



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 8129

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 262-5861

Elevation 1685 KB Formation Conglomerate Eff. Pay Ft.

COMPANY NAME RANGE Oil Co Inc. ADDRESS 240 PAGE CT Wichita, KS, 67202
LEASE AND WELL NO. Williams 'C' #2 COUNTY RICE STATE KS
Mail Invoice To #2 'C' Williams Co. Name Address

Formation Test No. 1 Interval Tested From 3220 ft. to 3258 ft. Total Depth 3258 ft.
Packer Depth 3215 ft. Size 6.75 in.
Packer Depth 3220 ft. Size 6.75 in.

Top Recorder Depth (Inside) 3249 ft. Recorder Number 3351 Cap. 4000
Bottom Recorder Depth (Outside) 3253 ft. Recorder Number 5666 Cap. 3950
Below Saddle Recorder Depth Recorder Number Cap.

Drilling Contractor RANGE #1 Mud Type Starch Viscosity 46 Weight 9.9 Water Loss 8.4 cc. Chlorides 62000 P.P.M.
Jars: Make Serial Number
Did Well Flow? NO Reversed Out NO

Blow: Strong thru out

Recovered 60 ft. of GAS IN PIPE
Recovered 60 ft. of GASSY slight oil / cut mud 60% Gas 10% oil
Recovered 90 ft. of Heavy Oil cut AND GAS 10% GAS 85% oil - (120' GAS IN PIPE)
Recovered 60 ft. of Heavy GAS cut FROGGY oil 20% GAS 75% oil - (120' GAS IN PIPE)
Recovered 60 ft. of GASSY oil - (60' GAS IN PIPE) 360 GASSY oil - spec. grav. 23.0

Time On Location 2:00 P.M. Time Pick Up Tool 3:25 P.M. Time Off Location 11:00 P.M.
Time Set Packer(s) 4:45 P.M. Time Started Off Bottom 7:45 P.M. Maximum Temperature 108
Initial Hydrostatic Pressure (A) 1790 P.S.I.
Initial Flow Period Minutes 30 (B) 130 P.S.I. to (C) 230 P.S.I.
Initial Closed In Period Minutes 30 (D) 860 P.S.I.
Final Flow Period Minutes 60 (E) 260 P.S.I. to (F) 360 P.S.I.
Final Closed In Period Minutes 60 (G) 830 P.S.I.
Final Hydrostatic Pressure (H) 1770 P.S.I. 3351

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 Robert Olson Signature of Customer or his authorized representative

Western Representative Allan Edgington

FIELD INVOICE

Table with 2 columns: Item Name and Price. Items include 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, and TOTAL.

WESTERN TESTING CO., INC.

Pressure Data

Date 4-28

Test Ticket No. 8129

Recorder No. 3351 Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Open Tool	Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>1782</u> P.S.I.			
B. First Initial Flow Pressure	<u>131</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C. First Final Flow Pressure	<u>223</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
D. Initial Closed-in Pressure	<u>857</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>65</u> Mins.
E. Second Initial Flow Pressure	<u>263</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>63</u> Mins.
F. Second Final Flow Pressure	<u>369</u> P.S.I.			
G. Final Closed-in Pressure	<u>838</u> P.S.I.			
H. Final Hydrostatic Mud	<u>1759</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 7 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 12 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 14 Inc.
of 5 mins. and a
final inc. of 0 Min.

