



## DRILL STEM TEST REPORT

Prepared For: **Messenger Petl.Inc.**

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**11-29s-9w Kingman KS**

**Conrardy Seeds#1**

Start Date: 2010.05.28 @ 19:04:08

End Date: 2010.05.29 @ 00:41:23

Job Ticket #: 36886                      DST #: 1

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

Printed: 2014.07.02 @ 12:45:48

Messenger Petl.Inc.  
Conrardy Seeds#1  
11-29s-9w Kingman KS  
DST # 1  
Toronto  
2010.05.28



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petl.Inc.

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**Conrardy Seeds#1**

**11-29s-9w Kingman KS**

Job Ticket: 36886

**DST#: 1**

Test Start: 2010.05.28 @ 19:04:08

## GENERAL INFORMATION:

Formation: **Toronto**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:16:08

Time Test Ended: 00:41:23

Test Type: Conventional Straddle (Initial)

Tester: Gary Pevoteaux

Unit No: 39

**Interval: 3365.00 ft (KB) To 3380.00 ft (KB) (TVD)**

Reference Elevations: 1711.00 ft (KB)

Total Depth: 3406.00 ft (KB) (TVD)

1702.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 9.00 ft

**Serial #: 8646**

**Inside**

Press@RunDepth: 12.93 psig @ 3366.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.05.28

End Date: 2010.05.29

Last Calib.: 2010.05.29

Start Time: 19:04:13

End Time: 00:41:22

Time On Btm: 2010.05.28 @ 21:14:38

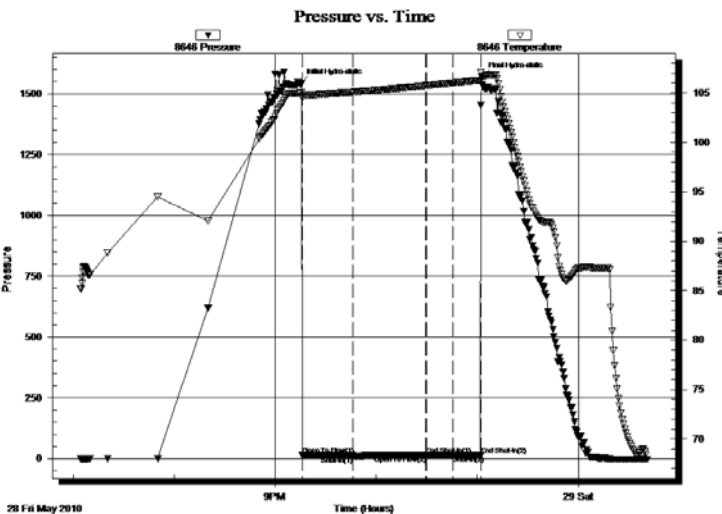
Time Off Btm: 2010.05.28 @ 23:02:38

**TEST COMMENT:** IF:Very weak blow. (surface)Dead in 1 min.

ISI:No blow.

FF:No blow.

FSI:No blow.



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1542.91         | 105.00       | Initial Hydro-static |
| 2           | 12.70           | 104.49       | Open To Flow(1)      |
| 32          | 10.51           | 105.08       | Shut-In(1)           |
| 75          | 13.47           | 105.74       | End Shut-In(1)       |
| 75          | 12.15           | 105.74       | Open To Flow(2)      |
| 91          | 12.93           | 106.01       | Shut-In(2)           |
| 108         | 13.75           | 106.29       | End Shut-In(2)       |
| 108         | 1567.81         | 106.64       | Final Hydro-static   |

## Recovery

| Length (ft) | Description | Volume(bbl) |
|-------------|-------------|-------------|
| 1.00        | Drlg.mud    | 0.00        |
|             |             |             |
|             |             |             |
|             |             |             |
|             |             |             |

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36886

**DST#: 1**

Test Start: 2010.05.28 @ 19:04:08

## Tool Information

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3158.00 ft | Diameter: 3.80 inches | Volume: 44.30 bbl              | Tool Weight:           | 2400.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 24000.00 lb |
| Drill Collar:             | Length: 216.00 ft  | Diameter: 2.25 inches | Volume: 1.06 bbl               | Weight to Pull Loose:  | 83000.00 lb |
|                           |                    |                       | <u>Total Volume: 45.36 bbl</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 29.00 ft           |                       |                                | String Weight: Initial | 63000.00 lb |
| Depth to Top Packer:      | 3365.00 ft         |                       |                                | Final                  | 63000.00 lb |
| Depth to Bottom Packer:   | 3380.00 ft         |                       |                                |                        |             |
| Interval between Packers: | 15.00 ft           |                       |                                |                        |             |
| Tool Length:              | 61.00 ft           |                       |                                |                        |             |
| Number of Packers:        | 3                  | Diameter: 6.75 inches |                                |                        |             |

Tool Comments:

## Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                     |
|------------------|-------------|------------|----------|------------|------------------------------------|
| C.O. Sub         | 1.00        |            |          | 3346.00    |                                    |
| Shut in tool     | 5.00        |            |          | 3351.00    |                                    |
| HMV              | 5.00        |            |          | 3356.00    |                                    |
| Packer           | 4.00        |            |          | 3360.00    | 20.00 Bottom Of Top Packer         |
| Packer           | 5.00        |            |          | 3365.00    |                                    |
| Stubb            | 1.00        |            |          | 3366.00    |                                    |
| Recorder         | 0.00        | 8646       | Inside   | 3366.00    |                                    |
| Recorder         | 0.00        | 8370       | Outside  | 3366.00    |                                    |
| Perforations     | 10.00       |            |          | 3376.00    |                                    |
| Blank Off Sub    | 1.00        |            |          | 3377.00    |                                    |
| T.C.             | 3.00        |            |          | 3380.00    | 15.00 Tool Interval                |
| Packer           | 0.00        |            |          | 3380.00    |                                    |
| Stubb            | 1.00        |            |          | 3381.00    |                                    |
| Perforations     | 20.00       |            |          | 3401.00    |                                    |
| Recorder         | 0.00        | 8167       | Below    | 3401.00    |                                    |
| Bullnose         | 5.00        |            |          | 3406.00    | 26.00 Bottom Packers & Anchor Tool |

**Total Tool Length: 61.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36886

**DST#: 1**

Test Start: 2010.05.28 @ 19:04:08

### 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:

4000 ppm

Viscosity: 45.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.96 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description | Volume<br>bbl |
|--------------|-------------|---------------|
| 1.00         | Drilg.mud   | 0.005         |

Total Length: 1.00 ft      Total Volume: 0.005 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



## DRILL STEM TEST REPORT

Prepared For: **Messenger Petl.Inc.**

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**11-29s-9w Kingman KS**

**Conrardy Seeds#1**

Start Date: 2010.06.02 @ 15:45:34

End Date: 2010.06.02 @ 22:50:49

Job Ticket #: 36891                      DST #: 6

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

Printed: 2014.07.02 @ 12:48:06

Messenger Petl.Inc.  
Conrardy Seeds#1  
11-29s-9w Kingman KS  
DST # 6  
Viola  
2010.06.02



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petl.Inc.

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**Conrardy Seeds#1**

**11-29s-9w Kingman KS**

Job Ticket: 36891

**DST#: 6**

Test Start: 2010.06.02 @ 15:45:34

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:24:49

Time Test Ended: 22:50:49

**Interval: 4520.00 ft (KB) To 4529.00 ft (KB) (TVD)**

Total Depth: 4542.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Test Type: Conventional Straddle (Reset)

Tester: Gary Pevoteaux

Unit No: 39

Reference Elevations: 1711.00 ft (KB)

1702.00 ft (CF)

KB to GR/CF: 9.00 ft

**Serial #: 8167**

**Inside**

Press@RunDepth: 14.98 psig @ 4521.00 ft (KB)

Start Date: 2010.06.02

End Date: 2010.06.02

Start Time: 15:45:39

End Time: 22:50:48

Capacity: 8000.00 psig

Last Calib.: 2010.06.02

Time On Btm: 2010.06.02 @ 18:23:34

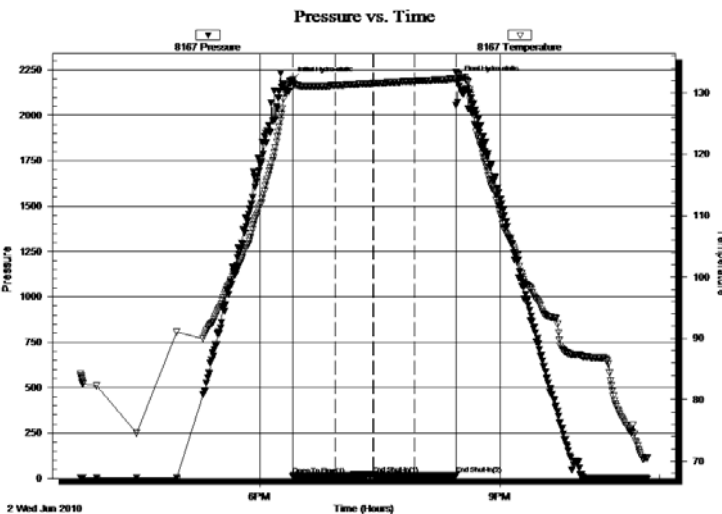
Time Off Btm: 2010.06.02 @ 20:28:48

**TEST COMMENT:** IF:Weak blow. 1/2" decreasing.

ISI:No blow.

FF:No blow.

FSI:No blow.



