



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1102766
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- 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 ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - _____

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1102766

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 List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

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				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
 Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Edison Operating Company LLC
Well Name	Cottrell 1-8
Doc ID	1102766

All Electric Logs Run

Dual Induction
CNL
Micro
Sonic

Customer <u>Edison Operating</u>	Lease No.	Date <u>9/24/17</u>
Lease <u>Cottrell</u>	Well # <u>1-8</u>	Service Receipt
Casing <u>4 5/8</u> Depth	County <u>Meade</u>	State <u>KS</u>
Job Type <u>Surface</u>	Formation	Legal Description <u>8-33-29</u>

Pipe Data		Perforating Data		Cement Data	
Casing size	Tubing Size	Shots/Ft		Lead	
<u>4 5/8</u>		From	To	<u>385</u> 5x <u>A-C</u>	
Depth <u>1562</u>	Depth			<u>@ 11.4#</u>	
Volume <u>96.46</u>	Volume	From	To	<u>2.95</u>	<u>18.10</u>
Max Press <u>1200</u>	Max Press	From	To	<u>Tail in 150 5x</u>	
Well Connection <u>P.C.</u>	Annulus Vol.	From	To	<u>P.P @ 14.8#</u>	
Plug Depth	Packer Depth	From	To	<u>1.34</u>	<u>6.33</u>

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<u>05:30</u>					<u>on loc, spot trucks, RW, softening</u>
<u>11:30</u>	<u>2400</u>				<u>Test Lines</u>
<u>11:33</u>	<u>90</u>		<u>10</u>	<u>4</u>	<u>Pump stop 1855</u>
<u>11:40</u>	<u>140</u>		<u>0</u>	<u>5</u>	<u>Start Mixing @ 11.4#</u>
<u>12:11</u>	<u>110</u>		<u>202</u>	<u>5</u>	<u>on tail @ 14.8#</u>
<u>12:26</u>	<u>0</u>		<u>36</u>	<u>0</u>	<u>Finished Mixing</u>
<u>12:30</u>	<u>0</u>		<u>0</u>	<u>5</u>	<u>Start Disp, Washup on Plug</u>
<u>12:47</u>	<u>400</u>		<u>166</u>	<u>2</u>	<u>Slow Rate</u>
<u>12:57</u>	<u>1200</u>		<u>96.5</u>	<u>0</u>	<u>Plug Down</u>
					<u>No Returns to surface</u>
					<u>W.O.C.</u>
<u>16:20</u>			<u>0</u>		<u>Cement on loc, Run 1" (for top</u>
<u>17:11</u>			<u>0</u>		<u>St Mix @ 14.8#</u>
<u>17:30</u>			<u>31</u>		<u>Finished Mixing, Washup</u>

Service Units	<u>194666</u>	<u>372233492</u>	<u>330219443</u>	<u>143551428</u>
Driver Names	<u>CHINE</u>	<u>R. Olds</u>	<u>V. Vasquez</u>	<u>C. Crist</u>

Bob Kasper Customer Representative Denny Bennett Station Manager Chad HINE Cementer

Customer <i>Edison Operating</i>	Lease No.	Date <i>10/2/12</i>
Lease <i>Cottrell</i>	Well # <i>1-8</i>	Service Receipt
Casing <i>5 1/2</i>	Depth <i>6100</i>	County <i>Moore</i>
Job Type <i>L.S.</i>	Formation	Legal Description <i>4-33-29</i>

Pipe Data		Perforating Data		Cement Data
Casing size <i>5 1/2</i>	Tubing Size	Shots/Ft		Lead <i>100 SX A142 @ 14.8#</i>
Depth <i>6107</i>	Depth	From	To	
Volume <i>145.2</i>	Volume	From	To	<i>1.51 6.64</i>
Max Press <i>2500</i>	Max Press	From	To	Tail in <i>50 SX @ 13.5</i>
Well Connection <i>P.C.</i>	Annulus Vol.	From	To	
Plug Depth	Packer Depth	From	To	<i>1.48 7.37</i>

Time	Casing Pressure	Tubing Pressure	Bbls. Pumped	Rate	Service Log
<i>08:30</i>					<i>on loc, spot trucks, R.U., Safety Note</i>
<i>17:17</i>	<i>2500</i>				<i>Test Lines</i>
<i>17:16</i>	<i>170</i>		<i>5</i>	<i>4</i>	<i>H2O</i>
<i>17:18</i>	<i>180</i>		<i>12</i>	<i>4</i>	<i>super flush</i>
<i>17:22</i>	<i>170</i>		<i>5</i>	<i>4</i>	<i>H2O</i>
<i>17:24</i>	<i>190</i>		<i>0</i>	<i>5</i>	<i>st Mix</i>
<i>17:42</i>	<i>0</i>		<i>27</i>	<i>0</i>	<i>Finished Mixing, Drop Plug,</i>
<i>17:53</i>					<i>Washup</i>
<i>17:54</i>	<i>150</i>		<i>0</i>	<i>6</i>	<i>Start Disp</i>
<i>18:22</i>	<i>960</i>		<i>135</i>	<i>3</i>	<i>Slow Rate</i>
<i>18:26</i>	<i>1450</i>				<i>Plug Down</i>
<i>18:43</i>					<i>Plug RHM + Washup</i>
<i>19:05</i>					<i>Job Complete</i>

