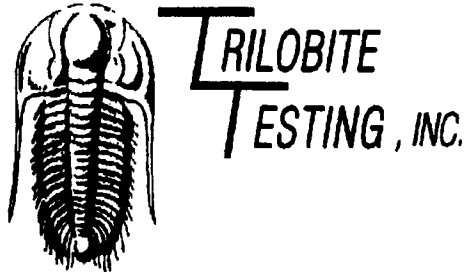


8-7s-23w

08-07s-23w
NE NE SE



DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating Inc**

PO Box 86
Plainville KS 67663

ATTN: Rick Hall

8 7 23W Graham KS

Roberts # 8-1

Start Date: 2007.11.12 @ 04:18:10

End Date: 2007.11.12 @ 11:50:40

Job Ticket #: 30484 DST #: 1

15-065-23366

RECEIVED

DEC 05 2007

KCC WICHITA

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

H & C Oil Operating Inc

Roberts # 8-1

8 7 23W Graham KS

DST # 1

LKC "C"

2007.11.12



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

H & C Oil Operating Inc

PO Box 86
Plainville KS 67663

ATTN: Rick Hall

Roberts # 8-1

8 7 23W Graham KS

Job Ticket: 30484

DST#: 1

Test Start: 2007.11.12 @ 04:18:10

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:09:10

Time Test Ended: 11:50:40

Test Type: Conventional Bottom Hole

Tester: Tyson Flax

Unit No: 21

Interval: **3706.00 ft (KB) To 3730.00 ft (KB) (TVD)**

Total Depth: 3730.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2424.00 ft (KB)

2417.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8320

Inside

Press@RunDepth: 53.53 psig @ 3707.00 ft (KB)

Start Date: 2007.11.12

End Date:

2007.11.12

Capacity: 7000.00 psig

Last Calib.: 2007.11.12

Start Time: 04:18:11

End Time:

11:50:40

Time On Btm: 2007.11.12 @ 07:08:10

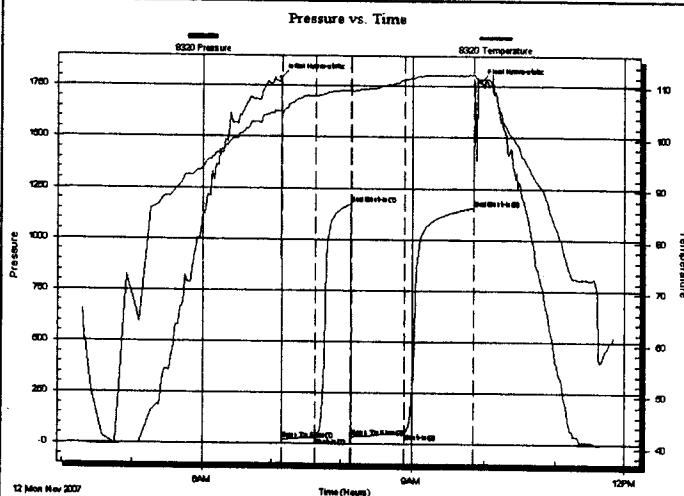
Time Off Btm: 2007.11.12 @ 09:56:10

TEST COMMENT: IFP Weak sur face blow built to 5 "

ISI No blow back

FFP Weak surface blow built to 8.5 "

FSI No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1789.62	105.54	Initial Hydro-static
1	19.73	105.22	Open To Flow (1)
30	30.43	108.38	Shut-in(1)
60	1172.27	109.55	End Shut-in(1)
61	34.62	109.61	Open To Flow (2)
106	53.53	111.55	Shut-in(2)
163	1155.71	112.57	End Shut-in(2)
168	1769.57	111.66	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	MCO 70%O 30%M	1.28

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

H & C Oil Operating Inc

Roberts # 8-1

PO Box 86
Plainville KS 67663

8 7 23W Graham KS

Job Ticket: 30484

DST#: 1

ATTN: Rick Hall

Test Start: 2007.11.12 @ 04:18:10

Tool Information

Drill Pipe:	Length: 3708.00 ft	Diameter: 3.82 inches	Volume: 52.56 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			Total Volume: 52.56 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3706.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	24.00 ft				
Tool Length:	52.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3679.00	
Shut In Tool	5.00			3684.00	
Hydraulic tool	5.00			3689.00	
Jars	5.00			3694.00	
Safety Joint	2.00			3696.00	
Packer	5.00			3701.00	28.00 Bottom Of Top Packer
Packer	5.00			3706.00	
Stubb	1.00			3707.00	
Recorder	0.00	8320	Inside	3707.00	
Perforations	20.00			3727.00	
Recorder	0.00	13401	Inside	3727.00	
Bullnose	3.00			3730.00	24.00 Bottom Packers & Anchor