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2184.89         | 132.07       | Initial Hydro-static |
| 2           | 13.78           | 131.02       | Open To Flow(1)      |
| 33          | 15.53           | 131.20       | Shut-In(1)           |
| 62          | 20.77           | 131.55       | End Shut-In(1)       |
| 62          | 15.14           | 131.55       | Open To Flow(2)      |
| 93          | 14.98           | 131.92       | Shut-In(2)           |
| 124         | 17.65           | 132.25       | End Shut-In(2)       |
| 126         | 2190.07         | 132.88       | Final Hydro-static   |

## Recovery

| Length (ft) | Description          | Volume(bbl) |
|-------------|----------------------|-------------|
| 3.00        | Heavy mud/ Good odor | 0.01        |
|             |                      |             |
|             |                      |             |
|             |                      |             |
|             |                      |             |

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

Job Ticket: 36891

**DST#: 6**

ATTN: Jon Messenger

Test Start: 2010.06.02 @ 15:45:34

**Tool Information**

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 4307.00 ft | Diameter: 3.80 inches | Volume: 60.42 bbl              | Tool Weight:           | 2400.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 24000.00 lb |
| Drill Collar:             | Length: 216.00 ft  | Diameter: 2.25 inches | Volume: 1.06 bbl               | Weight to Pull Loose:  | 86000.00 lb |
|                           |                    |                       | <u>Total Volume: 61.48 bbl</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 23.00 ft           |                       |                                | String Weight: Initial | 73000.00 lb |
| Depth to Top Packer:      | 4520.00 ft         |                       |                                | Final                  | 73000.00 lb |
| Depth to Bottom Packer:   | 4529.00 ft         |                       |                                |                        |             |
| Interval between Packers: | 9.00 ft            |                       |                                |                        |             |
| Tool Length:              | 42.00 ft           |                       |                                |                        |             |
| Number of Packers:        | 3                  | Diameter: 6.75 inches |                                |                        |             |

Tool Comments:

**Tool Description                      Length (ft)   Serial No.   Position   Depth (ft)   Accum. Lengths**

|               |      |      |        |         |       |                              |
|---------------|------|------|--------|---------|-------|------------------------------|
| C.O. Sub      | 1.00 |      |        | 4501.00 |       |                              |
| Shut in tool  | 5.00 |      |        | 4506.00 |       |                              |
| HMV           | 5.00 |      |        | 4511.00 |       |                              |
| Packer        | 4.00 |      |        | 4515.00 | 20.00 | Bottom Of Top Packer         |
| Packer        | 5.00 |      |        | 4520.00 |       |                              |
| Stubb         | 1.00 |      |        | 4521.00 |       |                              |
| Recorder      | 0.00 | 8167 | Inside | 4521.00 |       |                              |
| Perforations  | 4.00 |      |        | 4525.00 |       |                              |
| Blank Off Sub | 1.00 |      |        | 4526.00 |       |                              |
| T.C.          | 3.00 |      |        | 4529.00 | 9.00  | Tool Interval                |
| Packer        | 0.00 |      |        | 4529.00 |       |                              |
| Stubb         | 1.00 |      |        | 4530.00 |       |                              |
| Perforations  | 7.00 |      |        | 4537.00 |       |                              |
| Recorder      | 0.00 | 8370 | Below  | 4537.00 |       |                              |
| Bullnose      | 5.00 |      |        | 4542.00 | 13.00 | Bottom Packers & Anchor Tool |

**Total Tool Length:      42.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36891

**DST#: 6**

Test Start: 2010.06.02 @ 15:45:34

### 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:

5500 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.99 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description          | Volume<br>bbl |
|--------------|----------------------|---------------|
| 3.00         | Heavy mud/ Good oder | 0.015         |

Total Length: 3.00 ft      Total Volume: 0.015 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



## DRILL STEM TEST REPORT

Prepared For: **Messenger Petl.Inc.**

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**11-29s-9w Kingman KS**

**Conrardy Seeds#1**

Start Date: 2010.06.02 @ 08:53:53

End Date: 2010.06.02 @ 15:34:53

Job Ticket #: 36890                      DST #: 5

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

Printed: 2014.07.02 @ 12:47:44



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petl.Inc.

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**Conrardy Seeds#1**

**11-29s-9w Kingman KS**

Job Ticket: 36890

**DST#: 5**

Test Start: 2010.06.02 @ 08:53:53

## GENERAL INFORMATION:

Formation: **Simpson Sd.**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:28:08

Time Test Ended: 15:34:53

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 39

**Interval: 4536.00 ft (KB) To 4542.00 ft (KB) (TVD)**

Reference Elevations: 1711.00 ft (KB)

Total Depth: 4542.00 ft (KB) (TVD)

1702.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 9.00 ft

**Serial #: 8370 Outside**

Press@RunDepth: 876.00 psig @ 4537.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.06.02

End Date: 2010.06.02

Last Calib.: 2010.06.02

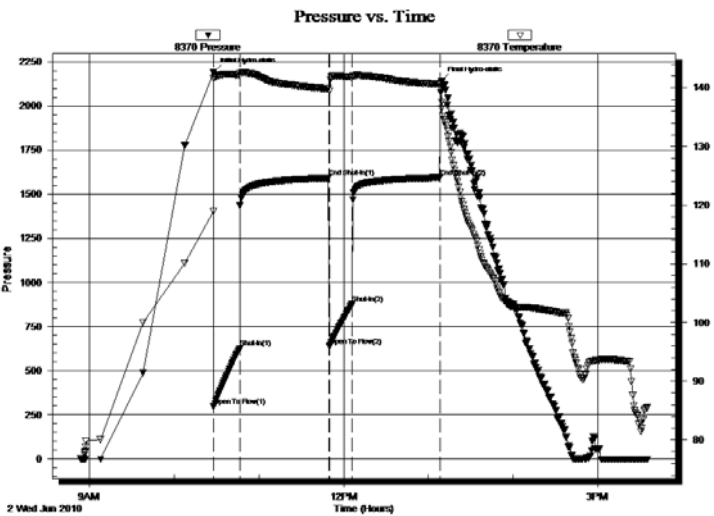
Start Time: 08:53:58

End Time: 15:34:52

Time On Btm: 2010.06.02 @ 10:27:53

Time Off Btm: 2010.06.02 @ 13:09:08

**TEST COMMENT:** IF:Strong blow. B.O.B. in 2 1/2 mins.  
ISI:Fair blow. Increase to 8 - 9".  
FF:Strong blow. B.O.B. in 3 1/2mins.  
FSI:Weak blow. 1 - 2".



