

DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
Mantey1DST1

Company Iuka-Carmi Development, LLC Lease & Well No. Mantey No. 1-26
Elevation 2064 KB Formation Lansing "A - B" Effective Pay _____ Ft. Ticket No. F362
Date 12-13-14 Sec. 26 Twp. 25S Range 16W County Edwards State Kansas
Test Approved By Steve Petermann Diamond Representative Jake Fahrenbruch

Formation Test No. 1 Interval Tested from 3,869 ft. to 3,913 ft. Total Depth 3,913 ft.
Packer Depth 3,864 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Packer Depth 3,869 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Depth of Selective Zone Set _____ ft.

Top Recorder Depth (Inside) 3,855 ft. Recorder Number 5951 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 3,873 ft. Recorder Number 5584 Cap. 5,000 psi.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ psi.

Drilling Contractor Ninnescah Drilling, LLC - Rig 101 Drill Collar Length _____ ft I.D. _____ in.
Mud Type Chemical Viscosity 56 Weight Pipe Length _____ ft I.D. _____ in.
Weight 9.1 Water Loss 8.8 cc. Drill Pipe Length 3,844 ft I.D. 3 1/2 in.
Chlorides 4,000 P.P.M. Test Tool Length 25 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number Not Run Anchor Length 10' perf. w/ 34' drill pipe Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Strong blow increasing. Off bottom of bucket in 2 mins. No blow back during shut-in.
2nd Open: Strong blow increasing. Off bottom of bucket in 2 1/2 mins. Strong, 11 in. blow back during shut-in.

Recovered 920 ft. of gas in pipe
Recovered 90 ft. of heavy gas cut, oily, watery, mud = 1.280700 bbls. (Grind out: 25%-gas; 20%-oil; 25%-water; 30%-mud)
Recovered 120 ft. of gas & mud cut, oily water = 1.707600 bbls. (Grind out: 10%-gas; 25%-oil; 50%-water; 15%-mud)
Recovered 140 ft. of slightly oil & mud cut water = 1.992200 bbls. (Grind out: 3%-oil; 87%-water; 10%-mud) Chlorides: 97,000 Ppm PH: 7.0 RW: .10 @ 56°
Recovered 350 ft. of TOTAL FLUID = 4.980500 bbls.
Recovered _____ ft. of _____
Remarks _____

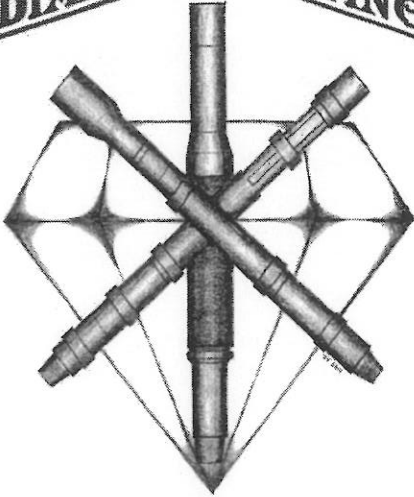
Time Set Packer(s) 8:00 P.M. Time Started off Bottom 10:45 P.M. Maximum Temperature 121°
Initial Hydrostatic Pressure.....(A) 1871 P.S.I.
Initial Flow Period.....Minutes 15 (B) 29 P.S.I. to (C) 62 P.S.I.
Initial Closed In Period.....Minutes 45 (D) 1142 P.S.I.
Final Flow Period.....Minutes 45 (E) 73 P.S.I. to (F) 153 P.S.I.
Final Closed In Period.....Minutes 60 (G) 1102 P.S.I.
Final Hydrostatic Pressure.....(H) 1867 P.S.I.

DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313

DIAMOND TESTING



TEST INFORMATION

Well Name	Mantey #1-26
Company Name	Iuka-Carmi Development, LLC
Formation	DST #1 Lansing "A-B" 3869'-3913'
Test Type	Bottom-Hole DST w/shale packer
Surface Location	Sec 26-25s-16w-Edwards Co.-KS
KB Elevation (SL)	2064.000
Gauge Name	Inside 5951
Start Test Date	2014/12/13
Start Test Time	18:07:00
Final Test Date	2014/12/14
Final Test Time	01:13:00
Job Number	F362
Contact	Kenny Gates
Site Contact	Steve Petermann

TEST RESULTS

Initial flow, strong blow, increased to BOB in 2 minutes. No blowback.
 Final flow, strong blow, increased to BOB in 2.5 minutes. Blowback @ 11".