Total Tool Length: 52.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

H & C Oil Operating Inc

Roberts # 8-1

PO Box 86
Plainville KS 67663

8 7 23W Graham KS

Job Ticket: 30484

DST#: 1

ATTN: Rick Hall

Test Start: 2007.11.12 @ 04:18:10

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: 45.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	MCO 70%O 30%M	1.276

Total Length: 90.00 ft

Total Volume: 1.276 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

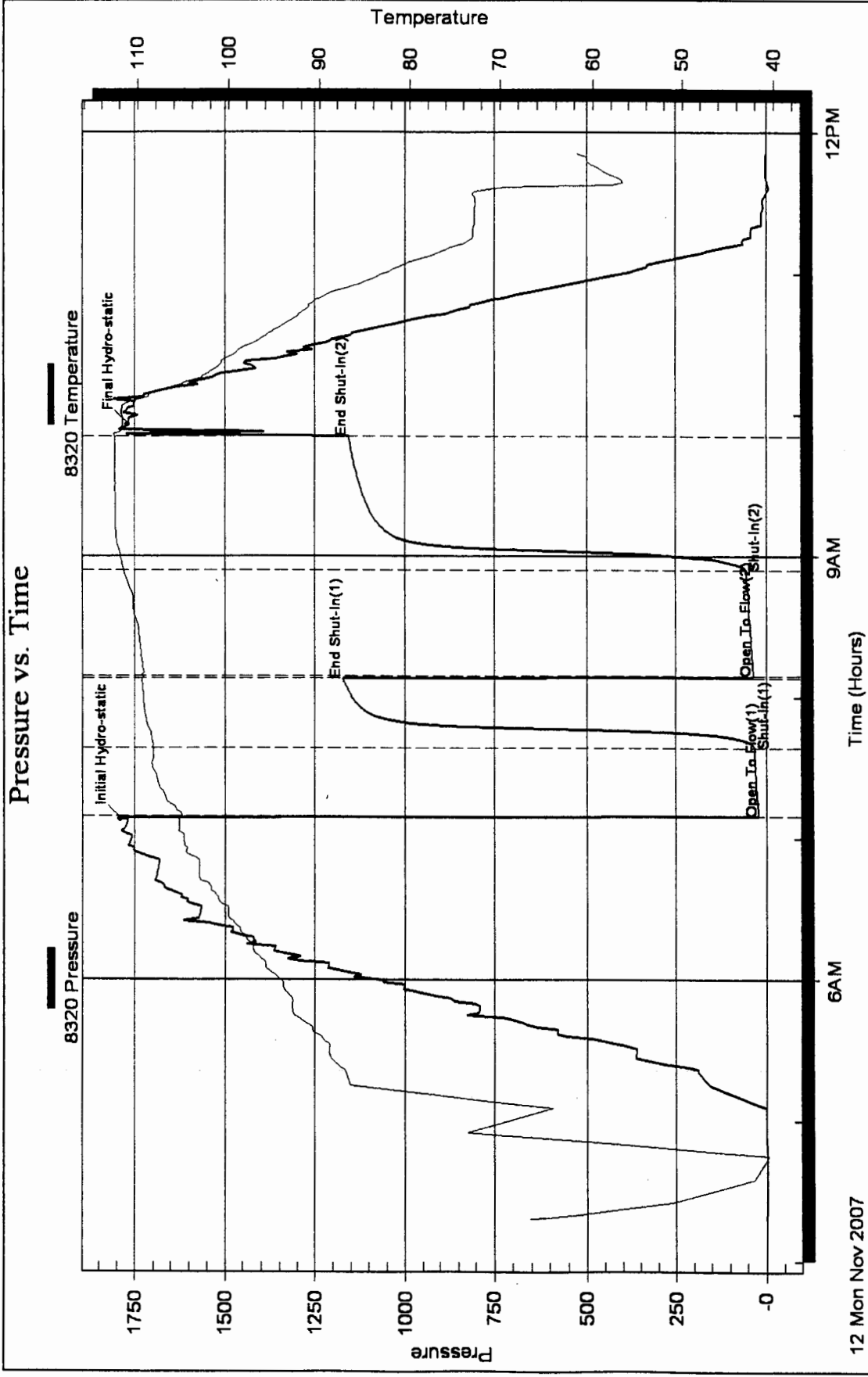
Serial #:

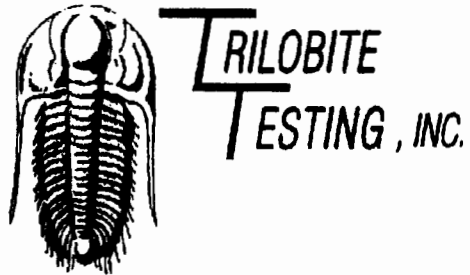
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating Inc**

PO Box 86
Plainville KS 67663

ATTN: Rick Hall

8 7 23W Graham KS

Roberts # 8-1

Start Date: 2007.11.12 @ 23:00:22

End Date: 2007.11.13 @ 04:49:52

Job Ticket #: 30485 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

H & C Oil Operating Inc

Roberts # 8-1

PO Box 86
Plainville KS 67663

8 7 23W Graham KS

Job Ticket: 30485

DST#: 2

ATTN: Rick Hall

Test Start: 2007.11.12 @ 23:00:22

GENERAL INFORMATION:

Formation: **LKC "D-F"**

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

Time Tool Opened: 00:52:22

Time Test Ended: 04:49:52

Test Type: **Conventional Bottom Hole**

Tester: **Tyson Flax**

Unit No: **21**

Interval: **3729.00 ft (KB) To 3757.00 ft (KB) (TVD)**

Total Depth: **3757.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **2424.00 ft (KB)**

2417.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8320

Inside

Press@RunDepth: **24.25 psig @ 3730.00 ft (KB)**

Start Date: **2007.11.12**

End Date:

2007.11.13

Capacity: **7000.00 psig**

Last Calib.: **2007.11.13**

Start Time: **23:00:23**

End Time:

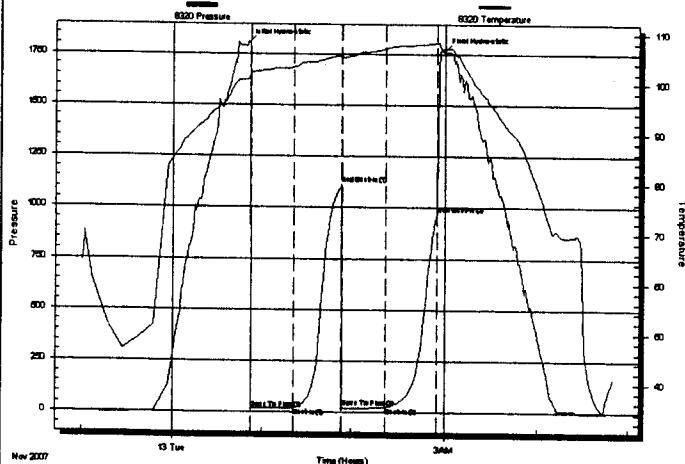
04:49:52

Time On Btm: **2007.11.13 @ 00:50:52**

Time Off Btm: **2007.11.13 @ 02:59:22**

TEST COMMENT: IFP Weak surface blow built to 2 "
ISI Weak surface blow back throughout
FFP Weak surface blow built to 2 "
FSI No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1800.18	100.73	Initial Hydro-static
2	17.11	102.16	Open To Flow (1)
31	20.90	103.27	Shut-in (1)
63	1112.60	105.66	End Shut-in (1)
63	23.31	105.34	Open To Flow (2)
91	24.25	107.07	Shut-in (2)
124	968.60	108.22	End Shut-in (2)
129	1760.00	107.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	OCM 40%O 60%M	0.35

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

H & C Oil Operating Inc

Roberts # 8-1

PO Box 86
Plainville KS 67663

8 7 23W Graham KS

Job Ticket: 30485

DST#: 2

ATTN: Rick Hall

Test Start: 2007.11.12 @ 23:00:22

Tool Information

Drill Pipe:	Length: 3715.00 ft	Diameter: 3.82 inches	Volume: 52.66 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			Total Volume: 52.66 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	48000.00 lb
Depth to Top Packer:	3729.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	28.00 ft				
Tool Length:	56.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3702.00	
Shut In Tool	5.00			3707.00	
Hydraulic tool	5.00			3712.00	
Jars	5.00			3717.00	
Safety Joint	2.00			3719.00	
Packer	5.00			3724.00	28.00 Bottom Of Top Packer
Packer	5.00			3729.00	
Stubb	1.00			3730.00	
Recorder	0.00	8320	Inside	3730.00	
Perforations	24.00			3754.00	
Recorder	0.00	13401	Inside	3754.00	
Bullnose	3.00			3757.00	28.00 Bottom Packers & Anchor

