

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) (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	Griffin, Charles N.
Well Name	HIRT FARMS 3-29
Doc ID	1425936

Tops

Name	Top	Datum
Heebner	3913	-1915
Brown Lime	4080	-2082
Lansing	4093	-2095
Stark	4351	-2353
Base KC	4478	-2480
Pawnee	4547	-2549
Cherokee Shale	4585	-2587
Viola	4653	-2665
Simpson	4780	-2782
Simpson Sand	4812	-2814



250 N. Water St., Suite #200  
Wichita, KS 67202

*Inv #  
39305*



**HURRICANE SERVICES INC**

Customer	Griffin Management	Lease & Well #	Hirt Farms 3-2¢	Date	8/3/2018
Service District	Medicine Lodge, Kansas	County & State	Pratt, KS	Legals S/T/R	29-29-15
Job Type	surface <input type="checkbox"/> PROD <input type="checkbox"/> PNJ <input type="checkbox"/> SWD	New Well?	<input checked="" type="checkbox"/> YES <input type="checkbox"/> No	Job #	
Equipment #	Driver	Ticket #			

Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures			
28	bill	<input type="checkbox"/> Hard hat	<input type="checkbox"/> Gloves	<input type="checkbox"/> Lockout/Tagout	<input type="checkbox"/> Warning Signs & Flagging
231	Joe	<input type="checkbox"/> H2S Monitor	<input type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input type="checkbox"/> Fall Protection
242	quinten/darrel	<input type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input type="checkbox"/> Slip/Trip/Fall Hazards	<input type="checkbox"/> Specific Job Sequence/Expectations
	kenny	<input type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input type="checkbox"/> Overhead Hazards	<input type="checkbox"/> Muster Point/Medical Locations
	ryan	<input type="checkbox"/> Hearing Protection	<input type="checkbox"/> Fire Extinguisher	<input type="checkbox"/> Additional concerns or issues noted below	

**Comments**  
All chemicals and cement came from Medicine Lodge, Kansas  
*Surface - New well*

Product/ Service Code	Description	Unit of Measure	Quantity	Net Amount
c001	Heavy Equip. One Way	ml	30.00	\$82.88
c002	Light Equip. One Way	ml	30.00	\$38.25
c003	Ton Mileage - One way	ml	270.00	\$298.35
ed19	Cement Pump	ea	1.00	\$807.50
cp006	Regular - Class A Cement	sack	200.00	\$2,762.50
cp016	Bentonite Gel	lb	600.00	\$163.00
cp017	Calcium - Chloride	lb	400.00	\$340.00
cp020	FLO-Seal	lb	80.00	\$146.20
			7	

Customer Section: On the following scale how would you rate Hurricane Services Inc.?		Net:	\$4,828.88
<p>How satisfied are you with the services today?</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Not Satisfied 1 2 3 4 5 6 7 8 9 10 Extremly Satisfied</p>		Total Taxable \$	-
<p>If asked, how likely is it you would recommend HSI to a colleague?</p> <p><input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/></p> <p>Unlikely 1 2 3 4 5 6 7 8 9 10 Extremly Likely</p>		Tax Rate:	
		Sale Tax:	\$ -
		Total:	\$ 4,828.88
HSI Representative: <i>Bill Spaulding</i>			

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X

**CUSTOMER AUTHORIZATION SIGNATURE**



**TREATMENT REPORT**



**HURRICANE SERVICES INC**

Customer: <b>Griffin Management</b>	Date: <b>8/3/2018</b>	Ticket #: <b>ICT1262</b>
Field Rep: <b>JR Griffin</b>		
Address: <b>P.O. Box 347</b>		
City, State: <b>Pratt Kansas</b>		
County, Zip: <b>Pratt 67124</b>		

Field Order No.:		Open Hole:	<b>12.25</b>
Well Name:	<b>Hirt 3-29</b>	Casing Depth:	<b>256</b>
Location:	<b>Pratt county</b>	Casing Size:	<b>8 3/4</b>
Formation:		Tubing Depth:	
Type of Service:	<b>cement</b>	Tubing Size:	
Well Type:	<b>oil and gas</b>	Liner Depth:	
Age of Well:	<b>new</b>	Liner Size:	
Packer Type:		Liner Top:	
Packer Depth:		Liner Bottom:	
Treatment Via:		Total Depth:	

