

DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr. & Associates**

1670 Broadway Ste 3300
Denver CO 80202

ATTN: Tom Fertal

11-16S-11W

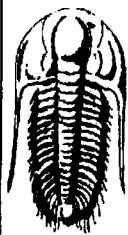
Houska #1-11

Start Date: 2005.06.30 @ 03:50:37

End Date: 2005.06.30 @ 09:42:52

Job Ticket #: 20716 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

1670 Broadway Ste 3300
Denver CO 80202

ATTN: Tom Fertal

Houska #1-11

11-16S-11W

Job Ticket: 20716

DST#: 1

Test Start: 2005.06.30 @ 03:50:37

GENERAL INFORMATION:

Formation: **Arbuckel**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 05:40:52

Time Test Ended: 09:42:52

Test Type: **Conventional Bottom Hole**

Tester: **Darren L. Amerine**

Unit No: **30**

Interval: **3254.00 ft (KB) To 3290.00 ft (KB) (TVD)**

Total Depth: **3290.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **1805.00 ft (KB)**

1800.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: **6668**

Inside

Press@RunDepth: **25.16 psig @ 3255.00 ft (KB)**

Start Date: **2005.06.30**

End Date:

2005.06.30

Start Time: **03:50:38**

End Time:

09:42:52

Capacity: **7000.00 psig**

Last Calib.: **2005.06.30**

Time On Btm: **2005.06.30 @ 05:39:52**

Time Off Btm: **2005.06.30 @ 07:34:07**

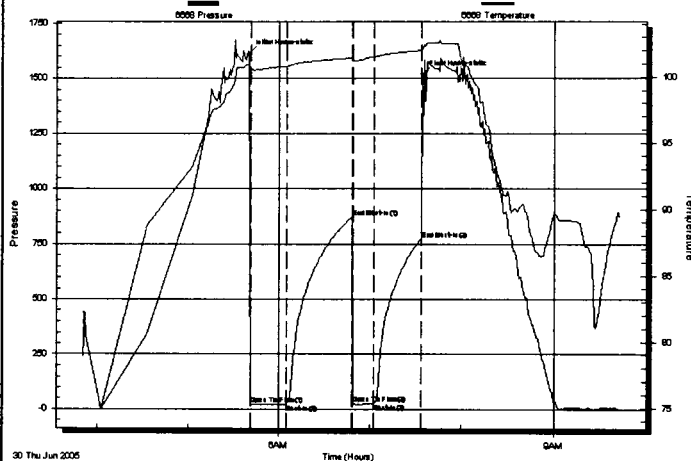
TEST COMMENT: **IF: Weak surface blow built to 1/4" in H₂O bucket.**

IS: Bled down for 5 mins. no blow back.

FF: No blow.

FS: No blow back.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1615.52	100.90	Initial Hydro-static
1	20.34	100.63	Open To Flow (1)
25	22.11	100.81	Shut-In(1)
69	870.48	101.43	End Shut-In(1)
69	24.19	101.23	Open To Flow (2)
83	25.16	101.52	Shut-In(2)
114	771.93	102.00	End Shut-In(2)
115	1519.28	102.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	trace of gip	0.00
3.00	SMCO 60%oil 40%mud	0.04

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr. & Associates

Houska #1-11

1670 Broadway Ste 3300
Denver CO 80202

11-16S-11W

Job Ticket: 20716

DST#: 1

ATTN: Tom Fertal

Test Start: 2005.06.30 @ 03:50:37

Tool Information

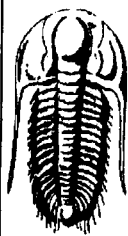
Drill Pipe:	Length: 3248.00 ft	Diameter: 3.80 inches	Volume: 45.56 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			Total Volume: 45.56 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial 28000.00 lb
Depth to Top Packer:	3254.00 ft			Final 28000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	36.00 ft			
Tool Length:	68.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:
Sampler recovery 450 PSI 3500ml.oil 500ml.mud 4000 total

