tops

Name	Top	Datum
Heebner	3877	
Toronto	3890	
Lansing	3975	
Iola	4110	
Swope	4293	
Hertha	4335	
Marmaton	4441	
Cherokee	4571	
Atoka	4662	
Morrow	4741	
St Genevieve	4816	
St Louis	4855	

EVENT LOG
CONDUCTOR POST JOB REPORT
River Bend 5, Finney County KS



Service Line Cementing
 Client AGENT ENERGY COMPANY
 District Liberal, KS

Quantity QUID-17835-A669MS
 Plans ORD-107186-Y6F302
 Excavation: EKC-10186-16510102

Line	Activity	Start Time	End Time	Duration	Location	Remarks
1	River Bend 5 Conductor	06/22/2018 22:30:00	06/22/2018 22:43:00	0:13 Mobilization	Arrive at Location	
2	River Bend 5 Conductor	06/22/2018 22:45:00	06/22/2018 23:45:00	1:00 Operations	Pig Up	
3	River Bend 5 Conductor	06/22/2018 23:45:00	06/22/2018 00:00:00	0:15 Operations	Safety Meeting	
4	River Bend 5 Conductor	06/22/2018 00:00:00	06/22/2018 00:20:00	0:20 Operations	Pumping Cement	40.00 PUMP 138.537, 38.881 OF SLURRY AT 15.6
5	River Bend 5 Conductor	06/22/2018 00:30:00	06/22/2018 00:36:00	0:06 Operations	Pump Displacement	DISPLACE 15.9 BBL WATER TO LEAVE 20 FT OF CEMENT ON PUMPS
6	River Bend 5 Conductor	06/22/2018 00:30:00	06/22/2018 00:41:00	0:11 Operations	Other (See comment)	SHUT IN, AND WAIT FOR CEMENT TO SET
7	River Bend 5 Conductor	06/22/2018 00:45:00		Operations	Pig Down	See Comment: Call # 123



8/23/2018

Customer Name Merit Energy
Well Name River Bend 5
Job Type Surface

District Urbal
Supervisor Victor Corona-Marta
Engineer Kevin Aldridge

Seq No.	Start Date/Time	Category	Event	Equipment	Event ID	Density (lb/gal)	Pump Rate (bpm)	Pump Vol (bbls)	Pipe Pressure (psf)	Comments
1	8/23/2018 1:00am	Mobilization	Arrive on Location	Cement Pump Truck	48					Arrived at location
2		Operational	Other (See comments)		76					Rig crew was getting drill pipe out of hole
3		Operational	Rig Up	Cement Pump Truck	50					rfg up to rig
4	7:00	Operational	Safety Meeting		53					safety meeting with rig crew and BJ crew
5	7:21	Operational	Pressure Test	Cement Pump Truck	54				1500	pressure test lines
6	7:25	Operational	Pump Spacer	Cement Pump Truck	56	8.33	2	10	120	10bbls of fresh water spacer
7	7:29	Operational	Pumping Cement	Cement Pump Truck	61	12.1	5	217	180	pumping lead cement 217bbls from 475sacks
8		Operational								at 12.1lbs
9	8:21	Operational	Pumping Cement	Cement Pump Truck	61	15.2	5	39	120	pumping tail cement 39bbls from 175sacks
10		Operational								at 15.2lbs
11		Operational	Other (See comments)		76					wash pump and lines on top of plug
12	8:39	Operational	Pump Displacement	Cement Pump Truck	64	8.33	5	20	110	20bbls gone
13	8:43	Operational	Pump Displacement	Cement Pump Truck	64	8.33	5	40	110	40bbls gone
14	8:46	Operational	Pump Displacement	Cement Pump Truck	64	8.33	5	60	170	60bbls gone
488	8:50	Operational	pump displacement	Cement Pump Truck	64	8.33	5	80	270	80bbls gone
489	8:54	Operational	pump displacement	Cement Pump Truck	64	8.33	5	100	390	100bbls gone/slowdown rate
492	9:00	Operational	Pump Displacement	Cement Pump Truck	64	8.33	3	111	1120	bump plug check if float holds
493										
494										had 120 bbls on cement returns
39										had .5 bbls on water returns
40										rfg down
41										
42										
43										
44										
45										
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Merit Energy Production Post Job Report

River Bend 5

Finney, KS

Quote #:

| Execution #:

EVENT LOG



Service Line Cementing
 Client MENT ENERGY COMPANY
 District Liberal, KS

Quartz: QJ0-17951-34242Z
 Plans: DND-10421-Y1C888
 Emergencies: EIC-10421-Y1C8802

Seq	Well	Loc	Op Type	Op Sub	Staff	Start Time	End Time	Duration	Category	Event	Priority	Cost	Unit	Notes
1	River Bend 5	Long String	Aldo Espinoza Galindo	Kevin Aldridge	08/27/2018 19:30:00	08/27/2018 19:30:00	0:00	0.50	Mobilization	Arrive on Location	0.00	0.0000		
2	River Bend 5	Long String	Aldo Espinoza Galindo	Kevin Aldridge	08/27/2018 19:30:00	08/27/2018 20:10:48	0:40	0.68	Operations	Rig Up	0.00	0.00		
3	River Bend 5	Long String	Aldo Espinoza Galindo	Kevin Aldridge	08/27/2018 20:10:48	08/27/2018 22:00:00	1:49	1.82	Operations	Prime Up				
4	River Bend 5	Long String	Aldo Espinoza Galindo	Kevin Aldridge	08/27/2018 22:00:00	08/27/2018 22:15:00	0:15	0.25	Operations	3rd Party Operational				PIPE ON BOTTOM, CASING CREW RIGGING DOWN
5	River Bend 5	Long String	Aldo Espinoza Galindo	Kevin Aldridge	08/27/2018 22:15:00	08/27/2018 22:25:00	0:10	0.17	Operations	Safety Meeting				
6	River Bend 5	Long String	Aldo Espinoza Galindo	Kevin Aldridge	08/27/2018 22:25:00	08/27/2018 22:27:00	0:02	0.03	Operations	Pressure Test				2000.00 PRESSURE TEST LINES TO 2000 PSI
7	River Bend 5	Long String	Aldo Espinoza Galindo	Kevin Aldridge	08/27/2018 22:27:00	08/27/2018 22:35:00	0:08	0.13	Operations	Pump Soaker				150.00 PUMP 12 BBL OF INTERGRAGUARD



EVENT LOG

Service Line Cementing
 Client MENT ENERGY COMPANY
 District Liberal KS

Well ID	Location	Operator	Start Time	End Time	Duration	Other (See comment)	Quantity	Rate	Notes
8	River Bend S	Aldo Espinoza Galindo	08/27/2018 22:35:00	08/27/2018 22:47:00	0.10 Operations		13.6000	2.00	18.00 CEMENT MAT & MOUSE HOLES
9	River Bend S	Aldo Espinoza Galindo	08/27/2018 22:47:00	08/27/2018 23:15:00	0.47 Operations	Pumping Cement	33.6000	4.00	70.00 PUMP SLURRY
10	River Bend S	Aldo Espinoza Galindo	08/27/2018 23:15:00	08/27/2018 23:19:00	0.07 Operations	Clean Pumps and Lines			WASH PUMPING LINES TO PIT
11	River Bend S	Aldo Espinoza Galindo	08/27/2018 23:19:00	08/27/2018 23:38:00	0.37 Operations	Pump Displacement	8.3400	5.00	70.00 START PUMPING DISPLACEMENT
12	River Bend S	Aldo Espinoza Galindo	08/27/2018 23:38:00	08/27/2018 23:43:00	0.06 Operations	Pump Displacement	0.3400	5.00	100.00 80 BBL GCHH CATCH CEMENT
13	River Bend S	Aldo Espinoza Galindo	08/27/2018 23:43:00	08/27/2018 23:55:00	0.20 Operations	Pump Displacement		2.50	640.00 100 BBL GCHH SLOW DOWN TO LAND PLUG
14	River Bend S	Aldo Espinoza Galindo	08/27/2018 23:55:00	08/27/2018 23:57:00	0.03 Operations	Land Plug		2.50	700.00 BUMP PLUG TO 1500 FS
15	River Bend S	Aldo Espinoza Galindo	08/27/2018 23:57:00	08/28/2018 00:00:00	0.05 Operations	Deck Floats			1500.00 1/2 BBL BACK. 338.18 SCI @ #872
16	River Bend S	Aldo Espinoza Galindo	08/28/2018 00:00:00	08/28/2018 00:55:00	0.97 Operations	Rig Down			
17	River Bend S	Aldo Espinoza Galindo	08/28/2018 00:55:00		Mobilization	Leave Location			6000 CIRCULATION DURING ENTIRE JOB