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2188.69         | 118.95       | Initial Hydro-static |
| 1           | 297.72          | 141.65       | Open To Flow(1)      |
| 19          | 625.44          | 142.16       | Shut-In(1)           |
| 82          | 1591.81         | 139.81       | End Shut-In(1)       |
| 82          | 637.91          | 139.52       | Open To Flow(2)      |
| 98          | 876.00          | 141.82       | Shut-In(2)           |
| 161         | 1593.51         | 140.59       | End Shut-In(2)       |
| 162         | 2140.14         | 137.56       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                   | Volume(bbl) |
|-------------|-------------------------------|-------------|
| 1865.00     | GCW 3%g 97%w /Rw.08ohms@80deg | 24.19       |
| 80.00       | GCMW 5%g 22%m 73%w            | 1.12        |
| 0.00        | 510 ft.of GIP                 | 0.00        |
|             |                               |             |
|             |                               |             |

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36890

**DST#: 5**

Test Start: 2010.06.02 @ 08:53:53

**Tool Information**

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 4307.00 ft | Diameter: 3.80 inches | Volume: 60.42 bbl              | Tool Weight:           | 2400.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 24000.00 lb |
| Drill Collar:             | Length: 216.00 ft  | Diameter: 2.25 inches | Volume: 1.06 bbl               | Weight to Pull Loose:  | 84000.00 lb |
|                           |                    |                       | <u>Total Volume: 61.48 bbl</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 7.00 ft            |                       |                                | String Weight: Initial | 73000.00 lb |
| Depth to Top Packer:      | 4536.00 ft         |                       |                                | Final                  | 78000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 6.00 ft            |                       |                                |                        |             |
| Tool Length:              | 26.00 ft           |                       |                                |                        |             |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                        |             |
| Tool Comments:            |                    |                       |                                |                        |             |

**Tool Description**

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                    |
|------------------|-------------|------------|----------|------------|-----------------------------------|
| C.O. Sub         | 1.00        |            |          | 4517.00    |                                   |
| Shut in tool     | 5.00        |            |          | 4522.00    |                                   |
| HMV              | 5.00        |            |          | 4527.00    |                                   |
| Packer           | 4.00        |            |          | 4531.00    | 20.00 Bottom Of Top Packer        |
| Packer           | 5.00        |            |          | 4536.00    |                                   |
| Stubb            | 1.00        |            |          | 4537.00    |                                   |
| Recorder         | 0.00        | 8167       | Inside   | 4537.00    |                                   |
| Recorder         | 0.00        | 8370       | Outside  | 4537.00    |                                   |
| Bullnose         | 5.00        |            |          | 4542.00    | 6.00 Bottom Packers & Anchor Tool |

**Total Tool Length: 26.00**



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

Job Ticket: 36890

**DST#: 5**

ATTN: Jon Messenger

Test Start: 2010.06.02 @ 08:53:53

### 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:

87000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.96 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description                    | Volume<br>bbbl |
|--------------|--------------------------------|----------------|
| 1865.00      | GCW 3%g 97%w /Rw.08ohms @80deg | 24.193         |
| 80.00        | GCMW 5%g 22%m 73%w             | 1.122          |
| 0.00         | 510 ft.of GIP                  | 0.000          |

Total Length: 1945.00 ft      Total Volume: 25.315 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:





## DRILL STEM TEST REPORT

Prepared For: **Messenger Petl.Inc.**

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**11-29s-9w Kingman KS**

**Conrardy Seeds#1**

Start Date: 2010.06.01 @ 16:07:32

End Date: 2010.06.02 @ 00:39:47

Job Ticket #: 36889                      DST #: 4

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

Printed: 2014.07.02 @ 12:47:10

Messenger Petl.Inc.  
Conrardy Seeds#1  
11-29s-9w Kingman KS  
DST # 4  
Viola  
2010.06.01



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petl.Inc.

