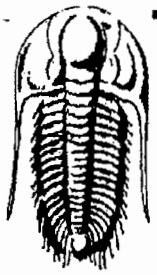
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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **ESP Development Inc.**

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

27-11s-15w Russell

Hagaman # 1

Start Date: 2003.05.11 @ 17:01:10
End Date: 2003.05.11 @ 22:55:25
Job Ticket #: 16960 DST #: 1

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

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

ESP Development Inc.

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

Hagaman # 1

27-11s-15w Russell

Job Ticket: 16960 **DST#: 1**

Test Start: 2003.05.11 @ 17:01:10

GENERAL INFORMATION:

Formation: **L.Kc.-A-C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:35:40
Time Test Ended: 22:55:25

Test Type: Conventional Bottom Hole
Tester: John Schmidt
Unit No: 18

Interval: 2954.00 ft (KB) To 3006.00 ft (KB) (TVD)
Total Depth: 3006.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

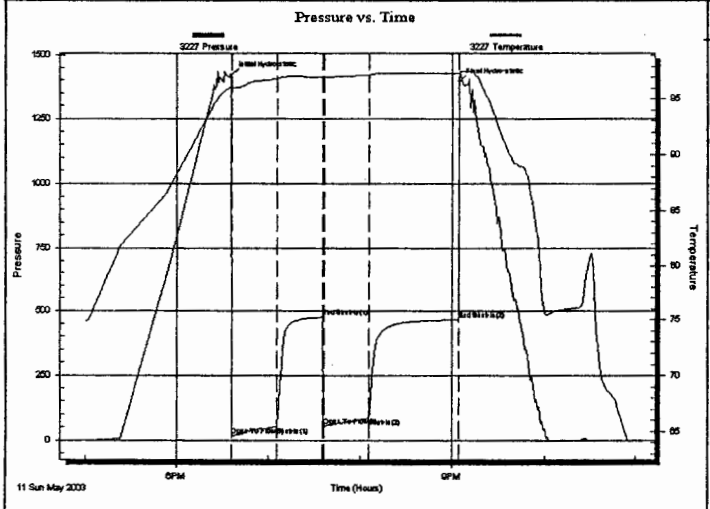
Reference Elevations: 1828.00 ft (KB)
1823.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 3227 **Inside**

Press@RunDepth: 83.93 psig @ 2957.01 ft (KB)
Start Date: 2003.05.11 End Date: 2003.05.11
Start Time: 17:01:11 End Time: 22:55:25

Capacity: 7000.00 psig
Last Calib.: 2003.05.11
Time On Btm: 2003.05.11 @ 18:35:25
Time Off Btm: 2003.05.11 @ 21:04:40

TEST COMMENT: IF-Strong B.O.B.10 min. ISI-Dead
FF-Good built to 10"in FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1421.49	96.13	Initial Hydro-static
1	18.34	96.03	Open To Flow (1)
30	51.79	96.88	Shut-In(1)
60	475.05	97.04	End Shut-In(1)
61	54.53	97.00	Open To Flow (2)
91	83.93	97.23	Shut-In(2)
149	465.07	97.34	End Shut-In(2)
150	1394.68	97.40	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	muddy salt water	0.84
90.00	drilling mud with oil stain	1.26
0.00	75' gas in pipe	0.00

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

ESP Development Inc.

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

Hagaman # 1

27-11s-15w Russell

Job Ticket: 16960 **DST#: 1**

Test Start: 2003.05.11 @ 17:01:10

Tool Information

Drill Pipe:	Length:	2951.00 ft	Diameter:	3.80 inches	Volume:	41.39 bbl	Tool Weight:	3000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:	60000.00 lb
					Total Volume:	41.39 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		17.00 ft					String Weight: Initial	48000.00 lb
Depth to Top Packer:		2954.00 ft					Final	50000.00 lb
Depth to Bottom Packer:		ft						
Interval betw een Packers:		52.02 ft						
Tool Length:		72.02 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			2935.00		
S.I. Tool	5.00			2940.00		
HMV	5.00			2945.00		
Packer	4.00			2949.00	20.00	Bottom Of Top Packer
Packer	5.00			2954.00		
Stubb	1.00			2955.00		
Perforations	1.00			2956.00		
C.O. Sub	1.00			2957.00		
Recorder	0.01	3227	Inside	2957.01		
Blank Spacing	31.00			2988.01		
C.O. Sub	1.00			2989.01		
Perforations	14.00			3003.01		
Recorder	0.01	13308	Outside	3003.02		
Bullnose	3.00			3006.02	52.02	Bottom Packers & Anchor
Total Tool Length:	**72.02**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

ESP Development Inc.