Total Tool Length: 56.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

H & C Oil Operating Inc

Roberts # 8-1

PO Box 86
Plainville KS 67663

8 7 23W Graham KS

Job Ticket: 30485

DST#: 2

ATTN: Rick Hall

Test Start: 2007.11.12 @ 23:00:22

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 58.00 sec/qt

Water Loss: 8.79 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	OCM 40%O 60%M	0.354

Total Length: 25.00 ft

Total Volume: 0.354 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

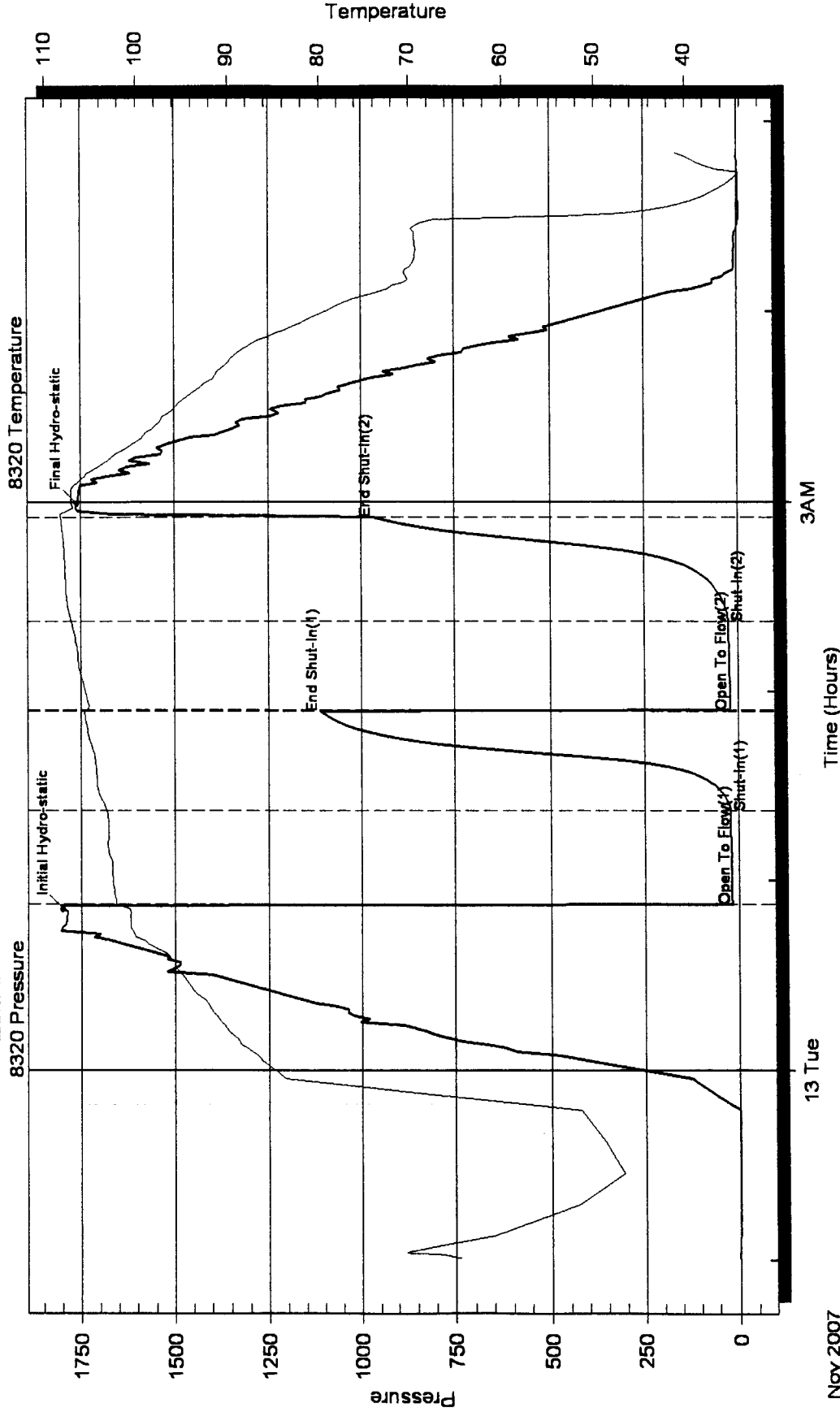
Serial #:

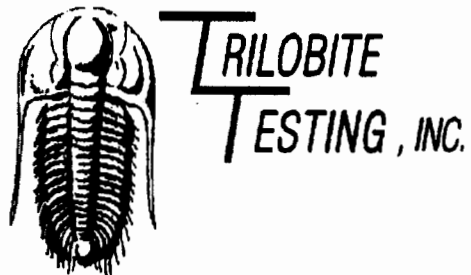
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating Inc**