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**Conrardy Seeds#1**

**11-29s-9w Kingman KS**

Job Ticket: 36889

**DST#: 4**

Test Start: 2010.06.01 @ 16:07:32

## GENERAL INFORMATION:

Formation: **Viola**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:20:17

Time Test Ended: 00:39:47

**Interval: 4488.00 ft (KB) To 4494.00 ft (KB) (TVD)**

Total Depth: 4494.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Poor

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 39

Reference Elevations: 1711.00 ft (KB)

1702.00 ft (CF)

KB to GR/CF: 9.00 ft

**Serial #: 8167**

**Inside**

Press@RunDepth: 611.18 psig @ 4489.00 ft (KB)

Start Date: 2010.06.01

End Date:

2010.06.02

Start Time: 16:07:37

End Time:

00:39:47

Capacity: 8000.00 psig

Last Calib.: 2010.06.02

Time On Btm: 2010.06.01 @ 18:19:02

Time Off Btm: 2010.06.01 @ 21:09:01

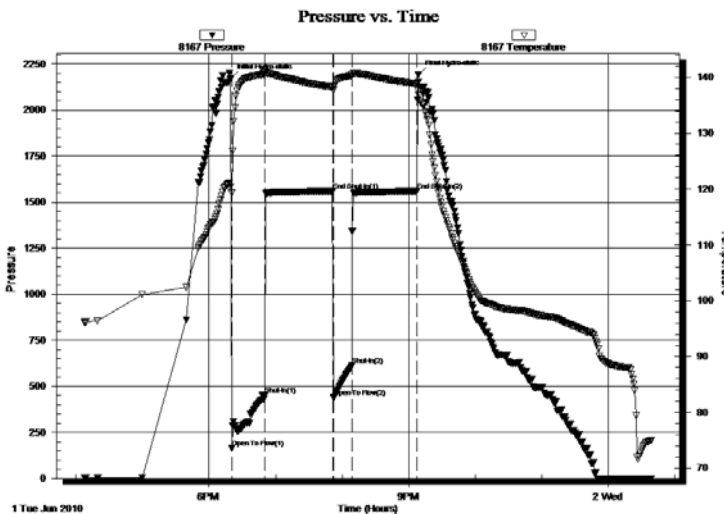
**TEST COMMENT:** IF:Strong blow. B.O.B. in 3 secs.GTS in 19 mins. (see gas flow report)

ISI:Strong blow. B.O.B.

FF:Strong blow. B.O.B. in 2 1/2 mins.(see gas flow report)

FSI:Strong blow. B.O.B.

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2167.59         | 120.30       | Initial Hydro-static |
| 2           | 162.30          | 119.31       | Open To Flow(1)      |
| 32          | 451.95          | 140.52       | Shut-In(1)           |
| 93          | 1558.60         | 138.23       | End Shut-In(1)       |
| 93          | 435.88          | 137.76       | Open To Flow(2)      |
| 110         | 611.18          | 140.22       | Shut-In(2)           |
| 169         | 1558.07         | 138.83       | End Shut-In(2)       |
| 170         | 2190.24         | 137.57       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                      | Volume(bbl) |
|-------------|----------------------------------|-------------|
| 600.00      | SW/w few o specs./Rw.1ohms@72deg | 6.45        |
| 90.00       | SOCMW 2%o 7% m 91%w              | 1.26        |
| 800.00      | CGO 38%g 62%o                    | 11.22       |
|             |                                  |             |
|             |                                  |             |

## Gas Rates

|                | Choke(inches) | Pressure (psig) | Gas Rate(Mcf/d) |
|----------------|---------------|-----------------|-----------------|
| First Gas Rate | 0.25          | 6.00            | 32.36           |
| Last Gas Rate  | 0.25          | 1.00            | 24.43           |
| Max. Gas Rate  | 0.25          | 6.00            | 32.36           |

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**TOOL DIAGRAM**

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36889

**DST#: 4**

Test Start: 2010.06.01 @ 16:07:32

**Tool Information**

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 4274.00 ft | Diameter: 3.80 inches | Volume: 59.95 bbl              | Tool Weight:           | 2400.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 24000.00 lb |
| Drill Collar:             | Length: 216.00 ft  | Diameter: 2.25 inches | Volume: 1.06 bbl               | Weight to Pull Loose:  | 80000.00 lb |
|                           |                    |                       | <u>Total Volume: 61.01 bbl</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 22.00 ft           |                       |                                | String Weight: Initial | 72000.00 lb |
| Depth to Top Packer:      | 4488.00 ft         |                       |                                | Final                  | 77000.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 6.00 ft            |                       |                                |                        |             |
| Tool Length:              | 26.00 ft           |                       |                                |                        |             |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                        |             |
| Tool Comments:            |                    |                       |                                |                        |             |

**Tool Description**

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                    |
|------------------|-------------|------------|----------|------------|-----------------------------------|
| C.O. Sub         | 1.00        |            |          | 4469.00    |                                   |
| Shut in tool     | 5.00        |            |          | 4474.00    |                                   |
| HMV              | 5.00        |            |          | 4479.00    |                                   |
| Packer           | 4.00        |            |          | 4483.00    | 20.00 Bottom Of Top Packer        |
| Packer           | 5.00        |            |          | 4488.00    |                                   |
| Stubb            | 1.00        |            |          | 4489.00    |                                   |
| Recorder         | 0.00        | 8167       | Inside   | 4489.00    |                                   |
| Recorder         | 0.00        | 8370       | Outside  | 4489.00    |                                   |
| Bullnose         | 5.00        |            |          | 4494.00    | 6.00 Bottom Packers & Anchor Tool |

