

JUN 10 2010

CONSERVATION DIVISION  
WICHITA, KS

KANSAS CORPORATION COMMISSION ORIGINAL  
OIL & GAS CONSERVATION DIVISION

Form ACO-1  
June 2009

Form Must Be Typed  
Form must be Signed  
All blanks must be Filled

WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # 33640  
Name: Haas Petroleum, LLC  
Address 1: 800 W. 47th, Suite # 716  
Address 2:  
City: Kansas City State: MO Zip: 64112 +  
Contact Person: Mark Haas  
Phone: ( 816 ) 531-5922  
CONTRACTOR: License # 33557  
Name: Skyy Drilling, LLC  
Wellsite Geologist: Griffin Geological Resources, Inc.  
Purchaser: Plains Marketing, LP

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.):

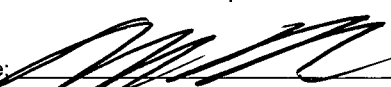
If Workover/Re-entry: Old Well Info as follows:  
Operator:  
Well Name:  
Original Comp. Date: Original Total Depth:  
 Deepening  Re-perf.  Conv. to ENHR  Conv. to SWD  
 Conv. to GSW  
 Plug Back: Plug Back Total Depth  
 Commingled Permit #:  
 Dual Completion Permit #:  
 SWD Permit #:  
 ENHR Permit #:  
 GSW Permit #:

March 22, 2010      March 29, 2010      March 30, 2010  
Spud Date or      Date Reached TD      Completion Date or  
Recompletion Date           Recompletion Date

API No. 15 - 031-22529-00-00  
Spot Description:  
\_ W2\_ NW\_ SW Sec. 9 Twp. 21 S. R. 14  East  West  
1,980 Feet from  North /  South Line of Section  
4,950 Feet from  East /  West Line of Section  
Footages Calculated from Nearest Outside Section Corner:  
 NE  NW  SE  SW  
County: Coffey  
Lease Name: Hoyt Well #: 1 HP  
Field Name: Pieratt  
Producing Formation:  
Elevation: Ground: 1186 Kelly Bushing:  
Total Depth: 2020' Plug Back Total Depth:  
Amount of Surface Pipe Set and Cemented at: 40 Feet  
Multiple Stage Cementing Collar Used?  Yes  No  
If yes, show depth set: Feet  
If Alternate II completion, cement circulated from: 0'  
feet depth to: 40' w/ 35 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 #:

**INSTRUCTIONS:** An original and two copies of this form shall be filed with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information of side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

**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.  
Signature:   
Title: Operator Date: 6/8/10

**KCC Office Use ONLY**  
 Letter of Confidentiality Received  
Date:  
 Confidential Release Date:  
 Wireline Log Received  
 Geologist Report Received  
 UIC Distribution  
ALT  I  II  III Approved by: Dg Date: 6/15/10

Operator Name: Haas Petroleum, LLC Lease Name: Hoyt Well #: 1 HP  
 Sec. 9 Twp. 21 S. R. 14  East  West County: Coffey

**INSTRUCTIONS:** Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Electric Log Run <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <i>(If no, Submit Copy)</i>  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
Surface	12 1/2	8 5/8		40'	Class A	35	
Longstring	6 3/4	4 1/2		2015'	60/40 Poz	175	

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				

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
	Open Hole	<b>RECEIVED</b> <b>KANSAS CORPORATION COMMISSION</b>  <b>JUN 10 2010</b>  <b>CONSERVATION DIVISION</b> <b>WICHITA, KS</b>	

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____		Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No	
Date of First, Resumed Production, SWD or ENHR. _____		Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> 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> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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**CONSOLIDATED**  
Oil Well Services, LLC



**ENTERED**

TICKET NUMBER 24092

LOCATION Eureka

FOREMAN Steve Mead

PO Box 884, Chanute, KS 66720  
620-431-9210 or 800-467-8676

**FIELD TICKET & TREATMENT REPORT**  
**CEMENT**

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
3-22-10	3451	Hoyt #1 HP	9	215	14E	Coffey
CUSTOMER <u>Haas Petroleum LLC</u>			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS <u>800 West 47<sup>th</sup> Ste 409</u>			<u>485</u>	<u>Alan</u>		
CITY <u>Kansas City</u>			<u>441</u>	<u>John</u>		
STATE <u>Mo</u>						
ZIP CODE <u>64117</u>						

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 42 CASING SIZE & WEIGHT 8 5/8  
 CASING DEPTH 40' DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT 15" SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING 5'  
 DISPLACEMENT 2bbls DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE \_\_\_\_\_

REMARKS: Safety Meeting: Rig up to 8 5/8 casing. Break circulation with fresh water. Mix 35 sks Class A Cement w/ 2% CaCl2 + 2% Gel at 15\* per gal. Displace with 2bbls fresh water. Shut casing in. Good cement returns to surface. Job complete Rig down

*Thank You*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5405	1	PUMP CHARGE	700.00	700.00
5406	30	MILEAGE	3.55	106.50
11043	35 sks	Class A Cement	13.10	458.50
1102	65*	CaCl2 2%	.73	47.45
1118A	65*	Gel 2%	.17	11.05
5407		Ton Mileage bulk Truck	m/c	305.00
RECEIVED KANSAS CORPORATION COMMISSION				
JUN 10 2010				
CONSERVATION DIVISION WICHITA, KS				
			Sub Total	1628.50
			SALES TAX	21.40
			ESTIMATED TOTAL	1655.90

Ravin 3737

233399

AUTHORIZATION Witness by Doug

TITLE Driller

DATE \_\_\_\_\_

Skyy Drilling, L.L.C.  
800 W. 47<sup>th</sup> Street, Suite # 716  
Kansas City, Missouri 64112  
Office (816) 531-5922  
Fax (816) 753-0140