Perf Depths (ft)	Perfs
<b>Total Perfs</b>	<b>0</b>

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbls)
	FLUID	N2/CO2	STP	ANNULUS				
12:45 PM					arrive location pre job safety meeting			
1:00 PM					made contact with tool pusher			
2:00 PM					drill pipe stuck returned to shop			
6:00 PM					rearrived location pre job safety meeting			
11:00 PM					rig up to casing			
11:05 PM					break circulation with h2o			6 bbls
11:10 PM					mlx 200 sks cement @ 14.8 ppg			60 bbls
11:40 PM					begin displacement			15 bbls
11:45 PM					circulate cement to surface			
12:00 AM					close in valve			
12:05 AM					wash up pump truck			
12:16 AM					rig down trucks			
12:25 AM					post job meeting leave location			
<b>TOTAL:</b>						-	-	-

SUMMARY			
Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
-	#DIV/0!	-	#DIV/0!

**PRODUCTS USED**  
 200 sks of class A cement, 600 lbs calcium 400 lbs gel 80lbs pheno

Treater: \_\_\_\_\_

Customer: 

250 N. Water St, Suite #200  
Wichita, KS 67202




**HURRICANE SERVICES INC**

*Inv # 39444*

Customer	Griffin Management	Lease & Well #	Hirt3-29	Date	8/9/2018	
Service District	Medicine Lodge	County & State	Pratt, Ks	Legals S/I/R New Well?	See 29-T29S-R15W	
Job Type	Production	<input checked="" type="checkbox"/> PROD <input type="checkbox"/> NU <input type="checkbox"/> SWD		<input checked="" type="checkbox"/> YES <input type="checkbox"/> No		
Equipment #	Driver	Job Safety Analysis - A Discussion of Hazards & Safety Procedures				
74	Retherford, R	<input checked="" type="checkbox"/> Hard hat	<input checked="" type="checkbox"/> Gloves	<input checked="" type="checkbox"/> Lockout/Tagout	<input checked="" type="checkbox"/> Warning Signs & Flagging	
231	Halcomb, J	<input type="checkbox"/> H2S Monitor	<input checked="" type="checkbox"/> Eye Protection	<input type="checkbox"/> Required Permits	<input checked="" type="checkbox"/> Fall Protection	
176/251	Chuck	<input checked="" type="checkbox"/> Safety Footwear	<input type="checkbox"/> Respiratory Protection	<input checked="" type="checkbox"/> Slip/Trip/Fall Hazards	<input checked="" type="checkbox"/> Specific Job Sequence/Expectations	
	Danzon, K	<input checked="" type="checkbox"/> FRC/Protective Clothing	<input type="checkbox"/> Additional Chemical/Acid PPE	<input checked="" type="checkbox"/> Overhead Hazards	<input checked="" type="checkbox"/> Muster Point/Medical Locations	
		<input checked="" type="checkbox"/> Hearing Protection	<input checked="" type="checkbox"/> Fire Extinguisher	<input checked="" type="checkbox"/> Additional concerns or issues noted below		
<b>Comments</b>						
Sure footing because of mud.						
Product/Service Code	Description	Unit of Measure	Quantity	Net Amount		
C001	Heavy Equip. One Way	ml	60.00		\$165.75	
C002	Light Equip. One Way	ml	30.00		\$38.25	
CP006	Regular - Class A Cement	sack	200.00		\$2,762.50	
CP010	60/40 Pozmix Cement	sack	25.00		\$273.08	
CP023	Salt	sack	23.00		\$138.86	
CP040	Fluid Loss Additive - Cementing	lb	113.00		\$792.41	
CP018	KOL-Seal	lb	1,000.00		\$662.50	
CP019	GYP-Seal	lb	900.00		\$344.25	
CP029	Defoamer	lb	47.00		\$239.70	
CP036	Matsolite	lb	200.00		\$302.50	
C003	Ton Mileage - One way	mi	365.40		\$403.77	
C019	Cement Pump	ea	1.00		\$807.50	
C012	Cement Plug Container	job	1.00		\$233.75	
CP095	5 1/2 LD Plug & Baffle	ea	1.00		\$282.53	
CP093	5 1/2" Centralizers	ea	6.00		\$408.00	
CP0A3	5 1/2" Guide Shoe	ea	1.00		\$340.00	
	5 1/2" Floal Collar	ea	1.00		\$287.50	
AF101	Liquid KCL Substitute	gal	10.00		\$244.38	
Customer Section: On the following scale how would you rate Hurricane Services Inc.?					Net:	\$8,625.39
Based on this job, how likely is it you would recommend HSI to a colleague?			Total Taxable	\$ -	Tax Rate:	
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	2	3	4	5	6	7
8	9	10	Extremely Likely			
			State tax laws deem certain products and services used on newwells to be sales tax exempt. Hurricane Services relies on the customer provided well information above to make a determination if services and/or products are tax exempt.		Sale Tax:	\$ -
					Total:	\$ 8,625.39
			HSI Representative: <i>Robert Retherford</i>			