**Total Tool Length: 26.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

Job Ticket: 36889

**DST#: 4**

ATTN: Jon Messenger

Test Start: 2010.06.01 @ 16:07:32

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37.4 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

78000 ppm

Viscosity: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.97 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 0.20 inches

## Recovery Information

Recovery Table

| Length<br>ft | Description                        | Volume<br>bbbl |
|--------------|------------------------------------|----------------|
| 600.00       | SW/w few o specs./Rw. 1ohms @72deg | 6.449          |
| 90.00        | SOCMW 2%o 7%m 91%w                 | 1.262          |
| 800.00       | CGO 38%g 62%o                      | 11.222         |

Total Length: 1490.00 ft

Total Volume: 18.933 bbl

Num Fluid Samples: 0

Num Gas Bombs: 1

Serial #: gp-4

Laboratory Name: caraway

Laboratory Location:

Recovery Comments:



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**GAS RATES**

Messenger Petl. Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36889

**DST#: 4**

Test Start: 2010.06.01 @ 16:07:32

### Gas Rates Information

Temperature: 59 (deg F)  
Relative Density: 0.65  
Z Factor: 0.8

Gas Rates Table

| Flow Period | Elapsed Time | Choke (inches) | Pressure (psig) | Gas Rate (Mcf/d) |
|-------------|--------------|----------------|-----------------|------------------|
| 1           | 30           | 0.25           | 6.00            | 32.36            |
| 1           | 30           | 0.25           | 6.00            | 32.36            |
| 2           | 15           | 0.25           | 1.00            | 24.43            |



## DRILL STEM TEST REPORT

Prepared For: **Messenger Petl.Inc.**

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**11-29s-9w Kingman KS**

**Conrardy Seeds#1**

Start Date: 2010.05.31 @ 09:55:12

End Date: 2010.05.31 @ 17:46:12

Job Ticket #: 36888                      DST #: 3

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

Printed: 2014.07.02 @ 12:46:47



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petl.Inc.

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**Conrardy Seeds#1**

**11-29s-9w Kingman KS**

Job Ticket: 36888

**DST#: 3**

Test Start: 2010.05.31 @ 09:55:12

## GENERAL INFORMATION:

Formation: **Miss.**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 11:44:12  
 Time Test Ended: 17:46:12  
 Interval: **4210.00 ft (KB) To 4222.00 ft (KB) (TVD)**  
 Total Depth: 4222.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Gary Pevoteaux  
 Unit No: 39  
 Reference Elevations: 1711.00 ft (KB)  
 1702.00 ft (CF)  
 KB to GR/CF: 9.00 ft

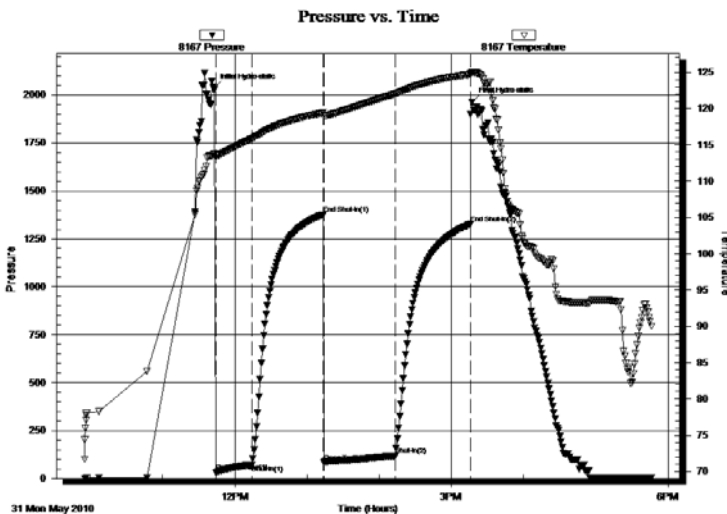
## Serial #: 8167

Inside

Press@RunDepth: 117.74 psig @ 4211.00 ft (KB)  
 Start Date: 2010.05.31 End Date: 2010.05.31  
 Start Time: 09:55:17 End Time: 17:46:11  
 Capacity: 8000.00 psig  
 Last Calib.: 2010.05.31  
 Time On Btm: 2010.05.31 @ 11:42:42  
 Time Off Btm: 2010.05.31 @ 15:17:11

**TEST COMMENT:** IF:Strong blow. B.O.B. in 3 mins.  
 ISI:Weak blow. 1/2 - 1 1/2".  
 FF:Strong blow. B.O.B. in 6 mins.  
 FSI:Weak blow. 1/2 - 2".

## PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 2034.08         | 113.73       | Initial Hydro-static |
| 2           | 30.04           | 113.45       | Open To Flow(1)      |
| 32          | 71.28           | 115.82       | Shut-In(1)           |
| 91          | 1375.79         | 119.40       | End Shut-In(1)       |
| 92          | 81.73           | 119.08       | Open To Flow(2)      |
| 151         | 117.74          | 121.98       | Shut-In(2)           |
| 214         | 1326.63         | 124.70       | End Shut-In(2)       |
| 215         | 1961.16         | 124.91       | Final Hydro-static   |

## Recovery

| Length (ft) | Description                      | Volume(bbl) |
|-------------|----------------------------------|-------------|
| 125.00      | SW/w o specs /Rw.055 ohms@85 deg | 0.61        |
| 60.00       | GOCMW 14%g 15%o 15%m 56%w        | 0.30        |
| 65.00       | GOCWM 12%g 18%o 35%w 35%m        | 0.63        |
| 0.00        | 770 ft.of GIP                    | 0.00        |
|             |                                  |             |
|             |                                  |             |

## Gas Rates

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

\* Recovery from multiple tests







**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

Job Ticket: 36888

**DST#: 3**

ATTN: Jon Messenger

Test Start: 2010.05.31 @ 09:55:12

### Tool Information

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3988.00 ft | Diameter: 3.80 inches | Volume: 55.94 bbl              | Tool Weight:           | 2400.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 24000.00 lb |
| Drill Collar:             | Length: 216.00 ft  | Diameter: 2.25 inches | Volume: 1.06 bbl               | Weight to Pull Loose:  | 79000.00 lb |
|                           |                    |                       | <u>Total Volume: 57.00 bbl</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 14.00 ft           |                       |                                | String Weight: Initial | 69000.00 lb |
| Depth to Top Packer:      | 4210.00 ft         |                       |                                | Final                  | 70500.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 12.00 ft           |                       |                                |                        |             |
| Tool Length:              | 32.00 ft           |                       |                                |                        |             |
| Number of Packers:        | 2                  | Diameter: 6.75 inches |                                |                        |             |
| Tool Comments:            |                    |                       |                                |                        |             |

### Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths                     |
|------------------|-------------|------------|----------|------------|------------------------------------|
| C.O. Sub         | 1.00        |            |          | 4191.00    |                                    |
| Shut in tool     | 5.00        |            |          | 4196.00    |                                    |
| HMV              | 5.00        |            |          | 4201.00    |                                    |
| Packer           | 4.00        |            |          | 4205.00    | 20.00 Bottom Of Top Packer         |
| Packer           | 5.00        |            |          | 4210.00    |                                    |
| Stubb            | 1.00        |            |          | 4211.00    |                                    |
| Recorder         | 0.00        | 8167       | Inside   | 4211.00    |                                    |
| Recorder         | 0.00        | 8370       | Outside  | 4211.00    |                                    |
| Perforations     | 6.00        |            |          | 4217.00    |                                    |
| Bullnose         | 5.00        |            |          | 4222.00    | 12.00 Bottom Packers & Anchor Tool |

**Total Tool Length: 32.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

Job Ticket: 36888

**DST#: 3**

ATTN: Jon Messenger

Test Start: 2010.05.31 @ 09:55:12

### 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:

121000ppm

Viscosity: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.77 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description                       | Volume<br>bbbl |
|--------------|-----------------------------------|----------------|
| 125.00       | SW/w o specs /Rw.055 ohms @85 deg | 0.615          |
| 60.00        | GOCMW 14%g 15%o 15%m 56%w         | 0.295          |
| 65.00        | GOCWM 12%g 18%o 35%w 35%m         | 0.629          |
| 0.00         | 770 ft.of GIP                     | 0.000          |

Total Length: 250.00 ft

Total Volume: 1.539 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:



## DRILL STEM TEST REPORT

Prepared For: **Messenger Petl.Inc.**

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**11-29s-9w Kingman KS**

**Conrardy Seeds#1**

Start Date: 2010.05.29 @ 06:13:10

End Date: 2010.05.29 @ 11:30:40

Job Ticket #: 36887                      DST #: 2

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

Printed: 2014.07.02 @ 12:46:22



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Messenger Petl.Inc.

525 S.Main  
Kingman KS 67068

ATTN: Jon Messenger

**Conrardy Seeds#1**

**11-29s-9w Kingman KS**

Job Ticket: 36887

**DST#: 2**

Test Start: 2010.05.29 @ 06:13:10

## GENERAL INFORMATION:

Formation: **Douglas**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:49:10

Time Test Ended: 11:30:40

Test Type: Conventional Bottom Hole (Reset)

Tester: Gary Pevoteaux

Unit No: 39

**Interval: 3376.00 ft (KB) To 3438.00 ft (KB) (TVD)**

Reference Elevations: 1711.00 ft (KB)

Total Depth: 3438.00 ft (KB) (TVD)

1702.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 9.00 ft

**Serial #: 8167**

**Inside**

Press@RunDepth: 287.39 psig @ 3377.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2010.05.29

