



DRILL STEM TEST REPORT

Prepared For: **VJI Natural Res**

30-38 48th St
Astoria, New York, 11103

ATTN: Jason Dinges

5-9-24-Graham-Ks

Holley 14-A

Start Date: 2003.01.24 @ 19:44:44

End Date: 2003.01.25 @ 02:59:14

Job Ticket #: 17408 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

VJI Natural Res
30-38 48th St
Astoria, New York, 11103
ATTN: Jason Dinges

Holley 14-A

5-9-24-Graham-Ks

Job Ticket: 17408

DST#: 1

Test Start: 2003.01.24 @ 19:44:44

GENERAL INFORMATION:

Formation: **F LKC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:01:44

Time Test Ended: 02:59:14

Test Type: Conventional Bottom Hole

Tester: Dan Bangle

Unit No: 21

Interval: **3860.00 ft (KB) To 3873.00 ft (KB) (TVD)**

Total Depth: 3873.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2475.00 ft (KB)

2470.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357

Inside

Press@RunDepth: 136.06 psig @ 3861.00 ft (KB)

Start Date: 2003.01.24

End Date:

2003.01.25

Start Time: 19:44:49

End Time:

02:59:13

Capacity: 7000.00 psig

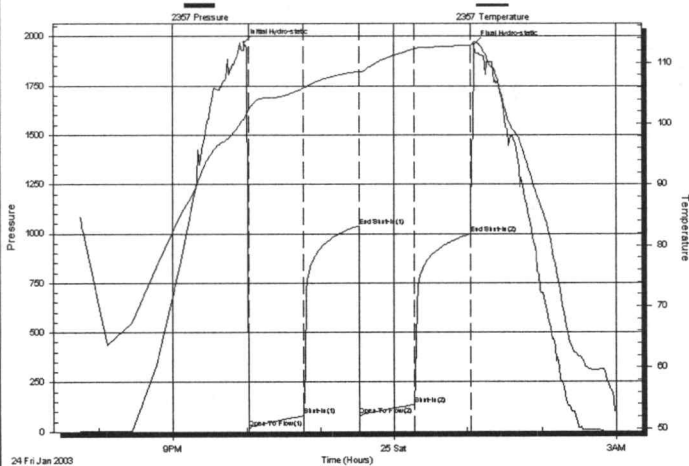
Last Calib.: 2003.01.25

Time On Btm: 2003.01.24 @ 21:58:14

Time Off Btm: 2003.01.25 @ 01:05:44

TEST COMMENT: IF-Weak building to fair-bottom of bucket in 36 min
FF-Weak building to 3"
Times-45-45-45-45

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1968.38	100.77	Initial Hydro-static
4	16.76	102.17	Open To Flow (1)
49	81.33	105.84	Shut-In(1)
93	1039.01	108.54	End Shut-In(1)
94	82.75	108.55	Open To Flow (2)
139	136.06	112.13	Shut-In(2)
185	998.34	112.80	End Shut-In(2)
188	1958.24	113.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
260.00	Mdy Wtr 30% m 70% w	3.65

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

VJI Natural Res

Holley 14-A

30-38 48th St
Astoria, New York, 11103

5-9-24-Graham-Ks

Job Ticket: 17408

DST#: 1

ATTN: Jason Dinges

Test Start: 2003.01.24 @ 19:44:44

Tool Information

Drill Pipe:	Length: 3852.00 ft	Diameter: 3.80 inches	Volume: 54.03 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 120000.0 lb
		Total Volume: 54.03 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3860.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	34.00 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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C.O. Sub	1.00			3840.00	
S.I. Tool	5.00			3845.00	
HMV	5.00			3850.00	
Packer	5.00			3855.00	21.00 Bottom Of Top Packer
Packer	5.00			3860.00	
Stubb	1.00			3861.00	
Recorder	0.00	2357	Inside	3861.00	
Perforations	9.00			3870.00	
Recorder	0.00	13254	Outside	3870.00	
Bullnose	3.00			3873.00	13.00 Bottom Packers & Anchor
Total Tool Length:	34.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