MERIT ENERGY COMPANY

**FINNEY COUNTY, KANSAS (NAD27 - GRID)
NW NW SEC. 26 T24S R32W 6th P.M.
RIVER BEND 5**

JOB #18-013

Survey: FINAL SURVEYS

Anticollision Report

28 August, 2018



Anticollision Report



Company:	MERIT ENERGY COMPANY	Local Co-ordinate Reference:	Well RIVER BEND 5
Project:	FINNEY COUNTY, KANSAS (NAD27 - GRID)	TVD Reference:	KB 12' @ 2818.50usft (DUKE 9)
Reference Site:	NW NW SEC. 26 T24S R32W 6th P.M.	MD Reference:	KB 12' @ 2818.50usft (DUKE 9)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RIVER BEND 5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	JOB #18-013	Database:	EDM 5000.1 Single User Db
Reference Design:	Survey: FINAL SURVEYS	Offset TVD Reference:	Offset Datum

Reference	Survey: FINAL SURVEYS		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 10,000.00 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Program	Date	28/08/2018		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
250.00	4,980.00	FINAL SURVEYS (JOB #18-013)	MWD	MWD - Standard

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
NW NW SEC. 26 T24S R32W 6th P.M.						
RIVER BEND 5 - JOB #18-013 - PROPOSAL #4	0.00	0.00	0.00			
RIVER BEND 5 - JOB #18-013 - PROPOSAL #4	4,722.48	4,724.11	4.21	-15.90	0.209	Level 1, ES, SF

Offset Design													Offset Site Error:	0.00 usft
NW NW SEC. 26 T24S R32W 6th P.M. - RIVER BEND 5 - JOB #18-013 - PROPOSAL #4													Offset Well Error:	0.00 usft
Survey Program: 0-MWD														
Reference		Offset		Semi Major Axis			Distance						Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	-0.09	0.20	0.529 Level 1	
100.00	100.00	100.00	100.00	0.10	0.10	180.00	0.00	0.00	0.42	-0.12	0.54	0.783	Level 1	
200.00	200.00	200.00	200.00	0.21	0.32	180.00	0.00	0.00	0.65	-0.05	0.70	0.930	Level 1	
250.00	250.00	250.00	250.00	0.27	0.44	180.00	0.00	0.00	0.94	0.02	0.93	1.017	Level 2	
300.00	300.00	300.00	300.00	0.38	0.55	-174.98	0.00	0.00	1.68	0.31	1.37	1.228	Level 2	
399.00	399.00	399.00	399.00	0.60	0.77	-171.86	0.00	0.00	1.69	0.32	1.38	1.230	Level 2	
400.00	400.00	400.00	400.00	0.60	0.77	-171.90	0.00	0.00	2.50	0.69	1.80	1.383	Level 3	
500.00	499.99	499.99	499.99	0.81	1.00	-166.86	0.00	0.00	3.09	0.92	2.17	1.426	Level 3	
585.00	584.99	584.99	584.99	0.98	1.19	-160.82	0.00	0.00	3.19	0.96	2.23	1.429	Level 3	
600.00	599.99	599.99	599.99	1.01	1.22	-157.63	0.00	0.00	3.87	1.20	2.67	1.450	Level 3	
700.00	699.99	699.99	699.99	1.22	1.45	-143.22	0.00	0.00	4.40	1.42	2.97	1.479	Level 3	
771.00	770.98	770.98	770.98	1.37	1.61	-139.26	0.00	0.00	4.63	1.53	3.10	1.492	Level 3	
800.00	799.98	799.98	799.98	1.43	1.67	-138.21	0.00	0.00	5.45	1.90	3.54	1.538		
900.00	899.97	899.97	899.97	1.64	1.90	-135.80	0.00	0.00	5.70	2.03	3.67	1.553		
930.00	929.97	929.97	929.97	1.71	1.96	-135.47	0.00	0.00	6.29	2.31	3.97	1.582		
1,000.00	999.97	999.97	999.97	1.85	2.12	-134.62	0.00	0.00	6.93	2.58	4.35	1.594		
1,087.00	1,086.96	1,086.96	1,086.96	2.04	2.32	-131.30	0.00	0.00	7.03	2.62	4.41	1.594		
1,100.00	1,099.96	1,099.96	1,099.96	2.06	2.35	-131.01	0.00	0.00	7.85	3.00	4.84	1.620		
1,200.00	1,199.95	1,199.95	1,199.95	2.27	2.57	-131.72	0.00	0.00	8.31	3.27	5.04	1.648		
1,246.00	1,245.95	1,245.95	1,245.95	2.37	2.67	-133.23	0.00	0.00	8.95	3.67	5.28	1.696		
1,300.00	1,299.94	1,299.94	1,299.94	2.49	2.80	-150.73	0.00	0.00	10.38	4.67	5.71	1.817		
1,400.00	1,399.93	1,399.93	1,399.93	2.70	3.02	179.99	0.00	0.00	10.46	4.72	5.74	1.824		
1,405.00	1,404.93	1,404.93	1,404.93	2.71	3.03	178.76	0.00	0.00	11.67	5.53	6.14	1.900		
1,500.00	1,499.92	1,499.92	1,499.92	2.90	3.25	-159.63	0.00	0.00	12.16	5.75	6.41	1.898		
1,562.00	1,561.92	1,561.92	1,561.92	3.03	3.38	-134.50	0.00	0.00						