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X  CUSTOMER AUTHORIZATION SIGNATURE



**TREATMENT REPORT**



**HURRICANE SERVICES INC**

Customer:	Griffin Management	Date:	8/9/2018	Ticket #:	ICT1271
Field Rep:	JR Griffin				
Address:	P.O. Box 347				
City, State:	Pratt	Kansas			
County, Zip:	Pratt	67124			

Field Order No.:		Open Hole:	7 7/8	<table border="1"> <thead> <tr> <th>Perf Depths (ft)</th> <th>Perfs</th> </tr> </thead> <tbody> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr><td></td><td></td></tr> <tr> <td colspan="2"><b>Total Perfs</b></td> <td colspan="2"><b>0</b></td> </tr> </tbody> </table>	Perf Depths (ft)	Perfs																			<b>Total Perfs</b>		<b>0</b>	
Perf Depths (ft)	Perfs																											
<b>Total Perfs</b>		<b>0</b>																										
Well Name:	Hirt 3-29	Casing Depth:	4880.13																									
Location:	Pratt County, Sun City	Casing Size:	5 1/2 20# & 15.5#																									
Formation:		Tubing Depth:																										
Type of Service:	Cement	Tubing Size:																										
Well Type:	Oil & Gas	Liner Depth:																										
Age of Well:	New	Liner Size:																										
Packer Type:		Liner Top:																										
Packer Depth:		Liner Bottom:																										
Treatment Via:		Total Depth:	4880																									

TIME	INJECTION RATE		PRESSURE		REMARKS	PROP (lbs)	HCL (gls)	FLUID (bbls)
	FLUID	N2/CO2	STP	ANNULUS				
6:00 AM					Arrive on location			
8:30 AM					Put float equipment on casing			
11:00 AM					Rig Up			
11:30 AM					Rig break circulation			
12:40 PM	2.0				Pump and break circulation			6.00
12:48 PM	2.0				Mix and pump scavenger			6.00
12:55 PM	6.0				Cement			52.00
1:15 PM					flush pump and lines			
1:20 PM	6.0				Displace 2% Kcl water			110.20
1:40 PM					Check float, it held			
1:45 PM					Rig Down			
<b>TOTAL:</b>						-	-	173.20

Max Fl. Rate	Avg Fl. Rate	Max PSI	Avg PSI
6.0	4.0	-	#DIV/0!