Service Units	<i>19486</i>	<i>392233776</i>	<i>198217</i>	<i>19564</i>
Driver Names	<i>Chavez</i>	<i>Zolds</i>	<i>C. Crist</i>	

Bob Kasper
Customer Representative

Levy Bennett
Station Manager

Charles
Cementer

Taylor Printing, Inc.



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Edison Oper. Co. LLC.

8-33s-29w Meade Co.

9427 E. Cross Creek
Wichita, KS 67206

Cottrell 1-8

Job Ticket: 49550

DST#: 1

ATTN: Paul Gerlach/David W

Test Start: 2012.09.29 @ 17:36:39

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 21:26:39

Time Test Ended: 04:32:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Ryan Reynolds

Unit No: 48

Interval: 5730.00 ft (KB) To 5770.00 ft (KB) (TVD)

Reference Elevations: 2635.00 ft (KB)

Total Depth: 5770.00 ft (KB) (TVD)

2622.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 13.00 ft

Serial #: 8790

Inside

Press @ Run Depth: 112.30 psig @ 5731.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.09.29

End Date: 2012.09.30

Last Calib.: 2012.09.30

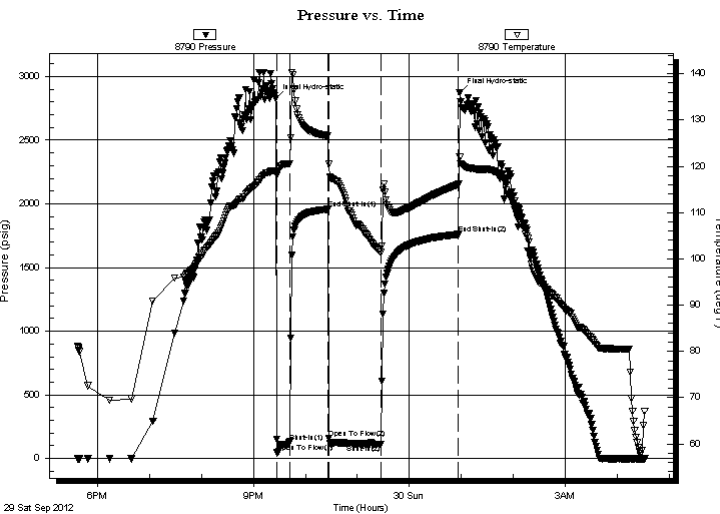
Start Time: 17:36:44

End Time: 04:32:39

Time On Btm: 2012.09.29 @ 21:25:39

Time Off Btm: 2012.09.30 @ 00:58:09

TEST COMMENT: IF: Strong blow . BOB in 26sec. GTS @ 8min. Guaged gas
IS: No blow
FF: Strong blow . BOB immed. Gauged gas throughout
FS: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2825.22	119.07	Initial Hydro-static
1	46.23	118.06	Open To Flow (1)
17	129.54	120.54	Shut-In(1)
61	1958.01	126.61	End Shut-In(1)
62	158.55	120.45	Open To Flow (2)
122	112.30	101.29	Shut-In(2)
212	1761.09	116.11	End Shut-In(2)
213	2873.62	121.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
55.00	GCM 5% gas, 95% mud	0.77

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.75	5.00	303.03
Last Gas Rate	0.75	15.00	459.22
Max. Gas Rate	0.75	21.00	552.94



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Edison Oper. Co. LLC.

8-33s-29w Meade Co.

9427 E. Cross Creek
Wichita, KS 67206

Cottrell 1-8

Job Ticket: 49550

DST#: 1

ATTN: Paul Gerlach/David W

Test Start: 2012.09.29 @ 17:36:39

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.38 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2800.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
55.00	GCM 5% gas, 95% mud	0.772

Total Length: 55.00 ft

Total Volume: 0.772 bbl

Num Fluid Samples: 1

Num Gas Bombs: 1

Serial #: RR-1

Laboratory Name: Caraway

Laboratory Location: Liberal, KS

Recovery Comments:



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

GAS RATES

Edison Oper. Co. LLC.

8-33s-29w Meade Co.