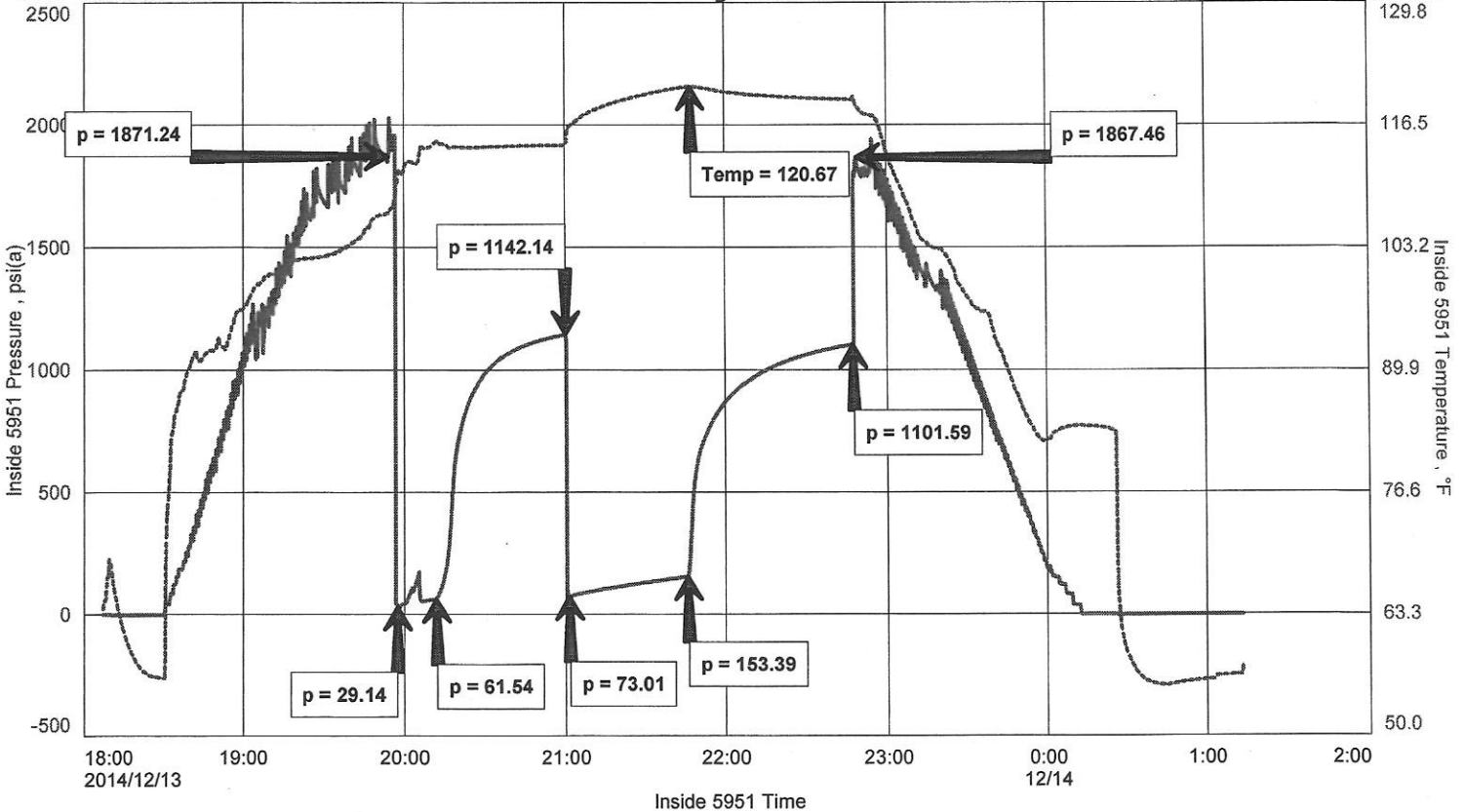
TOTAL RECOVERED FLUID: 350'

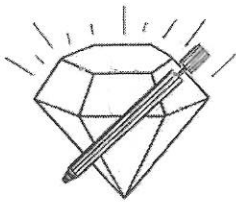
90'	HGC OWM	25% gas, 20% oil, 25% wtr, 30% mud
120'	G&MC OW	10% gas, 25% oil, 50% wtr, 15% mud
140'	SO&MCW	3% oil, 87% wtr, 10% mud
-----	920' GAS IN PIPE	
-----	Chlorides: 97,000 PPM	----- RW: .10 ohm @ 56 F ----- PH: 7.0

Iuka-Carmi Development, LLC
 DST #1, Lansing "A-B" 3869'-3913'
 Start Test Date: 2014/12/13
 Final Test Date: 2014/12/14

Mantey #1-26
 Formation: DST #1, Lansing "A-B" 3869'-3913'
 Pool: Infield
 Job Number: F362

Mantey #1-26





DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
Mantey1DST2

Company Iuka-Carmi Development, LLC Lease & Well No. Mantey No. 1-26
Elevation 2064 KB Formation Cherokee Effective Pay _____ Ft. Ticket No. F363
Date 12-15-14 Sec. 26 Twp. 25S Range 16W County Edwards State Kansas
Test Approved By Steve Petermann Diamond Representative Jake Fahrenbruch

Formation Test No. 2 Interval Tested from 4,317 ft. to 4,340 ft. Total Depth 4,340 ft.
Packer Depth 4,312 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Packer Depth 4,317 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Depth of Selective Zone Set _____ ft.