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	MERIT ENERGY COMPANY	Local Co-ordinate Reference:	Well RIVER BEND 5
Project:	FINNEY COUNTY, KANSAS (NAD27 - GRID)	TVD Reference:	KB 12' @ 2818.50usft (DUKE 9)
Reference Site:	NW NW SEC. 26 T24S R32W 6th P.M.	MD Reference:	KB 12' @ 2818.50usft (DUKE 9)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RIVER BEND 5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	JOB #18-013	Database:	EDM 5000.1 Single User Db
Reference Design:	Survey: FINAL SURVEYS	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft
Survey Program: 0-MWD													Offset Well Error:	0.00 usft
NW NW SEC. 26 T24S R32W 6th P.M. - RIVER BEND 5 - JOB #18-013 - PROPOSAL #4														
Reference				Offset			Semi Major Axis			Distance			Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
1,600.00	1,599.92	1,599.92	1,599.92	3.11	3.47	-135.40	0.00	0.00	12.37	5.80	6.57	1.883		
1,695.00	1,694.92	1,694.92	1,694.92	3.30	3.68	-135.76	0.00	0.00	12.66	5.68	6.98	1.815		
1,700.00	1,699.92	1,699.92	1,699.92	3.31	3.69	-141.03	0.00	0.00	12.67	5.67	7.00	1.810		
1,800.00	1,799.92	1,799.92	1,799.92	3.52	3.92	-163.84	0.00	0.00	13.15	5.72	7.43	1.770		
1,882.00	1,881.91	1,881.91	1,881.91	3.69	4.10	-167.35	0.00	0.00	14.05	6.26	7.79	1.804		
1,900.00	1,899.91	1,899.91	1,899.91	3.73	4.14	-167.00	0.00	0.00	14.28	6.42	7.86	1.816		
1,968.00	1,967.91	1,967.91	1,967.91	3.87	4.30	-164.26	0.00	0.00	14.99	6.83	8.16	1.838		
2,000.00	1,999.90	1,999.90	1,999.90	3.93	4.37	-158.74	0.00	0.00	15.23	6.93	8.30	1.836		
2,062.00	2,061.90	2,061.90	2,061.90	4.06	4.51	-129.94	0.00	0.00	15.49	6.93	8.56	1.810		
2,100.00	2,099.90	2,099.90	2,099.90	4.14	4.59	-145.21	0.00	0.00	15.61	6.88	8.73	1.789		
2,156.00	2,155.90	2,155.90	2,155.90	4.26	4.72	-156.68	0.00	0.00	15.90	6.93	8.97	1.773		
2,200.00	2,199.90	2,199.90	2,199.90	4.35	4.82	-160.26	0.00	0.00	16.13	6.97	9.16	1.761		
2,249.00	2,248.90	2,248.90	2,248.90	4.45	4.93	-174.96	0.00	0.00	16.28	6.91	9.37	1.737		
2,300.00	2,299.90	2,299.90	2,299.90	4.56	5.04	-157.13	0.00	0.00	16.39	6.79	9.59	1.708		
2,343.00	2,342.90	2,342.90	2,342.90	4.65	5.14	-149.88	0.00	0.00	16.50	6.72	9.78	1.687		
2,400.00	2,399.90	2,399.90	2,399.90	4.77	5.27	-150.12	0.00	0.00	16.62	6.60	10.03	1.658		
2,437.00	2,436.90	2,436.90	2,436.90	4.84	5.35	112.64	0.00	0.00	16.65	6.46	10.19	1.634		
2,500.00	2,499.90	2,499.90	2,499.90	4.97	5.49	-52.97	0.00	0.00	16.60	6.14	10.46	1.587		