9427 E. Cross Creek
Wichita, KS 67206

Cottrell 1-8

Job Ticket: 49550

DST#: 1

ATTN: Paul Gerlach/David W

Test Start: 2012.09.29 @ 17:36:39

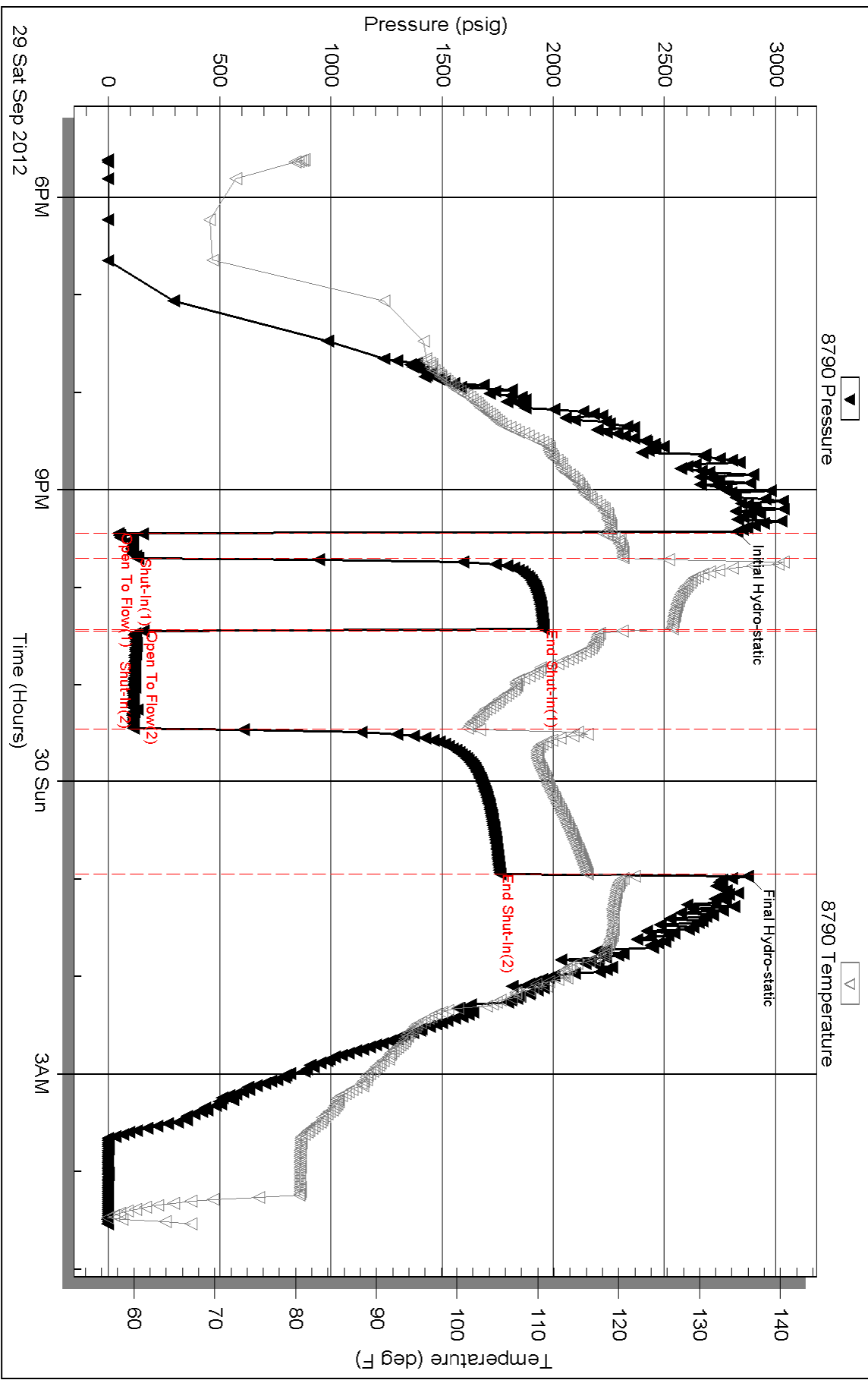
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	10	0.75	5.00	303.03
1	15	0.75	7.00	334.27
2	10	0.75	20.00	537.32
2	20	0.75	21.00	552.94
2	30	0.75	20.00	537.32
2	40	0.75	18.00	506.08
2	50	0.75	16.00	474.84
2	60	0.75	15.00	459.22

Pressure vs. Time



Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

November 30, 2012

David Withrow
Edison Operating Company LLC
9427 E. Cross Creek
WICHITA, KS 67206

Re: ACO1
API 15-119-21324-00-00
Cottrell 1-8
NE/4 Sec.08-33S-29W
Meade County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
David Withrow