Top Recorder Depth (Inside) 4,303 ft. Recorder Number 5951 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 4,318 ft. Recorder Number 5584 Cap. 5,000 psi.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ psi.

Drilling Contractor Ninnescah Drilling, LLC - Rig 101 Drill Collar Length _____ ft I.D. _____ in.
Mud Type Chemical Viscosity 48 Weight Pipe Length _____ ft I.D. _____ in.
Weight 9.4 Water Loss 9.2 cc. Drill Pipe Length 4,269 ft I.D. 3 1/2 in.
Chlorides 3,600 P.P.M. Test Tool Length 25 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number Not Run Anchor Length 23 ft. Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Weak blow increasing to 3/4 in. No blow back during shut-in.
2nd Open: Surface blow that died. No blow back during shut-in.

Recovered 10 ft. of watery mud = .142300 bbls. (Grind out: 50%-water; 50%-mud) Chlorides: 22,000 Ppm PH: 7.0 RW: .54 @ 40°
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Remarks _____

Time Set Packer(s) 10:20 A.M. Time Started off Bottom 1:05 P.M. Maximum Temperature 123°
Initial Hydrostatic Pressure.....(A) 2141 P.S.I.
Initial Flow Period.....Minutes 15 (B) 9 P.S.I. to (C) 13 P.S.I.
Initial Closed In Period.....Minutes 45 (D) 106 P.S.I.
Final Flow Period.....Minutes 45 (E) 16 P.S.I. to (F) 22 P.S.I.
Final Closed In Period.....Minutes 60 (G) 105 P.S.I.
Final Hydrostatic Pressure.....(H) 2125 P.S.I.

DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313



TEST INFORMATION

Well Name	Mantey #1-26
Company Name	Iuka-Carmi Development LLC
Formation	DST #2 Cherokee 4317'-4340'
Test Type	Bottom-Hole DST w/shale packer
Surface Location	Sec 26-25s-16w-Edwards Co.-KS
KB Elevation (SL)	2064.000
Gauge Name	Inside 5951
Start Test Date	2014/12/15
Start Test Time	07:41:00
Final Test Date	2014/12/15
Final Test Time	15:31:00
Job Number	F363
Contact	Kenny Gates
Site Contact	Steve Petermann

TEST RESULTS

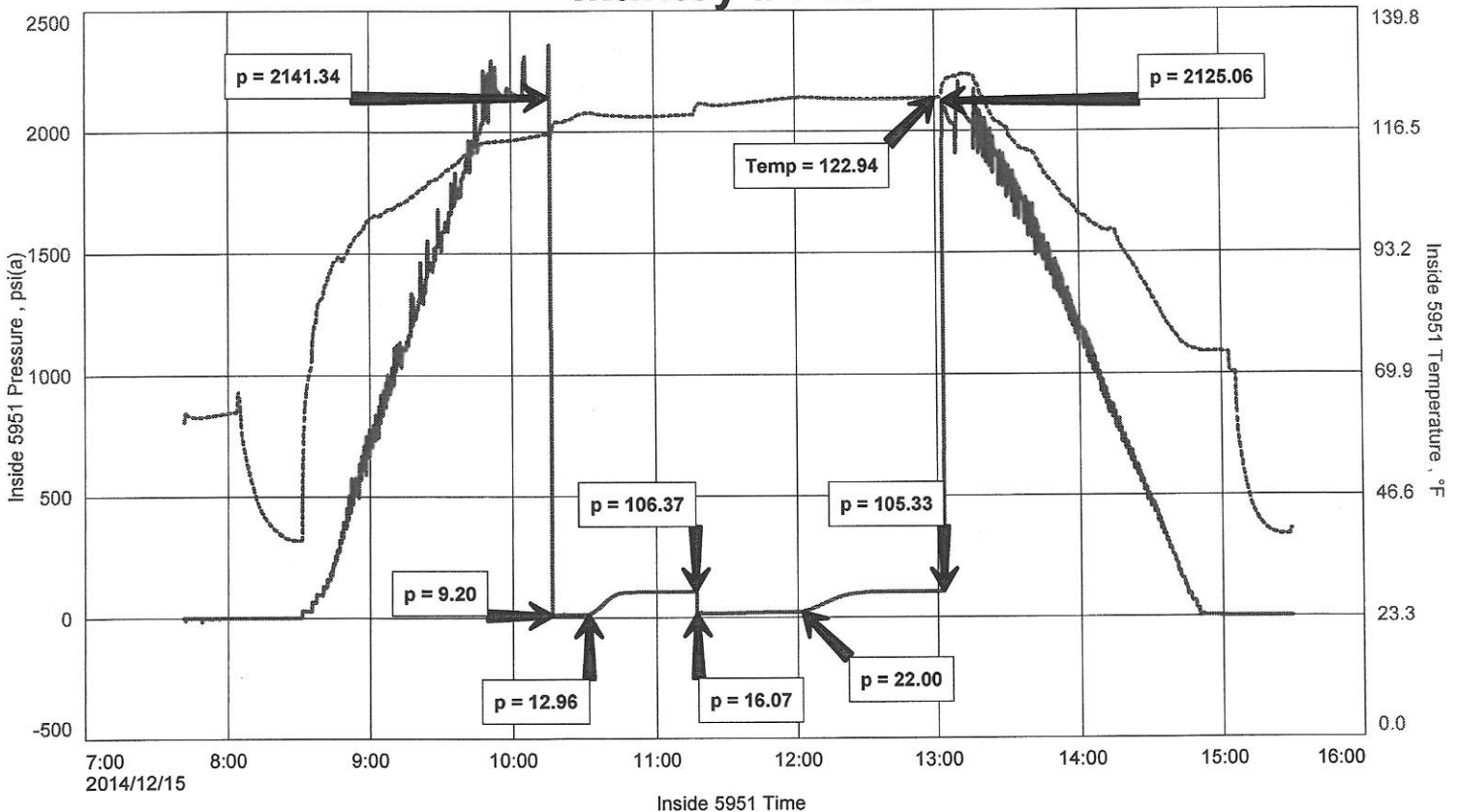
Initial flow, weak blow, increased to .75".
Final flow, surface blow, died.