Company: Haas Petroleum, LLC  
800 W. 47<sup>th</sup>, Suite # 716  
Kansas City, Missouri 64112

Lease: Hoyt - # 1 HP  
County: Coffey  
Spot: W2 NW SW of Sec 9, Twp 21, SR 14 E  
Spud Date: March 22, 2010  
API: 15-031-22529-00-00  
TD: 2020'

3/19/10: Build location, move in rig #3, rig up. Pump water.  
3/22/10: Start up. Finish pumping water. Drill rate hole. Spud 12 ¼ surface hole @ 3:00 PM. Drilled from 0' to 41' TD. At 41' TD cir hole clean. Trip out 12 ¼ bit. Rig & ran 40' of 8 5/8 casing. Rigged up cementers & cemented with 35 sacks cement. Plug down @ 6:45 PM. Wait on cement until 12:45 AM. Nipple up. Trip in hole with 6 ¾ PDC bit. Drilled out approx 6' cement. Under surface drilling @ 2:45 AM. Drilled from 41' to 153'.  
3/23/10: Drilled from 153' to 1192'.  
3/24/10: Drilled from 1192' to 1750'. At 1300' wait on geologist, 1300' rigged up gas detector. Trip bit @ 1717'.  
3/25/10: Drilled from 1750' to 1906'. At 1906' drilling line pulled from drum. Wait on daylight for parts.  
3/26/10: Repair drilling line. Pipe stuck. Try to work free, no go. Spot 18 barrel of oil on bit & collar. Let set for the night.  
3/27/10: Try to work pipe free. Pick up driver & drive pipe down. Pipe free @ 1:25 PM. Drill ahead. Drilled from 1906' to 1938'. At 1938' cir hole clean. Tip out of hole to 1000'. Shut down until Monday for geologist & Mark.  
3/29/10: Start back up. Trip back in hole. Drilling @ 9:45 AM. Drilled from 1938' to 2020' TD. CFS 2016', 2018', 2020'. At TD 2020' cir hole clean. Lay down drill pipe & collars. Rig up loggers & log hole.  
3/30/10: Rig & ran 2015' of 4 ½ casing. Tag bottom, pick up casing 3' from bottom and rigged up cementers & cemented with 175 sacks cement.

Total Footage 2020' W \$12.00 Per Foot:	\$24,240.00
Total Rig Time 16 Hours @ \$300.00 Per Hour:	\$ 4,800.00
40' of 8 5/8 Casing @ \$7.50 Per Foot:	\$ 300.00
<b>TOTAL DUE:</b>	<b>\$29,340.00</b>

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WICHITA, KS



# Griffin Geological Resources, Inc.

David B. Griffin, RG, President  
1502 W. 27<sup>th</sup> Terrace  
Lawrence, Kansas 66046

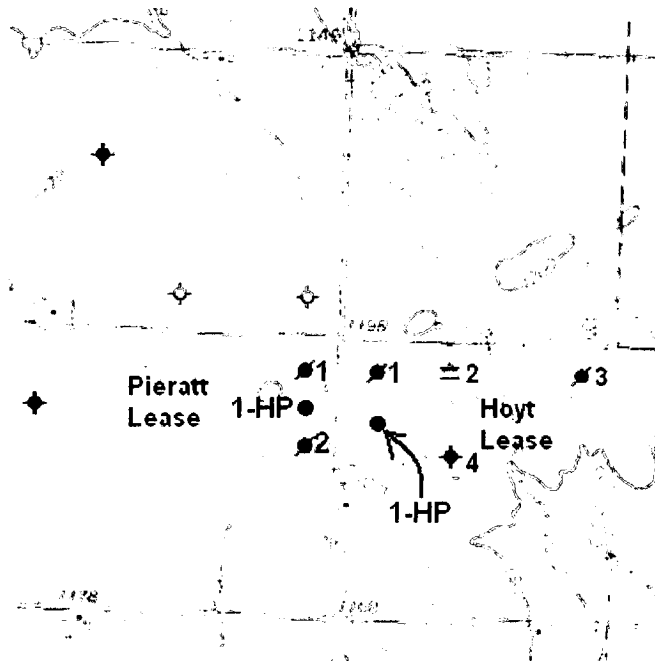
Ph. (785) 842-3665  
Cell (785) 766-0099  
Fax (785) 856-3935

April 2, 2010

## Geological Wellsite Report

For: Hoyt 1-HP  
W2 NW SW/4  
1980' fsl, 4950' fel  
Section 9, T21S – R14E  
Coffey County, Kansas  
Lat: N38.23365  
Long: W-95.88331  
API: 15-031-22529-00-00  
Datum: KB 1180'  
RTD: 2020', KB  
Field: Pieratt  
Status: 4½' Casing Set  
Pending Viola Compl.

Operator: Haas Petroleum, LLC  
800 W. 47<sup>th</sup> St, Suite 716  
Kansas City, MO 64112  
License: 33640  
Mark Haas, President



The following report on the subject well is based on microscopic examination of rotary drill cuttings from 1300' to a rotary total depth of 2020' below kelly bushing (KB) reached on March 29, 2010. The primary objective of Hoyt 1-HP is to test the Viola with secondary objectives to evaluate the Squirrel sandstones and Mississippian. This report includes a sample log with drilling time, sample cuttings description, total gas measurements, geological tops and estimated saltwater calculations for the Upper and Lower Squirrel sandstones. Subsea corrected geological sample tops were based on a KB datum elevation of 1180' from a GL elevation of 1173' above sea level obtained from a relative survey to Hoyt 1 and Pieratt 1-HP.

**Drilling Contr.:** Sky Drilling, Rig #3  
Yates Center, Kansas, 66865  
KS Operator License No.: 33557  
Owner: Mark Haas  
Tool Pusher: Ben Harrell

**Commenced Drlg:** Spud March 22, 2010, 12¼" Bit, Set ~40' of 8½" Casing

**Completed Drlg:** March 29, 2010, Set and Cemented ~2017' of 4½" casing

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**Drilling Notes:** 4½" Drill Pipe, One 6-blade PDC Bit, from 40' to 1718',  
One Button Bit from 1718' to 2020'

**Mud Program:** Native fresh water mud to 1300', fresh water chemical gel mud from 1300' to RTD,

**Cement Co.:** Consolidated Oil Well Service Co., KS Operator License No.: 04996

**Geological Supervision:**

David Griffin, RG, President of GGR, Inc., provided wellsite and open hole logging supervision on March 24, 25 and 29, 2010. Samples microscopically examined from 1300' to 2020'.

**Logs, Gas Detection, Cores, DST's:**

Compensated density and sidewall neutron and dual Induction resistivity open-hole logs were ran by Osage Wireline. MP 2300 total gas detection instrumentation was in use. No cores or drill stem tests were obtained for this well.

**Geological Datums:**

<b>Haas Petroleum, LLC Hoyt 1-HP W2 NW SW/4 Sec. 9-T21S-R14E Geological Tops</b>						<b>Struc.Comparison Haas Petro, LLC Pieratt 1-HP N2 SE NE SE4 Sec. 8-T21S-R14E</b>	
<b>Zones of Interest</b>	<b>Sample Tops</b>		<b>STRC COMP</b>	<b>Open-Hole Log Tops</b>		<b>OH Log/Smpl Tops</b>	
	<b>KB Elev 1180'</b>			<b>KB Elev 1180'</b>		<b>KB Elev 1202'</b>	
	<b>Depth</b>	<b>Subsea</b>		<b>Depth</b>	<b>Subsea</b>	<b>Depth</b>	<b>Subsea</b>
Heebner Shale	na		+6	271	909	299	903
Douglas SS	na		+7	484	696	513	689
Lansing	na		+4	624	556	650	552
Base Kansas City Group	na		+1	1025	155	1048	154
Cherokee Group	1314	-134	+4	1314	-134	1340	-138
U. Squirrel SS	absent			absent		absent	
M. Squirrel SS,	1326	-146	+8	1326	-146	1356	-154
Base SS	1353	-173		1353	-173	1387	-185
L Squirrel SS,	1374	-194	+8	1374	-194	1404	-202
Base SS	1391	-211		1391	-211	1408	-206
"V"-Shale	1426	-246	+4	1426	-246	1452	-250
Burgess SS	absent			absent		absent	
Mississippian Lime	1667	-487	+14	1667	-487	1703	-501
Osage Chert Zone	1749	-569	-4	1749	-569	1767	-565
Kinderhook Shale	1940	-760	+1	1942	-762	1963	-761
Viola Dol	2013	-833	+2	2015	-835	2037	-835
Total Depth	2020	-840	-3	2022	-842	2039	-837

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## Structural Comparisons:

Structural comparison of subsea geological OH log tops for Hoyt 1-HP indicates that the sample top of the Viola dolomite is 2' high to Haas Petroleum, LLC, Pieratt 1-HP lying ~700' to the west northwest.

## Description of Middle Squirrel Sandstone

### Sample Description

#### **1326' to 1330', KB, (1330' to 1340' Samples)**

Sandstone, 80% of samples, brown, very fine grained, sub-angular quartz, silty, micaceous, good to very good porosity, 30% loose grains, fair odor, fair residual oil stain, slight show of free oil rinsing, no visible show of oil in bag; 20% siltstone and shale, light gray. Total gas readings peaked at 168 units, no gas bubbles observed, probable gas zone.

#### **1330' to 1343', KB, (1340' to 1350' Samples)**

Sandstone, 60% of samples, brown to dark brown, very fine to fine grained, silty, sub-angular quartz, good to very good porosity, 20% loose grains, good odor, very good show of free brown oil (23-26 gravity), no heavy oil or tar, very good rinse of oil from samples and in bag; 40% siltstone, very light gray, partly sandy. Total gas readings peaked at 136 units in top 4' and 69 units in bottom 9', no gas bubbles observed. Put good amount of oil on pit. **Has very good potential to be oil pay zone.**

#### **1343' to 1350', KB, (1350' to 1360' Samples)**

Sandstone, 80% of samples, dark brown, very fine to fine grained, sub-angular quartz, very good porosity, 60% loose grains, fair odor, fair to good oil stain, fair to good show of free oil in bag and rinsing; 20% siltstone, very light gray. Total gas readings peaked at 73 units, no gas bubbles observed.

#### **1350' to 1353', KB, (1360' to 1365' Sample)**

Sandstone, 30% of samples, dark grayish-brown, very fine to fine grained, sub-angular quartz, good to very good porosity, fair odor, good oil stain of mostly residual oil, poor bleeding in bag and rinsing of oil from samples; 70% shale, gray, silty, abundant mica and carbonaceous material. Total gas readings fell from 42 units at 1350' to 32 units at 1353', no gas bubbles observed.

### Saltwater Calculations and Comments:

Saltwater (SW) percentage estimations for the Middle Squirrel sandstone using the Archie Equation with a formation water resistivity (RW) of 0.15 and standard pay zone cutoffs indicate that pay zone is present from 1326' to 1343', (KB OH Log) with a shaley streak at 1337'. However, total gas readings and sample observations indicate that from 1326' to 1330' is very gassy and could be a free gas cap. Therefore, it appears that the best oil pay zone lies from ~1330' to ~1343', (KB OH Log). In this interval, SW ranges from 46.2% to 64.9%, porosity 18% to 22.7% and

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WICHITA KS

Hoyt 1-HP  
Wellsite Geology Report  
By David Griffin, RG  
April 2, 2010



deep induction resistivity (Rt) 11.9 to 5.3 ohm-m. This zone appears to have very good potential to be commercial and should be tested.

## Description of Lower Squirrel Sandstone

### Sample Description

#### **1374' to 1380', KB, (1375' to 1385' Samples)**

Sandstone, 70% of samples, dark grayish-brown, very fine to fine grained, sub-angular quartz, micaceous and carbonaceous, good to very good porosity, good odor, very good show of free dark brown heavy oil in bag and rinsing, (~21 to 23 gravity), oil readily breaks out of cuttings without crushing; shale, 30%, silty, sandy, mica and carbon. Total gas readings peaked at 51 units, no gas bubbles observed. Put a good amount of oil on pit. **Has fair to good potential for pay zone.**

#### **1380' to 1391', KB, (1385' to 1400' Samples)**

Sandstone, 70% of samples, dark grayish-brown, mostly very fine grained, sub-angular quartz, salt and pepper look with abundant mica and carbon, good to very good porosity, fair odor, fair to good oil stain, fair show of free dark brown oil in bag and rinsing; shale, 30%, gray, very sandy, abundant mica and carbon. Total gas readings peaked at 53 units in top part, no gas bubbles observed.

### Saltwater Calculations and Comments:

Saltwater (SW) percentage estimations for the Lower Squirrel sandstone using the Archie Equation with a formation water resistivity (RW) of 0.15 and standard pay zone cutoffs indicate that pay zone is present from 1375' to 1378.5', (KB OH Log). In this interval, SW ranges from 58.5% to 65.0%, porosity 20.8% to 22.7% and deep induction resistivity (Rt) 6.65 to 5.15 ohm-m. This zone appears to have fair to good potential to be commercial.

## Description of Viola Dolomite

### Sample Description

#### **2013' to 2016', KB, (2016' 10 and 20 min CFS Samples)**

Dolomite, 5% of samples, light gray to light greenish-gray, medium crystalline, calcereous, poor to fair intercrystalline porosity, trace oil stain in one piece, no show of free oil; Sandstone, (Misener?) 3% of samples, gray, fine grained, sub-rounded quartz, recrystallized with silica cement, poor porosity, trace show in 1 piece, no show of free oil; Remainder of samples are shale (Kinderhook), dark gray to very dark-grayish brown, very fine mica, algal platelets, strong organic hydrocarbon-like odor. **Top of Viola cap rock, 2013'.**

#### **2016' to 2018', KB, (2018' 10 and 20 min Circ Samples)**

Dolomite, 15% of samples, medium crystalline, calcereous, 90% is off-white, very light gray, poor porosity, no oil stain or show, 10% is dark brown, good vugular and intercrystalline porosity, fair odor, good show of free oil; Remainder of samples are shale (Kinderhook), same as above. **Top of Viola Pay Zone, 2017'.**

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Hoyt 1-HP  
Wellsite Geology Report  
By David Griffin, RG  
April 2, 2010



**Haas Petroleum, LLC**  
**Middle Squirrel Sandstone SW Calculations**  
**Hoyt 1-HP**  
W2 NW SW4, 1980' fsl, 4950' fel, Sec. 9-T21S-R14E, Coffey County, KS  
April 1, 2010

Model = Archie					Porosity							FT			Pay Oil	
PARAMETERS	Zone	Depth	Thick	RT	PHI	RWA	RO	MA	SW	BVW	VSH	PAY	BOI	In-Place		
X	1	1320	0.5	7.74	15.1%	0.26	4.49	2.09		0.115	1.016	0	1.12	0		
Y	2	1320.5	0.5	7.9	15.2%	0.27	4.45	2.11		0.114	0.999	0	1.12	0		
A	1	1321	0.5	7.93	15.1%	0.26	4.53	2.10		0.114	0.938	0	1.12	0		
M	1.8	1321.5	0.5	7.87	15.4%	0.27	4.37	2.11		0.114	0.903	0	1.12	0		
N	2	1322	0.5	7.75	16.1%	0.29	4.02	2.16		0.116	0.865	0	1.12	0		
RW	0.15	1322.5	0.5	7.83	16.4%	0.29	3.88	2.17		0.117	0.818	0	1.12	0		
CTHK	40.5	1323	0.5	7.57	15.9%	0.28	4.10	2.13		0.117	0.838	0	1.12	0		
AVPHI	0.20	1323.5	0.5	7.58	15.6%	0.27	4.26	2.11		0.117	0.866	0	1.12	0		
FTOIL	1.65	1324	0.5	7.66	16.1%	0.29	4.03	2.15		0.117	0.863	0	1.12	0		
PAYFEET	17	1324.5	0.5	7.85	16.7%	0.31	3.78	2.21		0.116	0.892	0	1.12	0		
Estimated Oil-In-Place	11	1325	0.5	8.15	16.8%	0.33	3.71	2.24		0.114	0.879	0	1.12	0		
440 Spacing	57,651	12	1325.5	0.5	8.54	16.9%	0.35	3.67	2.28		0.111	0.818	0	1.12	0	
10%OIP	5,765	13	1326	0.5	8.98	17.9%	0.40	3.33	2.38	60.9%	0.109	0.738	0.03	1.12	Gas	
DMIN		1320	14	1326.5	0.5	9.45	19.6%	0.50	2.83	2.54	54.7%	0.107	0.636	0.04	1.12	Gas
DMAX		1360	15	1327	0.5	9.90	21.1%	0.60	2.48	2.69	49.8%	0.105	0.561	0.05	1.12	Gas
KB		1180	16	1327.5	0.5	10.6	21.9%	0.69	2.30	2.80	46.7%	0.102	0.541	0.06	1.12	Gas
LTD		2022	17	1328	0.5	11.2	22.1%	0.74	2.26	2.86	44.9%	0.099	0.566	0.06	1.12	Gas
BHT		18	1328.5	0.5	11.8	21.0%	0.77	2.31	2.87	44.3%	0.097	0.613	0.06	1.12	Gas	
ST		19	1329	0.5	12.1	21.8%	0.77	2.37	2.86	44.2%	0.095	0.621	0.06	1.12	Gas	
	4.2	20	1329.5	0.5	12.2	21.3%	0.75	2.44	2.84	44.6%	0.095	0.600	0.06	1.12	Gas	
RMFT		71	21	1330	0.5	12.2	20.9%	0.73	2.50	2.81	45.3%	0.095	0.573	0.06	1.12	Gas
			22	1330.5	0.5	11.9	20.8%	0.70	2.53	2.79	46.2%	0.096	0.486	0.06	1.12	2595
			23	1331	0.5	11.4	21.0%	0.69	2.49	2.77	46.7%	0.098	0.386	0.06	1.12	2585
			24	1331.5	0.5	11	21.2%	0.67	2.46	2.76	47.3%	0.100	0.348	0.06	1.12	2580
			25	1332	0.5	10.8	21.2%	0.65	2.44	2.75	48.0%	0.102	0.352	0.06	1.12	2552
			26	1332.5	0.5	10.2	21.3%	0.63	2.44	2.73	48.8%	0.104	0.378	0.05	1.12	2519
			27	1333	0.5	9.88	21.3%	0.61	2.42	2.71	49.5%	0.108	0.402	0.05	1.12	2492
			28	1333.5	0.5	9.4	21.1%	0.57	2.46	2.66	51.2%	0.108	0.413	0.05	1.12	2384
			29	1334	0.5	8.9	20.7%	0.52	2.56	2.59	53.7%	0.111	0.403	0.05	1.12	2214
			30	1334.5	0.5	8.44	20.3%	0.48	2.65	2.53	56.0%	0.114	0.409	0.04	1.12	2067
			31	1335	0.5	8.06	20.2%	0.45	2.68	2.49	57.6%	0.116	0.461	0.04	1.12	1976
			32	1335.5	0.5	7.83	20.0%	0.43	2.73	2.45	59.0%	0.118	0.578	0.04	1.12	1891
			33	1336	0.5	7.77	19.3%	0.40	2.91	2.40	61.2%	0.118	0.716	0.04	1.12	1729
			34	1336.5	0.5	7.79	18.0%	0.36	3.28	2.30	64.9%	0.117	0.787	0.03	1.12	1464
			35	1337	0.5	7.8	17.4%	0.34	3.49	2.26		0.116	0.725	0	1.12	0
			36	1337.5	0.5	7.78	18.1%	0.36	3.26	2.31	64.9%	0.117	0.584	0.03	1.12	1469
			37	1338	0.5	7.69	19.6%	0.41	2.82	2.41	60.6%	0.119	0.501	0.04	1.12	1784