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			3223.00	
Shut In Tool	5.00			3228.00	
Sampler	3.00			3231.00	
Hydraulic tool	5.00			3236.00	
Jars	5.00			3241.00	
Safety Joint	3.00			3244.00	
Packer	5.00			3249.00	32.00 Bottom Of Top Packer
Packer	5.00			3254.00	
Stubb	1.00			3255.00	
Recorder	0.00	6668	Inside	3255.00	
Perforations	32.00			3287.00	
Recorder	0.00	13266	Outside	3287.00	
Bullnose	3.00			3290.00	36.00 Bottom Packers & Anchor

Total Tool Length: 68.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr. & Associates

Houska #1-11

1670 Broadway Ste 3300
Denver CO 80202

11-16S-11W

Job Ticket: 20716

DST#: 1

ATTN: Tom Fertal

Test Start: 2005.06.30 @ 03:50:37

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 7.99 in³

Resistivity: 0.50 ohm.m

Salinity: 12000.00 ppm

Filter Cake: 0.32 inches

Cushion Type:

Cushion Length: ft

Cushion Volume: bbl

Gas Cushion Type:

Gas Cushion Pressure: psig

Oil API:

Water Salinity: ppm

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	trace of gip	0.000
3.00	SMCO 60%oil 40%mud	0.042