V.JI Natural Res
30-38 48th St
Astoria, New York, 11103
ATTN: Jason Dinges

Holley 14-A
5-9-24-Graham-Ks
Job Ticket: 17408 **DST#: 1**
Test Start: 2003.01.24 @ 19:44:44

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 5.58 in³
Resistivity: ohm.m
Salinity: 500.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig
Oil API: deg API
Water Salinity: 65000 ppm

Recovery Information

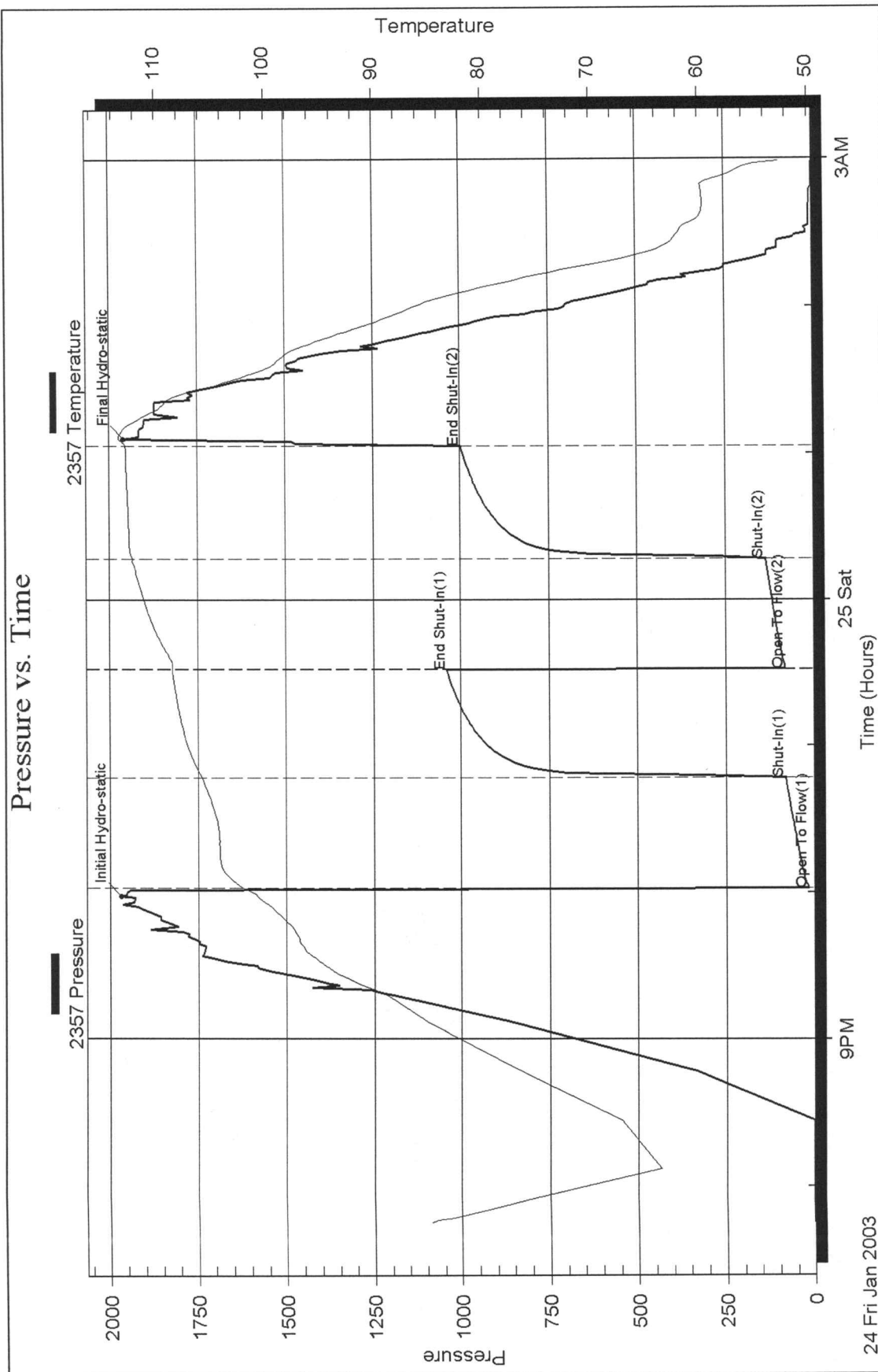
Recovery Table

Length ft	Description	Volume bbl
260.00	Mdy Wtr 30%m 70%w	3.647

Total Length: 260.00 ft Total Volume: 3.647 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments: Rw .24 @ 40 = 65000ppm