**PRODUCTS USED**  
 25 sks 60/40 POZ as Scavenger mixed at 13 ppg with 8.3 gal/sk, 200 sks A with 10% Salt, 5% Gypsum, 5# Kol seal, 1/4% Defoamer, 6/10% Fluidloss, 1% Sodium Metasilicate, mixed at 15 ppg with 6.89 gal/sk yielding 1.46 cuft/sk

Treater: \_\_\_\_\_

Customer: 



**OPERATOR**  
 Company: Charles N Griffin  
 Address: PO Box 347  
 Pratt, KS 67124-0347

Contact Geologist:  
 Contact Phone Nbr:  
 Well Name: #3-29 Hirt Farms  
 Location: Section 29-29S-15W  
 Pool: Kansas  
 State: Kansas  
 API: 15-151-22478  
 Field: USA  
 Country: USA

Scale 1:240 Imperial  
 Well Name: #3-29 Hirt Farms  
 Surface Location: Section 29-29S-15W  
 Bottom Location:  
 License Number: 15-151-22478  
 Spud Date: 8/3/2018  
 Region: Pratt County  
 Drilling Completed: 8/8/2018  
 Surface Coordinates: 3050' FSL & 660' FEL  
 Bottom Hole Coordinates:  
 Ground Elevation: 1993.00ft  
 K.B. Elevation: 1998.00ft  
 Logged Interval: 3800.00ft To: 4875.00ft  
 Total Depth: 4875.00ft  
 Formation:  
 Drilling Fluid Type: Chemical (MudCo)  
 Time: 8:45 PM  
 Time: 7:30 AM

**SURFACE CO-ORDINATES**  
 Well Type: Vertical  
 Longitude:  
 N/S Co-ord: 3050' FSL  
 E/W Co-ord: 660' FEL  
 Latitude:



Company: TerraTech Energy Service LLC.  
 Address: 1632 S. West St. Suite 12  
 Wichita, KS 67208  
 Phone Nbr: 316-617-3959  
 Logged By: Geologist  
 Name: Bruce Reed

**CONTRACTOR**  
 Contractor: WW Drilling  
 Rig #: 4  
 Rig Type: mud rotary  
 Spud Date: 8/3/2018  
 TD Date: 8/8/2018  
 Rig Release: 8/9/2018  
 Time: 8:45 PM  
 Time: 7:30 AM  
 Time: 6:00 PM

**ELEVATIONS**  
 K.B. Elevation: 1998.00ft  
 K.B. to Ground: 5.00ft  
 Ground Elevation: 1993.00ft

**NOTES**  
 Surface Casing: 8-5/8" at 259'  
 Production Casing: 5-1/2" at 4866'  
 Daily Penetration:  
 08/03/18 Spud @ 8:45 PM  
 08/04/18 259'  
 08/05/18 1886'  
 08/06/18 3255'  
 08/07/18 4305'  
 08/08/18 4850' Drilling completed @ 7:30 AM  
 08/09/18 4875' Rig Released @ 6:00 PM

**FORMATION TOPS**

Formation	Sample Top	Datum	Log Top	Datum	Comparison*
Heebner	3913'	-1915	3914'	-1916	-15
Brown Lime	4080'	-2082	4078'	-2080	-18
Lansing	4093'	-2095	4091'	-2093	-16
Stark	4351'	-2353	4350'	-2352	-17
Base KC	4478'	-2480	4478'	-2480	-18
Pawnee	4547'	-2549	4548'	-2550	-19
Cherokee Shale	4585'	-2587	4584'	-2586	-21
Viola	4653'	-2665	4652'	-2654	-24
Simpson	4780'	-2782	4780'	-2782	-34
Simpson Sand	4812'	-2814	4810'	-2812	-35

\*Vincent Oil Corp, #2-29 Hirt Farms, 100' S NE SE Section 29-29S-15W, Pratt County, Kansas

**ROCK TYPES**  
 Cht  
 Lmst fw>  
 shale, gry  
 Carbon Sh  
 Ss

**ACCESSORIES**

**MINERAL**  
 - Dolomitic  
 - Sandy  
 - Chert White  
 - Argillaceous/Shale

**OTHER SYMBOLS**  
**INTERVALS**  
 Core  
 DST  
**Oil Show**  
 Good Show  
 Fair Show  
 Poor Show  
 Spotted or Trace  
 Questionable Stn  
 Dead Oil Stn  
 Fluorescence  
 Gas  
**DST**  
 DST Int  
 DST alt  
 Core  
 tail pipe