Total Length: 3.00 ft

Total Volume: 0.042 bbl

Num Fluid Samples: 0

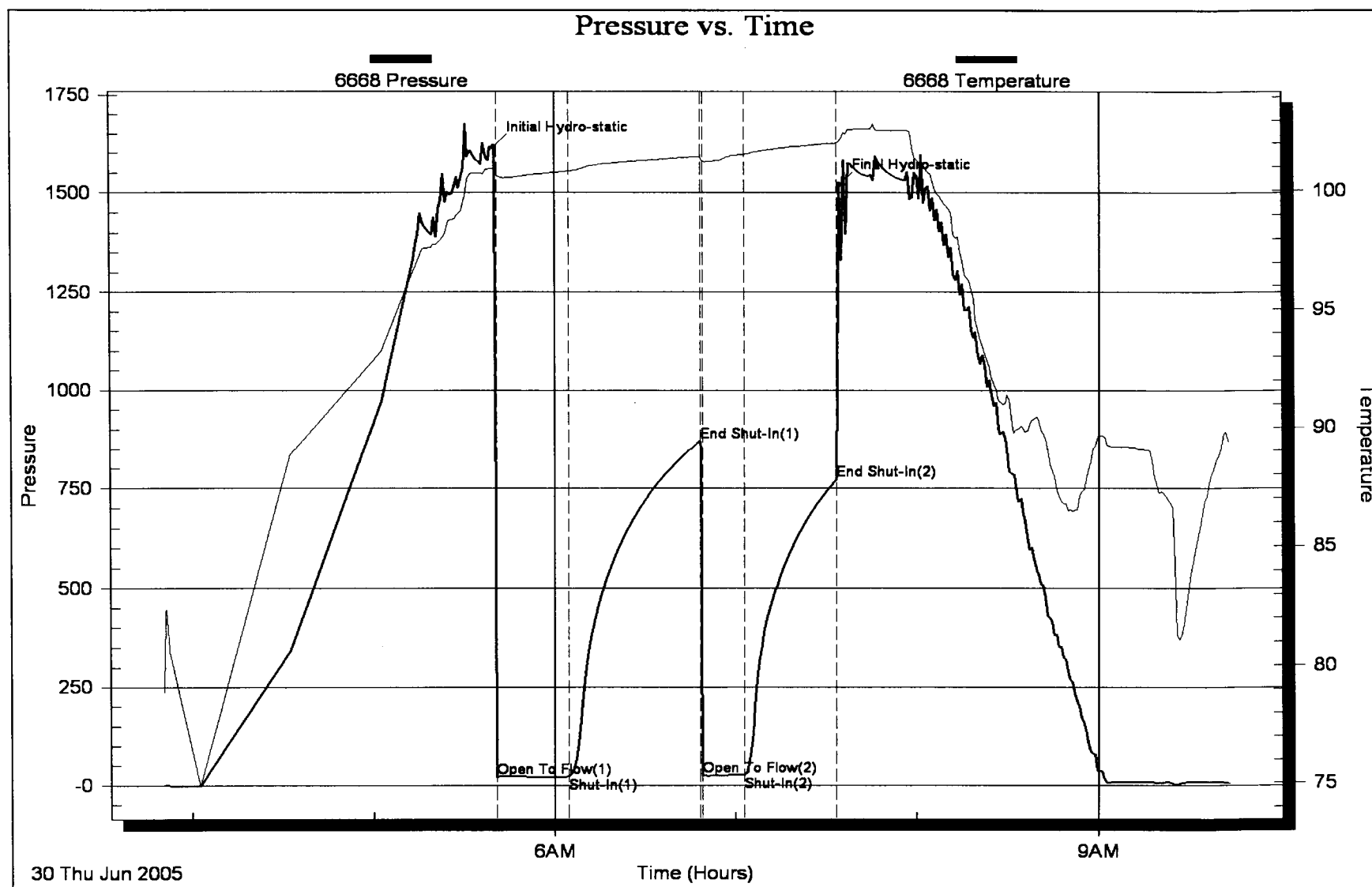
Num Gas Bombs: 0

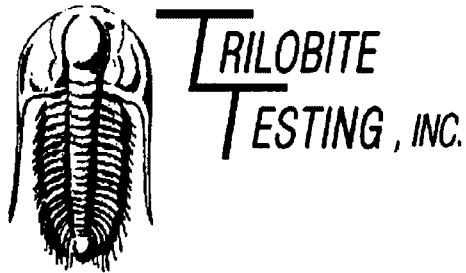
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





DRILL STEM TEST REPORT

Prepared For: **Samuel Gary Jr. & Associates**

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Denver CO 80202

ATTN: Tom Fertal

11-16S-11W

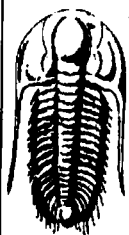
Houska #1-11

Start Date: 2005.06.30 @ 17:10:09

End Date: 2005.07.01 @ 00:27:54

Job Ticket #: 20717 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
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**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Samuel Gary Jr. & Associates

1670 Broadway Ste 3300
Denver CO 80202

ATTN: Tom Fertal

Houska #1-11

11-16S-11W

Job Ticket: 20717

DST#: 2

Test Start: 2005.06.30 @ 17:10:09

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: **No** Whipstock: **ft (KB)**

Time Tool Opened: 18:28:24

Time Test Ended: 00:27:54

Test Type: **Conventional Bottom Hole**

Tester: **Darren L. Amerine**

Unit No: **30**

Interval: **3285.00 ft (KB) To 3300.00 ft (KB) (TVD)**

Total Depth: **3300.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Fair**

Reference Elevations: **1805.00 ft (KB)**

1800.00 ft (CF)

KB to GR/CF: **5.00 ft**

Serial #: 6668 **Inside**

Press@RunDepth: **109.71 psig @ 3287.00 ft (KB)**

Start Date: **2005.06.30**

End Date:

2005.07.01

Start Time: **17:10:10**

End Time:

00:27:54

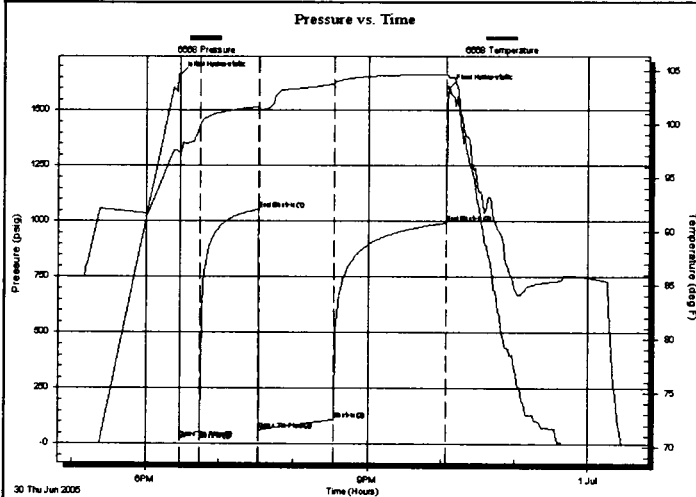
Capacity: **7000.00 psig**

Last Calib.: **2005.07.01**

Time On Btm: **2005.06.30 @ 18:27:54**

Time Off Btm: **2005.06.30 @ 22:05:39**

TEST COMMENT: IF: Weak blow built to 6" in H₂O bucket.
IS: Bled down for 2 mins. no blow back.
FF: Fair blow built to b.o.b in 58 min.
FS: Bled down for 5 mins. no blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1659.10	97.37	Initial Hydro-static
1	23.68	97.29	Open To Flow (1)
17	55.20	99.85	Shut-In (1)
64	1053.45	101.62	End Shut-In (1)
65	62.75	101.43	Open To Flow (2)
125	109.71	103.76	Shut-In (2)
216	993.27	104.62	End Shut-In (2)
218	1602.94	104.38	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
190.00	free oil	1.58
65.00	SMCO 10% mud 90% oil	0.91

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

Samuel Gary Jr. & Associates

Houska #1-11

1670 Broadway Ste 3300
Denver CO 80202

11-16S-11W

Job Ticket: 20717

DST#: 2

ATTN: Tom Fertal

Test Start: 2005.06.30 @ 17:10:09

Tool Information

Drill Pipe:	Length: 3154.00 ft	Diameter: 3.80 inches	Volume: 44.24 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: lb
		Total Volume: 44.83 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 32000.00 lb
Depth to Top Packer:	3285.00 ft			Final lb
Depth to Bottom Packer:	ft			
Interval between Packers:	15.00 ft			
Tool Length:	47.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

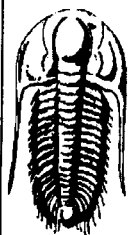
Tool Comments:

Tool Description

Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00		3254.00	
Shut In Tool	5.00		3259.00	
Sampler	3.00		3262.00	
Hydraulic tool	5.00		3267.00	
Jars	5.00		3272.00	
Safety Joint	3.00		3275.00	
Packer	5.00		3280.00	32.00 Bottom Of Top Packer
Packer	5.00		3285.00	
Stubb	2.00		3287.00	
Recorder	0.00	6668 Inside	3287.00	
Perforations	10.00		3297.00	
Recorder	0.00	13266 Outside	3297.00	
Bullnose	3.00		3300.00	15.00 Bottom Packers & Anchor

Total Tool Length: 47.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Samuel Gary Jr. & Associates

Houska #1-11

1670 Broadway Ste 3300
Denver CO 80202

11-16S-11W

Job Ticket: 20717

DST#: 2

ATTN: Tom Fertal

Test Start: 2005.06.30 @ 17:10:09

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

40 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.50 ohm.m

Gas Cushion Pressure:

psig

Salinity: 11000.00 ppm

Filter Cake: 0.32 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
190.00	free oil	1.581
65.00	SMCO 10% mud 90% oil	0.912