PO Box 86
Plainville KS 67663

ATTN: Rick Hall

8 7 23W Graham KS

Roberts # 8-1

Start Date: 2007.11.13 @ 16:00:22

End Date: 2007.11.13 @ 22:25:45

Job Ticket #: 30486 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

H & C Oil Operating Inc

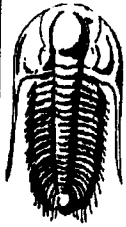
Roberts # 8-1

8 7 23W Graham KS

DST # 3

LKC "J"

2007.11.13



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

H & C Oil Operating Inc

PO Box 86
Rainville KS 67663

ATTN: Rick Hall

Roberts # 8-1

8 7 23W Graham KS

Job Ticket: 30486

DST#: 3

Test Start: 2007.11.13 @ 16:00:22

GENERAL INFORMATION:

Formation: **LKC "J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:02:15

Time Test Ended: 22:25:45

Interval: **3831.00 ft (KB) To 3854.00 ft (KB) (TVD)**

Total Depth: 3854.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Test Type: Conventional Bottom Hole

Tester: Tyson Flax

Unit No: 21

Reference Elevations: 2424.00 ft (KB)

2417.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8320

Inside

Press@RunDepth: 38.17 psig @ 3832.00 ft (KB)

Start Date: 2007.11.13

End Date:

2007.11.14

Capacity: 7000.00 psig

Last Calib.: 2007.11.13

Start Time: 16:00:23

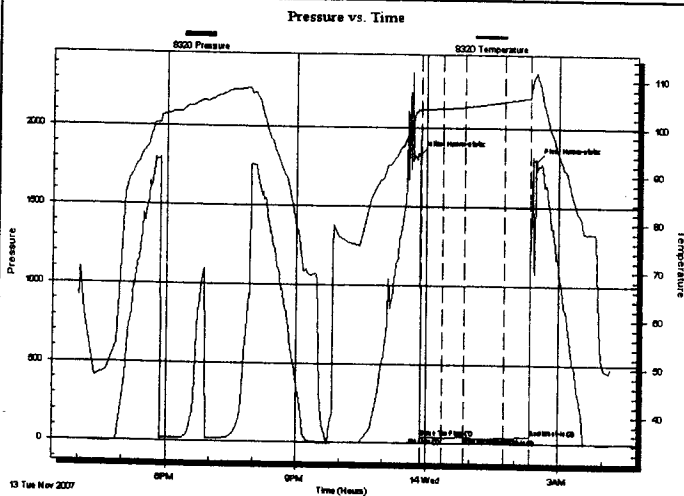
End Time:

04:11:44

Time On Btm: 2007.11.13 @ 23:50:45

Time Off Btm: 2007.11.14 @ 02:29:15

TEST COMMENT: IFP Weak surface blow built to 1/4" blew throughout
ISI No blow back
FFP Weak surface blow died in 3 min
FSI No blow back



PRESSURE SUMMARY

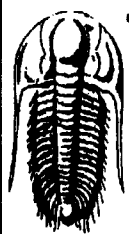
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1830.09	103.83	Initial Hydro-static
2	37.96	103.25	Open To Flow (1)
32	36.15	104.08	Shut-In(1)
61	46.95	104.44	End Shut-In(1)
62	36.78	104.45	Open To Flow (2)
116	38.17	105.62	Shut-In(2)
151	47.55	106.44	End Shut-In(2)
159	1794.82	111.57	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	Mud w/scum of Oil	0.57

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

H & C Oil Operating Inc

Roberts # 8-1

PO Box 86
Plainville KS 67663

8 7 23W Graham KS

Job Ticket: 30486

DST#: 3

ATTN: Rick Hall

Test Start: 2007.11.13 @ 16:00:22

Tool Information

Drill Pipe:	Length: 3809.00 ft	Diameter: 3.82 inches	Volume: 53.99 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	100000.0 lb
			Total Volume: 53.99 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3831.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	23.00 ft				
Tool Length:	51.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3804.00	
Shut In Tool	5.00			3809.00	
Hydraulic tool	5.00			3814.00	
Jars	5.00			3819.00	
Safety Joint	2.00			3821.00	
Packer	5.00			3826.00	28.00 Bottom Of Top Packer
Packer	5.00			3831.00	
Stubb	1.00			3832.00	
Recorder	0.00	8320	Inside	3832.00	
Perforations	19.00			3851.00	
Recorder	0.00	13401	Inside	3851.00	
Bullnose	3.00			3854.00	23.00 Bottom Packers & Anchor
Total Tool Length:		51.00			