2,530.00	2,529.90	2,529.90	2,529.90	5.04	5.56	-53.21	0.00	0.00	16.55	5.96	10.59	1.563		
2,600.00	2,599.90	2,599.90	2,599.90	5.18	5.72	-88.64	0.00	0.00	16.47	5.57	10.90	1.511		
2,604.73	2,604.63	2,604.63	2,604.63	5.19	5.73	-90.00	0.00	0.00	16.47	5.55	10.92	1.509		
2,626.00	2,625.90	2,625.90	2,625.90	5.24	5.78	-95.24	0.00	0.00	16.48	5.47	11.01	1.496	Level 3	
2,700.00	2,699.90	2,699.90	2,699.90	5.39	5.94	-89.09	0.00	0.00	16.50	5.17	11.33	1.456	Level 3	
2,719.00	2,718.90	2,718.90	2,718.90	5.43	5.99	-86.80	0.00	0.00	16.49	5.08	11.41	1.445	Level 3	
2,741.50	2,741.40	2,741.40	2,741.40	5.48	6.04	-90.00	0.00	0.00	16.49	4.98	11.51	1.433	Level 3	
2,800.00	2,799.90	2,799.90	2,799.90	5.60	6.17	-96.84	0.00	0.00	16.51	4.75	11.76	1.404	Level 3	
2,811.00	2,810.90	2,810.90	2,810.90	5.63	6.19	-97.95	0.00	0.00	16.52	4.71	11.81	1.399	Level 3	
2,900.00	2,899.90	2,899.90	2,899.90	5.81	6.39	-93.89	0.00	0.00	16.57	4.38	12.20	1.359	Level 3	
2,906.00	2,905.90	2,905.90	2,905.90	5.82	6.41	-92.47	0.00	0.00	16.57	4.35	12.22	1.356	Level 3	
3,000.00	2,999.90	2,999.90	2,999.90	6.02	6.62	144.81	0.00	0.00	16.65	4.01	12.63	1.318	Level 3	
3,095.00	3,094.89	3,094.89	3,094.89	6.22	6.83	146.49	0.00	0.00	16.85	3.81	13.04	1.292	Level 3	
3,100.00	3,099.89	3,099.89	3,099.89	6.23	6.84	146.48	0.00	0.00	16.87	3.80	13.07	1.291	Level 3	
3,190.00	3,189.89	3,189.89	3,189.89	6.42	7.04	145.56	0.00	0.00	17.06	3.60	13.46	1.268	Level 3	
3,200.00	3,199.89	3,199.89	3,199.89	6.44	7.07	-156.53	0.00	0.00	17.08	3.58	13.50	1.265	Level 3	
3,253.00	3,252.89	3,252.89	3,252.89	6.55	7.19	-135.97	0.00	0.00	17.57	3.84	13.73	1.280	Level 3	
3,300.00	3,299.87	3,300.09	3,300.09	6.65	7.28	-140.21	-0.13	-0.29	18.37	4.45	13.92	1.319	Level 3	
3,317.00	3,316.85	3,317.18	3,317.17	6.69	7.31	-141.38	-0.25	-0.57	18.68	4.69	13.99	1.335	Level 3	
3,380.00	3,379.77	3,380.51	3,380.48	6.82	7.43	-142.15	-1.08	-2.42	19.60	5.36	14.23	1.377	Level 3	
3,400.00	3,399.73	3,400.63	3,400.57	6.87	7.47	-141.50	-1.46	-3.27	19.74	5.43	14.31	1.379	Level 3	
3,442.00	3,441.66	3,442.87	3,442.74	6.96	7.55	-139.49	-2.44	-5.49	19.57	5.09	14.48	1.351	Level 3	
3,500.00	3,499.55	3,501.20	3,500.90	7.08	7.66	-135.21	-4.22	-9.48	18.43	3.72	14.71	1.253	Level 3	
3,501.00	3,500.55	3,502.20	3,501.90	7.08	7.67	-135.14	-4.25	-9.55	18.41	3.69	14.72	1.251	Level 3	
3,567.00	3,566.37	3,568.52	3,567.91	7.23	7.80	-141.46	-6.87	-15.43	16.53	1.55	14.97	1.104	Level 2	