Recovered 10' of watery mud, 50% wtr, 50% mud
Chlorides: 22,000 PPM
RW: .54 ohm @ 40 F
PH: 7.0

Iuka-Carmi Development, LLC
DST #2 Cherokee 4317'-4340'
Start Test Date: 2014/12/15
Final Test Date: 2014/12/15

Mantey #1-26
Formation: DST #2 Cherokee 4317'-4340'
Pool: Infield
Job Number: F363

Mantey #1-26





DIAMOND TESTING, LLC
 P.O. Box 157
HOISINGTON, KANSAS 67544
 (620) 653-7550 • (800) 542-7313
 Mantey1DST3

Company Iuka-Carmi Development, LLC Lease & Well No. Mantey No. 1-26
 Elevation 2064 KB Formation Conglomerate Effective Pay _____ Ft. Ticket No. F364
 Date 12-16-14 Sec. 26 Twp. 25S Range 16W County Edwards State Kansas
 Test Approved By Steve Petermann Diamond Representative Jake Fahrenbruch

Formation Test No. 3 Interval Tested from 4,344 ft. to 4,381 ft. Total Depth 4,381 ft.
 Packer Depth 4,339 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
 Packer Depth 4,344 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
 Depth of Selective Zone Set _____ ft.

Top Recorder Depth (Inside) 4,330 ft. Recorder Number 5951 Cap. 5,000 psi.
 Bottom Recorder Depth (Outside) 4,345 ft. Recorder Number 5584 Cap. 5,000 psi.
 Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ psi.

Drilling Contractor Ninnescah Drilling, LLC - Rig 101 Drill Collar Length _____ ft I.D. _____ in.
 Mud Type Chemical Viscosity 48 Weight Pipe Length _____ ft I.D. _____ in.
 Weight 9.4 Water Loss 9.2 cc. Drill Pipe Length 4,319 ft I.D. 3 1/2 in.
 Chlorides 3,600 P.P.M. Test Tool Length 25 ft Tool Size 3 1/2-IF in.
 Jars: Make Sterling Serial Number Not Run Anchor Length 37 ft. Size 4 1/2-FH in.
 Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

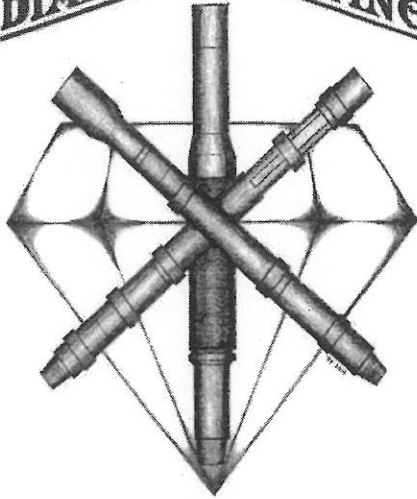
Blow: 1st Open: Strong blow increasing. Off bottom of bucket in 15 secs. No gas to surface. Bottom of bucket blow back during shut-in.
2nd Open: Fair blow increasing. Off bottom of bucket in 3 1/2 mins. No gas to surface. Bottom of bucket blow back during shut-in.