			38	1338.5	0.5	7.61	21.1%	0.46	2.46	2.53	56.9%	0.120	0.499	0.05	1.12	2108
			39	1339	0.5	7.54	22.0%	0.49	2.29	2.59	55.2%	0.121	0.498	0.05	1.12	2279
			40	1339.5	0.5	7.46	22.1%	0.49	2.26	2.59	55.1%	0.122	0.462	0.05	1.12	2300
			41	1340	0.5	7.3	22.1%	0.48	2.27	2.58	55.7%	0.123	0.448	0.05	1.12	2265
			42	1340.5	0.5	7.04	22.2%	0.47	2.26	2.55	56.7%	0.126	0.456	0.05	1.12	2222
			43	1341	0.5	6.71	22.4%	0.45	2.22	2.54	57.6%	0.129	0.458	0.05	1.12	2195
			44	1341.5	0.5	6.34	22.4%	0.43	2.22	2.50	59.1%	0.132	0.485	0.05	1.12	3181
			45	1342	0.5	5.97	22.4%	0.40	2.21	2.46	60.9%	0.136	0.488	0.04	1.12	3044
			46	1342.5	0.5	5.62	22.5%	0.38	2.20	2.43	62.6%	0.141	0.478	0.04	1.12	2926
			47	1343	0.5	5.3	22.7%	0.37	2.17	2.40	64.0%	0.145	0.447	0.04	1.12	2830
			48	1343.5	0.5	5.01	22.8%	0.35	2.15	2.37		0.149	0.420	0	1.12	0
			49	1344	0.5	4.77	22.7%	0.33	2.17	2.33		0.418	0	1.12	0	
			50	1344.5	0.5	4.59	22.6%	0.32	2.18	2.30		0.427	0	1.12	0	
			51	1345	0.5	4.45	22.6%	0.31	2.18	2.28		0.431	0	1.12	0	
			52	1345.5	0.5	4.32	22.6%	0.30	2.19	2.26		0.488	0	1.12	0	
			53	1346	0.5	4.22	22.2%	0.28	2.24	2.22		0.512	0	1.12	0	
			54	1346.5	0.5	4.12	21.9%	0.27	2.31	2.18		0.490	0	1.12	0	
			55	1347	0.5	4.04	21.7%	0.26	2.35	2.15		0.473	0	1.12	0	
			56	1347.5	0.5	3.97	22.0%	0.26	2.28	2.16		0.484	0	1.12	0	
			57	1348	0.5	3.9	22.9%	0.27	2.13	2.21		0.509	0	1.12	0	
			58	1348.5	0.5	3.84	23.7%	0.29	2.01	2.25		0.481	0	1.12	0	
			59	1349	0.5	3.78	23.7%	0.28	2.00	2.24		0.446	0	1.12	0	
			60	1349.5	0.5	3.73	23.5%	0.28	2.03	2.22		0.418	0	1.12	0	
			61	1350	0.5	3.69	23.5%	0.27	2.03	2.21		0.408	0	1.12	0	
			62	1350.5	0.5	3.69	23.4%	0.27	2.05	2.20		0.472	0	1.12	0	
			63	1351	0.5	3.73	23.0%	0.27	2.11	2.19		0.513	0	1.12	0	
			64	1351.5	0.5	3.81	22.7%	0.26	2.16	2.18		0.525	0	1.12	0	
			65	1352	0.5	3.93	22.7%	0.27	2.16	2.20		0.527	0	1.12	0	
			66	1352.5	0.5	4.07	22.6%	0.28	2.18	2.22		0.518	0	1.12	0	
			67	1353	0.5	4.24	22.0%	0.28	2.29	2.21		0.525	0	1.12	0	
			68	1353.5	0.5	4.44	20.8%	0.26	2.54	2.16		0.564	0	1.12	0	
			69	1354	0.5	4.7	19.0%	0.24	2.98	2.08		0.151	0.718	0	1.12	0
			70	1354.5	0.5	5	17.4%	0.22	3.49	2.01		0.145	0.916	0	1.12	0
			71	1355	0.5	5.3	16.6%	0.21	3.82	1.98		0.141	0.989	0	1.12	0
			72	1355.5	0.5	5.55	16.4%	0.22	3.87	2.00		0.137	0.960	0	1.12	0
			73	1356	0.5	5.7	16.4%	0.22	3.89	2.01		0.135	0.941	0	1.12	0
			74	1356.5	0.5	5.78	16.3%	0.22	3.91	2.02		0.134	0.937	0	1.12	0
			75	1357	0.5	5.96	16.6%	0.23	3.79	2.04		0.134	0.959	0	1.12	0
			76	1357.5	0.5	5.92	16.8%	0.24	3.70	2.06		0.133	1.021	0	1.12	0
			77	1358	0.5	5.95	16.8%	0.24	3.71	2.06		0.133	1.081	0	1.12	0
			78	1358.5	0.5	5.92	16.7%	0.24	3.75	2.06		0.133	1.079	0	1.12	0
			79	1359	0.5	5.8	16.6%	0.23	3.79	2.04		0.134	1.007	0	1.12	0
			80	1359.5	0.5	5.61	16.4%	0.22	3.87	2.01		0.137	0.981	0	1.12	0
			81	1360	0.5	5.36	16.0%	0.20	4.07	1.95		0.139	1.025	0	1.12	0