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

Hagaman # 1

27-11s-15w Russell

Job Ticket: 16960 **DST#: 1**

Test Start: 2003.05.11 @ 17:01:10

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:	65000 ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.18 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

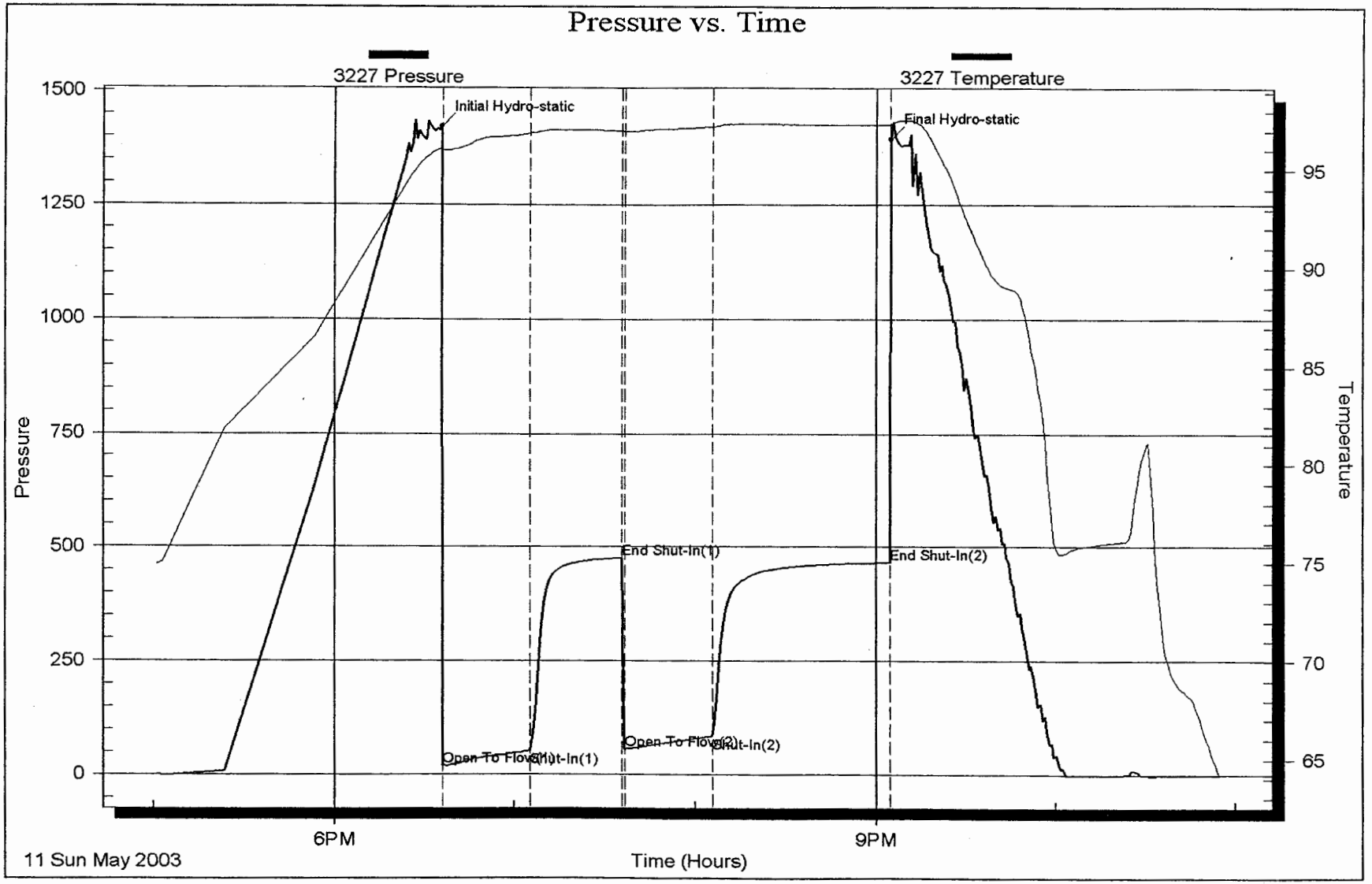
Length ft	Description	Volume bbl
60.00	muddy salt water	0.842
90.00	drilling mud with oil stain	1.262
0.00	75' gas in pipe	0.000

