



DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: BGGS21D1XDST1

TIME ON: 0845
TIME OFF: 1605

Company RITCHIE EXPLORATION, INC. Lease & Well No. BIGGS 21D #1X
Contractor SOUTHWIND DRILLING, INC. RIG 2 Charge to RITCHIE EXPLORATION, INC.
Elevation 2087 GL EST Formation LAN. B&C Effective Pay Ft. Ticket No. M640
Date 4/9/2014 Sec. 21 Twp. 21 S Range 18 W County PAWNEE State KANSAS
Test Approved By ADAM ELDANI Diamond Representative MIKE COCHRAN

Formation Test No. 1 Interval Tested from 3604 ft. to 3632 ft. Total Depth 3632 ft.

Packer Depth 3599 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Packer Depth 3604 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3586 ft. Recorder Number 0063 Cap. 6,000 P.S.I.

Bottom Recorder Depth (Outside) 3606 ft. Recorder Number E1150 Cap. 5,000 P.S.I.

Below Straddle Recorder Depth ft. Recorder Number Cap. P.S.I.

Mud Type CHEM Viscosity 53 Drill Collar Length 0 ft. I.D. 2 1/4 in.

Weight 9.0 Water Loss 7.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.

Chlorides 8,600 P.P.M. Drill Pipe Length 3572 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out NO Anchor Length 28 ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: GSB, BOB 18 MIN. (NO BB)

2nd Open: WSB, BOB 29 MIN. (NO BB)

Recovered 390 ft. of VSOSGMW ~99% WTR. 1% MUD W/ A FEW SPOTS OF OIL & SOME GASSY BUBBLES

Recovered 390 ft. of TOTAL FLUID

Recovered ft. of

Recovered ft. of CHLOR: 60,000 PPM

Recovered ft. of PH: 7.0

Recovered ft. of RW: 0.1 @ 84 DEG

Remarks: TOOL SLID ~10'

TOOL SAMPLE: ~100% WTR W/ A FEW SPOTS OF OIL & SOME GASSY BUBBLES

Time Set Packer(s) 11:00 A.M. A.M. P.M. Time Started Off Bottom 2:00 P.M. A.M. P.M. Maximum Temperature 111°F

Initial Hydrostatic Pressure..... (A) 1679 P.S.I.

Initial Flow Period..... Minutes 30 (B) 19 P.S.I. to (C) 81 P.S.I.

Initial Closed In Period..... Minutes 45 (D) 1233 P.S.I.

Final Flow Period..... Minutes 45 (E) 83 P.S.I. to (F) 161 P.S.I.

Final Closed In Period..... Minutes 60 (G) 1226 P.S.I.

Final Hydrostatic Pressure..... (H) 1666 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	RITCHIE EXPLORATION, INC.	Job Number	M640
Well Name	BIGGS 21D #1X	Representative	MIKE COCHRAN
Unique Well ID	DST#1 3604-3632 LANS. B&C	Well Operator	RITCHIE EXPLORATION, INC.
Surface Location	SEC.21-21S-18W PAWNEE CO.KS.	Report Date	2014/04/09
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	ADAM ELDANI
	Test Unit		NO. 3

Test Information

Test Type	CONVENTIONAL		
Formation	DST#1 3604-3632 LANS. B&C		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2014/04/09	Start Test Time	08:45:00
Final Test Date	2014/04/09	Final Test Time	16:05:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

Test Results

Remarks RECOVERED:

390' VSOSGMW ~99% WTR. 1% MUD W/ A FEW SPOTS OF OIL & SOME GASSY BUBBLES
390' TOTAL FLUID

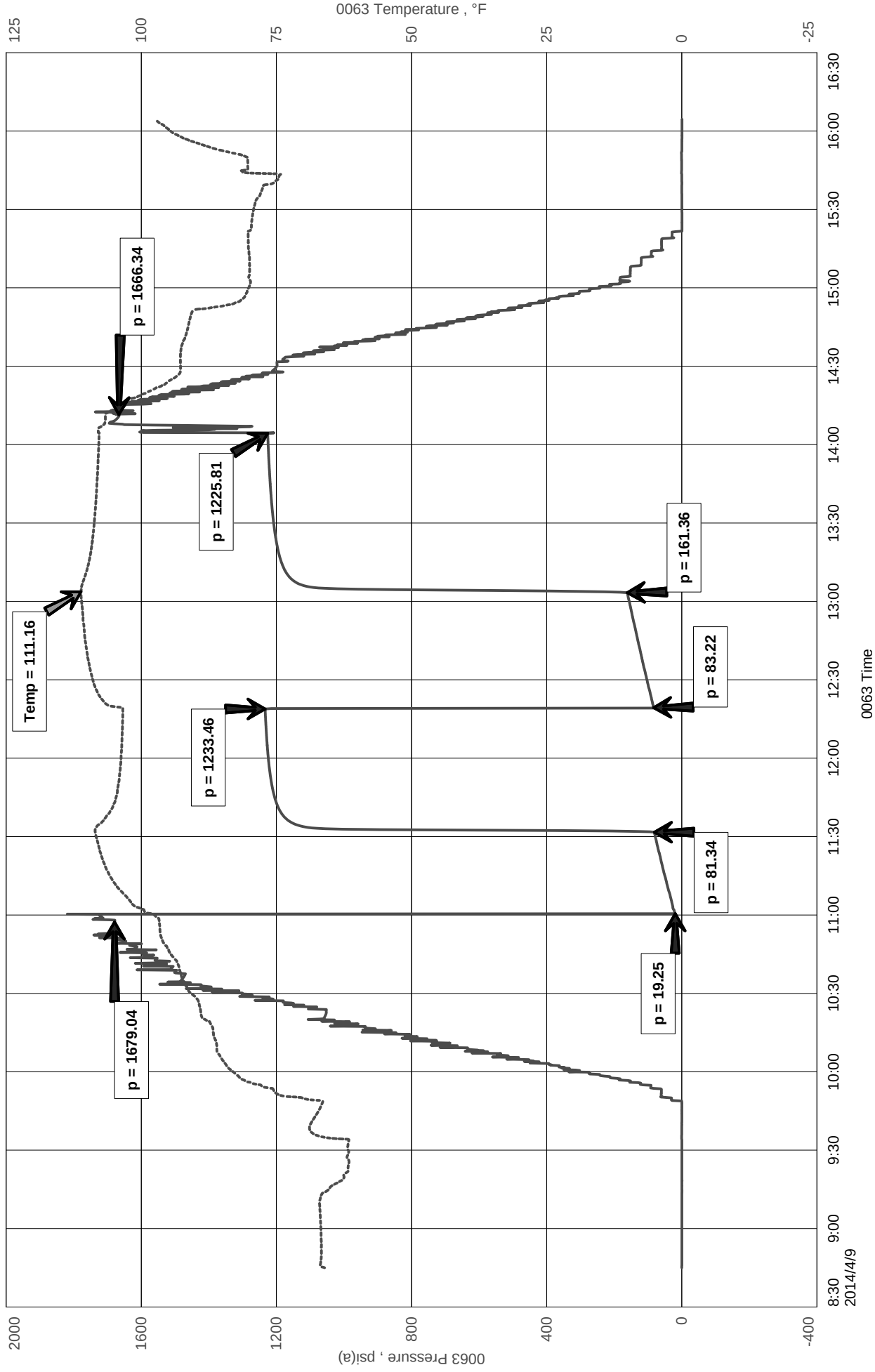
CHLOR: 60,000 PPM
PH:7.0
RW: 0.1 @ 84 DEG