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CONSERVATION DIVISION  
WICHITA, KS

**Haas Petroleum, LLC**  
**Lower Squirrel Sandstone SW Calculations**  
**Hoyt 1-HP**  
**W2 NW SW4, 1980' fsl, 4950' fel, Sec. 9-T21S-R14E, Coffey County, KS**  
**April 1, 2010**

Model = Archie PARAMETERS	Zone	Depth	Thick	RT	Porosity					FT			Pay Oil In-Place	
					PHI	RWA	RO	MA	SW	BVW	VSH	PAY		BOI
X	1	1370	0.5	6.93	15.1%	0.23	4.50	2.03		0.122	1.045	0	1.12	0
Y	2	1370.5	0.5	6.96	16.2%	0.26	3.99	2.10		0.122	1.027	0	1.12	0
A	1 3	1371	0.5	6.84	17.1%	0.28	3.62	2.16		0.124	0.859	0	1.12	0
M	1.8 4	1371.5	0.5	6.69	17.5%	0.29	3.44	2.18		0.126	0.758	0	1.12	0
N	2 5	1372	0.5	6.53	17.6%	0.28	3.44	2.17		0.127	0.798	0	1.12	0
RW	0.15 6	1372.5	0.5	6.44	17.3%	0.27	3.53	2.14		0.128	0.882	0	1.12	0
CTHK	25.5 7	1373	0.5	6.44	17.5%	0.28	3.47	2.15		0.128	0.939	0	1.12	0
AVPHI	0.20 8	1373.5	0.5	6.48	18.5%	0.31	3.13	2.23		0.128	0.918	0	1.12	0
FTOIL	0.32 9	1374	0.5	6.53	20.0%	0.36	2.72	2.34	64.6%	0.129	0.888	0	1.12	0
PAYFEET	4 10	1374.5	0.5	6.59	21.4%	0.41	2.42	2.45	60.5%	0.129	0.827	0	1.12	0
Estimated Oil-In-Place	11	1375	0.5	6.65	22.1%	0.44	2.27	2.51	58.5%	0.129	0.687	0.05	1.12	3180
440 Spacing	22,376 12	1375.5	0.5	6.65	21.7%	0.43	2.34	2.48	59.3%	0.129	0.575	0.04	1.12	3065
5%OIP	1,119 13	1376	0.5	6.58	21.0%	0.40	2.50	2.42	61.6%	0.129	0.470	0.04	1.12	2792
DMIN	1370 14	1376.5	0.5	6.4	20.5%	0.37	2.59	2.37	63.6%	0.131	0.361	0.04	1.12	2593
DMAX	1395 15	1377	0.5	6.14	20.8%	0.36	2.53	2.36	64.2%	0.134	0.340	0.04	1.12	2584
KB	1180 16	1377.5	0.5	5.81	21.5%	0.37	2.38	2.38	64.0%	0.138	0.388	0.04	1.12	2686
LTD	2022 17	1378	0.5	5.48	22.1%	0.36	2.27	2.38	64.4%	0.142	0.402	0.04	1.12	2722
BHT	18 1378.5	0.5	5.15	22.7%	0.36	2.17	2.38	65.0%	0.147	0.450	0.04	1.12	2753	
ST	19 1379	0.5	4.85	23.0%	0.34	2.11	2.37		0.152	0.515	0	1.12	0	
RMF	4.2 20	1379.5	0.5	4.6	23.0%	0.33	2.12	2.33		0.528	0	1.12	0	
RMFT	71 21	1380	0.5	4.4	22.9%	0.31	2.12	2.30		0.545	0	1.12	0	
	22	1380.5	0.5	4.25	22.9%	0.30	2.13	2.27		0.542	0	1.12	0	
	23	1381	0.5	4.14	22.8%	0.29	2.15	2.24		0.488	0	1.12	0	
	24	1381.5	0.5	4.06	22.7%	0.28	2.16	2.23		0.456	0	1.12	0	
	25	1382	0.5	4.02	22.8%	0.28	2.15	2.22		0.440	0	1.12	0	
	26	1382.5	0.5	4	22.7%	0.28	2.17	2.21		0.413	0	1.12	0	
	27	1383	0.5	4.02	22.4%	0.27	2.22	2.20		0.411	0	1.12	0	
	28	1383.5	0.5	4.09	22.2%	0.27	2.25	2.20		0.418	0	1.12	0	
	29	1384	0.5	4.18	21.8%	0.27	2.33	2.18		0.419	0	1.12	0	
	30	1384.5	0.5	4.3	21.3%	0.27	2.44	2.17		0.441	0	1.12	0	
	31	1385	0.5	4.45	20.9%	0.27	2.51	2.17		0.450	0	1.12	0	
	32	1385.5	0.5	4.63	20.8%	0.27	2.53	2.18		0.463	0	1.12	0	
	33	1386	0.5	4.84	20.6%	0.28	2.58	2.20		0.150	0.493	0	1.12	0
	34	1386.5	0.5	5.08	20.5%	0.29	2.61	2.22		0.147	0.545	0	1.12	0
	35	1387	0.5	5.33	20.5%	0.31	2.60	2.25		0.143	0.576	0	1.12	0
	36	1387.5	0.5	5.59	20.1%	0.31	2.69	2.26		0.140	0.560	0	1.12	0
	37	1388	0.5	5.81	19.2%	0.30	2.92	2.22		0.136	0.598	0	1.12	0
	38	1388.5	0.5	5.98	18.6%	0.29	3.09	2.19		0.134	0.642	0	1.12	0
	39	1389	0.5	6.12	18.4%	0.29	3.15	2.19		0.132	0.646	0	1.12	0
	40	1389.5	0.5	6.24	18.4%	0.30	3.17	2.20		0.131	0.684	0	1.12	0
	41	1390	0.5	6.38	18.1%	0.30	3.24	2.20		0.129	0.715	0	1.12	0
	42	1390.5	0.5	6.52	17.9%	0.30	3.31	2.20		0.128	0.777	0	1.12	0
	43	1391	0.5	6.66	17.9%	0.30	3.31	2.21		0.126	0.819	0	1.12	0
	44	1391.5	0.5	6.77	18.0%	0.31	3.29	2.22		0.125	0.913	0	1.12	0
	45	1392	0.5	6.85	17.9%	0.31	3.32	2.22		0.125	1.065	0	1.12	0
	46	1392.5	0.5	6.92	17.6%	0.30	3.43	2.20		0.124	1.113	0	1.12	0
	47	1393	0.5	7	17.3%	0.30	3.52	2.19		0.123	1.068	0	1.12	0
	48	1393.5	0.5	7.11	17.3%	0.30	3.54	2.20		0.122	1.046	0	1.12	0
	49	1394	0.5	7.22	17.2%	0.30	3.56	2.20		0.121	1.048	0	1.12	0
	50	1394.5	0.5	7.32	17.2%	0.31	3.58	2.21		0.120	1.057	0	1.12	0
	51	1395	0.5	7.39	16.9%	0.30	3.67	2.19		0.119	1.055	0	1.12	0