3,600.00	3,599.26	3,601.66	3,600.83	7.30	7.86	-142.26	-8.40	-18.88	15.49	0.38	15.10	1.025	Level 2	
3,631.00	3,630.13	3,632.78	3,631.70	7.37	7.93	-142.10	-9.99	-22.44	14.37	-0.86	15.23	0.944	Level 1	
3,695.00	3,693.82	3,696.83	3,695.14	7.52	8.06	-142.46	-13.57	-30.49	12.29	-3.19	15.49	0.794	Level 1	
3,700.00	3,698.79	3,701.83	3,700.09	7.53	8.07	-142.61	-13.85	-31.13	12.19	-3.32	15.51	0.786	Level 1	
3,757.00	3,755.43	3,758.80	3,756.51	7.67	8.20	-142.26	-17.08	-38.37	11.51	-4.25	15.76	0.730	Level 1	
3,778.98	3,777.25	3,780.77	3,778.27	7.72	8.25	-137.09	-18.32	-41.17	11.49	-4.37	15.86	0.724	Level 1	
3,800.00	3,798.11	3,801.79	3,799.08	7.77	8.29	-132.95	-19.51	-43.84	11.50	-4.46	15.96	0.721	Level 1	
3,820.00	3,817.94	3,821.78	3,818.88	7.82	8.34	-129.75	-20.64	-46.38	11.53	-4.52	16.05	0.718	Level 1	
3,855.00	3,852.65	3,856.78	3,853.54	7.90	8.42	-125.63	-22.62	-50.83	11.52	-4.70	16.22	0.710	Level 1	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	MERIT ENERGY COMPANY	Local Co-ordinate Reference:	Well RIVER BEND 5
Project:	FINNEY COUNTY, KANSAS (NAD27 - GRID)	TVD Reference:	KB 12' @ 2818.50usft (DUKE 9)
Reference Site:	NW NW SEC. 26 T24S R32W 6th P.M.	MD Reference:	KB 12' @ 2818.50usft (DUKE 9)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RIVER BEND 5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	JOB #18-013	Database:	EDM 5000.1 Single User Db
Reference Design:	Survey: FINAL SURVEYS	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 usft		
Survey Program: 0-MWD													NW NW SEC. 26 T24S R32W 6th P.M. - RIVER BEND 5 - JOB #18-013 - PROPOSAL #4		Offset Well Error:	0.00 usft
Reference		Offset		Semi Major Axis			Distance						Warning			
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	+E/-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor				
3,900.00	3,897.27	3,901.78	3,898.10	8.01	8.52	-123.82	-25.17	-56.55	11.46	-4.97	16.43	0.697	Level 1			
3,902.87	3,900.11	3,904.64	3,900.94	8.01	8.53	-123.70	-25.33	-56.92	11.46	-4.99	16.45	0.697	Level 1			
3,918.00	3,915.12	3,919.78	3,915.92	8.05	8.57	-123.10	-26.19	-58.84	11.47	-5.05	16.52	0.694	Level 1			
3,980.00	3,976.60	3,981.77	3,977.32	8.20	8.71	-118.74	-29.70	-66.72	11.44	-5.38	16.82	0.680	Level 1			
4,000.00	3,996.44	4,001.77	3,997.12	8.25	8.76	-117.50	-30.83	-69.27	11.41	-5.51	16.92	0.674	Level 1			
4,044.00	4,040.09	4,045.77	4,040.69	8.35	8.87	-114.38	-33.32	-74.86	11.35	-5.80	17.14	0.662	Level 1			