TOOL SAMPLE: ~100% WTR W/ A FEW SPOTS OF OIL & SOME GASSY BUBBLES

RITCHIE EXPLORATION, INC.
DST#1 3604-3632 LANS. B&C
Start Test Date: 2014/04/09
Final Test Date: 2014/04/09

BIGGS 21D #1X
Formation: DST#1 3604-3632 LANS. B&C
Pool: WILDCAT
Job Number: M640

BIGGS 21D #1X





DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: BGGS21D1XDST2

TIME ON: 1620 (4/10)
TIME OFF: 0000 (4/11)

Company RITCHIE EXPLORATION, INC. Lease & Well No. BIGGS 21D #1X
Contractor SOUTHWIND DRILLING, INC. RIG 2 Charge to RITCHIE EXPLORATION, INC.
Elevation 2087 GL EST Formation LANS. J Effective Pay Ft. Ticket No. M641
Date 4/10/2014 Sec. 21 Twp. 21 S Range 18 W County PAWNEE State KANSAS
Test Approved By ADAM ELDANI Diamond Representative MIKE COCHRAN

Formation Test No. 2 Interval Tested from 3773 ft. to 3826 ft. Total Depth 3826 ft.

Packer Depth 3768 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Packer Depth 3773 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3755 ft. Recorder Number 0063 Cap. 6,000 P.S.I.

Bottom Recorder Depth (Outside) 3775 ft. Recorder Number E1150 Cap. 5,000 P.S.I.

Below Straddle Recorder Depth ft. Recorder Number Cap. P.S.I.

Mud Type CHEM Viscosity 50 Drill Collar Length 0 ft. I.D. 2 1/4 in.

Weight 9.0 Water Loss 11.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.

Chlorides 14,500 P.P.M. Drill Pipe Length 3741 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out NO Anchor Length 53 ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. (31' DP) Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WSB, BOB 8 MIN (VERY WEAK SHORT LIVED BB)

2nd Open: SSB, BOB 1 1/2 MIN. (NO BB)

Recovered 1190 ft. of GIP GRAVITY: 39.1 @ 60°

Recovered 15 ft. of DM 100% MUD

Recovered 255 ft. of WGMCO 16% GAS, 6% CLEAN OIL, 33% EMULSIFIED OIL, 10% WTR, 35% MUD

Recovered 270 ft. of TOTAL FLUID

Recovered ft. of CHLOR: 9,000 PPM

Recovered ft. of PH: 10.0

Remarks: TOOL SLID A ROUGH 10'

TOOL SAMPLE: ~1% GAS, ~60% OIL, ~39% MUD (ESTIMATED)

Time Set Packer(s) 6:30 P.M. A.M. P.M. Time Started Off Bottom 9:30 P.M. A.M. P.M. Maximum Temperature 107°F

Initial Hydrostatic Pressure..... (A) 1746 P.S.I.

Initial Flow Period..... Minutes 30 (B) 42 P.S.I. to (C) 70 P.S.I.

Initial Closed In Period..... Minutes 45 (D) 1218 P.S.I.

Final Flow Period..... Minutes 45 (E) 68 P.S.I. to (F) 98 P.S.I.

Final Closed In Period..... Minutes 60 (G) 1216 P.S.I.

Final Hydrostatic Pressure..... (H) 1714 P.S.I.

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DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	RITCHIE EXPLORATION, INC.	Job Number	M641
Well Name	BIGGS 21D #1X	Representative	MIKE COCHRAN
Unique Well ID	DST#2 3773-3826 LANS. J	Well Operator	RITCHIE EXPLORATION, INC.
Surface Location	SEC.21-21S-18W PAWNEE CO.KS.	Report Date	2014/04/11
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	ADAM ELDANI
	Test Unit		NO. 3

Test Information

Test Type	CONVENTIONAL		
Formation	DST#2 3773-3826 LANS. J		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2014/04/10	Start Test Time	16:20:00
Final Test Date	2014/04/11	Final Test Time	00:00:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

Test Results

Remarks RECOVERED:
1190' GIP
15' DM 100% MUD
255' WGMCO 16% GAS, 6% CLEAN OIL, 33% EMULSIFIED OIL,10% WTR, 35% MUD
270' TOTAL FLUID