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WICHITA, KS



Depth

Lithology

Shows

Penetration Rate

Total Gas

Location: W2 NW SW, 1980' Fsl, 4450' fel, SCC.9-T215-R14E

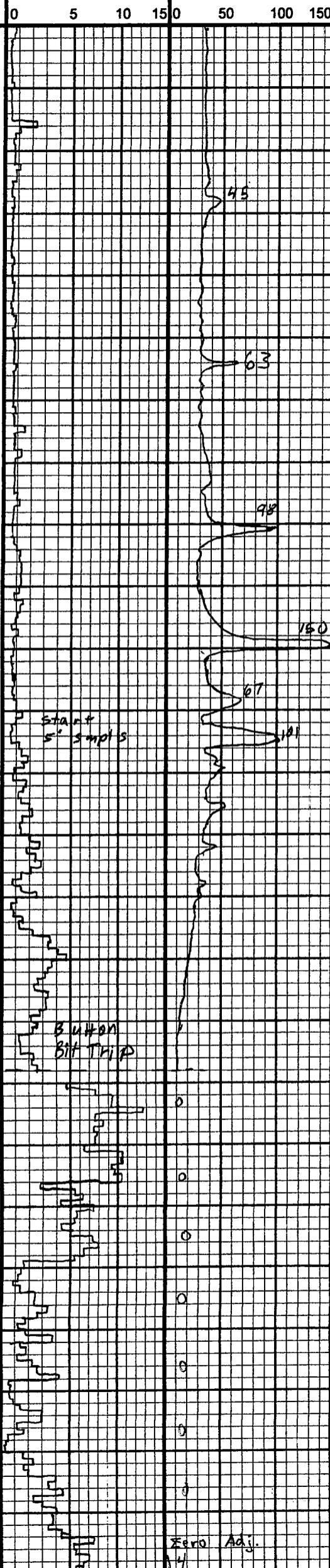
Datum/Elev. KB 1180

Min./Foot

Units

Sample Descriptions

Tops/Remarks



1550  
3-24-10  
430P

1600

1650

1700  
10PM

3-24-10  
3-25-10  
300A

1750

9AM  
1800

Sh, vari-col

Sh, ltgy to bk, min tan  
siltst, dkgn, lmy

Sh, ultgy, vdkgy, mar

45

Sh, vari-col, min mar, acc minerals  
pyr + unknowns

63

Sh, mstly vdkgy to bk coaly, min  
vltgy, tan

Sh, mntly, vdkgy to bk, min ltgy

AA

98

Coal

Sh, tan-gg to gg, sily, min vdkgy

Sh, vdkgy, abn carb, s lty, 10% silt lam

150

Coal, pyr

Sh, tan-gg, to vdkgy, carb, min silt lam  
prp, sil. ceen. ns

67

AA, w/cht clt to trnst wh

Start  
5' Smp's

101

Coal,  
Dol, vltgy, v f-xln, f m p, tr oil stn, nobel  
cht, 20% cl-chalcdy, d bnd qtz xtal  
min calc xtal, f + odor

Dol, AA, 35% dolo ls, m-cs xln, ns

Ch, 40%, off-wh, shrp, Dol, vltgy to  
tan-gg; LS 20%

Dol, 60%, v f-xln, pr-frixp, LS in bds, ns

LS, 70%, Gnstn, lt tan, f-mxln, ns  
20% cht, wh to tan-gg, shrp.

LS, AA

Dol, tan-gg, v f-xln, pr-frixp, ns

LS, f-mxln, tan-gg, dus, d legu acc  
sh gg-tan ~70%  
cht, wh ~20%

LS, tn, gnstn, m-cs xln, pr-frixp, ns  
cht, wh 5-10%

cht, wh, tan-gg, 40%, LS AA + smedus

Ch, wh, 70%, triplty, weath. fr-gd: vug p  
20% Dol, tan, v f-xln, cr-frixp, ns, no odr  
10% cs, tan, dus

Ch, 90%, wh, off-wh, vltgy, trp to shrp  
5% dol 100% tan, f-xln, ns

AA

AA

Dol, Rich Bar, f-mxln, pr-frixp, ns  
cht 50%, off-wh, ltgy, trp to shrp  
ns

Top Miss Lime  
1667(-487)

Osage Chert Zone  
1749(-569)

Zero Adj.

Depth	Lithology	Shows	By David Griffin, RG, Lawrence, KS				Well No: Hoyt 1-HP	Pg. 3 of 3
			Penetration Rate		Total Gas		Location: W2 NW SW, 1480' E S1 T9S R1E, Sec. 9-T21S-R14E	Datum/Elev. KB 1180
			Min./Foot		Units			Sample Descriptions
			0 5 10 15	0 50 100 150				
1800	3-25-10 920A					cht, 70%, off-wh to gy, shrp dol, 30%, gy-bn, f xln, mstly pr frp		
						cht, 70%, ltgy to gy, trp/shrp dol, 30% AA		
						cht AA, 50%, dol AA 50%		
						LS, tn-gy, dus, cht, 30% ltgy		
						LS, AA, cht, 30% ltgy to wh		
						LS, ltgy-tu, dus, nocht		
1850	4PM					LS, AA, 20% shgy, cavings?		
						Dol, Bn, lt tn-gy, v f xln, pr frp NS		
						LS, dol, gy, v f mxm, pr frp		
						sh, ltgy to gy, dol intbds of dus LS		
1900	3-25-10 3-27-10					sh, ltgy to gy to gn-gy, tan, dol LS & Dol ~20%		
						LS, gy-bn to lt tn-gy, dus		
						LS, AA		
1950	3-29-10 9AM					sh, gy to gn-gy to vdkgy mfn LS intbds 10-20%	Kinderhook Shale 1940(-760)	
						AA		
						sh, ltgy, gy, blu-gy, bn-gy, blk v f mica		
						dol, gy, plns, abnd pyr, pr frp, NS		
						dol, AA, less pyr.		
						sh, gy to dlcgy-bn, min gy, alg/plts skunky, petr-like odor, v f mica		
						AA		
2000						sh, mostly dk to vdkgy-bn, alg/plts stg skunky-petr-like odor		
						SS, gy, f:gn, sub-rnd, pr frp, tr oil stain (m's ener?)	Viola Dol 2013(-933)	
						Dol, ltgy to lt gn-gy, med. xln, calc, pr fr i x vug fr, tr oil stain, NFO, nodular, calc.		
						Pay Zone 2017'-2020', dol, 20%, dkbn, fr to vug vug & ix w gd show of free oil rinsing sand in bag, odor some gd xtals of qtz & dol		
2050						Open Hole Logged By David Griffin		