Total Length: 150.00 ft Total Volume: 2.104 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
3227 Pressure
3227 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1500
1250
1000
750
500
250
0
95
90
85
80
75
70
65
6PM
9PM
11 Sun May 2003
Time (Hours)

TRILOBITE TESTING INC.
P.O. Box 362 • Hays, Kansas 67601

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No. 16961

02

Test Ticket

Well Name & No. HAGAMAN #1 Test No. ~~#~~ 2 Date 5-12-03

Company ESP DEVELOPMENT INC. Zone Tested L. KC. - D

Address _____ Elevation 1828 KB 1823 GL

Co. Rep / Geo. RANDY KILIAN Cont. VONFELDT Est. Ft. of Pay _____ Por. _____ %

Location: Sec. 27 Twp. 11S Rge. 15W Co. RUSSELL State KS

No. of Copies _____ Disbtribution Sheet (Y, N) _____ Turnkey (Y, N) _____ Evaluation (Y, N) _____

Interval Tested 3012 To 3035 Initial Str Wt./Lbs. 50,000 Unseated Str Wt/Lbs. 51,0

Anchor Length 23' Wt. Set Lbs. 25,000 Wt. Pulled Loose/Lbs. 55,0

Top Packer Depth ~~3030~~ 3007' Tool Weight 2500

Bottom Packer Depth ~~3035~~ 3012' Hole Size 7 7/8" ✓ Rubber Size 6 3/4" ✓

Total Depth 3035 Wt. Pipe Run 0 Drill Collar Run 0

Mud Wt. 9.1 LCM TR Vis. 42 WL 7.2 Drill Pipe Size 4½ XH Ft. Run 3014

Blow Description IF - GOOD BLOW BUILT TO 8" IN ISI - DEAD

FF - GOOD BLOW B.O.B. IN 24 MIN FSI - VERY WEAK BLOW BAC

Recovery - Total Feet 50' GIP 380' Ft. in DC 0 Ft. in DP 50

Rec. 50' Feet of H.O.G.W. CUT MUD 25% OIL - 25% WATER 10% GAS 40% MU

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

Rec. _____ Feet of _____

BHT 94 °F Gravity _____ °API D @ _____ °F Corrected Gravity _____ °API

,11 @ 81 °F Chlorides 60,000 ppm Recovery — Chlorides _____ ppm System

	AK-1	Alpine				
Initial Hydrostatic Mud		1446 PSI	Recorder No.	3227	Test	B. HOLE
First Initial Flow Pressure		14 PSI	(depth)	3018	Elec. Rec.	✓
First Final Flow Pressure		20 PSI	Recorder No.	13308	Jars	
Initial Shut-In Pressure		468 PSI	(depth)	3032	Safety Jt.	
Second Initial Flow Pressure		20 PSI	Recorder No.		Circ Sub	
Second Final Flow Pressure		34 PSI	(depth)		Sampler	
Final Shut-In Pressure		475 PSI	**Initial Opening**	30	Straddle	
Final Hydrostatic Mud		1407 PSI	Initial Shut-In	30	Ext. Packer	
			Final Flow	60	Shale Packer	
			Final Shut-In	60	Mileage	35
			T-On Location	05:15	Sub Total:	
			T-Started	05:47	Std. By	
			T-Open	07:30	Other	
			T-Pulled	10:30	Total:	
			T-Out	12:03		

OBITE TESTING INC. SHALL NOT BE LIABLE FOR DAMAGEE OF KIND OF THE PROPERTY OR PERSONNEL OF THE ONE FOR M A TEST IS MADE, OR FOR ANY LOSS SUFFERED OR SUSTAINED, CTLY OR INDIRECTLY, THROUGH THE USE OF ITS EQUIPMENT, 'S STATEMENTS OR OPINION CONCERNING THE RESULTS OF TEST. TOOLS LOST OR DAMAGED IN THE HOLE SHALL BE PAID AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

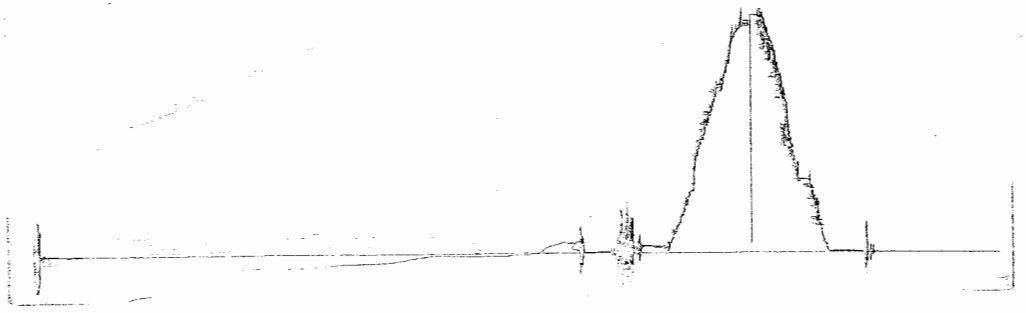
oved By _____

Representative John A Schmidt

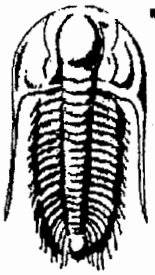
CHART PAGE

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

13308
DST #2



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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **ESP Development Inc.**

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

27-11s-15w Russell

Hagaman # 1

Start Date: 2003.05.13 @ 08:28:00
End Date: 2003.05.13 @ 14:54:30
Job Ticket #: 16962 DST #: 3

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

ESP Development Inc. Hagaman # 1 27-11s-15w Russell DST # 3 L.Kc.-J&K 2003.05.13

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

ESP Development Inc.

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

Hagaman # 1

27-11s-15w Russell

Job Ticket: 16962 **DST#: 3**

Test Start: 2003.05.13 @ 08:28:00

Tool Information

Drill Pipe:	Length:	3138.00 ft	Diameter:	3.80 inches	Volume:	44.02 bbl	Tool Weight:		3000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:		25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:		60000.00 lb
					Total Volume:	44.02 bbl	Tool Chased		0.00 ft
Drill Pipe Above KB:		13.00 ft					String Weight:	Initial	52000.00 lb
Depth to Top Packer:		3145.00 ft						Final	52000.00 lb
Depth to Bottom Packer:		ft							
Interval between Packers:		55.02 ft							
Tool Length:		75.02 ft							
Number of Packers:		2	Diameter:	6.75 inches					

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3126.00		
S.I. Tool	5.00			3131.00		
HMV	5.00			3136.00		
Packer	4.00			3140.00	20.00	Bottom Of Top Packer
Packer	5.00			3145.00		
Stubb	1.00			3146.00		
Perforations	5.00			3151.00		
C.O. Sub	1.00			3152.00		
Recorder	0.01	3227	Inside	3152.01		
Blank Spacing	31.00			3183.01		
C.O. Sub	1.00			3184.01		
Perforations	13.00			3197.01		
Recorder	0.01	13308	Outside	3197.02		
Bullnose	3.00			3200.02	55.02	Bottom Packers & Anchor
Total Tool Length:	**75.02**					

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

ESP Development Inc.

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

Hagaman # 1

27-11s-15w Russell

Job Ticket: 16962 **DST#: 3**

Test Start: 2003.05.13 @ 08:28:00

GENERAL INFORMATION:

Formation: **L.Kc.-J&K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:17:30
Time Test Ended: 14:54:30

Test Type: Conventional Bottom Hole
Tester: John Schmidt
Unit No: 18

Interval: 3145.00 ft (KB) To 3200.00 ft (KB) (TVD)
Total Depth: 3200.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

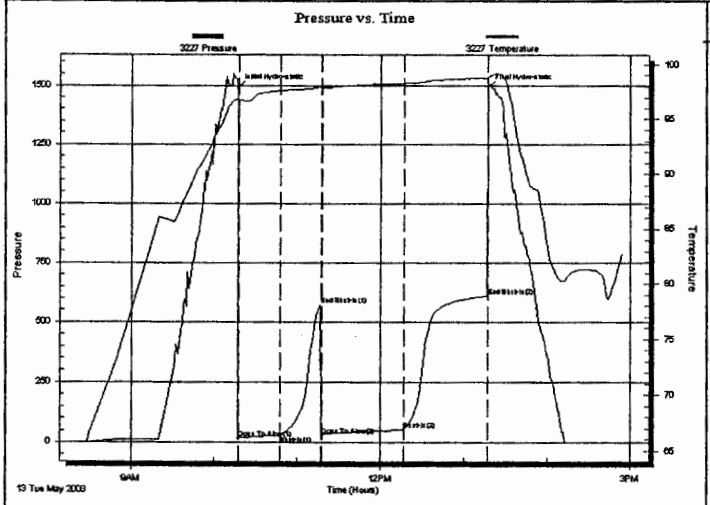
Reference Elevations: 1828.00 ft (KB)
1823.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 3227 **Inside**

Press@RunDepth: 53.73 psig @ 3152.01 ft (KB)
Start Date: 2003.05.13 End Date: 2003.05.13
Start Time: 08:28:01 End Time: 14:54:30

Capacity: 7000.00 psig
Last Calib.: 2003.05.13
Time On Btm: 2003.05.13 @ 10:17:00
Time Off Btm: 2003.05.13 @ 13:17:15

TEST COMMENT: IF-Good built to 7" in ISI-Dead
FF-Good B.O.B. 10 min. FSI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1490.29	96.93	Initial Hydro-static
1	16.68	96.83	Open To Flow (1)
31	29.90	97.64	Shut-In(1)
60	570.26	97.99	End Shut-In(1)
61	29.82	97.95	Open To Flow (2)
121	53.73	98.31	Shut-In(2)
180	609.03	98.80	End Shut-In(2)
181	1492.05	98.88	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	G-O-C-M-20%gas30%oil50%mud	1.26
0.00	350-gas in pipe	0.00

Gas Rates

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

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMI

ESP Development Inc.

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

Hagaman # 1

27-11s-15w Russell

Job Ticket: 16962 **DST#: 3**

Test Start: 2003.05.13 @ 08:28:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.18 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

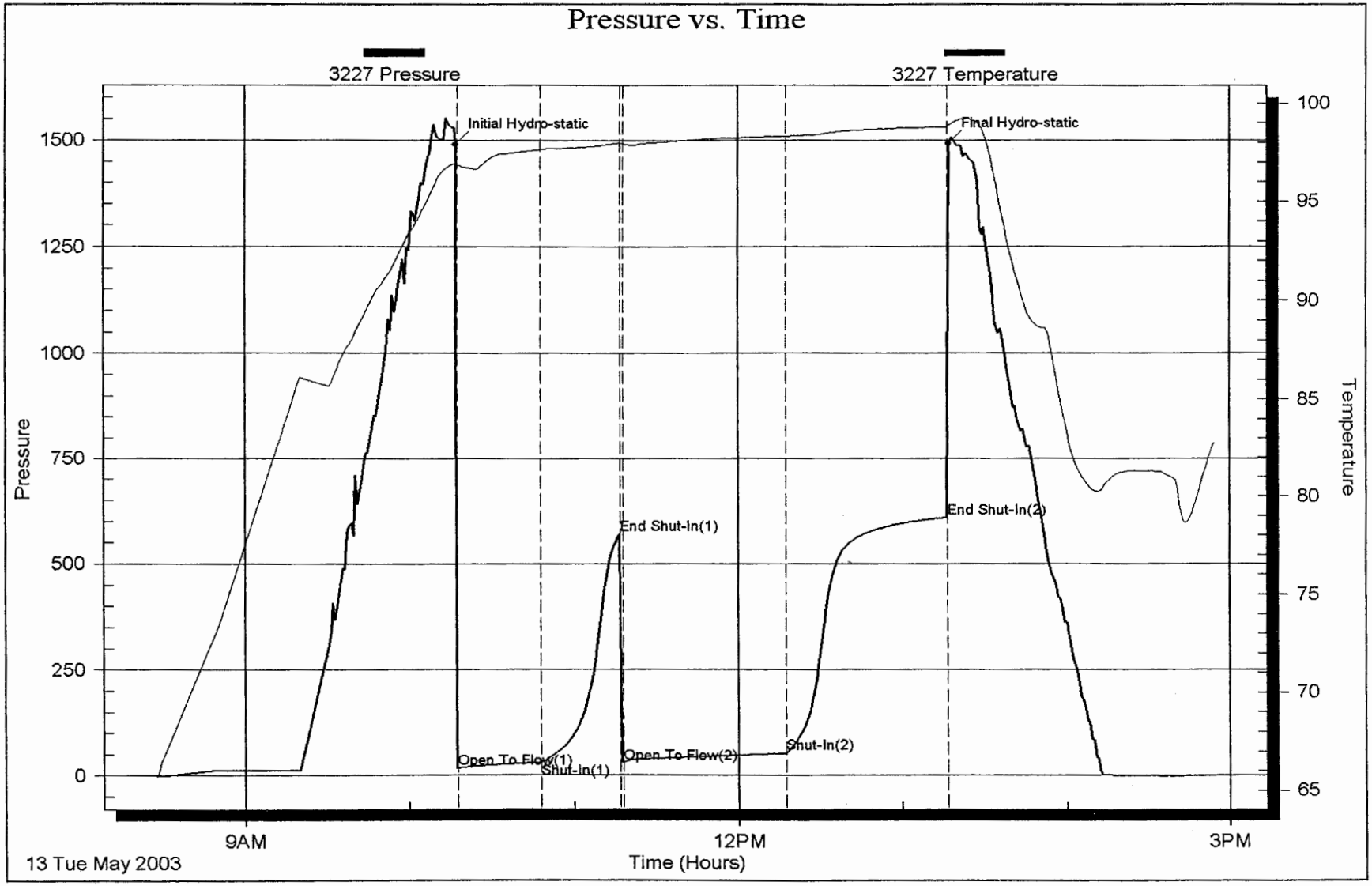
Length ft	Description	Volume bbl
90.00	G-O-C-M-20%gas30%oil50%mud	1.262
0.00	350-gas in pipe	0.000

Total Length: 90.00 ft Total Volume: 1.262 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
3227 Pressure
3227 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Open To Flow(1)
Shut-In(1)
Open To Flow(2)
Shut-In(2)
Pressure
Temperature
1500
1250
1000
750
500
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13 Tue May 2003
Time (Hours)

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TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **ESP Development Inc.**

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

27-11s-15w Russell

Hagaman # 1

Start Date: 2003.05.14 @ 00:45:56
End Date: 2003.05.14 @ 08:31:56
Job Ticket #: 16963 DST #: 4

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

ESP Development Inc. Hagaman # 1 27-11s-15w Russell DST # 4 Arbuckle 2003.05.14

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

ESP Development Inc.

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

Hagaman # 1

27-11s-15w Russell

Job Ticket: 16963 **DST#: 4**

Test Start: 2003.05.14 @ 00:45:56

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:32:11
Time Test Ended: 08:31:56

Test Type: Conventional Bottom Hole
Tester: John Schmidt
Unit No: 18

Interval: 3282.00 ft (KB) To 3303.00 ft (KB) (TVD)
Total Depth: 3303.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

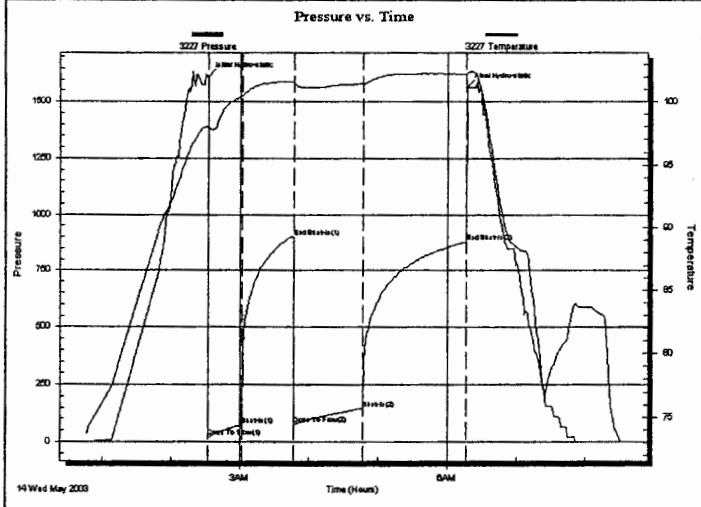
Reference Elevations: 1828.00 ft (KB)
1823.00 ft (CF)
KB to GR/CF: 5.00 ft

Serial #: 3227 **Inside**

Press@RunDepth: 145.94 psig @ 3283.01 ft (KB)
Start Date: 2003.05.14 End Date: 2003.05.14
Start Time: 00:45:57 End Time: 08:31:56

Capacity: 7000.00 psig
Last Calib.: 2003.05.14
Time On Btm: 2003.05.14 @ 02:31:26
Time Off Btm: 2003.05.14 @ 06:17:11

TEST COMMENT: IF-Good B.O.B. 18 min.
FF-Good B.O.B. 35 min.
ISI-Weak blow back
ISI-Dead



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1613.35	98.02	Initial Hydro-static
1	20.35	97.88	Open To Flow (1)
30	71.74	100.49	Shut-In(1)
75	902.19	101.58	End Shut-In(1)
76	76.28	101.50	Open To Flow (2)
135	145.94	101.43	Shut-In(2)
225	879.14	102.24	End Shut-In(2)
226	1568.21	102.30	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
325.00	gas cut oil 3%-G 97%oil	4.56

Gas Rates

	Choke (Inches)	Pressure (psig)	Gas Rate

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

ESP Development Inc.

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

Hagaman # 1

27-11s-15w Russell

Job Ticket: 16963 **DST#: 4**

Test Start: 2003.05.14 @ 00:45:56

Tool Information

Drill Pipe:	Length:	3265.00 ft	Diameter:	3.80 inches	Volume:	45.80 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:	60000.00 lb
					Total Volume:	45.80 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		3.00 ft					String Weight: Initial	53000.00 lb
Depth to Top Packer:		3282.00 ft					Final	54000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		21.02 ft						
Tool Length:		41.02 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
C.O. Sub	1.00			3263.00		
S.I. Tool	5.00			3268.00		
HMV	5.00			3273.00		
Packer	4.00			3277.00	20.00	Bottom Of Top Packer
Packer	5.00			3282.00		
Stubb	1.00			3283.00		
Recorder	0.01	3227	Inside	3283.01		
Perforations	17.00			3300.01		
Recorder	0.01	13308	Outside	3300.02		
Bullnose	3.00			3303.02	21.02	Bottom Packers & Anchor
Total Tool Length:	**41.02**					

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

ESP Development Inc.

17746 177th. Blvd.
Paradise, KS 67658

ATTN: Bud Eulert

Hagaman # 1

27-11s-15w Russell

Job Ticket: 16963 **DST#: 4**

Test Start: 2003.05.14 @ 00:45:56

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	28 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.17 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

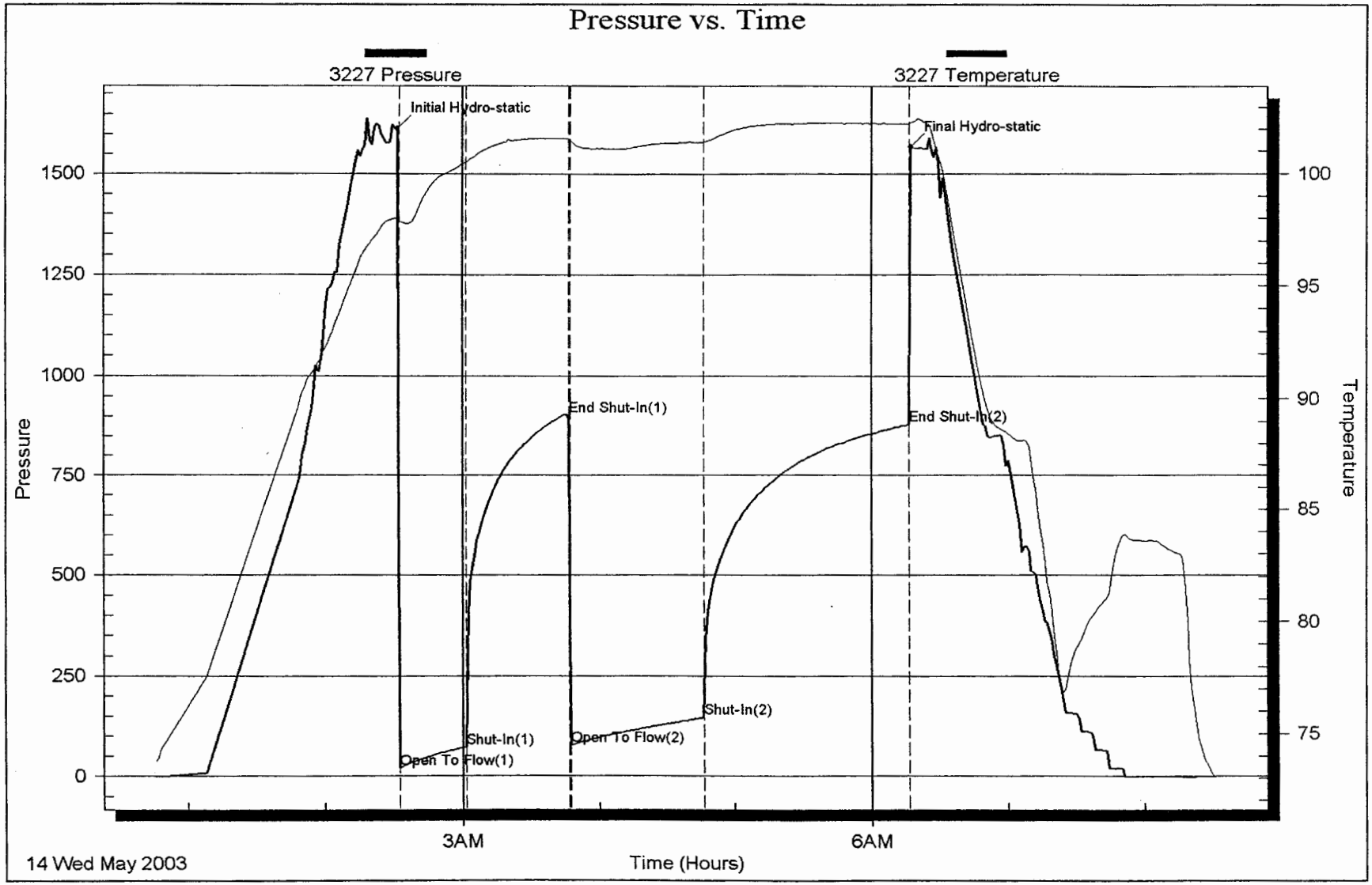
Length ft	Description	Volume bbl
325.00	gas cut oil 3%-G 97%oil	4.559

Total Length: 325.00 ft Total Volume: 4.559 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments:


Pressure vs. Time
3227 Pressure
3227 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Open To Flow(1)
Shut-In(2)
Open To Flow(2)
Pressure
Temperature
1500
1250
1000
750
500
250
0
100
95
90
85
80
75
3AM
6AM
14 Wed May 2003
Time (Hours)