4,100.00	4,095.67	4,101.76	4,096.13	8.48	9.00	-109.27	-36.48	-81.98	11.30	-6.14	17.43	0.648	Level 1			
4,106.00	4,101.62	4,107.76	4,102.07	8.50	9.02	-108.72	-36.82	-82.74	11.29	-6.17	17.46	0.647	Level 1			
4,169.00	4,164.12	4,170.75	4,164.46	8.66	9.18	-101.50	-40.39	-90.75	11.13	-6.67	17.80	0.625	Level 1			
4,200.00	4,194.87	4,201.75	4,195.15	8.74	9.25	-98.89	-42.14	-94.69	10.97	-6.99	17.96	0.611	Level 1			
4,231.00	4,225.61	4,232.75	4,225.85	8.81	9.33	-96.41	-43.90	-98.63	10.76	-7.37	18.13	0.594	Level 1			
4,294.00	4,288.09	4,295.74	4,288.23	8.98	9.50	-91.11	-47.46	-106.64	10.17	-8.29	18.46	0.551	Level 1			
4,300.00	4,294.04	4,301.74	4,294.17	8.99	9.51	-90.75	-47.80	-107.41	10.10	-8.39	18.49	0.546	Level 1			
4,357.00	4,350.57	4,358.73	4,350.61	9.14	9.66	-86.83	-51.03	-114.65	9.46	-9.33	18.79	0.503	Level 1			
4,400.00	4,393.23	4,401.73	4,393.18	9.24	9.77	-83.50	-53.46	-120.12	9.01	-10.00	19.01	0.474	Level 1			
4,419.00	4,412.08	4,420.72	4,412.00	9.29	9.82	-81.81	-54.53	-122.54	8.84	-10.27	19.11	0.462	Level 1			
4,483.00	4,475.56	4,484.71	4,475.36	9.45	10.00	-75.02	-58.16	-130.67	8.28	-11.16	19.43	0.426	Level 1			
4,500.00	4,492.42	4,501.71	4,492.20	9.50	10.04	-72.30	-59.12	-132.83	8.10	-11.41	19.51	0.415	Level 1			
4,578.00	4,569.68	4,579.69	4,569.42	9.71	10.25	-62.64	-63.53	-142.75	6.63	-13.26	19.89	0.333	Level 1			
4,600.00	4,591.46	4,601.69	4,591.20	9.77	10.32	-60.92	-64.77	-145.54	6.06	-13.93	19.99	0.303	Level 1			
4,672.00	4,662.81	4,673.66	4,662.47	9.96	10.51	-45.40	-68.85	-154.70	4.59	-15.61	20.19	0.227	Level 1			
4,700.00	4,690.59	4,701.64	4,690.18	10.03	10.59	-34.86	-70.43	-158.25	4.29	-15.88	20.16	0.213	Level 1			
4,722.48	4,712.90	4,724.11	4,712.43	10.09	10.66	-25.20	-71.70	-161.11	4.21	-15.90	20.11	0.209	Level 1, ES, SF			
4,768.00	4,758.09	4,769.61	4,757.48	10.21	10.78	-5.53	-74.28	-166.90	4.55	-15.49	20.04	0.227	Level 1			
4,800.00	4,789.85	4,801.59	4,789.15	10.29	10.87	7.71	-76.09	-170.96	5.06	-15.02	20.08	0.252	Level 1			
4,861.00	4,850.36	4,862.55	4,849.52	10.45	11.05	29.57	-79.54	-178.71	6.25	-14.15	20.40	0.306	Level 1			
4,900.00	4,889.03	4,901.52	4,888.11	10.56	11.16	39.56	-81.74	-183.67	7.24	-13.48	20.71	0.349	Level 1			
4,923.00	4,911.84	4,924.50	4,910.87	10.62	11.23	44.15	-83.04	-186.59	7.91	-12.98	20.90	0.379	Level 1			
4,980.00	4,968.37	4,981.46	4,967.27	10.77	11.39	52.41	-86.26	-193.83	9.77	-11.57	21.34	0.458	Level 1			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report