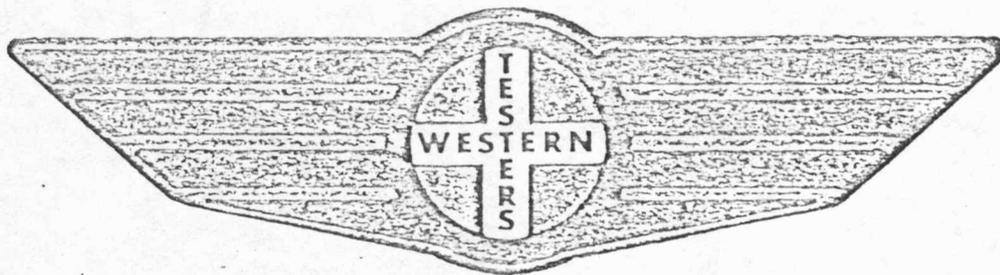
Final Shut-In
Breakdown: 22 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>131</u>	0	<u>223</u>	0	<u>263</u>	0	<u>369</u>
P 2 5	<u>136</u>	3	<u>496</u>	5	<u>263</u>	3	<u>578</u>
P 3 10	<u>147</u>	6	<u>663</u>	10	<u>268</u>	6	<u>655</u>
P 4 15	<u>165</u>	9	<u>721</u>	15	<u>277</u>	9	<u>693</u>
P 5 20	<u>182</u>	12	<u>759</u>	20	<u>284</u>	12	<u>717</u>
P 6 25	<u>199</u>	15	<u>783</u>	25	<u>294</u>	15	<u>733</u>
P 7 30	<u>223</u>	18	<u>802</u>	30	<u>305</u>	18	<u>748</u>
P 8 35		21	<u>817</u>	35	<u>315</u>	21	<u>762</u>
P 9 40		24	<u>832</u>	40	<u>326</u>	24	<u>774</u>
P10 45		27	<u>841</u>	45	<u>337</u>	27	<u>782</u>
P11 50		30	<u>852</u>	50	<u>347</u>	30	<u>789</u>
P12 55		33	<u>857</u>	55	<u>356</u>	33	<u>796</u>
P13 60		36		60	<u>362</u>	36	<u>803</u>
P14 65		39		65	<u>369</u>	39	<u>809</u>
P15 70		42		70		42	<u>813</u>
P16 75		45		75		45	<u>817</u>
P17 80		48		80		48	<u>821</u>
P18 85		51		85		51	<u>825</u>
P19 90		54		90		54	<u>829</u>
P20 95		57		95		57	<u>833</u>
100		60		100		60	<u>837</u>
						63	<u>838</u>

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company _____ RANGE OIL COMPANY, INC. Lease & Well No. _____ #2 ... WILLIAMS Sec. _____ / Twp. _____ Rge. _____ Test No. _____ Date _____

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 4-28-85 TICKET #8129
CUSTOMER: RANGE OIL CO. INC. LEASE: "C" WILLIAMS
WELL: 2 TEST: 1 GEOLOGIST: R. OLSEN
ELEVATION (KB): 1685 FORMATION: CONGLOMERATE
SECTION: 7 TOWNSHIP: 18S
RANGE: 6W COUNTY: RICE STATE: KANSAS
GAUGE SN #3351 RANGE: 4000 CLOCK: 12

INTERVAL TEST FROM: 3220 FT TO: 3258 FT TOTAL DEPTH: 3258 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3215 FT SIZE: 6 3/4 IN PACKER DEPTH: 3220 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. RIG #1
MUD TYPE: STARCH VISCOSITY: 46
WEIGHT: 9.9 WATER LOSS (CC): 8.4
CHLORIDES (P.P.M.): 62000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 146 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3054 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 38 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: STRONG BLOW THROUGHOUT TEST.

RECOVERED: 60 FT OF: GAS ABOVE FLUID.
RECOVERED: 60 FT OF: GAS & OIL CUT MUD (60% GAS; 10% OIL; 30% MUD).
RECOVERED: 90 FT OF: MUD & GAS CUT OIL (10% GAS; 85% OIL; 5% MUD).
RECOVERED: 120 FT OF: GAS ABOVE FLUID.
RECOVERED: 60 FT OF: GAS CUT FROGGY OIL (20% GAS; 75% OIL; 5% MUD).
RECOVERED: 120 FT OF: GAS ABOVE FLUID.
RECOVERED: 60 FT OF: GASSY OIL.
RECOVERED: 60 FT OF: GAS ABOVE FLUID.
RECOVERED: 360 FT OF: GASSY OIL.

REMARKS:

TIME SET PACKER(S): 4:45 PM TIME STARTED OFF BOTTOM: 7:45 PM
WELL TEMPERATURE: 108 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1782 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 131 PSI TO (C) 223 PSI
INITIAL CLOSED IN PERIOD MIN: 33 (D) 857 PSI
FINAL FLOW PERIOD MIN: 65 (E) 263 PSI TO (F) 369 PSI
FINAL CLOSED IN PERIOD MIN: 63 (G) 838 PSI
FINAL HYDROSTATIC PRESSURE (H) 1759 PSI

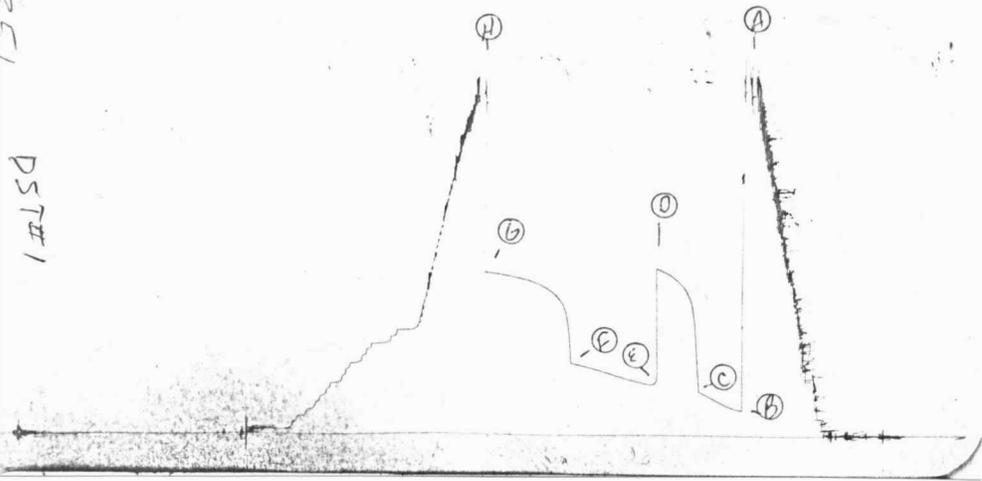
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JK # 8129

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DST#1



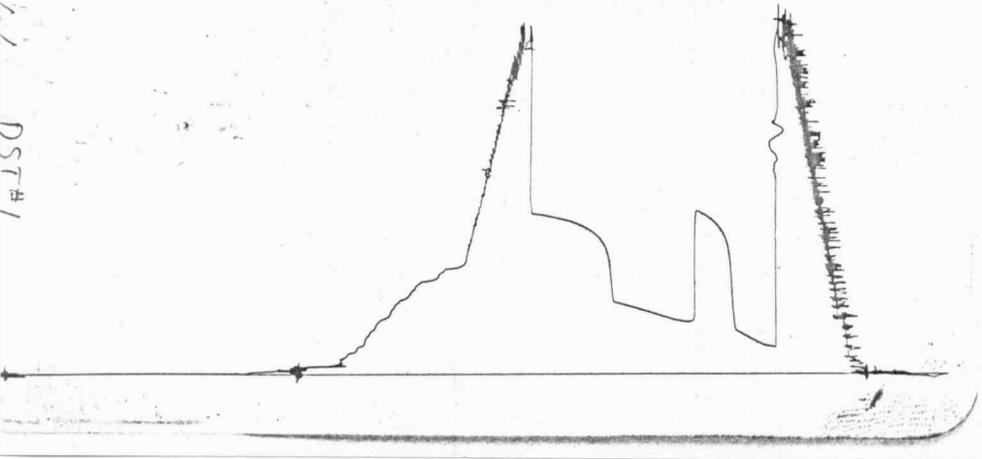
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JK # 8129

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3221

DST#1





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET NO 8130

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 262-5861

Elevation 1685 KB Formation conglomerate Eff. Pay Ft.

2040 District Augusta, Date 4-29-85 Customer Order No.

COMPANY NAME Range Oil Co Inc.

ADDRESS 240 Page Ct. 220 W. Douglas Wichita, Ks 67202

LEASE AND WELL NO. Williams "C" #2 COUNTY Rice STATE Ks. Sec. 7 Twp. 18S Rge. 6W

Mail Invoice To #2 'C' Williams Same No. Copies Requested 1

Co. Name Address

Mail Charts To Same No. Copies Requested 5

Formation Test No. 2 Interval Tested From 3267 ft. to 3279 ft. Total Depth 3279 ft.

Packer Depth 3282 ft. Size 6.75 in. Packer Depth ft. Size in.

Packer Depth 3267 ft. Size 6.75 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3270 ft. Recorder Number 3351 Cap. 4000

Bottom Recorder Depth (Outside) 3274 ft. Recorder Number 5666 Cap. 3950

Below Saddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Range #1 Drill Collar Length 146 I. D. 2.25 in.

Mud Type Starch Viscosity 46 Weight Pipe Length I. D. in.

Weight 9.9 Water Loss 8.9 cc. Drill Pipe Length 3101 I. D. 3.8 in.

Chlorides 62000 P.P.M. Test Tool Length 20 ft. Tool Size 5.5 in.

Jars: Make Serial Number Anchor Length 12 ft. Size 5.5 in.

Did Well Flow? Yes Reversed Out NO Surface Choke Size .75 in. Bottom Choke Size .75 in.

Main Hole Size 778 in. Tool Joint Size 4 1/2 x 14 in.

Blow: Strong thru out G.S. 75 min 3.71 MCF

Recovered 1285 ft. of Gassy oil 35 grams

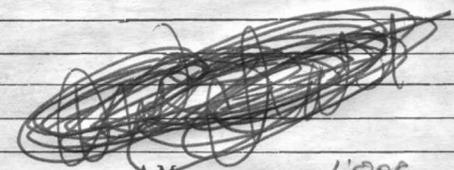
Recovered 735 ft. of VERY slight mudcut gassy oil (2% Mud)

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides P.P.M. Sample Jars used 2 Remarks:



Time On Location 4:30 STDBY A.M. Time Pick Up Tool 5:00 A.M. Time Off Location 5:00 STDBY A.M.

Time Set Packer(s) 6:15 P.M. Time Started Off Bottom 9:15 A.M. Maximum Temperature 111°

Initial Hydrostatic Pressure (A) 1800 P.S.I.

Initial Flow Period Minutes 30 (B) 160 P.S.I. to (C) 360 P.S.I.

Initial Closed In Period Minutes 30 (D) 830 P.S.I.

Final Flow Period Minutes 60 (E) 410 P.S.I. to (F) 640 P.S.I.

Final Closed In Period Minutes 60 (G) 840 P.S.I.

Final Hydrostatic Pressure (H) 1800 P.S.I.

COMPANY TERMS

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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 Allen Edgington 0525

FIELD INVOICE

Table with 2 columns: Item, Amount. Includes 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.

WESTERN TESTING CO., INC.

Pressure Data

Date 4-29

Test Ticket No. 8130

Recorder No. 3351

Capacity _____ Location _____ Ft

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>1792</u> P.S.I.	Open Tool		
B. First Initial Flow Pressure	<u>149</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	<u>30</u> Mins.
C. First Final Flow Pressure	<u>354</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins.	<u>33</u> Mins.
D. Initial Closed-in Pressure	<u>827</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	<u>60</u> Mins.
E. Second Initial Flow Pressure	<u>408</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
F. Second Final Flow Pressure	<u>633</u> P.S.I.			
G. Final Closed-in Pressure	<u>833</u> P.S.I.			
H. Final Hydrostatic Mud	<u>1765</u> P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 7 Inc.
of 5 mins. and a
final inc. of 0 Min.

Initial Shut-In
Breakdown: 12 Inc.
of 3 mins. and a
final inc. of 0 Min.

Second Flow Pressure
Breakdown: 13 Inc.
of 5 mins. and a
final inc. of 0 Min.

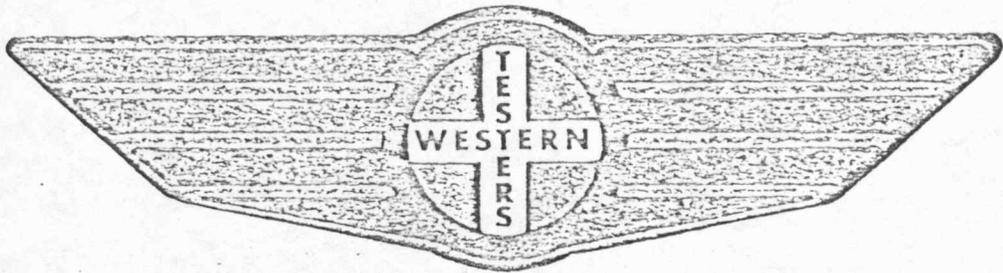
Final Shut-In
Breakdown: 21 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>149</u>	0	<u>354</u>	0	<u>408</u>	0	<u>633</u>
P 2 5	<u>149</u>	3	<u>717</u>	5	<u>410</u>	3	<u>743</u>
P 3 10	<u>181</u>	6	<u>749</u>	10	<u>430</u>	6	<u>761</u>
P 4 15	<u>227</u>	9	<u>771</u>	15	<u>458</u>	9	<u>771</u>
P 5 20	<u>267</u>	12	<u>783</u>	20	<u>484</u>	12	<u>778</u>
P 6 25	<u>304</u>	15	<u>793</u>	25	<u>510</u>	15	<u>784</u>
P 7 30	<u>354</u>	18	<u>800</u>	30	<u>533</u>	18	<u>790</u>
P 8 35		21	<u>807</u>	35	<u>554</u>	21	<u>795</u>
P 9 40		24	<u>812</u>	40	<u>574</u>	24	<u>800</u>
P10 45		27	<u>817</u>	45	<u>588</u>	27	<u>803</u>
P11 50		30	<u>822</u>	50	<u>602</u>	30	<u>806</u>
P12 55		33	<u>827</u>	55	<u>618</u>	33	<u>809</u>
P13 60		36		60	<u>633</u>	36	<u>812</u>
P14 65		39		65		39	<u>815</u>
P15 70		42		70		42	<u>818</u>
P16 75		45		75		45	<u>821</u>
P17 80		48		80		48	<u>824</u>
P18 85		51		85		51	<u>827</u>
P19 90		54		90		54	<u>829</u>
P20 95		57		95		57	<u>831</u>
100		60		100		60	<u>833</u>

FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company _____ RANGE OIL COMPANY, INC. Lease & Well No. #2 "C" WILLIAMS Sec. 7 Twp. 18S Rge. 6W Test No. 2 Date 4/29/83

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 4-29-85
CUSTOMER: RANGE OIL CO. INC.
WELL: 2 TEST: 2
ELEVATION (KB): 1685 FORMATION: CONGLOMERATE
SECTION: 7 TOWNSHIP: 18S
RANGE: 6W COUNTY: RICE STATE: KANSAS
GAUGE SN #3351 RANGE: 4000 CLOCK: 12

INTERVAL TEST FROM: 3267 FT TO: 3279 FT TOTAL DEPTH: 3279 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3262 FT SIZE: 6 3/4 IN PACKER DEPTH: 3267 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG. RIG #1
MUD TYPE: STARCH VISCOSITY: 46
WEIGHT: 9.9 WATER LOSS (CC): 8.4
CHLORIDES (P.P.M.): 62000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? YES REVERSED OUT? NO
DRILL COLLAR LENGTH: 146 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3101 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 12 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: STRONG BLOW THROUGHOUT TEST.
GTS 75 MINUTES. 3.71 MCF.

RECOVERED: 1285 FT OF: GASSY OIL (35 DEGREES GRAVITY).
RECOVERED: 735 FT OF: VERY SLIGHT MUD CUT GASSY OIL
RECOVERED: FT OF: (2% MUD).
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS: SEE ATTACHED GAS FLOW REPORT.

TIME SET PACKER(S): 6:15 AM TIME STARTED OFF BOTTOM: 9:15 AM
WELL TEMPERATURE: 111 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1792 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 149 PSI TO (C) 354 PSI
INITIAL CLOSED IN PERIOD MIN: 33 (D) 827 PSI
FINAL FLOW PERIOD MIN: 60 (E) 408 PSI TO (F) 633 PSI
FINAL CLOSED IN PERIOD MIN: 60 (G) 833 PSI
FINAL HYDROSTATIC PRESSURE (H) 1765 PSI

WESTERN TESTING CO. INC.
GAS FLOW REPORT

DATE: 4-29-85

CUSTOMER: RANGE OIL CO. INC.

WELL: 2

ELEVATION (KB): 1685

SECTION: 7

RANGE: 6W

GAUGE SN #3351

TEST: 2

COUNTY: RICE

RANGE: 4000

TICKET #8130

LEASE: "C" WILLIAMS

GEOLOGIST: R. OLSEN

FORMATION: CONGLOMERATE

TOWNSHIP: 18S

STATE: KANSAS

CLOCK: 12

TIME GAUGE (MIN)	TESTER TYPE	ORIFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
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PRE FLOW

SECOND FLOW

75	MERLA	1/4 IN	5 PSIG	Gas to surface.
85		1/4 IN	5 PSIG	3710 CFPD
90			5	3710

GAS BOTTLE SN #: 84

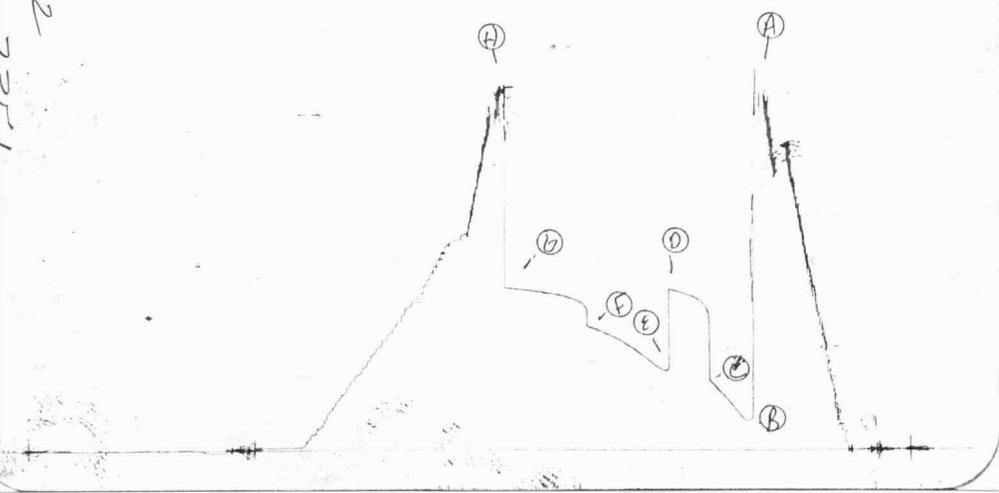
DATE BOTTLE FILLED:

DATE TO BE INVOICED:

8130 DST#2 7-21-1

JK # 8130

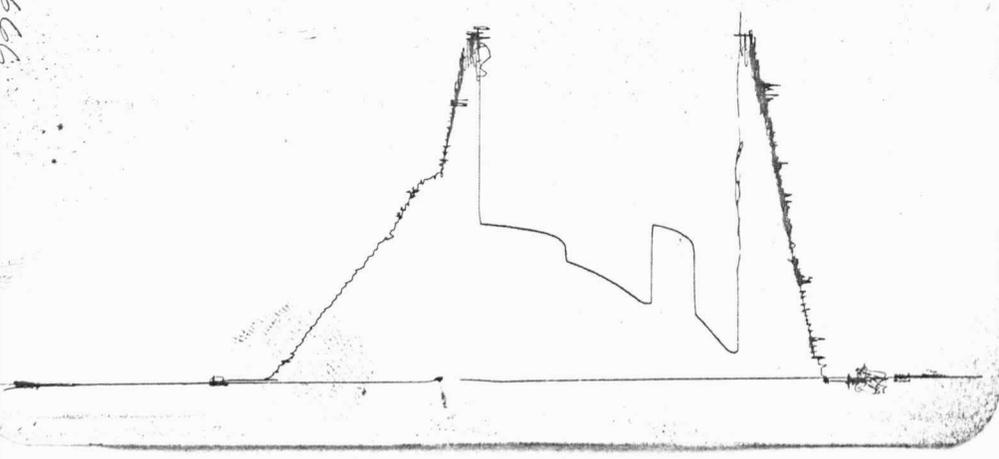
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8130 DST#2 5666

JK # 8130

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WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 8066

P. O. BOX 1599 WICHITA, KANSAS 67201
PHONE (316) 262-5861

Elevation 1140 KB Formation Missa Eff. Pay Ft.

District Augusta Date 4-27-85 Customer Order No.

COMPANY NAME Range Oil Co

ADDRESS 240 Page Court 220 24 Douglas Wichita, Ks 67202

LEASE AND WELL NO. Hale #11 COUNTY Cowley STATE Ks Sec. 22 Twp. 34 Rge. 3E

Mail Invoice To Same #11 HALE No. Copies Requested 1

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 3 Interval Tested From 3391 ft. to 3397 ft. Total Depth 3397 ft.

Packer Depth 3391 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 3386 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3376 AP ft. Recorder Number 13268 Cap. 4200

Bottom Recorder Depth (Outside) 3393 ft. Recorder Number 13266 Cap. 4000

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Range Oil Co #2 Drill Collar Length 180 I. D. 2 1/4 in.

Mud Type Chem Viscosity 55 Weight Pipe Length I. D. in.

Weight 9.4 Water Loss 11.8 cc. Drill Pipe Length 318 1/2 I. D. 3.5 in.

Chlorides 1400 P.P.M. Test Tool Length 25 ft. Tool Size 5 1/2 in.

Jars: Make Serial Number Anchor Length 76 ft. Size 5 1/2 in.

Did Well Flow? Reversed Out 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 1 1/4 in.

Blow: 2 1/2 inch throat test

Recovered 55 ft. of Drilling mud w/ slight show of oil less than 1% oil

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Chlorides 2600 P.P.M. Sample Jars used 2 Remarks:

RECEIVED APR 29 1985

Time On Location 12:30 A 4:25 P.M. Time Pick Up Tool 9:55 P.M. Time Off Location 8thly A.M. P.M.

Time Set Packer(s) 11:00 P.M. Time Started Off Bottom 1:45 P.M. Maximum Temperature 114

Initial Hydrostatic Pressure (A) 1690 P.S.I.

Initial Flow Period Minutes 30 (B) 60 P.S.I. to (C) 50 P.S.I.

Initial Closed In Period Minutes 30 (D) 150 P.S.I.

Final Flow Period Minutes 45 (E) 70 P.S.I. to (F) 60 P.S.I.

Final Closed In Period Minutes 60 (G) 385 P.S.I.

Final Hydrostatic Pressure (H) 1690 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] TIM J. LAUER Signature of Customer or his authorized representative

Western Representative Norman Allen DISO

FIELD INVOICE

Table with 2 columns: Item Name and Amount. Items include 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, and TOTAL.

WESTERN TESTING CO., INC.

Pressure Data

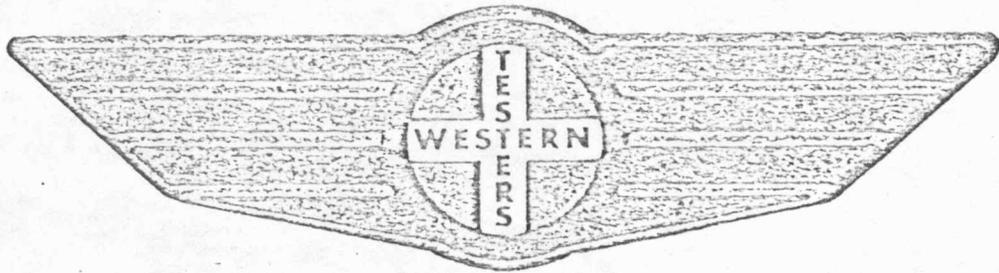
Date 4-27-85 Test Ticket No. 8066
 Recorder No. 13268 Capacity 4200 Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A. Initial Hydrostatic Mud	<u>1705</u>	P.S.I.		M
B. First Initial Flow Pressure	<u>47</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C. First Final Flow Pressure	<u>47</u>	P.S.I.	<u>30</u> Mins.	_____ Mins.
D. Initial Closed-in Pressure	<u>135</u>	P.S.I.	<u>45</u> Mins.	_____ Mins.
E. Second Initial Flow Pressure	<u>52</u>	P.S.I.	<u>60</u> Mins.	_____ Mins.
F. Second Final Flow Pressure	<u>52</u>	P.S.I.		
G. Final Closed-in Pressure	<u>374</u>	P.S.I.		
H. Final Hydrostatic Mud	<u>1692</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>10</u> Inc.		Breakdown: <u>21</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>47</u>	0	<u>47</u>	0	<u>52</u>	0	<u>52</u>
P 2		3	<u>48</u>	5		3	<u>56</u>
P 3		6	<u>50</u>	10		6	<u>64</u>
P 4		9	<u>58</u>	15		9	<u>77</u>
P 5		12	<u>66</u>	20		12	<u>93</u>
P 6	<u>47</u>	15	<u>78</u>	25		15	<u>109</u>
P 7	<u>47</u>	18	<u>92</u>	30		18	<u>120</u>
P 8		21	<u>107</u>	35		21	<u>132</u>
P 9		24	<u>121</u>	40		24	<u>147</u>
P10		27	<u>135</u>	45	<u>52</u>	27	<u>164</u>
P11		30		50		30	<u>182</u>
P12		33		55		33	<u>199</u>
P13		36		60		36	<u>212</u>
P14		39		65		39	<u>233</u>
P15		42		70		42	<u>250</u>
P16		45		75		45	<u>269</u>
P17		48		80		48	<u>291</u>
P18		51		85		51	<u>312</u>
P19		54		90		54	<u>334</u>
P20		57		95		57	<u>357</u>
100		60		100		60	<u>374</u>

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company _____ RANGE OIL COMPANY, INC. Lease & Well No. _____ #11 HALE _____ Sec. _____ 22 Twp. _____ 34^SRge. _____ 3^FTest No. _____ 3 Date 4/27/85

WESTERN TESTING CO., INC.
SUBSURFACE PRESSURE SURVEY

DATE: 4/27/85
CUSTOMER: RANGE OIL COMPANY INC.
WELL: 11 TEST: 3
ELEVATION (KB): 1140 FORMATION: MISSISSIPPI
SECTION: 22 TOWNSHIP: 34S
RANGE: 3E COUNTY: COWLEY STATE: KANSAS
GAUGE SN #13268 RANGE: 4200 CLOCK: 12

TICKET #8066
LEASE: HALE
GEOLOGIST: LAUER

INTERVAL TEST FROM: 3391 FT TO: 3397 FT TOTAL DEPTH: 3397 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 3391 FT SIZE: 6 3/4 IN PACKER DEPTH: 3386 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: RANGE DRLG
MUD TYPE: CHEMICAL VISCOSITY: 55
WEIGHT: 9.4 WATER LOSS (CC): 11.8
CHLORIDES (P.P.M.): 1400
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? REVERSED OUT?

DRILL COLLAR LENGTH: 180 FT I.D.: 2.25 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3186 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 25 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 6 FT SIZE: 5 1/2 OD 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 XH IN

BLOW: WEAK BLOW THROUGHOUT TEST.

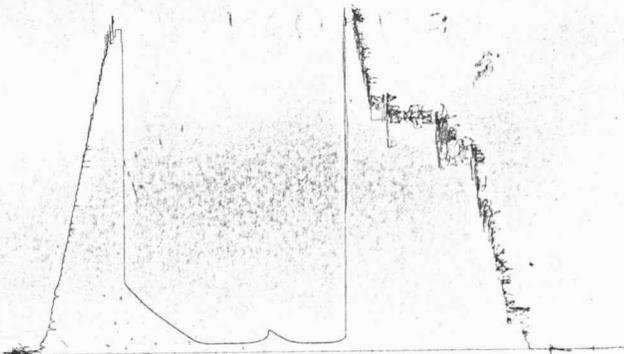
RECOVERED: 55 FT OF: DRILLING MUD WITH A SLIGHT SHOW OF OIL.
RECOVERED: FT OF: (LESS THAN 1% OIL).
RECOVERED: FT OF: CHLORIDES 2600 PPM.
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 11:00 PM TIME STARTED OFF BOTTOM: 1:45 AM
WELL TEMPERATURE: 114 °F
INITIAL HYDROSTATIC PRESSURE: (A) 1705 PSI
INITIAL FLOW PERIOD MIN: 30 (B) 47 PSI TO (C) 47 PSI
INITIAL CLOSED IN PERIOD MIN: 27 (D) 135 PSI
FINAL FLOW PERIOD MIN: 45 (E) 52 PSI TO (F) 52 PSI
FINAL CLOSED IN PERIOD MIN: 60 (G) 374 PSI
FINAL HYDROSTATIC PRESSURE (H) 1692 PSI

Dt # 8066

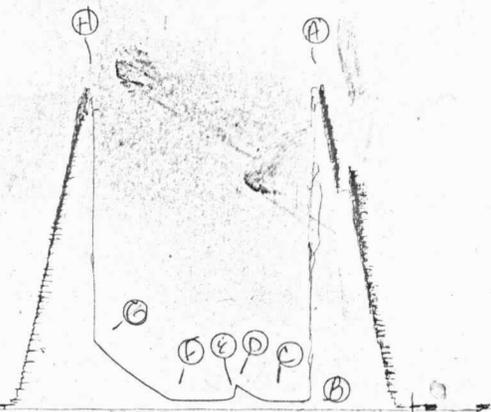
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Dt # 8066

I

8066



DST # 3

13268