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

H & C Oil Operating Inc

Roberts # 8-1

PO Box 86
Plainville KS 67663

8 7 23W Graham KS

Job Ticket: 30486

DST#: 3

ATTN: Rick Hall

Test Start: 2007.11.13 @ 16:00:22

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 45.00 sec/qt

Water Loss: 8.99 in³

Resistivity: ohm.m

Salinity: 1000.00 ppm

Filter Cake: inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	Mud w/scum of Oil	0.567

Total Length: 40.00 ft

Total Volume: 0.567 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

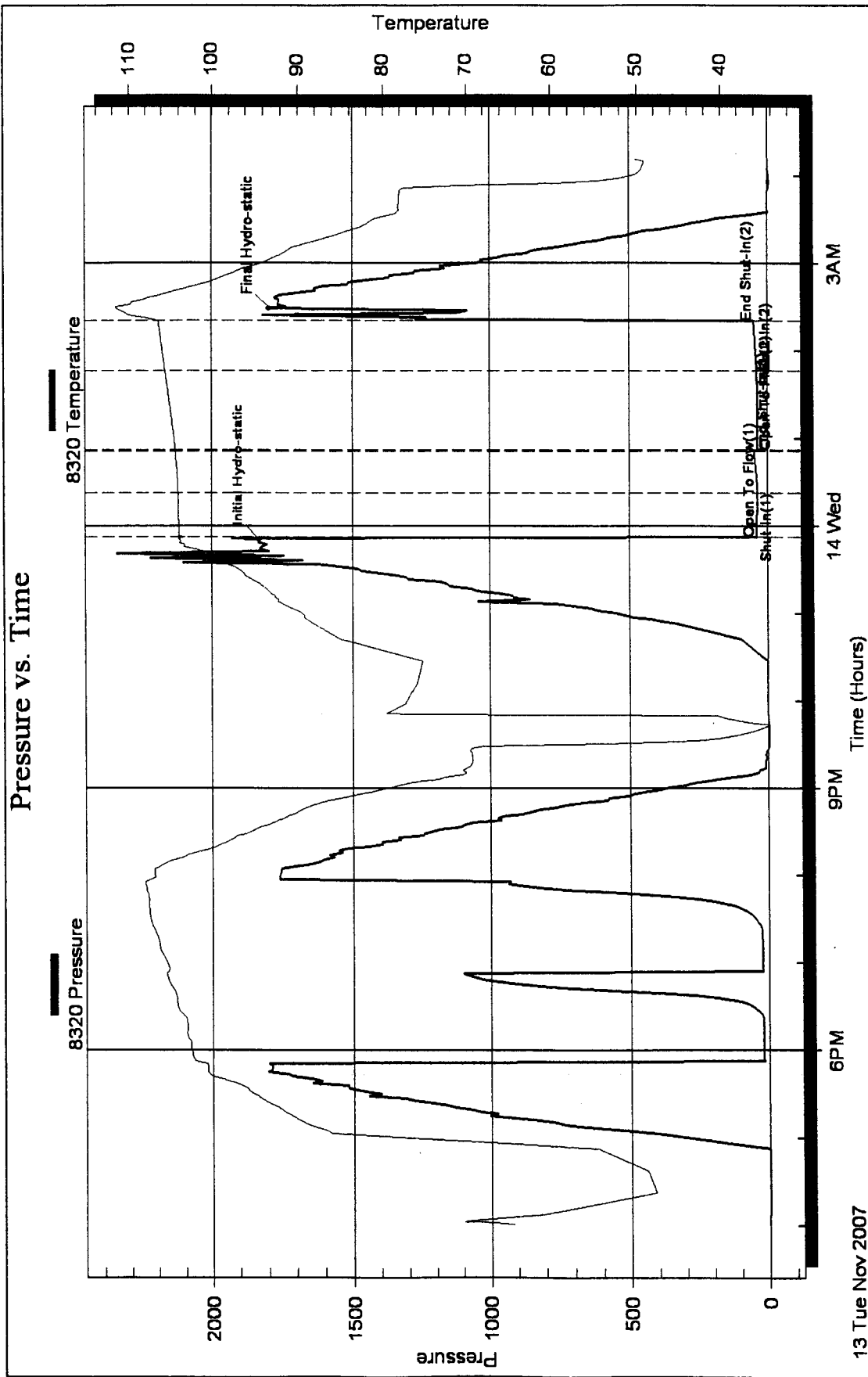
Serial #:

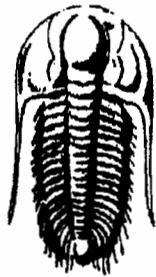
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **H & C Oil Operating Inc**

PO Box 86
Plainville KS 67663

ATTN: Rick Hall

8 7 23W Graham KS

Roberts # 8-1

Start Date: 2007.11.14 @ 06:20:08

End Date: 2007.11.14 @ 12:32:38

Job Ticket #: 30487 DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

H & C Oil Operating Inc

Roberts # 8-1

8 7 23W Graham KS

DST # 4

LKC "K-L"

2007.11.14



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

H & C Oil Operating Inc

PO Box 86
Plainville KS 67663

ATTN: Rick Hall

Roberts # 8-1

8 7 23W Graham KS

Job Ticket: 30487

DST#: 4

Test Start: 2007.11.14 @ 06:20:08

GENERAL INFORMATION:

Formation: **LKC "K-L"**

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

Time Tool Opened: 08:14:38

Time Test Ended: 12:32:38

Interval: **3850.00 ft (KB) To 3882.00 ft (KB) (TVD)**

Total Depth: **3882.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Test Type: **Conventional Bottom Hole**

Tester: **Tyson Flax**

Unit No: **21**

Reference Elevations: **2424.00 ft (KB)**

2417.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 8320

Inside

Press@RunDepth: **24.28 psig @ 3854.00 ft (KB)**

Start Date: **2007.11.14**

End Date:

2007.11.14

Capacity: **7000.00 psig**

Last Calib.: **2007.11.14**

Start Time: **06:20:09**

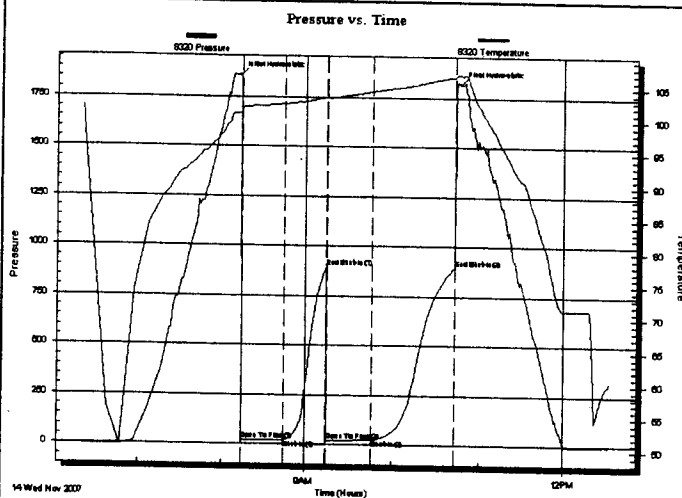
End Time:

12:32:38

Time On Btm: **2007.11.14 @ 08:13:08**

Time Off Btm: **2007.11.14 @ 10:46:38**

TEST COMMENT: IFP Weak surface blow built to 1.5 "
ISI No blow back
FFP Weak surface blow built to .5 "
FSI No blow back



PRESSURE SUMMARY

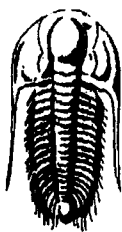
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1857.44	100.97	Initial Hydro-static
2	18.64	101.67	Open To Flow (1)
32	19.99	102.47	Shut-In(1)
62	894.20	103.50	End Shut-In(1)
62	23.42	103.45	Open To Flow (2)
93	24.28	104.41	Shut-In(2)
150	895.83	106.67	End Shut-In(2)
154	1818.98	106.97	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	OCM 10%O 90%M	0.35

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
--	----------------	-----------------	------------------



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

TOOL DIAGRAM

H & C Oil Operating Inc

Roberts # 8-1

PO Box 86
Plainville KS 67663

8 7 23W Graham KS

Job Ticket: 30487

DST#: 4

ATTN: Rick Hall

Test Start: 2007.11.14 @ 06:20:08

Tool Information

Drill Pipe:	Length: 3838.00 ft	Diameter: 3.82 inches	Volume: 54.41 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
		Total Volume:	54.41 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3850.00 ft			Final	50000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	32.00 ft				
Tool Length:	60.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3823.00	
Shut In Tool	5.00			3828.00	
Hydraulic tool	5.00			3833.00	
Jars	5.00			3838.00	
Safety Joint	2.00			3840.00	
Packer	5.00			3845.00	28.00 Bottom Of Top Packer
Packer	5.00			3850.00	
Stubb	1.00			3851.00	
Perforations	3.00			3854.00	
Recorder	0.00	8320	Inside	3854.00	
Perforations	25.00			3879.00	
Recorder	0.00	13401	Inside	3879.00	
Bullnose	3.00			3882.00	32.00 Bottom Packers & Anchor