Total Length: 255.00 ft

Total Volume: 2.493 bbl

Num Fluid Samples: 0

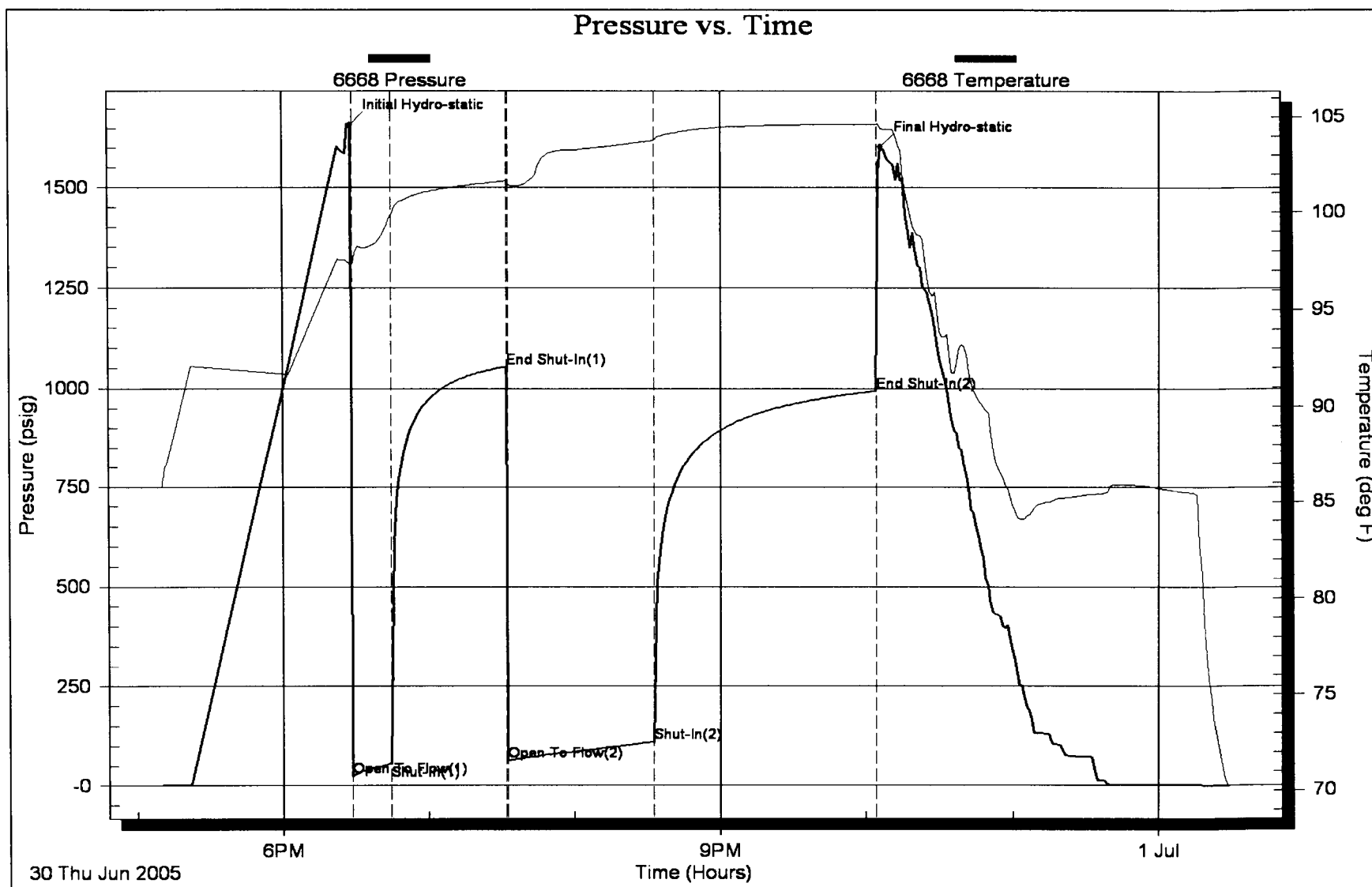
Num Gas Bombs: 0

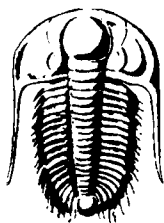
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler recovery 250 4000ML oil.





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

05/03

TNV
7645

No 20716

Test Ticket

Well Name & No.	Houska #1-11		Test No.	#1	Date	6-30-05
Company	Samuel Gary Jr. & Associates, Inc.		Zone Tested	Arbuckle		
Address	1670 Broadway, Suite 3300 Denver, Co. 80202		Elevation	1805'	KB	1800'
Co. Rep / Geo.	Tom Fertal	Cont.	Petromark	Est. Ft. of Pay		Por. %
Location: Sec.	11	Twp.	16S	Rge.	11 W	Co. Barton, Co. State KS
No. of Copies	5	Disbtribution Sheet (Y, N)		Turnkey (Y, N)		Evaluation (Y, N)