Company:	MERIT ENERGY COMPANY	Local Co-ordinate Reference:	Well RIVER BEND 5
Project:	FINNEY COUNTY, KANSAS (NAD27 - GRID)	TVD Reference:	KB 12' @ 2818.50usft (DUKE 9)
Reference Site:	NW NW SEC. 26 T24S R32W 6th P.M.	MD Reference:	KB 12' @ 2818.50usft (DUKE 9)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RIVER BEND 5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	JOB #18-013	Database:	EDM 5000.1 Single User Db
Reference Design:	Survey: FINAL SURVEYS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 12' @ 2818.50usft (DUKE 9)	Coordinates are relative to: RIVER BEND 5
Offset Depths are relative to Offset Datum	Coordinate System is US State Plane 1927 (Exact solution), Kansas South 1502
Central Meridian is -98.500000	Grid Convergence at Surface is: -1.42°



LEGEND

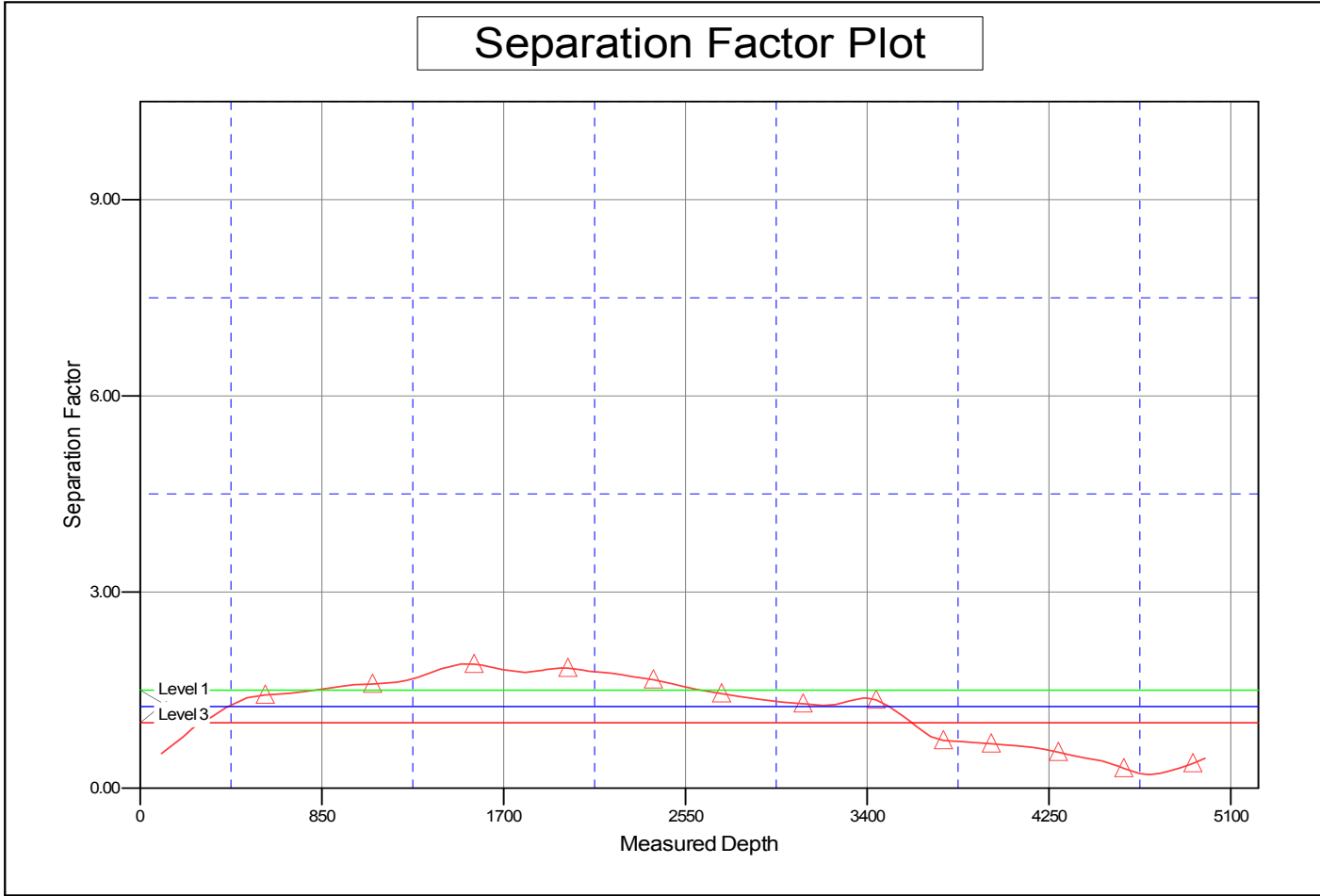
RIVER BEND 5, JOB #18-013, PROPOSAL #4 V0

Anticollision Report



Company:	MERIT ENERGY COMPANY	Local Co-ordinate Reference:	Well RIVER BEND 5
Project:	FINNEY COUNTY, KANSAS (NAD27 - GRID)	TVD Reference:	KB 12' @ 2818.50usft (DUKE 9)
Reference Site:	NW NW SEC. 26 T24S R32W 6th P.M.	MD Reference:	KB 12' @ 2818.50usft (DUKE 9)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	RIVER BEND 5	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	JOB #18-013	Database:	EDM 5000.1 Single User Db
Reference Design:	Survey: FINAL SURVEYS	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 12' @ 2818.50usft (DUKE 9) Coordinates are relative to: RIVER BEND 5
 Offset Depths are relative to Offset Datum Coordinate System is US State Plane 1927 (Exact solution), Kansas South 1502
 Central Meridian is -98.500000 Grid Convergence at Surface is: -1.42°



LEGEND

RIVER BEND 5, JOB #18-013, PROPOSAL #4 V0