Total Tool Length: 60.00



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

H & C Oil Operating Inc

Roberts # 8-1

PO Box 86
Plainville KS 67663

8 7 23W Graham KS

Job Ticket: 30487

DST#: 4

ATTN: Rick Hall

Test Start: 2007.11.14 @ 06:20:08

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: 45.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	OCM 10%O 90%M	0.354

Total Length: 25.00 ft

Total Volume: 0.354 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

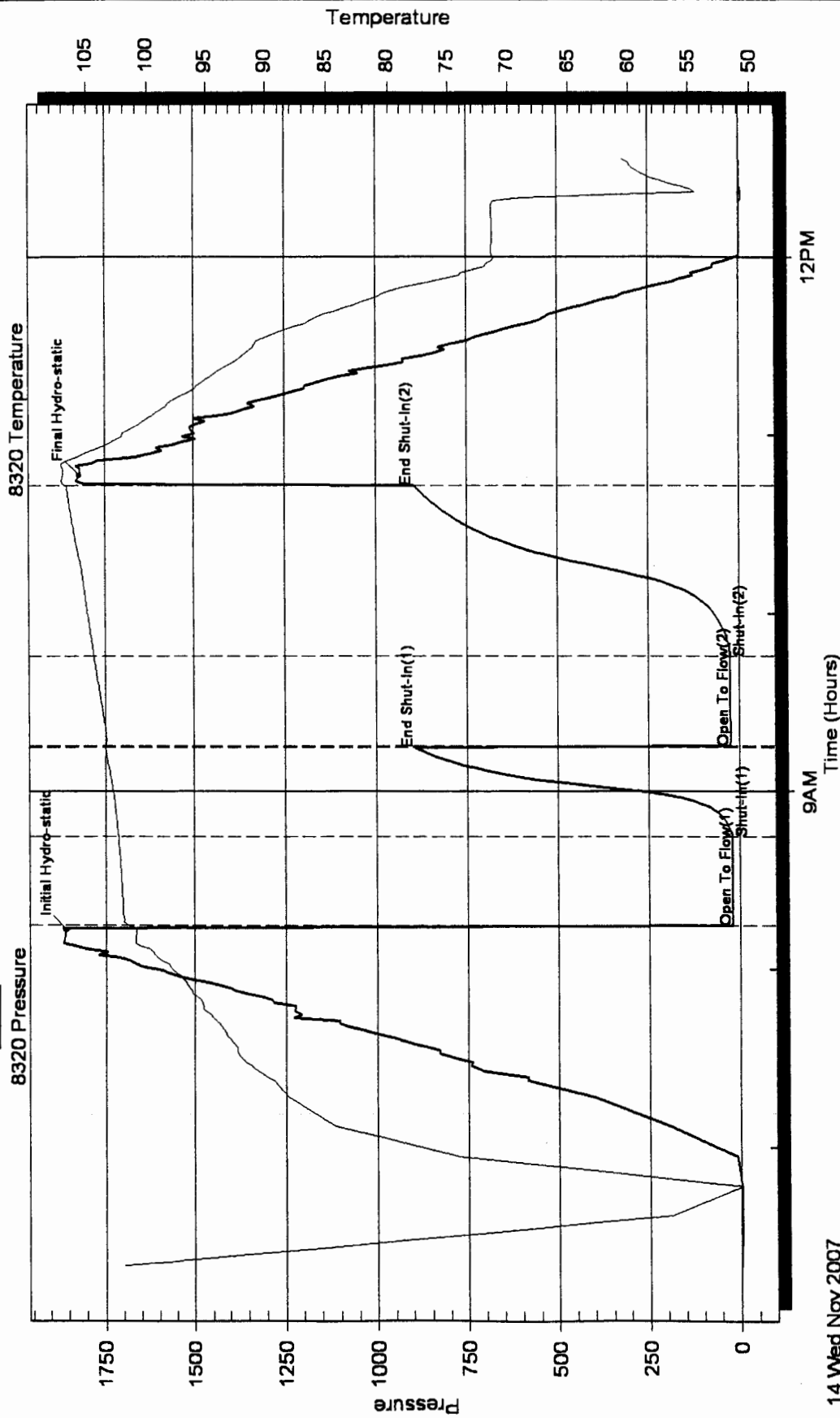
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



14 Wed Nov 2007