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **VJI Natural Res**

30-38 48th St
Astoria, New York, 11103

ATTN: Jason Dinges

5-9-24-Graham-Ks

Holley 14-A

Start Date: 2003.01.25 @ 15:30:56

End Date: 2003.01.25 @ 21:28:26

Job Ticket #: 17409 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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



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DRILL STEM TEST REPORT

VJI Natural Res
30-38 48th St
Astoria, New York, 11103
ATTN: Jason Dinges

Holley 14-A

5-9-24-Graham-Ks

Job Ticket: 17409

DST#: 2

Test Start: 2003.01.25 @ 15:30:56

GENERAL INFORMATION:

Formation: **K LKC**

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

Time Tool Opened: 17:33:56

Time Test Ended: 21:28:26

Test Type: **Conventional Bottom Hole**

Tester: **Dan Bangle**

Unit No: **21**

Interval: **3967.00 ft (KB) To 3990.00 ft (KB) (TVD)**

Total Depth: **3990.00 ft (KB) (TVD)**

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

Reference Elevations: **2475.00 ft (KB)**

2470.00 ft (CF)

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

Serial #: 2357

Inside

Press@RunDepth: **22.49 psig @ 3968.00 ft (KB)**

Start Date: **2003.01.25**

End Date: **2003.01.25**

Start Time: **15:31:01**

End Time: **21:28:25**

Capacity: **7000.00 psig**

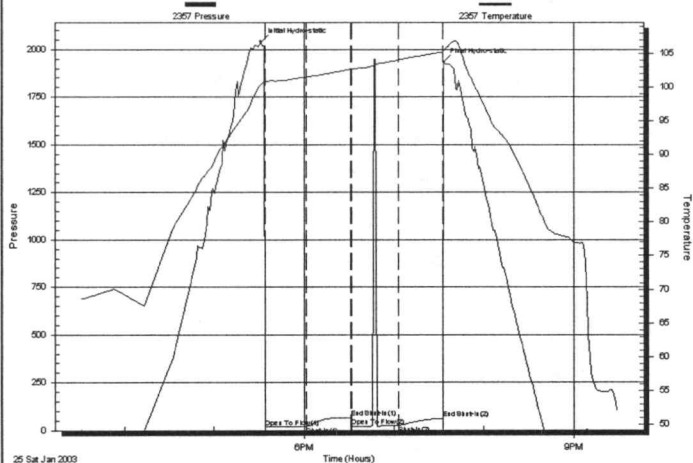
Last Calib.: **2003.01.25**

Time On Btm: **2003.01.25 @ 17:31:26**

Time Off Btm: **2003.01.25 @ 19:33:26**

TEST COMMENT: IF-Weak died in 25 min
FF-No blow -flushed tool
Times-30-30-30-30

Pressure vs. Time



PRESSURE SUMMARY

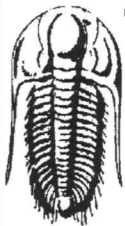
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2040.37	100.35	Initial Hydro-static
3	16.60	100.82	Open To Flow (1)
30	19.07	101.51	Shut-In (1)
60	66.37	102.62	End Shut-In (1)
60	19.75	102.65	Open To Flow (2)
92	22.49	104.00	Shut-In (2)
121	62.10	105.16	End Shut-In (2)
122	1931.17	105.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	DM	0.14