End Date: 2010.05.29

Last Calib.: 2010.05.29

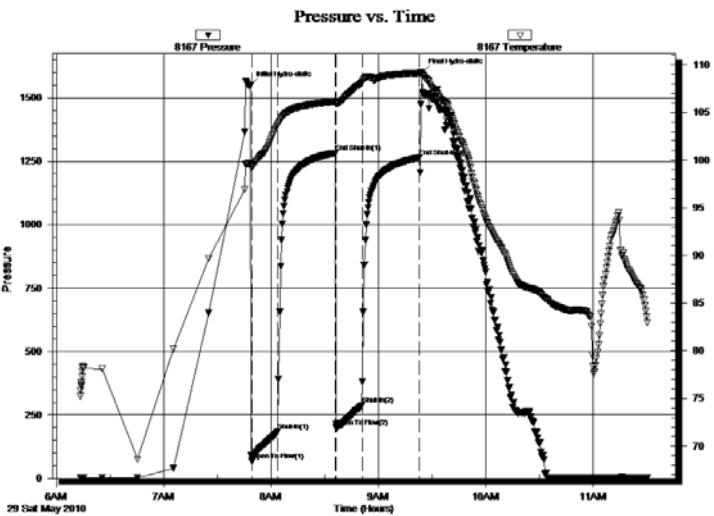
Start Time: 06:13:15

End Time: 11:30:39

Time On Btm: 2010.05.29 @ 07:48:10

Time Off Btm: 2010.05.29 @ 09:24:10

**TEST COMMENT:** IF:Strong blow. B.O.B. in 40 secs.  
ISI:Fair blow. Increase to 8".  
FF:Strong blow. B.O.B. in 35 secs.  
FSI:Strong blow. B.O.B. GTS 1 min.in to FSIP.



## PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation           |
|-------------|-----------------|--------------|----------------------|
| 0           | 1546.79         | 99.65        | Initial Hydro-static |
| 1           | 66.87           | 99.29        | Open To Flow(1)      |
| 16          | 185.71          | 103.61       | Shut-In(1)           |
| 48          | 1282.26         | 106.15       | End Shut-In(1)       |
| 49          | 201.30          | 105.92       | Open To Flow(2)      |
| 63          | 287.39          | 108.13       | Shut-In(2)           |
| 95          | 1264.15         | 109.11       | End Shut-In(2)       |
| 96          | 1595.50         | 109.10       | Final Hydro-static   |

## Recovery

| Length (ft) | Description            | Volume(bbl) |
|-------------|------------------------|-------------|
| 260.00      | SW /Rw.03 ohms@ 91deg. | 1.68        |
| 185.00      | GCMW 5%g 16%m 79%w     | 2.60        |
| 165.00      | WM /w trace of oil.    | 2.31        |
|             |                        |             |
|             |                        |             |

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

ATTN: Jon Messenger

Job Ticket: 36887

**DST#: 2**

Test Start: 2010.05.29 @ 06:13:10

## Tool Information

|                           |                    |                       |                                |                        |             |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe:               | Length: 3156.00 ft | Diameter: 3.80 inches | Volume: 44.27 bbl              | Tool Weight:           | 2400.00 lb  |
| Heavy Wt. Pipe:           | Length: 0.00 ft    | Diameter: 0.00 inches | Volume: 0.00 bbl               | Weight set on Packer:  | 24000.00 lb |
| Drill Collar:             | Length: 216.00 ft  | Diameter: 2.25 inches | Volume: 1.06 bbl               | Weight to Pull Loose:  | 77000.00 lb |
|                           |                    |                       | <u>Total Volume: 45.33 bbl</u> | Tool Chased            | 0.00 ft     |
| Drill Pipe Above KB:      | 16.00 ft           |                       |                                | String Weight: Initial | 63000.00 lb |
| Depth to Top Packer:      | 3376.00 ft         |                       |                                | Final                  | 64500.00 lb |
| Depth to Bottom Packer:   | ft                 |                       |                                |                        |             |
| Interval between Packers: | 62.00 ft           |                       |                                |                        |             |
| Tool Length:              | 82.00 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  |      |         | 3357.00 |                                    |
| Shut in tool  | 5.00  |      |         | 3362.00 |                                    |
| HMV           | 5.00  |      |         | 3367.00 |                                    |
| Packer        | 4.00  |      |         | 3371.00 | 20.00 Bottom Of Top Packer         |
| Packer        | 5.00  |      |         | 3376.00 |                                    |
| Stubb         | 1.00  |      |         | 3377.00 |                                    |
| Recorder      | 0.00  | 8167 | Inside  | 3377.00 |                                    |
| Recorder      | 0.00  | 8370 | Outside | 3377.00 |                                    |
| Perforations  | 5.00  |      |         | 3382.00 |                                    |
| Blank Spacing | 33.00 |      |         | 3415.00 |                                    |
| Perforations  | 18.00 |      |         | 3433.00 |                                    |
| Bullnose      | 5.00  |      |         | 3438.00 | 62.00 Bottom Packers & Anchor Tool |

**Total Tool Length: 82.00**



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

Messenger Petl.Inc.

**Conrardy Seeds#1**

525 S.Main  
Kingman KS 67068

**11-29s-9w Kingman KS**

Job Ticket: 36887

**DST#: 2**

ATTN: Jon Messenger

Test Start: 2010.05.29 @ 06:13:10

### 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:

102000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 18.73 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 19000.00 ppm

Filter Cake: 0.20 inches

### Recovery Information

Recovery Table

| Length<br>ft | Description             | Volume<br>bbbl |
|--------------|-------------------------|----------------|
| 260.00       | SW /Rw.03 ohms @ 91deg. | 1.679          |
| 185.00       | GCMW 5%g 16%m 79%w      | 2.595          |
| 165.00       | WM /w trace of oil.     | 2.315          |

Total Length: 610.00 ft

Total Volume: 6.589 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: