



WESTERN TESTING CO., INC.
FORMATION TESTING

Call - OK
Nº 4133

TICKET

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 1415 KB Formation Miss ^{Burlington} ~~Kerkhuk~~ Eff. Pay - Ft.

COMPANY NAME R040 Range Oil Co Inc District Augusta Date 2-11-84 Customer Order No. -

ADDRESS 240 Page Court 2204 Douglas Wichita, Ks 67202

LEASE AND WELL NO. Roby #1 COUNTY Clk STATE Ks Sec. 20 Twp. 28S Rge. 9E

Mail Invoice To Same #1 ROBY Co. Name Range Oil Co Inc Address - No. Copies Requested 1

Mail Charts To Same Address - No. Copies Requested 5

Formation Test No. 1 Interval Tested From 2767 ft. to 2786 ft. Total Depth 2786 ft.

Packer Depth 2786 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 2781 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2778 ft. Recorder Number 13266 Cap. 4200

Bottom Recorder Depth (Outside) 2781 ft. Recorder Number 13268 Cap. 4225

Below Scaddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Oil Co Inc #2 Drill Collar Length 150 I. D. 2 1/4 in.

Mud Type Chem Viscosity 45 Weight Pipe Length - I. D. - in.

Weight 9.9 Water Loss 10.- cc. Drill Pipe Length 2597 I. D. 3.8 in.

Chlorides 1600 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 00 in.

Jars: Make - Serial Number - Anchor Length 19 ft. Size 5 1/2 00 in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 X H in.

Blow: 2 shock 20 minutes

Recovered 10 ft. of Dolomite

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Recovered - ft. of -

Chlorides 2800 P.P.M. Sample Jars used 1 Remarks: -

RECEIVED
FEB 14 1984

Time On Location 1:30 2-11 A.M. Time Pick Up Tool 5:05 A.M. Time Off Location Standby A.M.

Time Set Packer(s) 6:10 A.M. Time Started Off Bottom 8:40 A.M. Maximum Temperature 100

Initial Hydrostatic Pressure (A) 1445 P.S.I.

Initial Flow Period (B) 30 Minutes (C) 40 P.S.I.

Initial Closed In Period (D) 725 P.S.I.

Final Flow Period (E) 80 Minutes (F) 60 P.S.I.

Final Closed In Period (G) 725 P.S.I.

Final Hydrostatic Pressure (H) 1445 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. 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, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By Greg J. Bohl
Signature of Customer or his authorized representative

Western Representative Norman Allen 0150

FIELD INVOICE

Open Hole Test \$ 550.00
Misrun \$ -
Straddle Test \$ -
Jars \$ -
Selective Zone \$ -
Safety Joint \$ -
Standby \$ -
Evaluation \$ -
Extra Packer \$ -
Circ. Sub. \$ -
Mileage \$ -
Fluid Sampler \$ -
Extra Charts \$ -
Insurance \$ -
Telecopier \$ -
TOTAL \$ 550.00

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 2/11/84
CUSTOMER: RANGE OIL COMPANY INC.
WELL: 1 TEST: 1
ELEVATION (KB): 1415 FORMATION: MISS.BURL.KEOKUK
SECTION: 20 TOWNSHIP: 28S
RANGE: 9E COUNTY: ELK STATE: KANSAS
GAUGE SN #13266 RANGE: 4200 CLOCK: 12

INTERVAL TEST FROM: 2767 FT TO: 2786 FT TOTAL DEPTH: 2786 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2786 FT SIZE: 6 3/4 IN PACKER DEPTH: 2781 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: COMPANY TOOLS #2
MUD TYPE: CHEMICAL VISCOSITY: 45
WEIGHT: 9.9 WATER LOSS (CC): 10.0
CHLORIDES (P.P.M.): 1600
JARS - MAKE: NO SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 150 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2597 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 O.D. IN
ANCHOR LENGTH: 19 FT SIZE: 5 1/2 O.D. IN
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 X.H. IN

BLOW: WEAK 20 MINUTES.

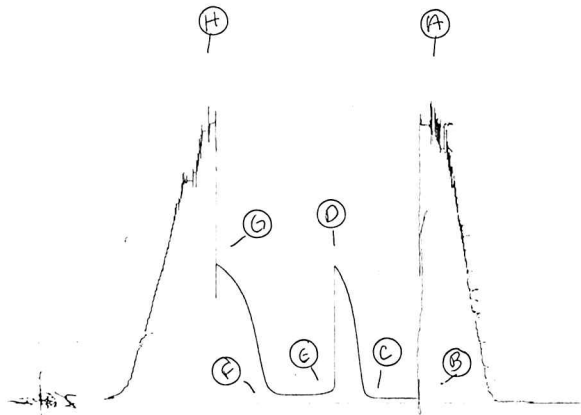
RECOVERED: 10 FT OF: DRILLING MUD
RECOVERED: FT OF: CHLORIDES 2800 P.P.M.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 6:10 A.M. TIME STARTED OFF BOTTOM: 8:40 A.M.
WELL TEMPERATURE: 100 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1444 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 28 PSI TO (C) 28 PSI
INITIAL CLOSED IN PERIOD MIN: 33 (D) 719 PSI
FINAL FLOW PERIOD MIN: 30 (E) 86 PSI TO (F) 44 PSI
FINAL CLOSED IN PERIOD MIN: 60 (G) 728 PSI
FINAL HYDROSTATIC PRESSURE (H) 1444 PSI

TK# 4133

I



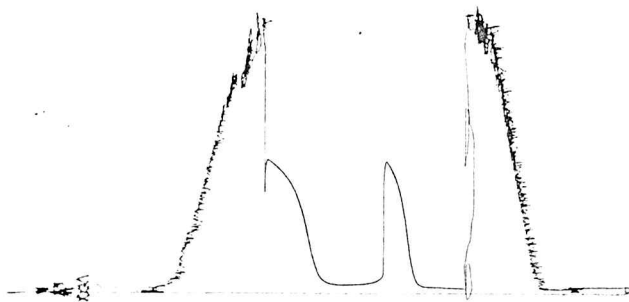
4133

057#1

132 66

TK# 4133

0





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

Nº 4134

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 1415 KB

Formation An buckle

Eff. Pay. - Ft.

District Augusta

Date 2-12-84

Customer Order No. -

COMPANY NAME Range Oil Co Inc.

ADDRESS 240 Page Court 220 W Douglas Wichita, Ks 67201

LEASE AND WELL NO. Roby #1 COUNTY Clk. STATE Ks. Sec. 20 Twp. 28s Rge. 9E

Mail Invoice To Same #1 ROBY Co. Name Address No. Copies Requested 1

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 2 Interval Tested From 2900 ft. to 2915 ft. Total Depth 2915 ft.

Packer Depth 2900 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 2895 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -

Top Recorder Depth (Inside) 2907 ft.

Recorder Number 13266 Cap. 4200

Bottom Recorder Depth (Outside) 2910 ft.

Recorder Number 13268 Cap. 4225

Below Straddle Recorder Depth - ft.

Recorder Number - Cap. -

Drilling Contractor Range Oil Co Inc #2

Drill Collar Length 150 I. D. 2 1/4 in.

Mud Type Chem Viscosity 46

Weight Pipe Length - I. D. - in.

Weight 9.7 Water Loss 11.2 cc.

Drill Pipe Length 2730 I. D. 3.8 in.

Chlorides 1400 P.P.M.

Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make - Serial Number -

Anchor Length 15 ft. Size 5 1/2 in.

Did Well Flow? No Reversed Out No

Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 x 14 in.

Blow: 2600 15 minutes

Recovered 1 ft. of Only mud.

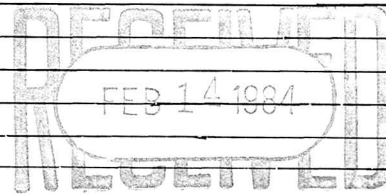
Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides 2600 P.P.M. Sample Jars used 1 Remarks:



Time On Location 1:30 2-11 A.M. Time Pick Up Tool 2:35 2-12 P.M. Time Off Location Standby A.M. P.M.

Time Set Packer(s) 4:00 A.M. P.M. Time Started Off Bottom 6:30 A.M. P.M. Maximum Temperature 108

Initial Hydrostatic Pressure (A) 1485 P.S.I.

Initial Flow Period Minutes 30 (B) 20 P.S.I. to (C) 20 P.S.I.

Initial Closed In Period Minutes 30 (D) 20 P.S.I.

Final Flow Period Minutes 30 (E) 20 P.S.I. to (F) 20 P.S.I.

Final Closed In Period Minutes 60 (G) 20 P.S.I.

Final Hydrostatic Pressure (H) 1475 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. 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, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By: [Signature] Signature of Customer or his authorized representative

Western Representative: Norman Allen

FIELD INVOICE

Open Hole Test \$ 550.00
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$ 550.00

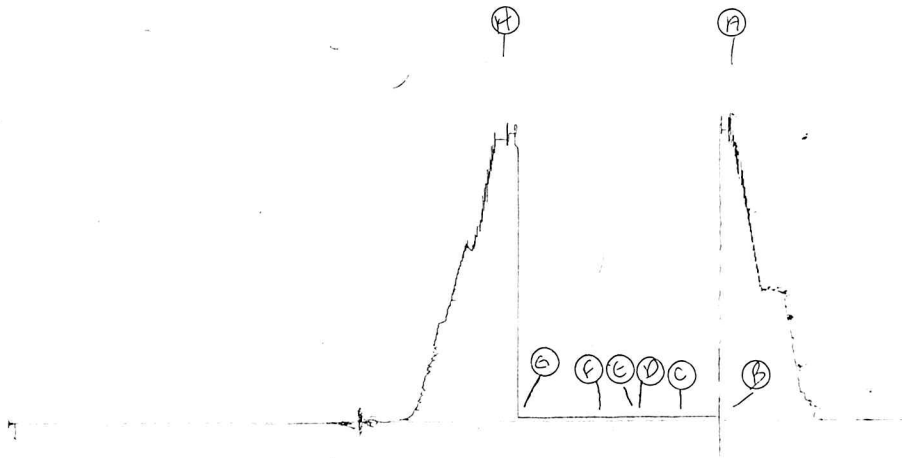
706# 4134

I.

13266

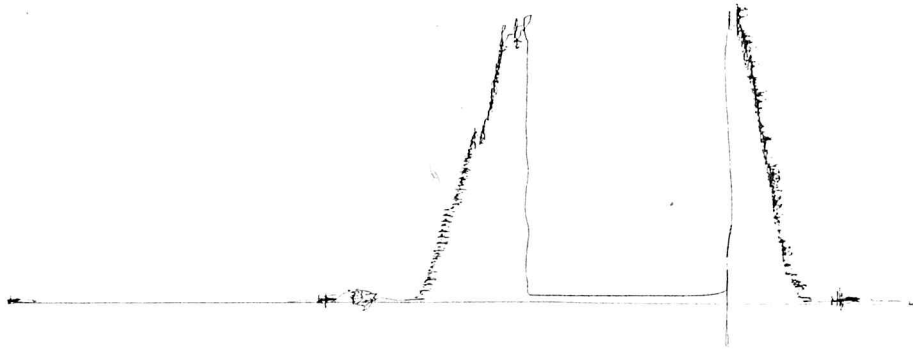
OST#2

4134



TCK# 4134

O



13268 OST#2 4134

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 2/12/84
CUSTOMER: RANGE OIL COMPANY CO.
WELL: 1 TEST: 2
ELEVATION (KB): 1415 FORMATION: ARBUCKLE
SECTION: 20 TOWNSHIP: 28S
RANGE: 9E COUNTY: ELK STATE: KANSAS
GAUGE SN #13266 RANGE: 4200 CLOCK: 12

INTERVAL TEST FROM: 2900 FT TO: 2915 FT TOTAL DEPTH: 2915 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2900 FT SIZE: 6 3/4 IN PACKER DEPTH: 2895 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: COMPANY TOOLS #2
MUD TYPE: CHEMICAL VISCOSITY: 46
WEIGHT: 9.7 WATER LOSS (CC): 11.2
CHLORIDES (P.P.M.): 1400
JARS - MAKE: NO SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 150 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2730 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 O.D. IN
ANCHOR LENGTH: 15 FT SIZE: 5 1/2 O.D. IN
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 X.H. IN

BLOW: WEAK 15 MINUTES.

RECOVERED: 1 FT OF: DRILLING MUD
RECOVERED: FT OF: CHLORIDES 2600 P.P.M.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 4:00 A.M. TIME STARTED OFF BOTTOM: 6:30 A.M.
WELL TEMPERATURE: 108 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1495 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 21 PSI TO (C) 21 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 21 PSI
FINAL FLOW PERIOD MIN: 30 (E) 21 PSI TO (F) 21 PSI
FINAL CLOSED IN PERIOD MIN: 60 (G) 21 PSI
FINAL HYDROSTATIC PRESSURE (H) 1481 PSI



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET

Nº

4135

P. O. BOX 1599

PHONE (316) 262-5861

Elevation 1415 KB

Formation

Anchukle

Eff. Pay - Ft.

WICHITA, KANSAS 67201

District

Augusta

Date

2-12-84

Customer Order No.

-

COMPANY NAME

Range Oil Co. Inc.

ADDRESS

240 Page Court 220 W Douglas Wichita, Ks 67201

LEASE AND WELL NO.

Roby #1

COUNTY

Elk

STATE

Ks

Sec.

20

Twp

28S

Rge. 9E

Mail Invoice To

Same

#1 ROBY

No. Copies Requested

1

Mail Charts To

Same

Address

No. Copies Requested

5

Address

Formation Test No.

3

Interval Tested From

2902

ft. to

2918

ft. Total

Depth 2918

ft.

Packer Depth

2902

ft.

Size

6 3/4 in.

Packer Depth

-

ft.

Size

-

in.

Packer Depth

2897

ft.

Size

-

Packer Depth

-

ft.

Size

-

in.

Depth of Selective Zone Set

Top Recorder Depth (Inside)

2916

ft.

Recorder Number

13266

Cap.

4200

Bottom Recorder Depth (Outside)

2913

ft.

Recorder Number

13268

Cap.

4225

Below Saddle Recorder Depth

-

ft.

Recorder Number

-

Cap.

-

Drilling Contractor

Range Oil Co. Inc. #2

Drill Collar Length

150

I. D.

2 1/4

in.

Mud Type

Chem

Viscosity

50

Weight Pipe Length

-

I. D.

-

in.

Weight

9.6

Water Loss

10.4

cc.

Drill Pipe Length

2732

I. D.

3.8

in.

Chlorides

1400

P.P.M.

Test Tool Length

20

ft.

Tool Size

5 1/2 00

in.

Jars: Make

-

Serial Number

-

Anchor Length

16

ft.

Size

5 1/2 00

in.

Did Well Flow?

-

Reversed Out

-

Surface Choke Size

7 3/4

in.

Bottom Choke Size

3/4

in.

Main Hole Size

7 1/8

in.

Tool Joint Size

4

in.

Blow:

2 1/2 17 minutes

Recovered

5

ft. of

Drilling mud

Recovered

ft. of

Recovered

ft. of

Recovered

ft. of

Recovered

ft. of

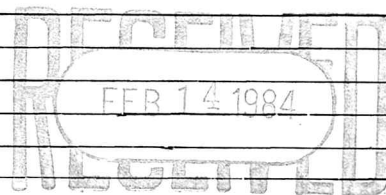
Chlorides

2800

P.P.M. Sample Jars used

1

Remarks:



Time On Location 1:30

2:11

A.M.

Time Pick Up Tool 12:30

2:12

P.M.

Time Off Location

Standby

A.M.

P.M.

Time Set Packer(s) 1:30

A.M.

Time Started Off Bottom 4:00

A.M.

Maximum Temperature

108

Initial Hydrostatic Pressure

(A)

1485

P.S.I.

Initial Flow Period

Minutes 30

(B)

30

P.S.I. to (C)

30

P.S.I.

Initial Closed In Period

Minutes 30

(D)

30

P.S.I.

Final Flow Period

Minutes 30

(E)

30

P.S.I. to (F)

30

P.S.I.

Final Closed In Period

Minutes 60

(G)

30

P.S.I.

Final Hydrostatic Pressure

(H)

1475

P.S.I.

COMPANY TERMS

Western Testing Co., Inc. 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, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By

Signature of Customer or his authorized representative

Western Representative

Norman Allen

0150

FIELD INVOICE

Open Hole Test

\$ 550

Misrun

\$

Straddle Test

\$

Jars

\$

Selective Zone

\$

Safety Joint

\$

Standby

\$

Evaluation

\$

Extra Packer

\$

Circ. Sub.

\$

Mileage

\$

Fluid Sampler

\$

Extra Charts

\$

Insurance

\$

Telecopier

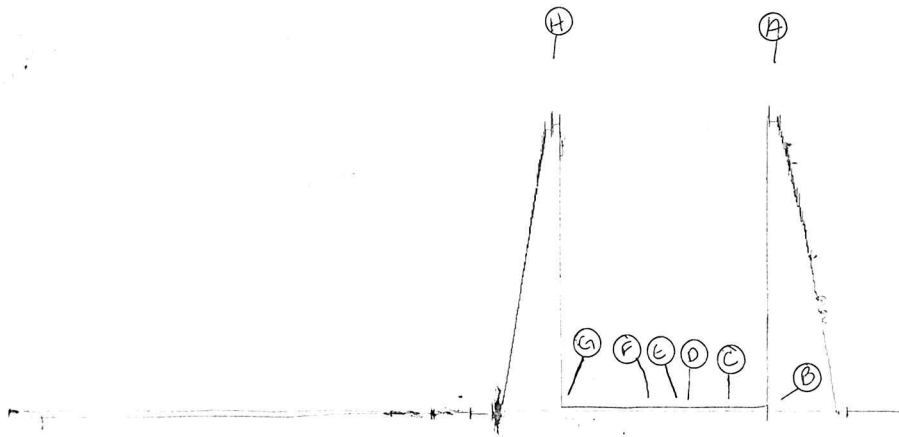
\$

TOTAL

\$ 550

TCK# 4135

I



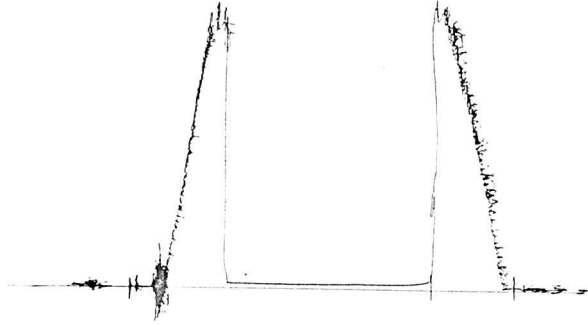
13266

DST#3

4135

TK# 4135

0



13268

OST#3

4135

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 2/12/84
CUSTOMER: RANGE OIL COMPANY INC.
WELL: 1 TEST: 3
ELEVATION (KB): 1415 FORMATION: ARBUCKLE
SECTION: 20 TOWNSHIP: 28S
RANGE: 9E COUNTY: ELK STATE: KANSAS
GAUGE SN #13266 RANGE: 4200 CLOCK: 12

INTERVAL TEST FROM: 2902 FT TO: 2918 FT TOTAL DEPTH: 2918 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2902 FT SIZE: 6 3/4 IN PACKER DEPTH: 2897 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. #2
MUD TYPE: CHEMICAL VISCOSITY: 50
WEIGHT: 9.6 WATER LOSS (CC): 10.4
CHLORIDES (P.P.M.): 1400
JARS - MAKE: NO SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?
DRILL COLLAR LENGTH: 150 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2732 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 O.D. IN
ANCHOR LENGTH: 16 FT SIZE: 5 1/2 O.D. IN
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 IN

BLOW: WEAK 17 MINUTES.

RECOVERED: 5 FT OF: DRILLING MUD
RECOVERED: FT OF: CHLORIDES 2800 P.P.M.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 1:30 P.M. TIME STARTED OFF BOTTOM: 4:00 P.M.
WELL TEMPERATURE: 108 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1494 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 28 PSI TO (C) 28 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 28 PSI
FINAL FLOW PERIOD MIN: 30 (E) 28 PSI TO (F) 28 PSI
FINAL CLOSED IN PERIOD MIN: 60 (G) 38 PSI
FINAL HYDROSTATIC PRESSURE (H) 1484 PSI



WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET

Nº

4136

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 1415 KB

Formation Arkbuckle

Eff. Pay - Ft.

COMPANY NAME Range Oil Co Inc District Augusta Date 2-13-84 Customer Order No. -

ADDRESS 240 Page Court 220 W Douglas Wichita, Ks 67201

LEASE AND WELL NO. Roby #1 COUNTY Elk STATE Ks Sec. 20 Twp. 28s Rge. 9E

Mail Invoice To Same #1 ROBY Co. Name Address No. Copies Requested 1

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 4 Interval Tested From 2908 ft. to 2923 ft. Total Depth 2923 ft.

Packer Depth 2908 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 2903 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2915 ft. Recorder Number 13266 Cap. 4200

Bottom Recorder Depth (Outside) 2918 ft. Recorder Number 13268 Cap. 4225

Below Saddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Range Oil Co Inc #2 Drill Collar Length 150 I. D. 2 1/4 in.

Mud Type Chem Viscosity 46 Weight Pipe Length - I. D. - in.

Weight 9.8 Water Loss 10.4 cc. Drill Pipe Length 2738 I. D. 3.8 in.

Chlorides 1400 P.P.M. Test Tool Length 20 ft. Tool Size 5200 in.

Jars: Make - Serial Number - Anchor Length 15 ft. Size 5200 in.

Did Well Flow? No Reversed Out No Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 x 14 in.

Blow: Fair diminishing slightly @ end of test

Recovered 360 ft. of Gas in pipe

Recovered 275 ft. of Gas oil 33 Gravity

Recovered 90 ft. of Very heavy oil & gas cut mud. 60% oil 40% mud

Recovered - ft. of

Recovered - ft. of

Chlorides - P.P.M. Sample Jars used 4 Remarks:

Time On Location 1:30 2-11 A.M. Time Pick Up Tool 10:55 2-12 P.M. Time Off Location Standby A.M. P.M.

Time Set Packer(s) 12:15 A.M. P.M. Time Started Off Bottom 3:15 A.M. P.M. Maximum Temperature 108

Initial Hydrostatic Pressure (A) 1485 P.S.I.

Initial Flow Period Minutes 30 (B) 60 P.S.I. to (C) 80 P.S.I.

Initial Closed In Period Minutes 30 (D) 970 P.S.I.

Final Flow Period Minutes 60 (E) 150 P.S.I. to (F) 160 P.S.I.

Final Closed In Period Minutes 60 (G) 970 P.S.I.

Final Hydrostatic Pressure 1484 (H) 1465 P.S.I.

COMPANY TERMS

Western Testing Co., Inc. 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, of its statements or opinion concerning the results of any test. Tools lost or damaged in the hole shall be paid at cost by the party for whom the test is made.

All charges subject to 12% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By: [Signature]

Signature of Customer or his authorized representative

Western Representative: Norman Allen, D150

FIELD INVOICE

Open Hole Test	\$ 550.00
Misrun	\$
Straddle Test	\$
Jars	\$
Selective Zone	\$
Safety Joint	\$
Standby	\$
Evaluation	\$
Extra Packer	\$
Circ. Sub.	\$
Mileage	\$
Fluid Sampler	\$
Extra Charts	\$
Insurance	\$
Telecopier	\$
TOTAL	\$ 550.00

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 2/13/84
CUSTOMER: RANGE OIL COMPANY INC.
WELL: 1 TEST: 4
ELEVATION (KB): 1415 FORMATION: ARBUCKLE
SECTION: 20 TOWNSHIP: 28S
RANGE: 9E COUNTY: ELK STATE: KANSAS
GAUGE SN #13266 RANGE: 4200 CLOCK: 12

INTERVAL TEST FROM: 2908 FT TO: 2923 FT TOTAL DEPTH: 2923 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 2908 FT SIZE: 6 3/4 IN PACKER DEPTH: 2903 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG #2
MUD TYPE: CHEMICAL VISCOSITY: 46
WEIGHT: 9.8 WATER LOSS (CC): 10.4
CHLORIDES (P.P.M.): 1400
JARS - MAKE: NO SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 150 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 2738 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 O.D. IN
ANCHOR LENGTH: 15 FT SIZE: 5 1/2 O.D. IN
SURFACE CHOKE SIZE: 3/4 IN BOTTOM CHOKE SIZE: 3/4 IN
MAIN HOLE SIZE: 7 7/8 IN TOOL JOINT SIZE: 4 1/2 X.H. IN

BLOW: FAIR DIMINISHING SLIGHTLY AT END OF TEST.

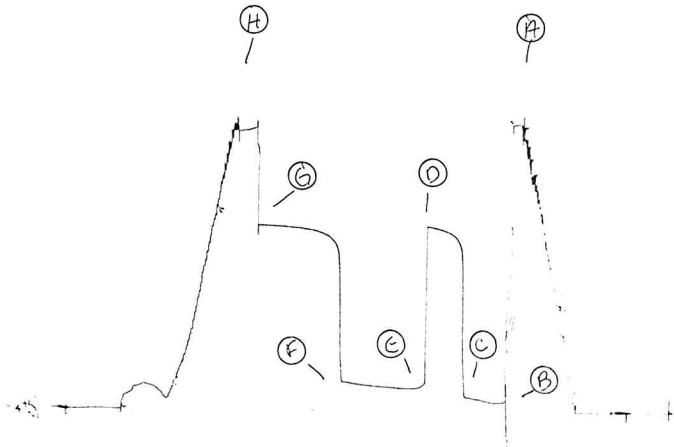
RECOVERED: 360 FT OF: GAS ABOVE FLUID
RECOVERED: 275 FT OF: GASSY OIL 33 GRAVITY
RECOVERED: 90 FT OF: VERY HEAVY OIL & GAS CUT MUD 60% OIL;
RECOVERED: FT OF: 40% MUD.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 12:15 A.M. TIME STARTED OFF BOTTOM: 3:15 A.M.
WELL TEMPERATURE: 108 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1491 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 47 PSI TO (C) 77 PSI
INITIAL CLOSED IN PERIOD MIN: 30 (D) 960 PSI
FINAL FLOW PERIOD MIN: 60 (E) 120 PSI TO (F) 152 PSI
FINAL CLOSED IN PERIOD MIN: 66 (G) 963 PSI
FINAL HYDROSTATIC PRESSURE (H) 1466 PSI

TCE# 4136

I



13266

DST# 4

4136

tick# 4136

O

13268

DSJ #4

4136