GRAVITY: 39.1 @ 60 DEG

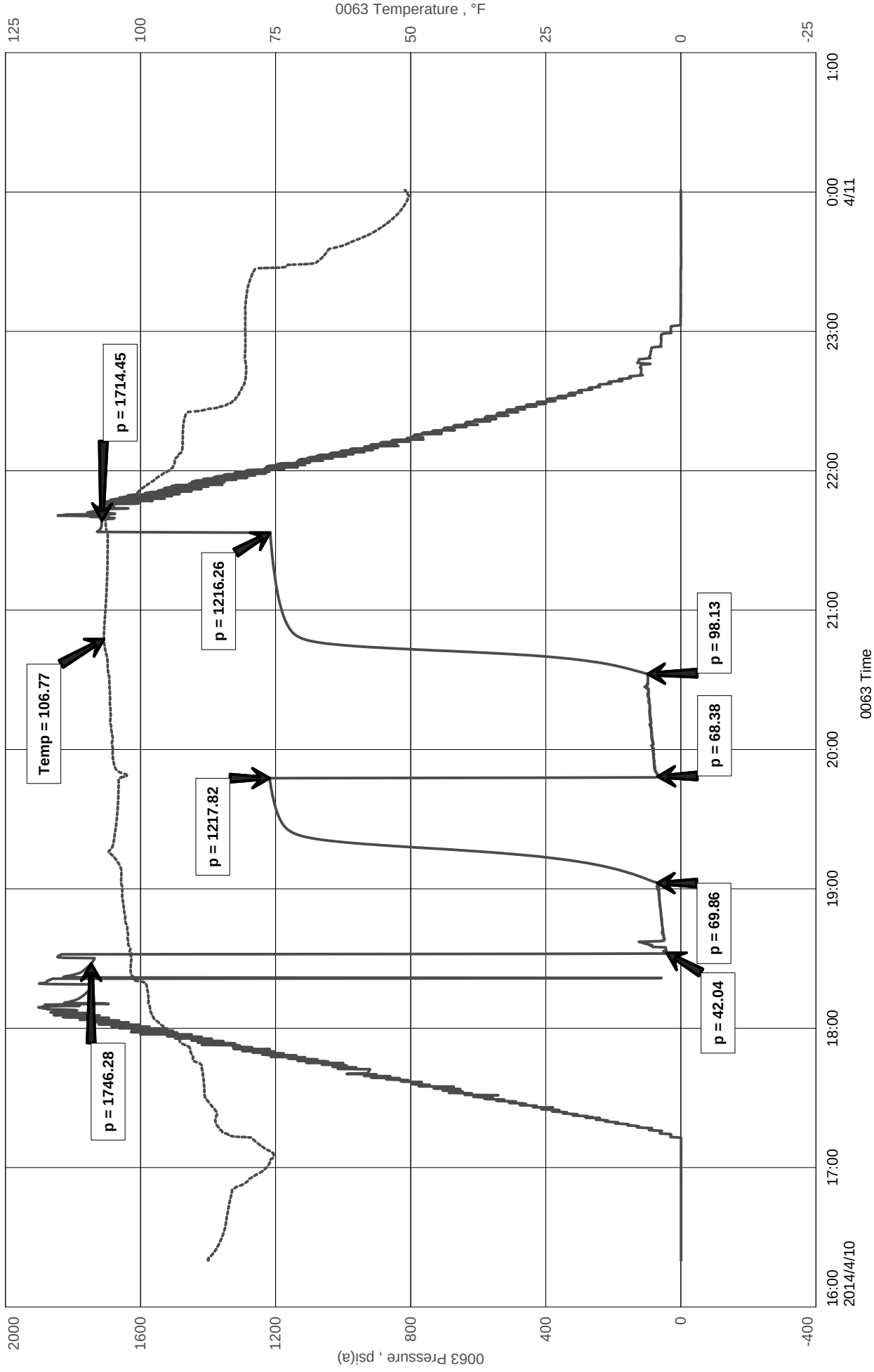
CHLOR: 9,000 PPM
PH:10.0

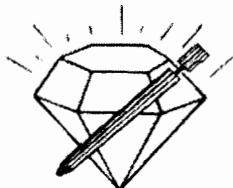
TOOL SAMPLE: ~1% GAS, ~60% OIL, ~39% MUD (ESTIMATED)

RITCHIE EXPLORATION, INC.
DST#2 3773-3826 LANS. J
Start Test Date: 2014/04/10
Final Test Date: 2014/04/11

BIGGS 21D #1X
Formation: DST#2 3773-3826 LANS. J
Pool: WILDCAT
Job Number: M641

BIGGS 21D #1X





DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: BGGS21D1XDST3

TIME ON: 1040
TIME OFF: 1750

Company RITCHIE EXPLORATION, INC. Lease & Well No. BIGGS 21D #1X
Contractor SOUTHWIND DRILLING, INC. RIG 2 Charge to RITCHIE EXPLORATION, INC.
Elevation 2087 GL EST Formation LANS. L Effective Pay Ft. Ticket No. M642
Date 4/11/2014 Sec. 21 Twp. 21 S Range 18 W County PAWNEE State KANSAS
Test Approved By ADAM ELDANI Diamond Representative MIKE COCHRAN

Formation Test No. 3 Interval Tested from 3843 ft. to 3888 ft. Total Depth 3888 ft.

Packer Depth 3838 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Packer Depth 3843 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3825 ft. Recorder Number 0063 Cap. 6,000 P.S.I.

Bottom Recorder Depth (Outside) 3845 ft. Recorder Number E1150 Cap. 5,000 P.S.I.

Below Straddle Recorder Depth ft. Recorder Number Cap. P.S.I.

Mud Type CHEM Viscosity 48 Drill Collar Length 0 ft. I.D. 2 1/4 in.

Weight 9.1 Water Loss 14.8 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.

Chlorides 14,200 P.P.M. Drill Pipe Length 3811 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.

Did Well Flow? NO Reversed Out NO Anchor Length 45 ft. Size 4 1/2-FH in.

Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. (32' DP) Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WSB, BOB 22 MIN (NO BB)

2nd Open: WSB, BOB 23 1/2 MIN (NO BB)

Recovered 166 ft. of WM 30% WTR, 70% MUD

Recovered 190 ft. of VSOSGWM 2% GAS, 95% WTR, 3% MUD W/ A FEW SPECKS OF OIL AT THE TOP OF THE WATER

Recovered 356 ft. of TOTAL FLUID

Recovered ft. of

Recovered ft. of CHLOR: 50,000 PPM

Recovered ft. of PH:7.0

Remarks: RW: .30 @ 75 DEG

TOOL SAMPLE: 100% WTR

Time Set Packer(s) 12:30 P.M. A.M. P.M. Time Started Off Bottom 3:30 P.M. A.M. P.M. Maximum Temperature 111°F

Initial Hydrostatic Pressure..... (A) 1807 P.S.I.

Initial Flow Period..... Minutes 30 (B) 17 P.S.I. to (C) 86 P.S.I.

Initial Closed In Period..... Minutes 45 (D) 1293 P.S.I.

Final Flow Period..... Minutes 45 (E) 91 P.S.I. to (F) 172 P.S.I.

Final Closed In Period..... Minutes 60 (G) 1268 P.S.I.

Final Hydrostatic Pressure..... (H) 1788 P.S.I.

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DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	RITCHIE EXPLORATION, INC.	Job Number	M642
Well Name	BIGGS 21D #1X	Representative	MIKE COCHRAN
Unique Well ID	DST#3 3843-3888 LANS. L	Well Operator	RITCHIE EXPLORATION, INC.
Surface Location	SEC.21-21S-18W PAWNEE CO.KS.	Report Date	2014/04/11
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	ADAM ELDANI
	Test Unit		NO. 3

Test Information

Test Type	CONVENTIONAL		
Formation	DST#3 3843-3888 LANS. L		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2014/04/11	Start Test Time	10:40:00
Final Test Date	2014/04/11	Final Test Time	17:50:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

Test Results

Remarks RECOVERED:
166' WM 30% WTR, 70% MUD
190' VSOSGWM 2% GAS, 95% WTR, 3% MUD W/ A FEW SPECKS OF OIL AT THE TOP OF THE WATER
356' TOTAL FLUID

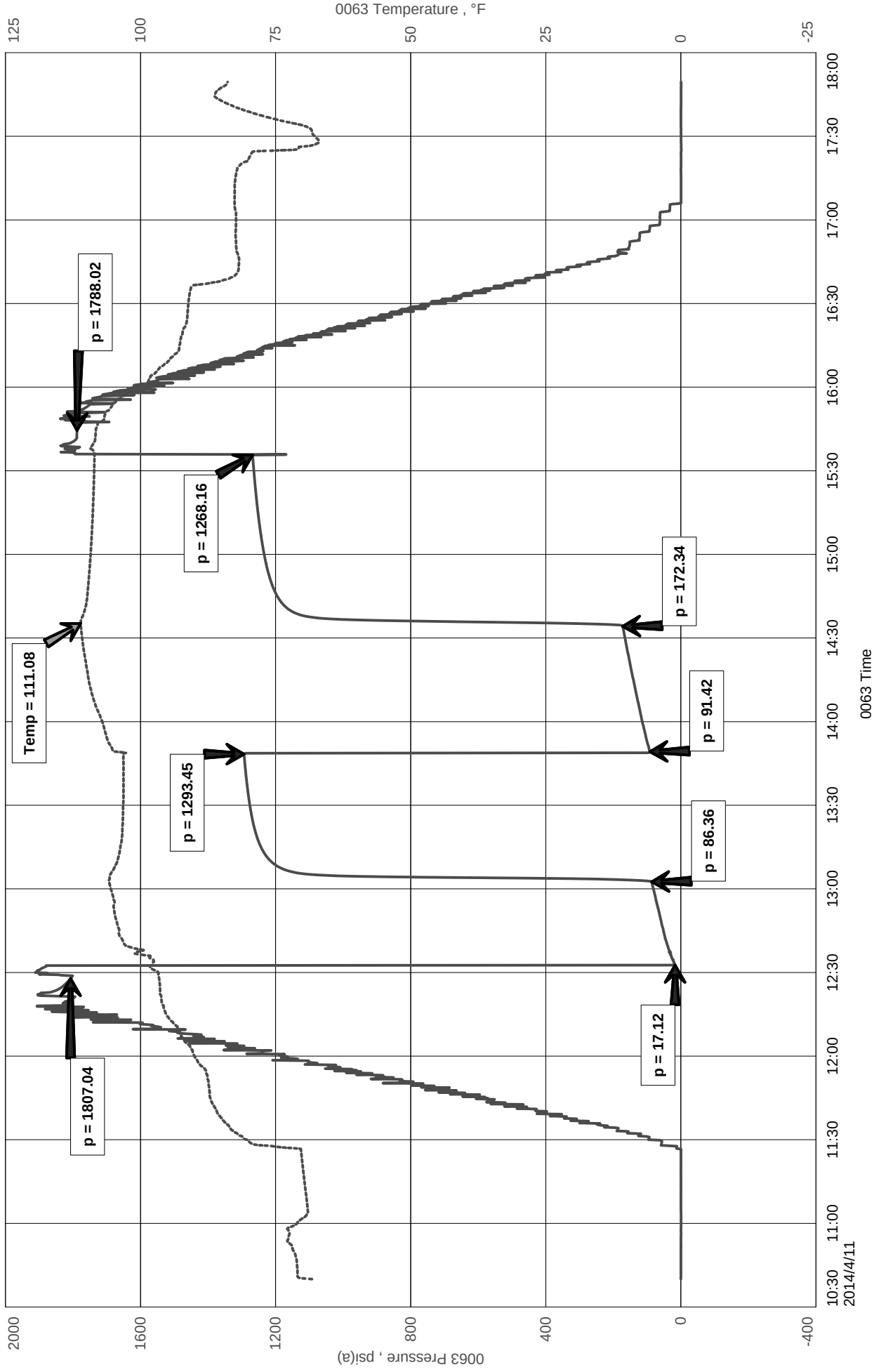
CHLOR: 50,000 PPM
PH:7.0
RW: .30 @ 75 DEG

TOOL SAMPLE: 100% WTR

RITCHIE EXPLORATION, INC.
DST#3 3843-3888 LANS. L
Start Test Date: 2014/04/11
Final Test Date: 2014/04/11

BIGGS 21D #1X
Formation: DST#3 3843-3888 LANS. L
Pool: WILDCAT
Job Number: M642

BIGGS 21D #1X





DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: BGGS21D1XDST4

TIME ON: 1325
TIME OFF: 2010

Company RITCHIE EXPLORATION, INC. Lease & Well No. BIGGS 21D #1X
Contractor SOUTHWIND DRILLING, INC. RIG 2 Charge to RITCHIE EXPLORATION, INC.
Elevation 2087 GL EST Formation SIMPSON SAND Effective Pay _____ Ft. Ticket No. M643
Date 4/12/2014 Sec. 21 Twp. 21 S Range 18 W County PAWNEE State KANSAS
Test Approved By ADAM ELDANI Diamond Representative MIKE COCHRAN

Formation Test No. 4 Interval Tested from 4004 ft. to 4043 ft. Total Depth 4043 ft.
Packer Depth 3999 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.
Packer Depth 4004 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.
Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3986 ft. Recorder Number 0063 Cap. 6,000 P.S.I.
Bottom Recorder Depth (Outside) 4006 ft. Recorder Number E1150 Cap. 5,000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Mud Type CHEM Viscosity 49 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 9.2 Water Loss 10.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 11,000 P.P.M. Drill Pipe Length 3972 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 39 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: GSB, BOB 30 SEC. GTS DURING INIT SHUT IN

2nd Open: BOB RIGHT AWAY (1/2"BB)

Recovered 78 ft. of GWM 2% GAS, 30% WTR, 68% MUD

Recovered 78 ft. of TOTAL FLUID

Recovered _____ ft. of _____

Recovered _____ ft. of RW: .44 @ 81 DEG

Recovered _____ ft. of CHLOR: 15,000 PPM

Recovered _____ ft. of PH:8.0

Remarks: GAS SAMPLE LEFT WITH GEO

NEEDLE VALVE ON MANIFOLD PARTIALY PLUGGED UP ON ITINIAL OPEN

TOOL SAMPLE: 3% GAS, 19% WTR, 78% MUD

Price Job

Other Charges

Insurance

Total

Time Set Packer(s) 3:15 P.M. A.M. P.M. Time Started Off Bottom 6:15 P.M. A.M. P.M. Maximum Temperature 106°F

Initial Hydrostatic Pressure..... (A) 1896 P.S.I.

Initial Flow Period..... Minutes 30 (B) 292 P.S.I. to (C) 864 P.S.I.

Initial Closed In Period..... Minutes 45 (D) 1153 P.S.I.

Final Flow Period..... Minutes 45 (E) 218 P.S.I. to (F) 171 P.S.I.

Final Closed In Period..... Minutes 60 (G) 962 P.S.I.

Final Hydrostatic Pressure..... (H) 1888 P.S.I.

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DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	RITCHIE EXPLORATION, INC.	Job Number	M643
Well Name	BIGGS 21D #1X	Representative	MIKE COCHRAN
Unique Well ID	DST#4 4004-4043 SIMPSON SAND	Well Operator	RITCHIE EXPLORATION, INC.
Surface Location	SEC.21-21S-18W PAWNEE CO.KS.	Report Date	2014/04/12
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	ADAM ELDANI
	Test Unit		NO. 3

Test Information

Test Type	CONVENTIONAL		
Formation	DST#4 4004-4043 SIMPSON SAND		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2014/04/12	Start Test Time	13:25:00
Final Test Date	2014/04/12	Final Test Time	20:10:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

Test Results

Remarks RECOVERED:
78' GWM 2% GAS, 30% WTR, 68% MUD
78' TOTAL FLUID

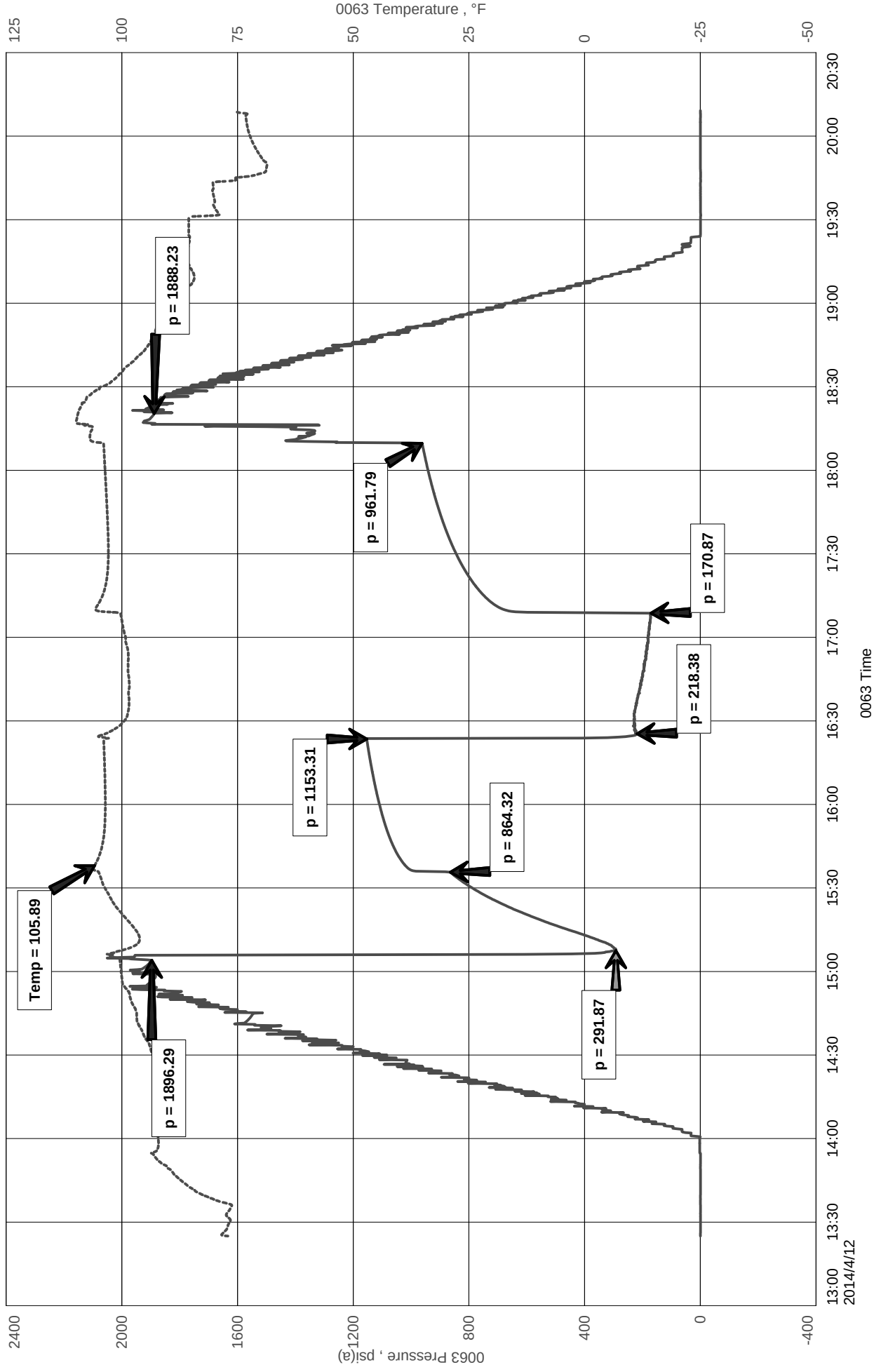
CHLOR: 15,000 PPM
PH:8.0
RW: .44 @ 81 DEG

TOOL SAMPLE: 3% GAS, 19% WTR, 78% MUD

RITCHIE EXPLORATION, INC.
DST#4 4004-4043 SIMPSON SAND
Start Test Date: 2014/04/12
Final Test Date: 2014/04/12

BIGGS 21D #1X
Formation: DST#4 4004-4043 SIMPSON SAND
Pool: WILDCAT
Job Number: M643

BIGGS 21D #1X





DIAMOND TESTING
P. O. Box 157
HOISINGTON, KANSAS 67544
(316) 653-7550
GAS VOLUME REPORT

Company L.D. DRLG Lease & Well No. BIGGS 21D #1X
Date 4/12/14 Sec. 21 Twp. 21S Rge. 18W Location _____ County PAWNEE State KS
Drilling Contractor SOUTHWIND DRILLING, INC. RIG 2 Formation SIMPSON SAND DST No. 4
Remarks: GTS DURING INIT. SHUTIN, GAS DID BURN

INITIAL FLOW PSI

Time O'Clock	Orifice Size	Gauge	CF/D
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	
	in.	in.	

FINAL FLOW PSI

Time O'Clock	Orifice Size	Gauge	CF/D
	1.50 in.	PSI in.	MCF/D
5 MIN	in.	6 in.	953
10 MIN.	in.	8 in.	1123
15 MIN.	in.	8 in.	1123
20 MIN.	in.	8 in.	1123
25 MIN	in.	6 in.	953
30 MIN.	in.	6 in.	953
35 MIN	in.	6 in.	953
40 MIN	in.	4 in.	764
45 MIN	in.	4 in.	764

SAMPLE TAKEN YES

FINAL FLOW 764 MCF/D



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P.O. Box 157
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(800) 542-7313
DRILL-STEM TEST TICKET
FILE: BGGS21D1XDST5

TIME ON: 0340
TIME OFF: 1030

Company RITCHIE EXPLORATION, INC. Lease & Well No. BIGGS 21D #1X
Contractor SOUTHWIND DRILLING, INC. RIG 2 Charge to RITCHIE EXPLORATION, INC.
Elevation 2087 GL EST Formation ARBuckle Effective Pay _____ Ft. Ticket No. M645
Date 4/13/2014 Sec. 21 Twp. 21 S Range 18 W County PAWNEE State KANSAS
Test Approved By ADAM ELDANI Diamond Representative MIKE COCHRAN

Formation Test No. 5 Interval Tested from 4046 ft. to 4054 ft. Total Depth 4054 ft.
Packer Depth 4041 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.
Packer Depth 4046 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4028 ft. Recorder Number 0063 Cap. 6,000 P.S.I.
Bottom Recorder Depth (Outside) 4048 ft. Recorder Number E1150 Cap. 5,000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.

Mud Type CHEM Viscosity 52 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 9.2 Water Loss 10.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 11,000 P.P.M. Drill Pipe Length 4014 ft. I.D. 3 1/2 in.

Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 8 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: WSB, INTERMITTENTLY INCREASED TO 2" (NO BB)

2nd Open: NO BLOW (NO BB)

Recovered 30 ft. of WM 10% WTR, 90% MUD

Recovered 30 ft. of TOTAL FLUID

Recovered _____ ft. of _____

Recovered _____ ft. of TOOL SLID ~5' GOING TO BTM TOOL SLID ~2' OVER ENTIRE INITIAL FLOW PERIOD

Recovered _____ ft. of SLID A LITTLE INIT SHUT IN. SLID A LITTLE FINAL FLOW,

Price Job

Recovered _____ ft. of DID NOT SLIDE FINAL SHUT IN (CHART INDICATES OTHERWISE)

Other Charges

Remarks: LOST VERY LITTLE MUD WHILE SLIDING

Insurance

CHLOR: 11,000 PPM PH: 7.0 RW: .65 @ 49 DEG

TOOL SAMPLE: 12% WATER, 88% MUD

MISRUN DUE TO POOR HOLE CONDITIONS

Total

Time Set Packer(s) 6:00 A.M. A.M. P.M. Time Started Off Bottom 8:30 A.M. A.M. P.M. Maximum Temperature 109°F

Initial Hydrostatic Pressure _____ (A) 1904 P.S.I.

Initial Flow Period _____ Minutes 30 (B) _____ P.S.I. to (C) _____ P.S.I.

Initial Closed In Period _____ Minutes 45 (D) _____ P.S.I.

Final Flow Period _____ Minutes 30 (E) _____ P.S.I. to (F) _____ P.S.I.

Final Closed In Period _____ Minutes 45 (G) _____ P.S.I.

Final Hydrostatic Pressure _____ (H) 1303 P.S.I.

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DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	RITCHIE EXPLORATION, INC.	Job Number	M645
Well Name	BIGGS 21D #1X	Representative	MIKE COCHRAN
Unique Well ID	DST#5 4046-4054 ARBUCKLE	Well Operator	RITCHIE EXPLORATION, INC.
Surface Location	SEC.21-21S-18W PAWNEE CO.KS.	Report Date	2014/04/13
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	ADAM ELDANI
	Test Unit		NO. 3

Test Information

Test Type	CONVENTIONAL		
Formation	DST#5 4046-4054 ARBUCKLE		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2014/04/13	Start Test Time	03:40:00
Final Test Date	2014/04/13	Final Test Time	10:30:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

Test Results

Remarks RECOVERED:
30' WM 10% WTR, 90% MUD
30' TOTAL FLUID

CHLOR: 11,000 PPM
PH:7.0
RW: .65 @ 49 DEG

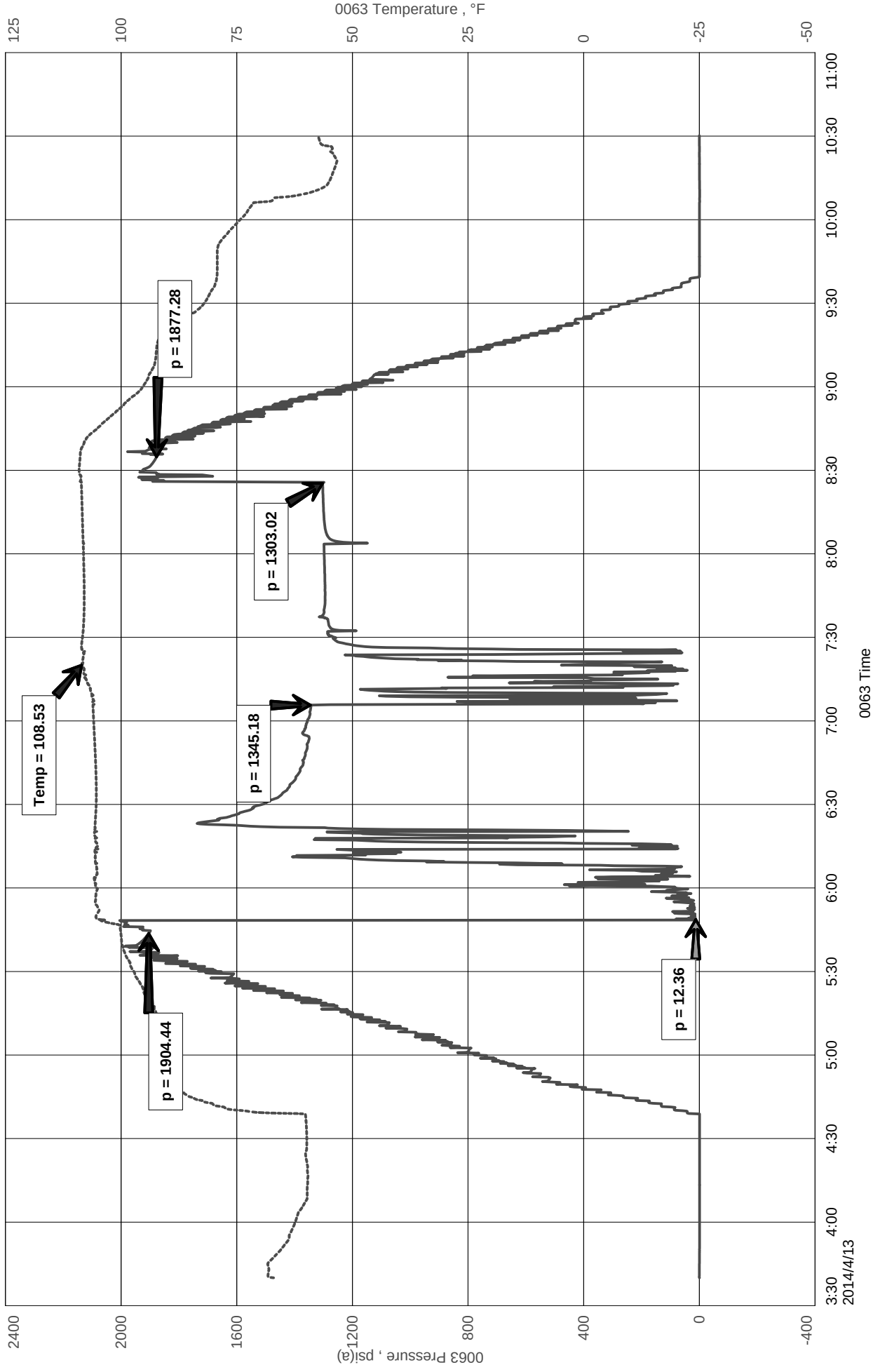
TOOL SAMPLE: 12% WTR, 88% MUD

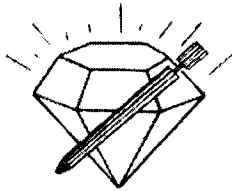
MISRUN DUE TO POOR HOLE CONDITIONS

RITCHIE EXPLORATION, INC.
DST#5 4046-4054 ARBUCKLE
Start Test Date: 2014/04/13
Final Test Date: 2014/04/13

BIGGS 21D #1X
Formation: DST#5 4046-4054 ARBUCKLE
Pool: WILDCAT
Job Number: M645

BIGGS 21D #1X





DIAMOND TESTING
P.O. Box 157
HOISINGTON, KANSAS 67544
(800) 542-7313
DRILL-STEM TEST TICKET
FILE: BGGS21D1XDST6

TIME ON: 1725 (4/13)
TIME OFF: 0120 (4/14)

Company RITCHIE EXPLORATION, INC. Lease & Well No. BIGGS 21D #1X
Contractor SOUTHWIND DRILLING, INC. RIG 2 Charge to RITCHIE EXPLORATION, INC.
Elevation 2087 GL EST Formation ARBUCKLE Effective Pay _____ Ft. Ticket No. M646
Date 4/13/2014 Sec. 21 Twp. 21 S Range 18 W County PAWNEE State KANSAS
Test Approved By ADAM ELDANI Diamond Representative MIKE COCHRAN

Formation Test No. 6 Interval Tested from 4048 ft. to 4059 ft. Total Depth 4059 ft.
Packer Depth 4043 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.
Packer Depth 4048 ft. Size 6 3/4 in. Packer depth NA ft. Size 6 3/4 in.
Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4030 ft. Recorder Number 0063 Cap. 6,000 P.S.I.
Bottom Recorder Depth (Outside) 4050 ft. Recorder Number E1150 Cap. 5,000 P.S.I.
Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.
Mud Type CHEM Viscosity 49 Drill Collar Length 0 ft. I.D. 2 1/4 in.
Weight 9.0 Water Loss 11.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
Chlorides 11,000 P.P.M. Drill Pipe Length 4016 ft. I.D. 3 1/2 in.
Jars: Make STERLING Serial Number 3 Test Tool Length 32 ft. Tool Size 3 1/2-IF in.
Did Well Flow? NO Reversed Out NO Anchor Length 11 ft. Size 4 1/2-FH in.
Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: SSB, 1" RIGHT AWAY, BOB 28 1/2 MIN (WEAK SURFACE BB)
2nd Open: WSB, BUILT TO 8 1/2" (WEAK SURFACE BB)

Recovered _____ ft. of TWO INCHES FREE OIL GRAVITY: 40.8 @ 60°
Recovered ~63 ft. of OSGWM 3% GAS, 2% OIL, 46% WTR, 49% MUD
Recovered 192 ft. of VSOSGMW 2% GAS, 95% WTR, 3% MUD W/ A VERY THIN SCUM OF OIL
Recovered 255 ft. of TOTAL FLUID

Recovered _____ ft. of _____	Price Job
Recovered _____ ft. of _____	Other Charges
Remarks: <u>TOOL DID NOT SLIDE TO BTM, DID PULL EASY</u>	Insurance
CHLOR: <u>29,000 PPM</u> PH: <u>7.0</u> RW: <u>.44 @ 40 DEG</u>	
TOOL SAMPLE: <u>99% WTR, 1% MUD W/ A VERY THIN SCUM OF OIL</u>	Total

Time Set Packer(s) 7:30 P.M. A.M. P.M. Time Started Off Bottom 10:30 P.M. A.M. P.M. Maximum Temperature 116°F
Initial Hydrostatic Pressure _____ (A) 1898 P.S.I.
Initial Flow Period _____ Minutes 30 (B) 15 P.S.I. to (C) 59 P.S.I.
Initial Closed In Period _____ Minutes 45 (D) 1204 P.S.I.
Final Flow Period _____ Minutes 45 (E) 63 P.S.I. to (F) 123 P.S.I.
Final Closed In Period _____ Minutes 60 (G) 1160 P.S.I.
Final Hydrostatic Pressure _____ (H) 1860 P.S.I.

Diamond Testing shall not be liable for damages of any kind to the property or personnel of the one for whom a test is made or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

DIAMOND TESTING

Pressure Survey Report

General Information

Company Name	RITCHIE EXPLORATION, INC.	Job Number	M646
Well Name	BIGGS 21D #1X	Representative	MIKE COCHRAN
Unique Well ID	DST#6 4048-4059 ARBUCKLE	Well Operator	RITCHIE EXPLORATION, INC.
Surface Location	SEC.21-21S-18W PAWNEE CO.KS.	Report Date	2014/04/13
Field	WILDCAT	Prepared By	MIKE COCHRAN
Well Type	Vertical	Qualified By	ADAM ELDANI
	Test Unit		NO. 3

Test Information

Test Type	CONVENTIONAL		
Formation	DST#6 4048-4059 ARBUCKLE		
Test Purpose (AEUB)	Initial Test		
Start Test Date	2014/04/13	Start Test Time	17:25:00
Final Test Date	2014/04/14	Final Test Time	01:20:00
		Well Fluid Type	01 Oil
Gauge Name	0063		
Gauge Serial Number			

Test Results

Remarks RECOVERED:

TWO INCHES FREE OIL
~63' OSGWM 3% GAS, 2% OIL, 46% WTR, 49% MUD
192' VSOSGMW 2% GAS, 95% WTR, 3% MUD W/ A VERY THIN SCUM OF OIL
255' TOTAL FLUID

GRAVITY: 30.8 @ 60 DEG

CHLOR: 29,000 PPM

PH:7.0

RW: .44 @ 40 DEG

TOOL SAMPLE: 99% WTR, 1% MUD W/ A VERY THIN SCUM OF OIL

RITCHIE EXPLORATION, INC.
DST#6 4048-4059 ARBUCKLE
Start Test Date: 2014/04/13
Final Test Date: 2014/04/14

BIGGS 21D #1X
Formation: DST#6 4048-4059 ARBUCKLE
Pool: WILDCAT
Job Number: M646

BIGGS 21D #1X