Recovered 2,600 ft. of gas in pipe
 Recovered 750 ft. of clean oil = 10.672500 bbls. (Grind out: 100%-oil) Gravity: 36.75 @ 60°
 Recovered 60 ft. of gas, water and mud cut oil = .853800 bbls. (Grind out: 20%-gas; 40%-oil; 20%-water; 20%-mud)
 Recovered 90 ft. of water = 1.280700 bbls. (Grind out: 100%-water) Chlorides: 124,000 Ppm PH: 7.5 RW: .08 @ 60°
 Recovered 900 ft. of TOTAL FLUID = 12.807000 bbls.
 Recovered _____ ft. of _____

Remarks _____

Time Set Packer(s) 2:06 A.M. Time Started off Bottom 4:31 A.M. Maximum Temperature 132°
 Initial Hydrostatic Pressure.....(A) 2199 P.S.I.
 Initial Flow Period.....Minutes 10 (B) 347 P.S.I. to (C) 370 P.S.I.
 Initial Closed In Period.....Minutes 45 (D) 374 P.S.I.
 Final Flow Period.....Minutes 30 (E) 370 P.S.I. to (F) 374 P.S.I.
 Final Closed In Period.....Minutes 60 (G) 389 P.S.I.
 Final Hydrostatic Pressure.....(H) 2198 P.S.I.

DIAMOND TESTING



DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313

TEST INFORMATION

Well Name	Mantey #1-26
Company Name	Iuka-Carmi Development LLC
Formation	DST #3 Conglomerate 4344'-4381'
Test Type	Bottom-Hole w/shale packer
Surface Location	Sec 26-25s-16w-Edwards Co.-KS
KB Elevation (SL)	2064.000
Gauge Name	Outside 5584
Start Test Date	2014/12/15
Start Test Time	23:46:00
Final Test Date	2014/12/16
Final Test Time	07:40:00
Job Number	F364
Contact	Kenny Gates
Site Contact	Steve Petermann

TEST RESULTS

Initial flow, strong blow, increased to BOB in 15 seconds. No GTS. Blowback increased to BOB.
 Final flow, fair blow, increased to BOB in 3.5 minutes. No GTS. Blowback increased to BOB.

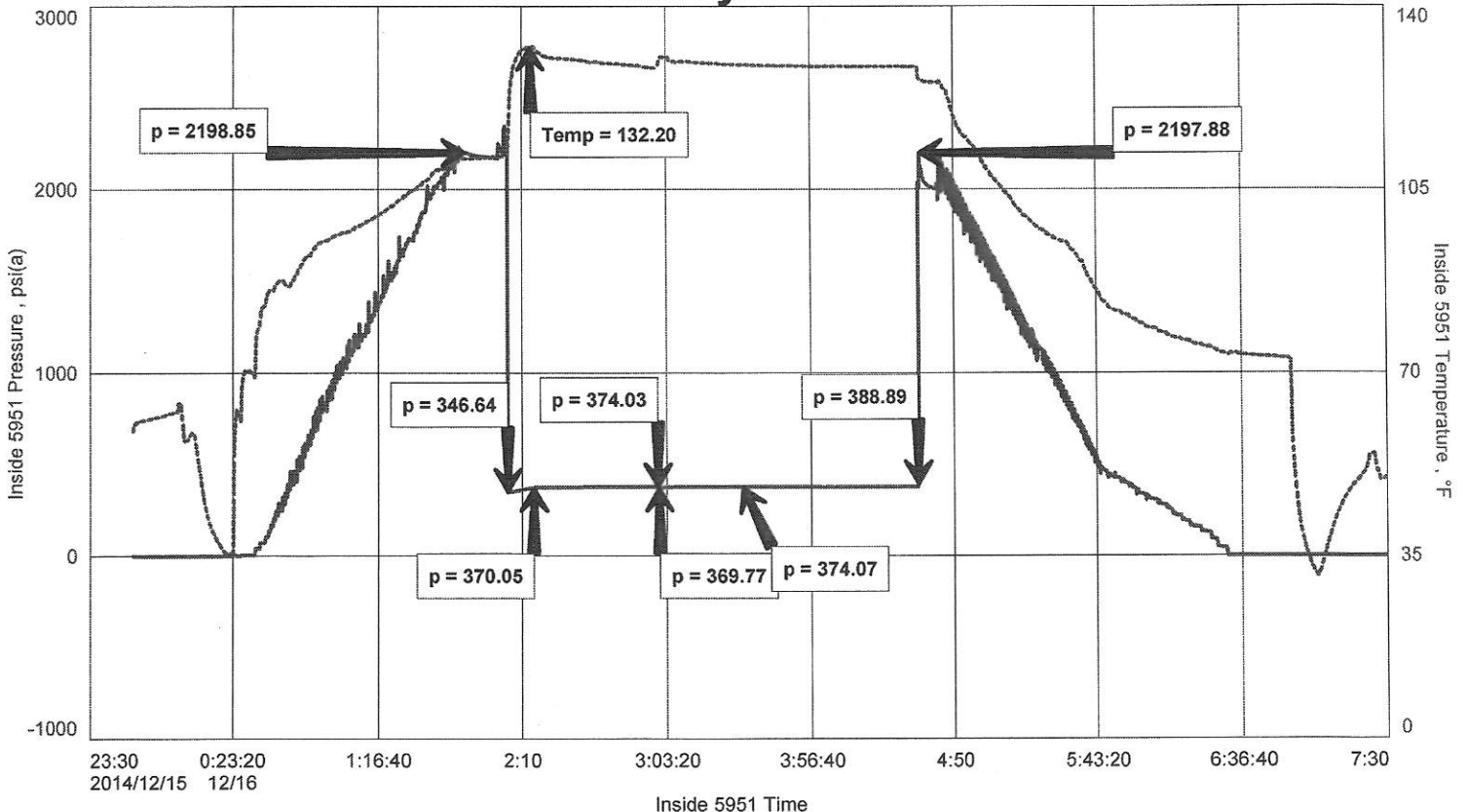
TOTAL RECOVERED FLUID: 900'