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

VJI Natural Res

Holley 14-A

30-38 48th St
Astoria, New York, 11103

5-9-24-Graham-Ks

Job Ticket: 17409

DST#: 2

ATTN: Jason Dinges

Test Start: 2003.01.25 @ 15:30:56

Tool Information

Drill Pipe:	Length: 3976.00 ft	Diameter: 3.80 inches	Volume: 55.77 bbl	Tool Weight: 1700.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
		Total Volume: 55.77 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial 65000.00 lb
Depth to Top Packer:	3967.00 ft			Final 65000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	44.00 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			3947.00	
S.I. Tool	5.00			3952.00	
HMV	5.00			3957.00	
Packer	5.00			3962.00	21.00 Bottom Of Top Packer
Packer	5.00			3967.00	
Stubb	1.00			3968.00	
Recorder	0.00	2357	Inside	3968.00	
Perforations	19.00			3987.00	
Recorder	0.00	13254	Outside	3987.00	
Bullnose	3.00			3990.00	23.00 Bottom Packers & Anchor
Total Tool Length:		44.00			



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DRILL STEM TEST REPORT

FLUID SUMMARY

VJI Natural Res
30-38 48th St
Astoria, New York, 11103
ATTN: Jason Dinges

Holley 14-A
5-9-24-Graham-Ks
Job Ticket: 17409 **DST#: 2**
Test Start: 2003.01.25 @ 15:30:56

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:	40.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	9.18 in ³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4000.00 ppm				
Filter Cake:	inches				

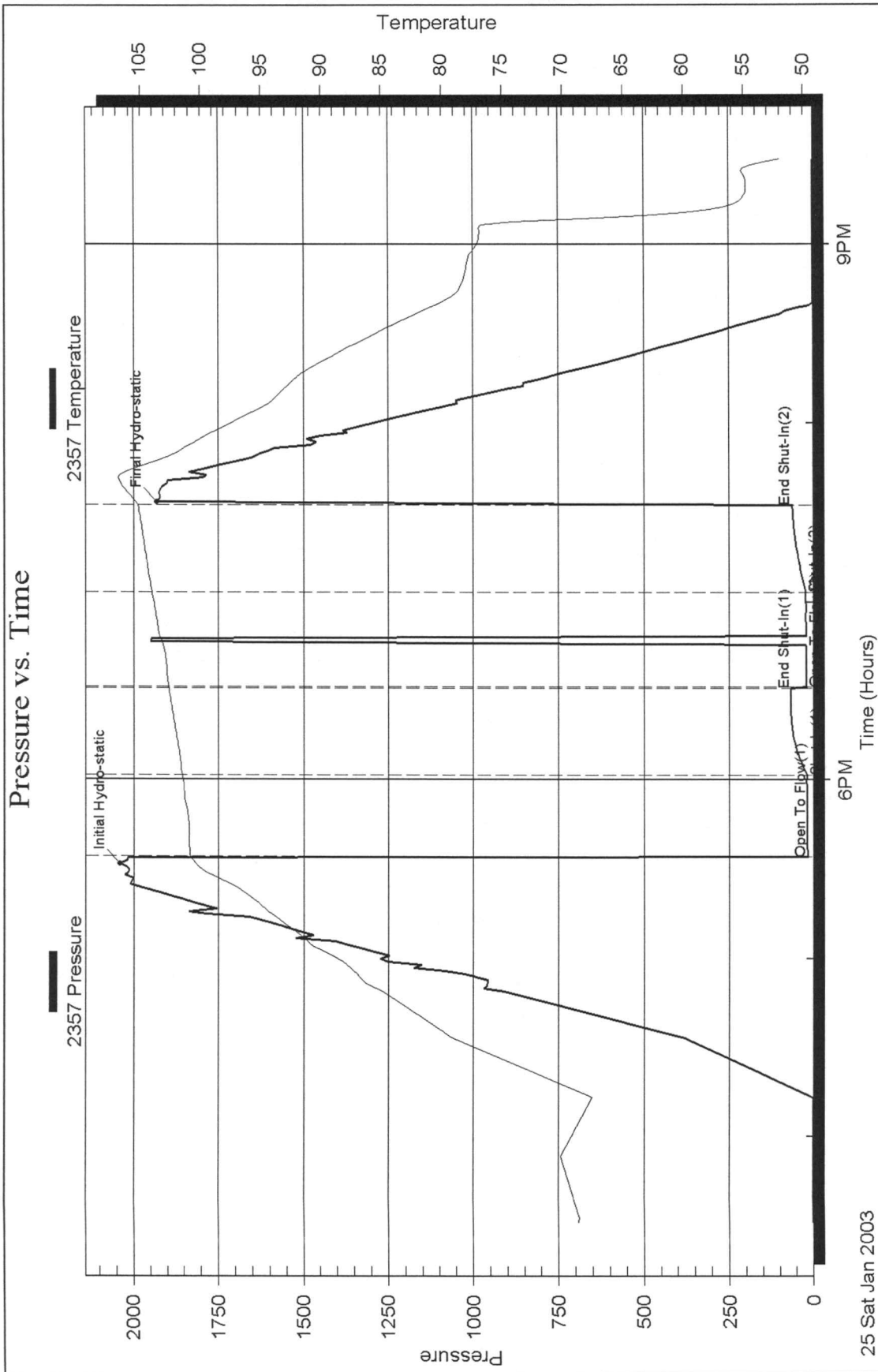
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	DM	0.140

Total Length: 10.00 ft Total Volume: 0.140 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: **VJI Natural Res**

30-38 48th St
Astoria, New York, 11103

ATTN: Jason Dinges

5-9-24-Graham-Ks

Holley 14-A

Start Date: 2003.01.26 @ 17:54:47

End Date: 2003.01.27 @ 04:02:12

Job Ticket #: 17410 DST #: 3

Trilobite Testing, Inc

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



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DRILL STEM TEST REPORT

VJI Natural Res
30-38 48th St
Astoria, New York, 11103
ATTN: Jason Dinges

Holley 14-A

5-9-24-Graham-Ks

Job Ticket: 17410

DST#: 3

Test Start: 2003.01.26 @ 17:54:47

GENERAL INFORMATION:

Formation: **I LKC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:05:42

Time Test Ended: 04:02:12

Test Type: Conventional Straddle

Tester: Dan Bangle

Unit No: 21

Interval: **3926.00 ft (KB) To 3944.00 ft (KB) (TVD)**

Total Depth: 4065.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2475.00 ft (KB)

2470.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357

Inside

Press@RunDepth: 1024.17 psig @ 3927.00 ft (KB)

Start Date: 2003.01.26

End Date:

2003.01.27

Start Time: 17:54:47

End Time:

04:02:12

Capacity: 7000.00 psig

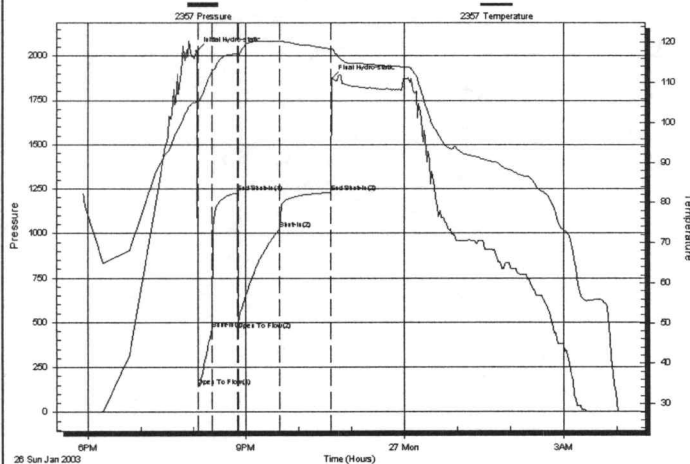
Last Calib.: 2003.01.27

Time On Btm: 2003.01.26 @ 20:04:12

Time Off Btm: 2003.01.26 @ 22:37:41

TEST COMMENT: IF-Strong BOB in 1.5 min
FF-Strong BOB in 1 min
Times-15-30-45-60

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2028.26	105.12	Initial Hydro-static
2	145.22	105.17	Open To Flow (1)
18	460.23	112.72	Shut-In (1)
47	1227.31	117.08	End Shut-In (1)
48	503.92	116.98	Open To Flow (2)
95	1024.17	120.23	Shut-In (2)
153	1226.73	118.38	End Shut-In (2)
154	1871.48	118.37	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	CO	0.07
2365.00	Slightly OC Wtr 3%o 97%w	33.17

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

V/J Natural Res

Holley 14-A

30-38 48th St
Astoria, New York, 11103

5-9-24-Graham-Ks

Job Ticket: 17410

DST#: 3

ATTN: Jason Dinges

Test Start: 2003.01.26 @ 17:54:47

Tool Information

Drill Pipe:	Length:	3914.00 ft	Diameter:	3.80 inches	Volume:	54.90 bbl	Tool Weight:	2800.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight set on Packer:	2500.00 lb
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	Weight to Pull Loose:	90000.00 lb
					Total Volume:	54.90 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:	9.00 ft							
Depth to Top Packer:	3926.00 ft							
Depth to Bottom Packer:	3944.00 ft							
Interval between Packers:	18.00 ft							
Tool Length:	160.00 ft							
Number of Packers:	3		Diameter:	6.75 inches				
Tool Comments:								
Bottom packer failed								

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			3906.00	
S.I. Tool	5.00			3911.00	
HMV	5.00			3916.00	
Packer	5.00			3921.00	21.00 Bottom Of Top Packer
Packer	5.00			3926.00	
Stubb	1.00			3927.00	
Recorder	0.00	2357	Inside	3927.00	
Perforations	13.00			3940.00	
Recorder	0.00	13254	Outside	3940.00	
Blank Off Sub	1.00			3941.00	
Extension Sub	3.00			3944.00	18.00 Tool Interval
Packer	2.00			3946.00	
Stubb	1.00			3947.00	
Blank Spacing	115.00			4062.00	
Recorder	0.00	13248	Outside	4062.00	
Bullnose	3.00			4065.00	121.00 Bottom Packers & Anchor
Total Tool Length:	160.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

VJI Natural Res

Holley 14-A

30-38 48th St
Astoria, New York, 11103

5-9-24-Graham-Ks

Job Ticket: 17410

DST#: 3

ATTN: Jason Dinges

Test Start: 2003.01.26 @ 17:54:47

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: 75000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	CO	0.070
2365.00	Slightly OC Wtr 3%o 97%w	33.175

Total Length: 2370.00 ft Total Volume: 33.245 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

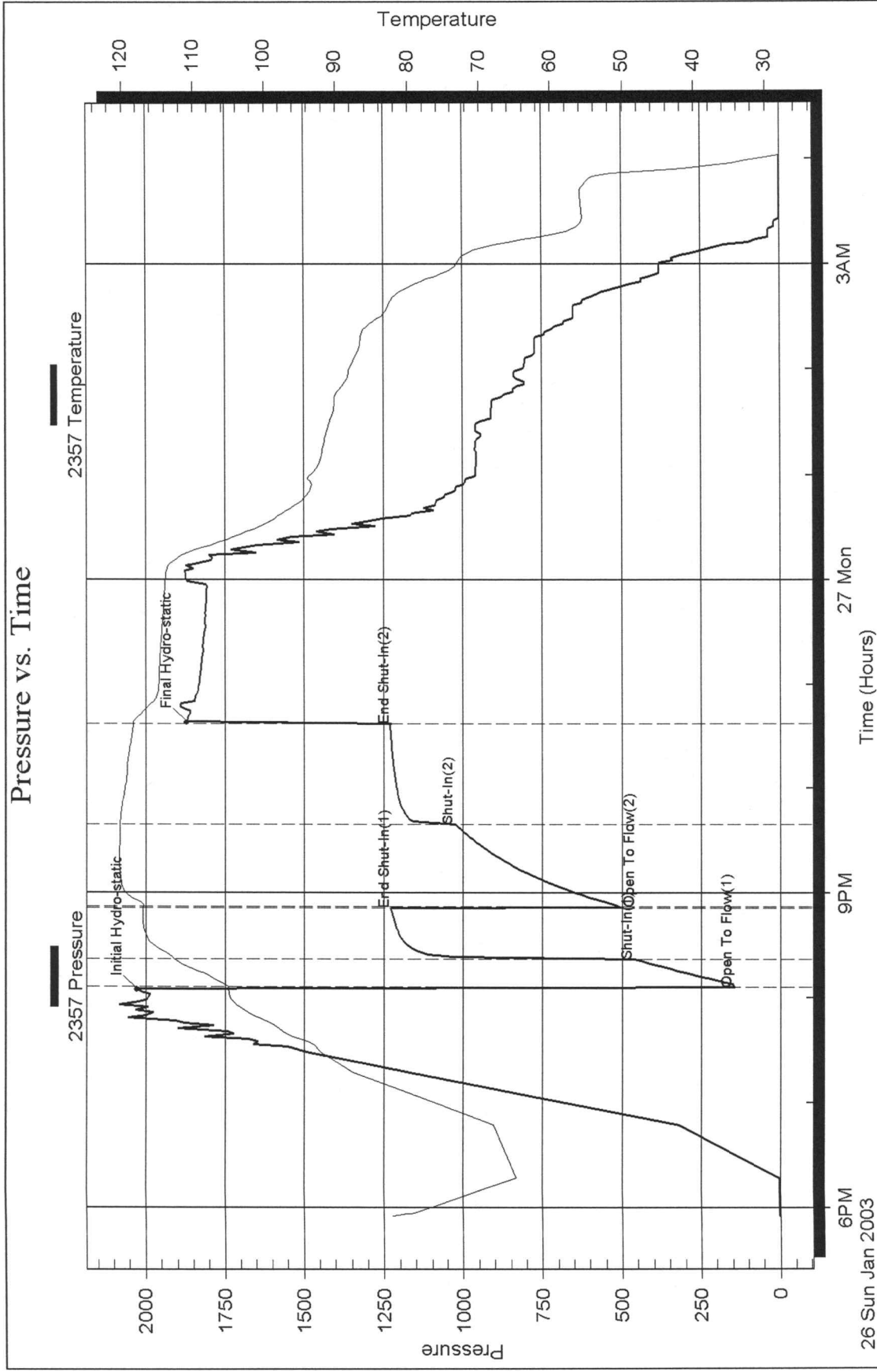
Serial #:

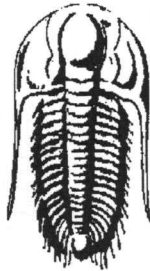
Laboratory Name:

Laboratory Location:

Recovery Comments: Rw .15 @ 50 = 75000ppm

Pressure vs. Time





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **VJI Natural Res**

30-38 48th St
Astoria, New York, 11103

ATTN: Jason Dinges

5-9-24-Graham-Ks

Holley 14-A

Start Date: 2003.01.27 @ 04:47:39

End Date: 2003.01.27 @ 14:31:39

Job Ticket #: 17411 DST #: 4

Trilobite Testing, Inc

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DRILL STEM TEST REPORT

VJI Natural Res
30-38 48th St
Astoria, New York, 11103
ATTN: Jason Dinges

Holley 14-A

5-9-24-Graham-Ks

Job Ticket: 17411

DST#: 4

Test Start: 2003.01.27 @ 04:47:39

GENERAL INFORMATION:

Formation: **I LKC**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:01:09

Time Test Ended: 14:31:39

Test Type: Conventional Straddle

Tester: Dan Bangle

Unit No: 21

Interval: **3924.00 ft (KB) To 3942.00 ft (KB) (TVD)**

Total Depth: 4065.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2475.00 ft (KB)

2470.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 2357

Inside

Press@RunDepth: 244.07 psig @ 3925.00 ft (KB)

Start Date: 2003.01.27

End Date:

2003.01.27

Start Time: 04:47:44

End Time:

14:31:39

Capacity: 7000.00 psig

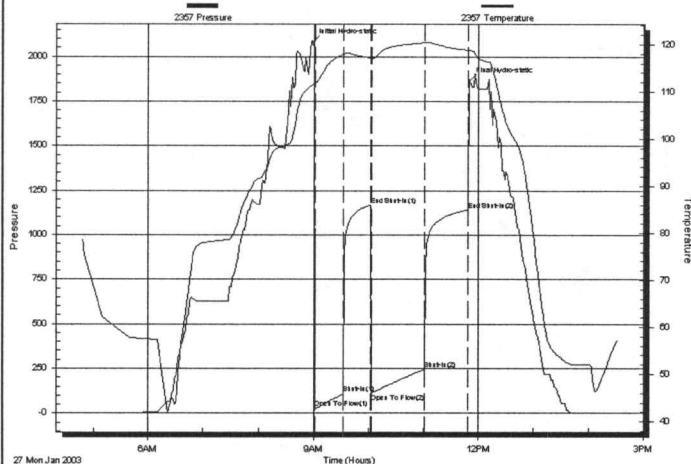
Last Calib.: 2003.01.27

Time On Btm: 2003.01.27 @ 08:58:39

Time Off Btm: 2003.01.27 @ 11:49:39

TEST COMMENT: IF-Strong BOB in 18 min
FF-Strong BOB in 24 min
Times-30-30-60-45

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2079.39	111.38	Initial Hydro-static
3	26.48	111.75	Open To Flow (1)
34	107.39	117.90	Shut-In(1)
64	1168.39	117.10	End Shut-In(1)
65	109.13	117.05	Open To Flow (2)
123	244.07	120.34	Shut-In(2)
170	1142.17	118.76	End Shut-In(2)
171	1864.42	118.76	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
495.00	Wtr Rw .15 @ 50 = 75000ppm	6.94
10.00	CO	0.14
0.00	175' GIP	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

VJI Natural Res

Holley 14-A

30-38 48th St
Astoria, New York, 11103

5-9-24-Graham-Ks

Job Ticket: 17411

DST#: 4

ATTN: Jason Dinges

Test Start: 2003.01.27 @ 04:47:39

Tool Information

Drill Pipe:	Length: 3916.00 ft	Diameter: 3.80 inches	Volume: 54.93 bbl	Tool Weight: 2800.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 100000.0 lb
		Total Volume: 54.93 bbl		Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	3924.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	3942.00 ft			
Interval between Packers:	18.00 ft			
Tool Length:	162.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		
Tool Comments:				

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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C.O. Sub	1.00			3904.00	
S.I. Tool	5.00			3909.00	
HMV	5.00			3914.00	
Packer	5.00			3919.00	21.00 Bottom Of Top Packer
Packer	5.00			3924.00	
Stubb	1.00			3925.00	
Recorder	0.00	2357	Inside	3925.00	
Perforations	13.00			3938.00	
Recorder	0.00	13254	Outside	3938.00	
Blank Off Sub	1.00			3939.00	
Extension Sub	3.00			3942.00	18.00 Tool Interval
Packer	2.00			3944.00	
Stubb	1.00			3945.00	
Blank Spacing	117.00			4062.00	
Recorder	0.00	13248	Outside	4062.00	
Bullnose	3.00			4065.00	123.00 Bottom Packers & Anchor
Total Tool Length:	162.00				



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DRILL STEM TEST REPORT

FLUID SUMMARY

VJI Natural Res
30-38 48th St
Astoria, New York, 11103
ATTN: Jason Dinges

Holley 14-A
5-9-24-Graham-Ks
Job Ticket: 17411 **DST#: 4**
Test Start: 2003.01.27 @ 04:47:39

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 50.00 sec/qt
Water Loss: 8.78 in³
Resistivity: ohm.m
Salinity: 4000.00 ppm
Filter Cake: inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig
Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
495.00	Wtr Rw .15 @ 50 = 75000ppm	6.944
10.00	CO	0.140
0.00	175' GIP	0.000

Total Length: 505.00 ft Total Volume: 7.084 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 2357

Inside

V/J Natural Res

5-9-24-Graham-Ks

DST Test Number: 4