Interval Tested	3254' - 3290'	Initial Str Wt./Lbs.	28000	Unseated Str Wt/Lbs.	28000
Anchor Length	36'	Wt. Set Lbs.	20000	Wt. Pulled Loose/Lbs.	75000
Top Packer Depth	3249'	Tool Weight	2100		
Bottom Packer Depth	3254'	Hole Size 7 7/8"	✓	Rubber Size 6 3/4"	✓
Total Depth	3290'	Wt. Pipe Run	N/A	Drill Collar Run	N/A
Mud Wt.	9.0 LCM -0- Vis. 58 WL 80	Drill Pipe Size	4 1/2 x 11	Ft. Run	3248'

Blow Description: 1 F' Weak surface blow built to 1/4" in 1/2" bucket
 15' Blid down for 5 mins. No blow back
 FF: No blow
 FSI: No blow back

Recovery - Total Feet	3'	GIP	Trace	Ft. in DC	N/A	Ft. in DP	3'
Rec.	3'	Feet of	SMCO	%gas	85	%oil	%water 10 %mud
Rec.	Trace	Feet of	OF BIP	%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
Rec.		Feet of		%gas		%oil	%water %mud
BHT	102"	°F Gravity	40	°API D @	70	°F Corrected Gravity	°API
RW		@	°F	Chlorides	ppm Recovery	Chlorides 12,000	ppm System

	AK-1	Alpine		Recorder No.	Test
(A) Initial Hydrostatic Mud	1616	PSI	6668	950	
(B) First Initial Flow Pressure	20	PSI	(depth) 3255'	Elec. Rec. ✓	
(C) First Final Flow Pressure	22	PSI	Recorder No. 13266	Jars ✓ 200	
(D) Initial Shut-In Pressure	870	PSI	(depth) 3287'	Safety Jt. ✓ 50	
(E) Second Initial Flow Pressure	24	PSI	Recorder No.	Circ Sub	
(F) Second Final Flow Pressure	35	PSI	(depth)	Sampler ✓ 200	
(G) Final Shut-In Pressure	772	PSI	Initial Opening 20	Straddle	
(Q) Final Hydrostatic Mud	1519	PSI	Initial Shut-In 45	Ext. Packer	
			Final Flow 15	Shale Packer	
			Final Shut-In 30	Mileage 82 82	
			T-On Location 0300	Sub Total: 1482	
			T-Started 0350	Std. By	
			T-Open 0540	Other	
			T-Pulled 0230	Total:	
			T-Out 0942		

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Approved By *[Signature]*
 Our Representative *[Signature]*

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. #20716 Date 6-30-05
Company Name Samuel Gary & Associates
Lease Nov Sta #1-11 Test No. #1 Arpuckle
County Barton Co, KS Sec. 11 Twp. 16S Rng. 11W

SAMPLER RECOVERY

Gas Trace ML
Oil 3500 ML
Mud 500 ML
Water N/A ML
Other N/A ML
Pressure 450 PSI
Total 4000 ML

PIT MUD ANALYSIS

Chlorides 12000 ppm.
Resistivity 0.5 ohms @ 75 F
Viscosity 58
Mud Weight 9.0
Filtrate 8.0
Other 5

SAMPLER ANALYSIS

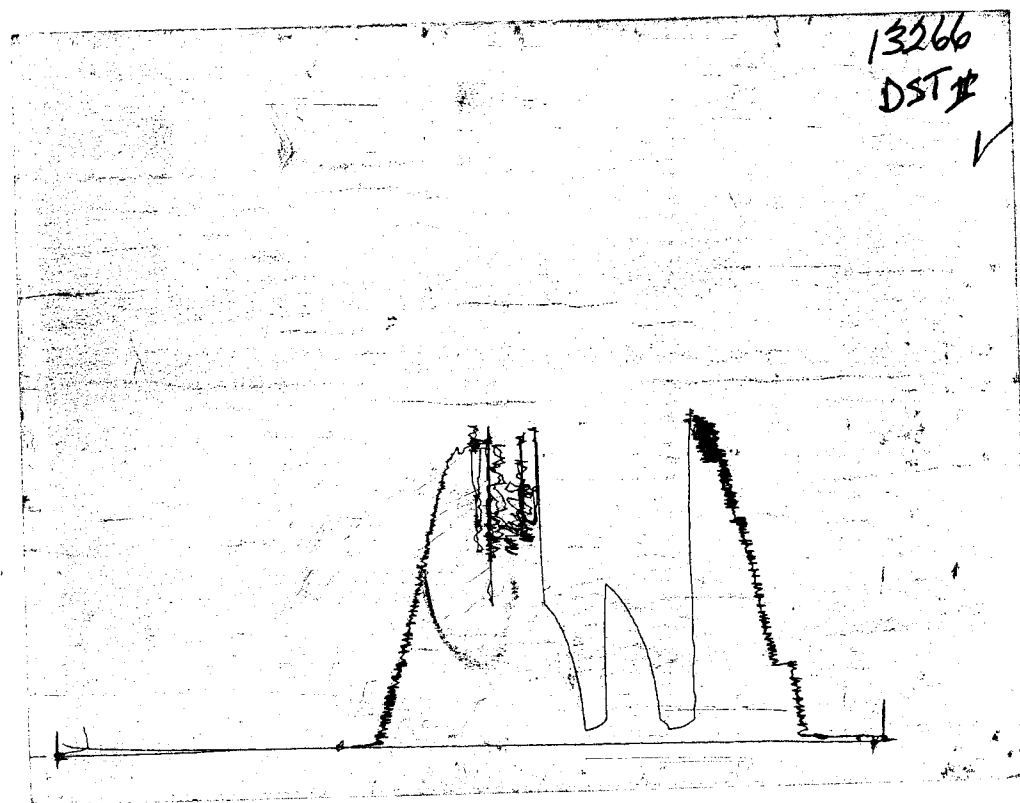
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
Gravity _____ corrected @ 60 F

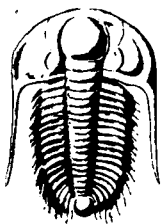
PIPE RECOVERY

TOP
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
MIDDLE
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
BOTTOM
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.

CHART PAGE

This is a photocopy of the actual AK-1 recorder chart.





TRILOBITE TESTING INC.

P.O. Box 362 • Hays, Kansas 67601

No 20717

05/03

Test Ticket

Well Name & No. <u>Houska #1-11</u>	Test No. <u>#2</u>	Date <u>6-30-05</u>
Company <u>Samuel Gary & Associates, Inc. 1670</u>	Zone Tested <u>Arbuckle</u>	
Address <u>Brookway Suite 3300 Denver, CO 80202</u>	Elevation <u>1805'</u> KB <u>1800'</u> GL	
Co. Rep / Geo. <u>Tom Fertal</u>	Cont. <u>Petromark</u>	Est. Ft. of Pay _____ Por. _____ %
Location: Sec. <u>11</u> Twp. <u>16S</u> Rge. <u>11W</u> Co. <u>Barton, Co.</u> State <u>KS</u>		
No. of Copies <u>5</u>	Disbtribution Sheet (Y, N) _____	Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested <u>3285' - 3300'</u>	Initial Str Wt./Lbs. <u>32000</u>	Unseated Str Wt/Lbs. <u>33000</u>
Anchor Length <u>15'</u>	Wt. Set Lbs. <u>20,000</u>	Wt. Pulled Loose/Lbs. <u>35,000</u>
Top Packer Depth <u>3280'</u>	Tool Weight <u>2100</u>	
Bottom Packer Depth <u>3285'</u>	Hole Size <u>7 7/8"</u> ✓	Rubber Size <u>6 3/4"</u> ✓
Total Depth <u>3300'</u>	Wt. Pipe Run <u>N/A</u>	Drill Collar Run <u>119'</u>
Mud Wt. <u>93</u> LCM <u>0</u> Vis. <u>54</u> WL <u>0.8</u>	Drill Pipe Size <u>4 1/2 x 4</u>	Ft. Run <u>3154'</u>
Blow Description <u>IF: Weak blow built to 6" in 1020 bucket</u>		
<u>ISI: Bled down for 2 mins. No blow back</u>		
<u>FF: Spgr blow built to 6.0.6 in 58 mins.</u>		
<u>ISI: Bled down for 5 mins.</u>		
Recovery - Total Feet <u>255'</u>	GIP <u>N/A</u>	Ft. in DC <u>119'</u> Ft. in DP <u>136'</u>
Rec. <u>190'</u>	Feet of <u>Free Oil</u>	%gas <u>100</u> %oil _____ %water _____ %mud _____
Rec. <u>65'</u>	Feet of <u>SMCO</u>	%gas <u>90</u> %oil _____ %water <u>10</u> %mud _____
Rec. _____	Feet of _____	%gas _____ %oil _____ %water _____ %mud _____
Rec. _____	Feet of _____	%gas _____ %oil _____ %water _____ %mud _____
Rec. _____	Feet of _____	%gas _____ %oil _____ %water _____ %mud _____
BHT <u>105°</u>	°F Gravity <u>40°</u>	°API D @ <u>70</u> °F Corrected Gravity _____ °API _____
RW _____ @ _____ °F	Chlorides <u>N/A</u> ppm Recovery <u>N/A</u>	Chlorides <u>11,000</u> ppm System _____

(A) Initial Hydrostatic Mud	AK-1 <u>1659</u> PSI	Alpine	Recorder No. <u>6660</u>	Test <u>✓</u> <u>950</u>
(B) First Initial Flow Pressure	<u>24</u> PSI		(depth) <u>3287'</u>	Elec. Rec. <u>✓</u>
(C) First Final Flow Pressure	<u>55</u> PSI		Recorder No. <u>13266</u>	Jars <u>✓</u> <u>200</u>
(D) Initial Shut-In Pressure	<u>1053</u> PSI		(depth) <u>3297'</u>	Safety Jt. <u>✓</u> <u>50</u>
(E) Second Initial Flow Pressure	<u>63</u> PSI		Recorder No. _____	Circ Sub _____
(F) Second Final Flow Pressure	<u>110</u> PSI		(depth) _____	Sampler <u>✓</u> <u>200</u>
(G) Final Shut-In Pressure	<u>993</u> PSI	Initial Opening <u>20</u>	Initial Shut-In <u>45</u>	Straddle _____
(Q) Final Hydrostatic Mud	<u>1603</u> PSI	Final Flow <u>60</u>	Final Shut-In <u>90</u>	Ext. Packer _____
TRILOBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGED OF ANY KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR WHOM A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, DIRECTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, OR ITS STATEMENTS OR OPINION CONCERNING THE RESULTS OF ANY TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.			T-On Location <u>1675</u>	Shale Packer _____
			T-Started <u>1709</u>	Mileage _____
			T-Open <u>1825</u>	Sub Total: <u>1900</u>
			T-Pulled <u>2200</u>	Std. By _____
			T-Out <u>0027</u>	Other _____
				Total: _____

Approved By J. Reese

Our Representative Darren D. Danner

TRILOBITE TESTING L.L.C.

P.O. Box 362 - Hays, Kansas 67601

FLUID SAMPLER DATA

Ticket No. 20917 Date 6-30-05
Company Name Samuel Eary Jr. & Associates
Lease Houska #1-11 Test No. #2
County _____ Sec. 11 Twp. 16^S Rng. 11 W

SAMPLER RECOVERY

Gas N/A ML
Oil None ML
Mud — ML
Water — ML
Other — ML
Pressure 250 PSI
Total 4000 ML

PIT MUD ANALYSIS

Chlorides 11,900 ppm.
Resistivity 0.5 ohms @ 75[°] F
Viscosity 54
Mud Weight 9.3
Filtrate 8.8
Other N/A

SAMPLER ANALYSIS

Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
Gravity _____ corrected @ 60 F

PIPE RECOVERY

TOP
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
MIDDLE
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.
BOTTOM
Resistivity _____ ohms @ _____ F
Chlorides _____ ppm.