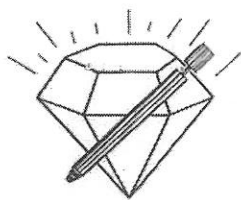
750'	Clean Oil	100% oil
60'	GCWMCO	20% gas, 40% oil, 20% wtr, 20% mud
90'	Water	100% wtr
----	2600' Gas In Pipe	
----	Gravity: 36.75 @ 60 F	Chlorides: 124,000 PPM
		RW: .08 ohm @ 60 F
		PH: 7.5

Iuka-Carmi Development, LLC
 DST #3 Conglomerate, 4344'-4381'
 Start Test Date: 2014/12/15
 Final Test Date: 2014/12/16

Mantey #1-26
 Formation: DST #3 Conglomerate, 4344'-4381'
 Pool: Infield
 Job Number: F364

Mantey #1-26





DIAMOND TESTING, LLC
P.O. Box 157
HOISINGTON, KANSAS 67544
(620) 653-7550 • (800) 542-7313
Mantey1DST4

Company Iuka-Carmi Development, LLC Lease & Well No. Mantey No. 1-26
Elevation 2064 KB Formation Mississippi Effective Pay _____ Ft. Ticket No. F365
Date 12-16-14 Sec. 26 Twp. 25S Range 16W County Edwards State Kansas
Test Approved By Steve Petermann Diamond Representative Jake Fahrenbruch

Formation Test No. 4 Interval Tested from 4,381 ft. to 4,416 ft. Total Depth 4,416 ft.
Packer Depth 4,376 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Packer Depth 4,381 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
Depth of Selective Zone Set _____ ft.

Top Recorder Depth (Inside) 4,367 ft. Recorder Number 5951 Cap. 5,000 psi.
Bottom Recorder Depth (Outside) 4,382 ft. Recorder Number 5584 Cap. 5,000 psi.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ psi.

Drilling Contractor Ninnescah Drilling, LLC - Rig 101 Drill Collar Length _____ ft I.D. _____ in.
Mud Type Chemical Viscosity 62 Weight Pipe Length _____ ft I.D. _____ in.
Weight 9.0 Water Loss 8.8 cc. Drill Pipe Length 4,356 ft I.D. 3 1/2 in.
Chlorides 5,000 P.P.M. Test Tool Length 25 ft Tool Size 3 1/2-IF in.
Jars: Make Sterling Serial Number Not Run Anchor Length 35 ft. Size 4 1/2-FH in.
Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: Blow increasing to 7 1/2 ins. No blow back during shut-in.

2nd Open: Blow increasing. Off bottom of bucket in 15 mins. No blow back during shut-in.

Recovered 480 ft. of gas in pipe
Recovered 35 ft. of slightly gas cut mud = .498050 bbls. (Grind out: 5%-gas; 95%-mud)
Recovered 35 ft. of TOTAL FLUID = .498050 bbls.
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Recovered _____ ft. of _____
Remarks _____

Time Set Packer(s) 5:00 P.M. Time Started off Bottom 7:45 P.M. Maximum Temperature 120°
Initial Hydrostatic Pressure.....(A) 2084 P.S.I.
Initial Flow Period.....Minutes 15 (B) 10 P.S.I. to (C) 16 P.S.I.
Initial Closed In Period.....Minutes 45 (D) 488 P.S.I.
Final Flow Period.....Minutes 45 (E) 17 P.S.I. to (F) 25 P.S.I.
Final Closed In Period.....Minutes 60 (G) 504 P.S.I.
Final Hydrostatic Pressure.....(H) 2076 P.S.I.

DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313



TEST INFORMATION

Well Name	Mantey #1-26
Company Name	Iuka-Carmi Development LLC
Formation	DST #4 Mississippian 4381'-4416'
Test Type	Bottom-Hole w/shale packer
Surface Location	Sec 26-25s-16w-Edwards Co.-KS
KB Elevation (SL)	2064.000
Gauge Name	Inside 5951
Start Test Date	2014/12/16
Start Test Time	16:19:00
Final Test Date	2014/12/16
Final Test Time	21:46:00
Job Number	F365
Contact	Kenny Gates
Site Contact	Steve Petermann

TEST RESULTS

Initial flow, blow increased to 7.5". No blowback.
 Final flow, blow increased to BOB in 15 minutes. No blowback.

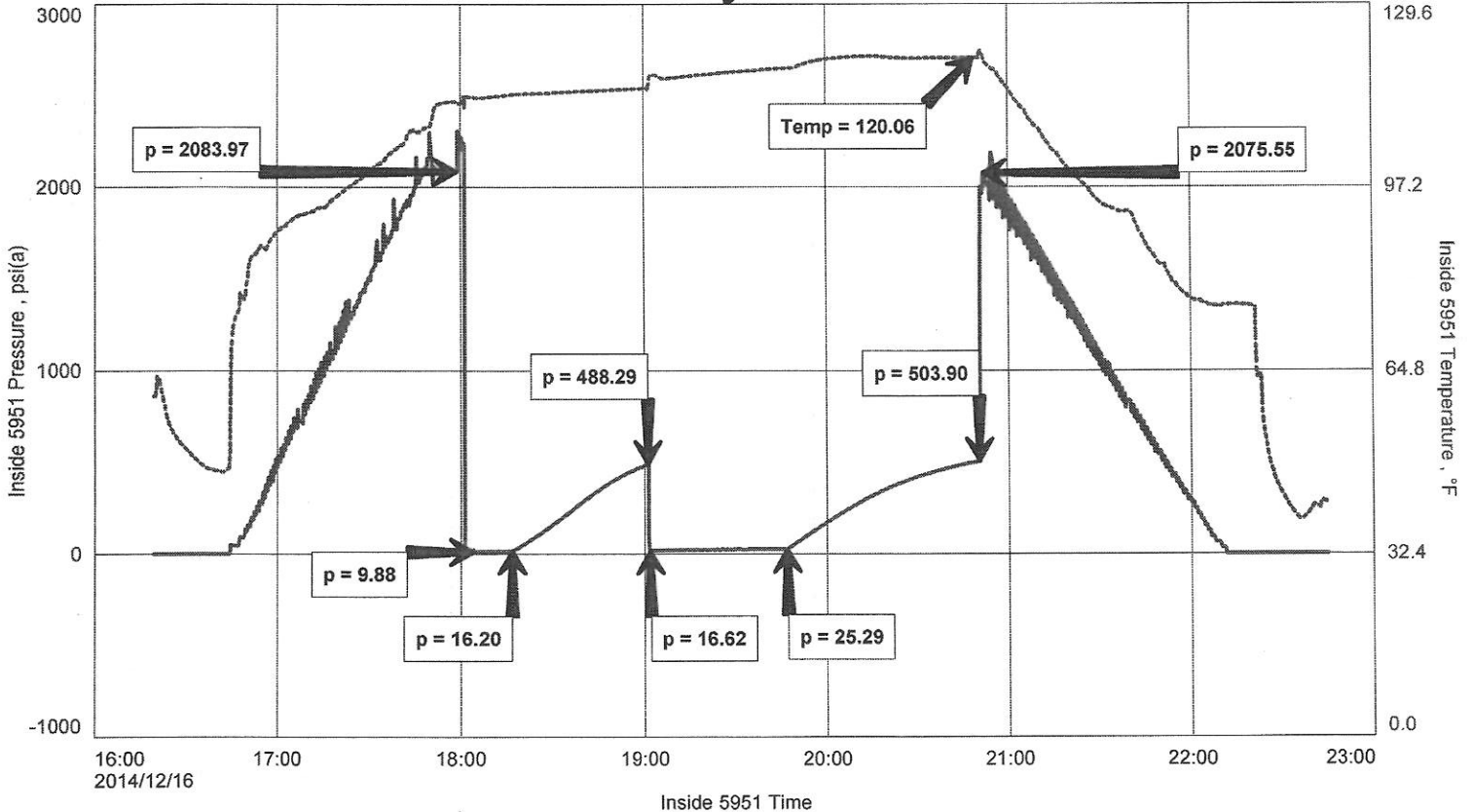
RECOVERED: 35' SGCM 5% gas, 95% mud

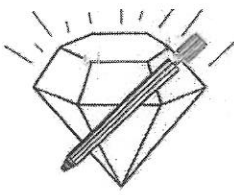
----- 480' Gas In Pipe

Iuka-Carmi Development, LLC
 DST #4 Mississippian 4381'-4416'
 Start Test Date: 2014/12/16
 Final Test Date: 2014/12/16

Mantey #1-26
 Formation: DST #4 Mississippian 4381'-4416'
 Pool: Infield
 Job Number: F365

Mantey #1-26





DIAMOND TESTING, LLC

P.O. Box 157

HOISINGTON, KANSAS 67544

(620) 653-7550 • (800) 542-7313

Mantey1DST5

Company Iuka-Carmi Development, LLC Lease & Well No. Mantey No. 1-26
 Elevation 2064 KB Formation Plattsmouth Effective Pay _____ Ft. Ticket No. F366
 Date 12-18-14 Sec. 26 Twp. 25S Range 16W County Edwards State Kansas
 Test Approved By Steve Petermann Diamond Representative Jake Fahrenbruch

Formation Test No. 5 Interval Tested from 3,624 ft. to 3,658 ft. Total Depth 4,760 ft
 Packer Depth 3,619 ft. Size 6 3/4 in. Packer Depth 3,658 ft. Size 6 3/4 in.
 Packer Depth 3,624 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.
 Depth of Selective Zone Set 3,658 ft.

Top Recorder Depth (Inside) _____ ft. Recorder Number _____ Cap. _____ psi.
 Bottom Recorder Depth (Outside) 3,625 ft. Recorder Number 5951 Cap. 5,000 psi.
 Below Straddle Recorder Depth 3,663 ft. Recorder Number 5584 Cap. 5,000 psi.

Drilling Contractor Ninnescah Drilling, LLC - Rig 101 Drill Collar Length _____ ft I.D. _____ in.
 Mud Type Chemical Viscosity 54 Weight Pipe Length _____ ft I.D. _____ in.
 Weight 9.2 Water Loss 11.2 cc. Drill Pipe Length 3,599 ft I.D. 3 1/2 in.
 Chlorides 10,000 P.P.M. Test Tool Length 25 ft Tool Size 3 1/2-IF in.
 Jars: Make Sterling Serial Number Not Run Anchor Length 34' perf. w/ 1,102' tail pipe Size 4 1/2-FH in.
 Did Well Flow? No Reversed Out No Surface Choke Size 1 in. Bottom Choke Size 5/8 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2-XH in.

Blow: 1st Open: N/A

2nd Open: N/A

Recovered _____ ft. of MISRUN!
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks MISRUN - Tried to set hookwall tool from 8:15pm - 9:45pm & couldn't get it hooked.
When we got the tool back to surface, hookwall tool jaws were packed solid.

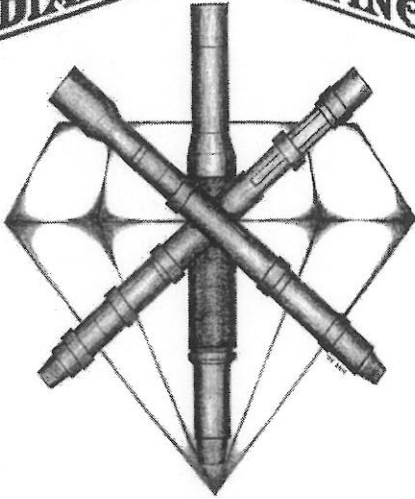
Time Set Packer(s) _____ Time Started off Bottom _____ Maximum Temperature _____
 Initial Hydrostatic Pressure.....(A) _____ P.S.I.
 Initial Flow Period.....Minutes _____ (B) _____ P.S.I. to (C) _____ P.S.I.
 Initial Closed In Period.....Minutes _____ (D) _____ P.S.I.
 Final Flow Period.....Minutes _____ (E) _____ P.S.I. to (F) _____ P.S.I.
 Final Closed In Period.....Minutes _____ (G) _____ P.S.I.
 Final Hydrostatic Pressure.....(H) _____ P.S.I.

DIAMOND TESTING GENERAL REPORT

Jake Fahrenbruch, Tester

Cell: (620) 282-8977 / Office: (800) 542-7313

DIAMOND TESTING



TEST INFORMATION

Well Name	Mantey #1-26
Company Name	Iuka-Carmi Development LLC
Formation	DST #5 Plattsmouth (3624'-3658', hook 3664', TD 4760')
Test Type	Hookwall Straddle w/Shale Packer
Surface Location	Sec 26-25s-16w-Edwards Co.-KS
KB Elevation (SL)	2064.000
Gauge Name	Outside 5951
Start Test Date	2014/12/18
Start Test Time	17:50:00
Final Test Date	2014/12/19
Final Test Time	00:39:00
Job Number	F366
Contact	Kenny Gates
Site Contact	Steve Petermann

TEST RESULTS

Tried to set hookwall tool from 8:15 pm - 9:45 pm, could not get hook to set.
(when we got the hookwall tool back to surface, the jaws were packed solid)

MIS-RUN

Iuka-Carmi Development, LLC
DST #5 Plattsmouth (3624'-3658', hook 3664', TD 4760')
Start Test Date: 2014/12/18
Final Test Date: 2014/12/19

Mantey #1-26
Formation: DST #5 Plattsmouth (3624'-3658', hook 3664', TD 4760')
Pool: Infield
Job Number: F366

Mantey #1-26

