WESTERN TESTING CO., INC.
FORMATION TESTING TICKET

Nº 18686

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

Elevation 1130 KB Formation Pawnee & Ft Scott Eff. Pay ____ Ft.

District Augusta Date 4-29-93 Customer Order No. ____

COMPANY NAME Range Oil Co

ADDRESS 125 N Market Suite 1120 Wichita KS 67201

LEASE AND WELL NO. McNee #1E" COUNTY Chautauqua STATE KS Sec. 13 Twp. 32 Rge. 10E

Mail Invoice To Same (Co. Name) #1 McNee E (Address) No. Copies Requested ____

Mail Charts To Same (Address) No. Copies Requested 5

Formation Test No. DST #1 Interval Tested From 1587 ft. to 1652 ft. Total Depth 1652 ft.

Packer Depth 1582 ft.	Size 6 3/8 in.	Packer Depth — ft.	Size — in.
Packer Depth 1587 ft.	Size 6 3/8 in.	Packer Depth — ft.	Size — in.
Depth of Selective Zone Set			

Top Recorder Depth (Inside)	1647 ft.	Recorder Number 10979	Cap. 4100
Bottom Recorder Depth (Outside)	1650 ft.	Recorder Number 3354	Cap. 4200
Below Straddle Recorder Depth	— ft.	Recorder Number —	Cap. —

Drilling Contractor Gloves Rig 1		Drill Collar Length 390	I. D. 2.25 in.
Mud Type Chem	Viscosity 39	Weight Pipe Length —	I. D. — in.
Weight 9.3	Water Loss 11.2 cc.	Drill Pipe Length 1177	I. D. 3.8 in.
Chlorides —	P.P.M.	Test Tool Length 20 ft.	Tool Size 5 1/2 DD in.
Jars: Make —	Serial Number —	Anchor Length 65 ft.	Size 5 1/2 DD in.
Did Well Flow?	Reversed Out	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 FH in.

Blow: Very Strong blow gas to surface in 5 min on (IFP) Same on (FFP)

Recovered 100 ft. of drilling mud
Recovered ____ ft. of
Recovered ____ ft. of
Recovered ____ ft. of
Recovered ____ ft. of

Chlorides ____ P.P.M. Sample Jars used ____ Remarks: See gas report

MAY 03 1993

Time On Location	9:00 A.M. P.M.	Time Pick Up Tool	10:00 A.M. P.M.	Time Off Location	A.M. P.M.
Time Set Packer(s)	11:00 A.M. P.M.	Time Started Off Bottom	1:00 A.M. P.M.	Maximum Temperature	90°F

Initial Hydrostatic Pressure		(A)	790	P.S.I.	
Initial Flow Period	Minutes 30	(B)	570	P.S.I. to (C)	490 P.S.I.
Initial Closed In Period	Minutes 30	(D)	655	P.S.I.	
Final Flow Period	Minutes 30	(E)	500	P.S.I. to (F)	510 P.S.I.
Final Closed In Period	Minutes 30	(G)	670	P.S.I.	
Final Hydrostatic Pressure		(H)	780	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 Tim J. Lauer TIM J. LAUER
Signature of Customer or his authorized representative

Western Representative ____

FIELD INVOICE

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

Phone 316 262-5861

WESTERN TESTERS

P. O. Box 1599

WICHITA, KANSAS 67201

Nº 3990

GAS FLOW REPORT

Date 4-29-93 Ticket 18686 Company Range Oil Co

Well Name and No. McNee #1 "E" Dst No. DST #1 Interval Tested 1815-87-1659

County Chautauqua State Ks Sec. 13 Twp. 32 Rg. 10E

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
PRE FLOW					
5	1.5	11			1,348,000
10		15			1,626,000
20		15			1,626,000
30		14			1,559,000
SECOND FLOW					
		14			1559,000
40		13			1,490,000
50		14			1,559,000
60		14			1,559,000

GAS BOTTLE

Serial No. Date Bottle Filled Date to be Invoiced

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of $75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1½% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME RANGE OIL CO., INC.

Authorized by

FORM WTC 9

WESTERN TESTING CO., INC.
Pressure Data

Date 4-29-82 Test Ticket No. 18686

Recorder No. 10979 Capacity Location Ft.

Clock No. Elevation Well Temperature °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	798 P.S.I.	Open Tool	M	
B	First Initial Flow Pressure	525 P.S.I.	First Flow Pressure	Mins. 30	Mins.
C	First Final Flow Pressure	525 P.S.I.	Initial Closed-in Pressure	Mins. 30	Mins.
D	Initial Closed-in Pressure	1080 P.S.I.	Second Flow Pressure	Mins. 30	Mins.
E	Second Initial Flow Pressure	525 P.S.I.	Final Closed-in Pressure	Mins. 30	Mins.
F	Second Final Flow Pressure	529 P.S.I.			
G	Final Closed-in Pressure	1066 P.S.I.			
H	Final Hydrostatic Mud	782 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	525
P 2	5	
P 3	10	
P 4	15	
P 5	20	
P 6	25	
P 7	30	525
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14	65	
P15	70	
P16	75	
P17	80	
P18	85	
P19	90	
P20	95	
	100	

Initial Shut-In

Breakdown: Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	525
3	1024
6	1041
9	1050
12	1059
15	1065
18	1071
21	1074
24	1076
27	1078
30	1079 1080
33	1080
36	
39	
42	
45	
48	
51	
54	
57	
60	

Second Flow Pressure

Breakdown: Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	525
5	525
10	525 525
15	527 529
20	529
25	
30	529
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
85	
90	
95	
100	

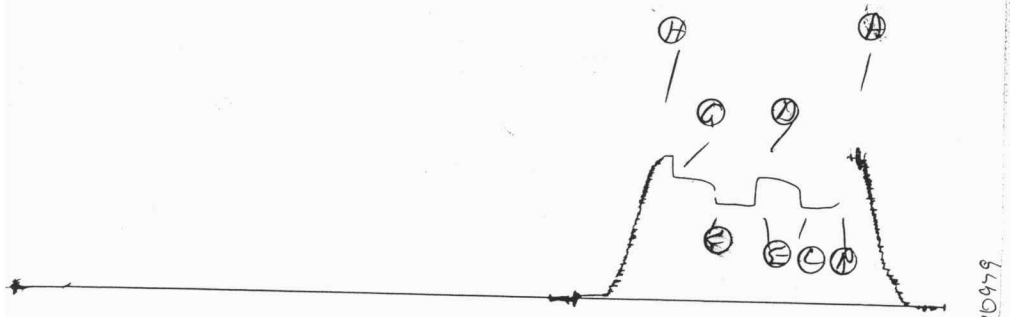
Final Shut-In

Breakdown: Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	529
3	1017
6	1038
9	1047
12	1052
15	1059
18	1061
21	1063
24	1064
27	1065
30	1066
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

DKT 18686

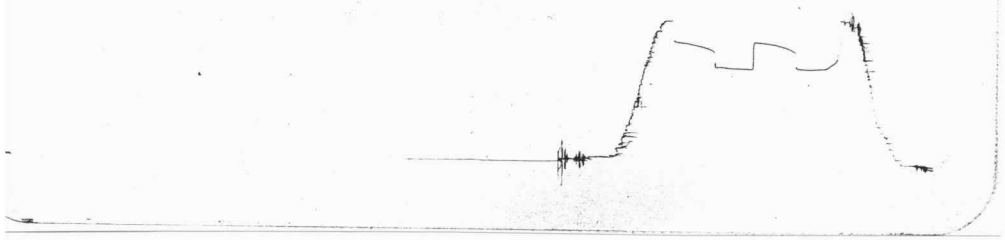
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DKT 18686.

O



FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

P.O. Box 1599 Phone **1-800-688-7021**

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. #1 MCNEE E SEC. 13 TWP. 32S RGE. 10E TEST NO. 1 DATE 4/29/93

DST REPORT

GENERAL INFORMATION

DATE	: 4/29/93	TICKET	: 18686
CUSTOMER	: RANGE OIL COMPANY INC.	LEASE	: MCNEE E
WELL	: #1 TEST: 1	GEOLOGIST	: LAUER
ELEVATION	: PAWNEE & FT SCOTT	FORMATION	: 1130 KB
SECTION	: 13	TOWNSHIP	: 32S
RANGE	: 10E COUNTY: CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979 RANGE : 4100	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 1587.00 ft TO: 1652.00 ft TVD: 1652.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: GAS
DEPTH OF RECORDERS: 1647.0 ft 1650.0 ft
TEMPERATURE: 90.0

DRILL COLLAR LENGTH:	390.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	1177.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	65.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5FH
PACKER DEPTH:	1582.0 ft	SIZE:	6.630 in
PACKER DEPTH:	1587.0 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON.	: GLAVES RIG 1		
MUD TYPE	: CHEMICAL	VISCOSITY :	39.00 cp
WEIGHT	: 9.300 ppg	WATER LOSS:	11.200 cc
CHLORIDES	: 0 ppm		
JARS-MAKE	:	SERIAL NUMBER:	
DID WELL FLOW?	: NO	REVERSED OUT?:	NO

COMMENTS

Comment

INITIAL & FINAL FLOW PERIODS STRONG BLOW. GAS TO SURFACE IN 5 MINUTES ON INITIAL FLOW PERIOD.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
100.0	0.0	0.0	0.0	100.0	DRILLING MUD

RATE INFORMATION

OIL VOLUME: 0.0000 STB
GAS VOLUME: 0.0000 SCF
MUD VOLUME: 0.4917 STB
WATER VOLUME: 0.0000 STB
TOTAL FLUID : 0.4917 STB

TOTAL FLOW TIME: 60.0000 min.
AVERAGE OIL RATE: 0.0000 STB/D
AVERAGE WATER RATE: 0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 790.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	510.00	490.00
INITIAL SHUT-IN	30.00		655.00
FINAL FLOW	30.00	500.00	510.00
FINAL SHUT-IN	30.00		670.00

FINAL HYDROSTATIC PRESSURE: 780.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 798.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	525.00	525.00
INITIAL SHUT-IN	33.00		680.00
FINAL FLOW	30.00	523.00	529.00
FINAL SHUT-IN	30.00		666.00

FINAL HYDROSTATIC PRESSURE: 782.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE	: 4/29/93	TICKET	: 18686
CUSTOMER	: RANGE OIL COMPANY INC.	LEASE	: MCNEE E
WELL	: #1 TEST: 1	GEOLOGIST	: LAUER
ELEVATION	: PAWNEE & FT SCOTT	FORMATION	: 1130 KB
SECTION	: 13	TOWNSHIP	: 32S
RANGE	: 10E COUNTY: CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979 RANGE : 4100	CLOCK	: 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
5 MIN	MERLA	1.500	11 PSIG	1348000 SCF/D
10 MIN	MERLA	1.500	15 PSIG	1626000 SCF/D
20 MIN	MERLA	1.500	15 PSIG	1626000 SCF/D
30 MIN	MERLA	1.500	14 PSIG	1559000 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
5 MIN	MERLA	1.500	14 PSIG	1559000 SCF/D
10 MIN	MERLA	1.500	13 PSIG	1490000 SCF/D
20 MIN	MERLA	1.500	14 PSIG	1559000 SCF/D
30 MIN	MERLA	1.500	14 PSIG	1559000 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 4/29/93	TICKET	: 18686
CUSTOMER	: RANGE OIL COMPANY INC.	LEASE	: MCNEE E
WELL	: #1 TEST: 1	GEOLOGIST	: LAUER
ELEVATION	: PAWNEE & FT SCOTT	FORMATION	: 1130 KB
SECTION	: 13	TOWNSHIP	: 32S
RANGE	: 10E COUNTY: CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979 RANGE : 4100	CLOCK	: 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	525.00	525.00
5.00	525.00	0.00
10.00	525.00	0.00
15.00	525.00	0.00
20.00	525.00	0.00
25.00	525.00	0.00
30.00	525.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	624.00	624.00	0.00
6.00	641.00	17.00	0.00
9.00	650.00	9.00	0.00
12.00	659.00	9.00	0.00
15.00	665.00	6.00	0.00
18.00	671.00	6.00	0.00
21.00	674.00	3.00	0.00
24.00	676.00	2.00	0.00
27.00	678.00	2.00	0.00
30.00	679.00	1.00	0.00
33.00	680.00	1.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
0.00	523.00	523.00
5.00	523.00	0.00
10.00	525.00	2.00
15.00	527.00	2.00
20.00	529.00	2.00
25.00	529.00	0.00
30.00	529.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	617.00	617.00	0.00
6.00	638.00	21.00	0.00
9.00	647.00	9.00	0.00
12.00	653.00	6.00	0.00
15.00	659.00	6.00	0.00
18.00	661.00	2.00	0.00
21.00	663.00	2.00	0.00
24.00	664.00	1.00	0.00
27.00	665.00	1.00	0.00
30.00	666.00	1.00	0.00

WESTERN TESTING CO., INC.
FORMATION TESTING TICKET

Nº 18687

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

Elevation 1130 KB Formation Miss Eff. Pay Ft.

District Augusta Date 4-30-93 Customer Order No.

COMPANY NAME Range Oil Co

ADDRESS 125 N Market Suite 1120 Wichita Ks 67201

LEASE AND WELL NO. McNee "E" #1 COUNTY Chautauqua STATE Ks Sec. 13 Twp. 32 Rge. 10

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

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. Dst #2 Interval Tested From 1950 ft. to 1973 ft. Total Depth 1973 ft.

Packer Depth 1945 ft. Size 6 3/8 in.		Packer Depth — ft. Size — in.	
Packer Depth 1950 ft. Size 6 3/8 in.		Packer Depth — ft. Size — in.	
Depth of Selective Zone Set			
Top Recorder Depth (Inside)	1967 ft.	Recorder Number 10979	Cap. 4100
Bottom Recorder Depth (Outside)	1970 ft.	Recorder Number 3354	Cap. 4200
Below Straddle Recorder Depth	ft.	Recorder Number —	Cap. —
Drilling Contractor Slaves Rig-1		Drill Collar Length 390	I. D. 2.25 in.
Mud Type Chem Viscosity 40		Weight Pipe Length —	I. D. — in.
Weight 9.5 Water Loss 11.2 cc.		Drill Pipe Length 1540	I. D. 3.8 in.
Chlorides 600 P.P.M.		Test Tool Length 20 ft.	Tool Size 5 1/2 XH in.
Jars: Make — Serial Number —		Anchor Length 23 ft.	Size 5 1/2 XH in.
Did Well Flow? — Reversed Out —		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 FH in.

Blow: Weak to Strong blow 6" into bucket on (IFP) Very Weak blow top of bucket die in 12 min

Recovered 10 ft. of drilling mud No Show

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

MAY 03 1993

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

Time On Location	8:00 A.M. P.M.	Time Pick Up Tool	8:30 A.M. P.M.	Time Off Location	A.M. P.M.
Time Set Packer(s)	9:00 A.M. P.M.	Time Started Off Bottom	11:00 A.M. P.M.	Maximum Temperature	99°

Initial Hydrostatic Pressure		(A)	990	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)	40	P.S.I.	
Final Flow Period	Minutes 30	(E)	30	P.S.I. to (F) 30	P.S.I.
Final Closed In Period	Minutes 30	(G)	30	P.S.I.	
Final Hydrostatic Pressure		(H)	980	P.S.I.	

10979

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

FIELD INVOICE

Open Hole Test	$
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 4-30-82 Test Ticket No. 1868?

Recorder No. 10979 Capacity Location Ft.

Clock No. Elevation Well Temperature °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	1002 P.S.I.	Open Tool	M	
B	First Initial Flow Pressure	47 P.S.I.	First Flow Pressure	Mins. 30	Mins.
C	First Final Flow Pressure	43 P.S.I.	Initial Closed-in Pressure	Mins. 30	Mins.
D	Initial Closed-in Pressure	48 P.S.I.	Second Flow Pressure	Mins. 30	Mins.
E	Second Initial Flow Pressure	45 P.S.I.	Final Closed-in Pressure	Mins. 30	Mins.
F	Second Final Flow Pressure	43 P.S.I.			
G	Final Closed-in Pressure	44 P.S.I.			
H	Final Hydrostatic Mud	982 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	42
P 2	5	
P 3	10	
P 4	15	
P 5	20	44
P 6	25	43
P 7	30	43
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14	65	
P15	70	
P16	75	
P17	80	
P18	85	
P19	90	
P20	95	
	100	

Initial Shut-In

Breakdown: Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	43
3	
6	43
9	44
12	44
15	45
18	45
21	46
24	46
27	47
30	48
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

Second Flow Pressure

Breakdown: Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	43
5	
10	
15	
20	
25	
30	43
35	
40	
45	
50	
55	
60	
65	
70	
75	
80	
85	
90	
95	
100	

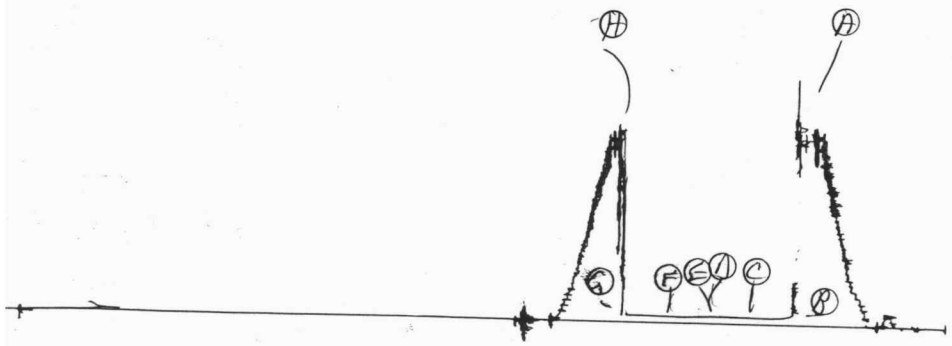
Final Shut-In

Breakdown: Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	43
3	
6	
9	
12	
15	43
18	43
21	44
24	
27	
30	44
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

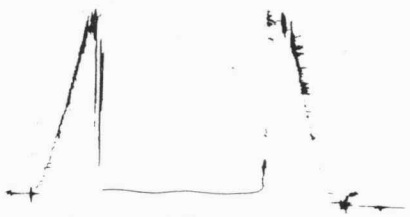
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FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

P.O. Box 1599 Phone **1-800-688-7021**

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. #1 MCNEE E SEC. 13 TWP. 32S RGE. 10E TEST NO. 2 DATE 4/30/93

DST REPORT

GENERAL INFORMATION

DATE	: 4/30/93	TICKET	: 18687
CUSTOMER	: RANGE OIL COMPANY INC.	LEASE	: MCNEE E
WELL	: #1 TEST: 2	GEOLOGIST	: LAUER
ELEVATION	: MISSISSIPPI	FORMATION	: 1130 KB
SECTION	: 13	TOWNSHIP	: 32S
RANGE	: 10E COUNTY: CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979 RANGE : 4100	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 1950.00 ft TO: 1973.00 ft TVD: 1973.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 1967.0 ft 1970.0 ft
TEMPERATURE: 99.0

DRILL COLLAR LENGTH:	390.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	1540.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	23.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5FH
PACKER DEPTH:	1945.0 ft	SIZE:	6.630 in
PACKER DEPTH:	1950.0 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON.	: GLAVES RIG 1		
MUD TYPE	: CHEMICAL	VISCOSITY :	40.00 cp
WEIGHT	: 9.500 ppg	WATER LOSS:	11.200 cc
CHLORIDES	: 600 ppm		
JARS-MAKE	:	SERIAL NUMBER:	
DID WELL FLOW?	: NO	REVERSED OUT?	: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK TO STRONG BLOW - 6 INCHES INTO BUCKET. FINAL FLOW PERIOD VERY WEAK BLOW TOP OF BUCKET - DIED IN 12 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
10.0	0.0	0.0	0.0	100.0	DRILLING MUD- NO SHOW

RATE INFORMATION

OIL VOLUME: 0.0000 STB
GAS VOLUME: 0.0000 SCF
MUD VOLUME: 0.0492 STB
WATER VOLUME: 0.0000 STB
TOTAL FLUID : 0.0492 STB

TOTAL FLOW TIME: 60.0000 min.
AVERAGE OIL RATE: 0.0000 STB/D
AVERAGE WATER RATE: 0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 990.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	30.00	30.00
INITIAL SHUT-IN	30.00		40.00
FINAL FLOW	30.00	30.00	30.00
FINAL SHUT-IN	30.00		30.00

FINAL HYDROSTATIC PRESSURE: 980.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1003.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	42.00	43.00
INITIAL SHUT-IN	30.00		48.00
FINAL FLOW	30.00	43.00	43.00
FINAL SHUT-IN	30.00		44.00

FINAL HYDROSTATIC PRESSURE: 982.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 4/30/93	TICKET	: 18687
CUSTOMER	: RANGE OIL COMPANY INC.	LEASE	: MCNEE E
WELL	: #1 TEST: 2	GEOLOGIST	: LAUER
ELEVATION	: MISSISSIPPI	FORMATION	: 1130 KB
SECTION	: 13	TOWNSHIP	: 32S
RANGE	: 10E COUNTY: CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979 RANGE : 4100	CLOCK	: 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	42.00	42.00
5.00	42.00	0.00
10.00	42.00	0.00
15.00	42.00	0.00
20.00	42.00	0.00
25.00	43.00	1.00
30.00	43.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	43.00	43.00	0.00
6.00	43.00	0.00	0.00
9.00	44.00	1.00	0.00
12.00	44.00	0.00	0.00
15.00	45.00	1.00	0.00
18.00	45.00	0.00	0.00
21.00	46.00	1.00	0.00
24.00	46.00	0.00	0.00
27.00	47.00	1.00	0.00
30.00	48.00	1.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	43.00	43.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
5.00	43.00	0.00
10.00	43.00	0.00
15.00	43.00	0.00
20.00	43.00	0.00
25.00	43.00	0.00
30.00	43.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	43.00	43.00	0.00
6.00	43.00	0.00	0.00
9.00	43.00	0.00	0.00
12.00	43.00	0.00	0.00
15.00	43.00	0.00	0.00
18.00	43.00	0.00	0.00
21.00	44.00	1.00	0.00
24.00	44.00	0.00	0.00
27.00	44.00	0.00	0.00
30.00	44.00	0.00	0.00

WESTERN TESTING CO., INC.
FORMATION TESTING TICKET

Nº 18688

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

Elevation 1130 KB Formation Miss Eff. Pay ____ Ft.

District Augusta Date 4-30-93 Customer Order No. ____

COMPANY NAME Range Oil Co

ADDRESS 125 N Market Suite 1120 Wichita Ks 67201

LEASE AND WELL NO. McNee "E" 1 COUNTY Chautauqua STATE Ks Sec. 13 Twp. 32 Rge. 10E

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

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. DST #3 Interval Tested From 1973 ft. to 2003 ft. Total Depth 2003 ft.

Packer Depth 1968 ft. Size 6 7/8 in. Packer Depth — ft. Size — in.

Packer Depth 1973 ft. Size 6 5/8 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 1997 ft. Recorder Number 10979 Cap. 4100

Bottom Recorder Depth (Outside) 2000 ft. Recorder Number 3354 Cap. 4200

Below Straddle Recorder Depth ____ ft. Recorder Number ____ Cap. —

Drilling Contractor Gloves Rig 1

Mud Type Chem Viscosity 42

Weight 9.4 Water Loss 10.0 cc.

Chlorides 1000 P.P.M.

Jars: Make — Serial Number —

Did Well Flow? — Reversed Out —

Drill Collar Length 390 I. D. 2.25 in.

Weight Pipe Length — I. D. — in.

Drill Pipe Length 1563 I. D. 3.8 in.

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

Anchor Length 30 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 IF in.

Blow: Weak to Very Strong blow gas to surface in 8 min on (FP)

Recovered 40 ft. of drilling mud

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

Recovered ____ ft. of ____

MAY 03 1993

Chlorides ____ P.P.M. Sample Jars used ____ Remarks: See gas report

Time On Location Stand-by A.M./P.M. Time Pick Up Tool 9:30 A.M./P.M. Time Off Location ____ A.M./P.M.

Time Set Packer(s) 10:30 A.M./P.M. Time Started Off Bottom 1:30 A.M./P.M. Maximum Temperature 100°F

Initial Hydrostatic Pressure			(A)	990	P.S.I.	
Initial Flow Period	Minutes	30	(B)	85	P.S.I. to (C)	30 P.S.I.
Initial Closed In Period	Minutes	30	(D)	500	P.S.I.	
Final Flow Period	Minutes	60	(E)	30	P.S.I. to (F)	30 P.S.I.
Final Closed In Period	Minutes	60	(G)	500	P.S.I.	
Final Hydrostatic Pressure			(H)	980	P.S.I.	

10979

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 Tim J. Lauer
Signature of Customer or his authorized representative

Western Representative ____

FIELD INVOICE

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

Phone 316 262-5861

P. O. Box 1599

WICHITA, KANSAS 67201

No. 3991

GAS FLOW REPORT

Date 4-30-93 Ticket 18688 Company Range Oil Co

Well Name and No. WC Nee #E#1 Dst No. Interval Tested 1923-2003

County Chautauqua State KS Sec. 13 Twp. 32 Rg. 10E

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
PRE FLOW					
05		½	20 PSI		177,000
10		½	11 PSI		121,000
20		¾	14 H2O		53,300
30		¾	12 H2O		49,300
SECOND FLOW					
30			MC		
40		1	17½		108,000
50		1	15		101,000
60		1	13,5		95,000
70		1	12,5		91,000
75		1	12.		89,800
80		1	12		89,800
90			11.5		87,900

GAS BOTTLE

Serial No. Date Bottle Filled Date to be Invoiced

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of $75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1½% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME Bill Sauer

Authorized by

FORM WTC 9

WESTERN TESTING CO., INC.
Pressure Data

Date 4-30-93 Test Ticket No. 18688

Recorder No. 10979 Capacity Location Ft.

Clock No. Elevation Well Temperature °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	1009 P.S.I.	Open Tool	M	
B	First Initial Flow Pressure	95 P.S.I.	First Flow Pressure	Mins. 30	Mins.
C	First Final Flow Pressure	54 P.S.I.	Initial Closed-in Pressure	Mins. 30	Mins.
D	Initial Closed-in Pressure	511 P.S.I.	Second Flow Pressure	Mins. 60	Mins.
E	Second Initial Flow Pressure	47 P.S.I.	Final Closed-in Pressure	Mins. 60	Mins.
F	Second Final Flow Pressure	49 P.S.I.			
G	Final Closed-in Pressure	509 P.S.I.			
H	Final Hydrostatic Mud	1000 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure

Breakdown: Inc. of 5 mins. and a final inc. of 0 Min.

Point Mins.	Press.
P 1 0	95
P 2 5	95
P 3 10	104 OK
P 4 15	85
P 5 20	68
P 6 25	54
P 7 30	54
P 8 35	
P 9 40	
P10 45	
P11 50	
P12 55	
P13 60	
P14 65	
P15 70	
P16 75	
P17 80	
P18 85	
P19 90	
P20 95	
100	

Initial Shut-In

Breakdown: Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	54
3	314
6	396
9	440
12	441
15	458
18	473
21	486
24	496
27	505
30	511
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	

Second Flow Pressure

Breakdown: Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	47
5	
10	
15	47
20	47
25	48
30	49
35	
40	
45	
50	
55	
60	49
65	
70	
75	
80	
85	
90	
95	
100	

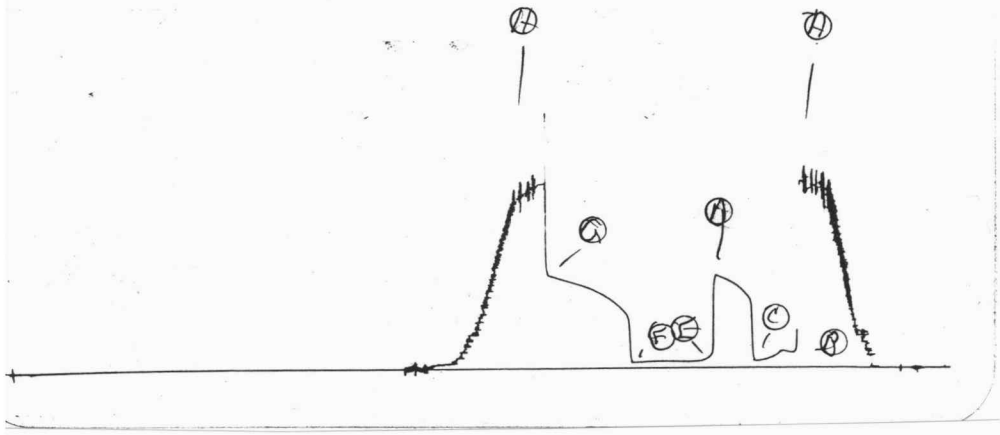
Final Shut-In

Breakdown: Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	49
3	264
6	307
9	334
12	351
15	372
18	389
21	405
24	416
27	427
30	438
33	450
36	456
39	463
42	469
45	475
48	482
51	489
54	496
57	502
60	509

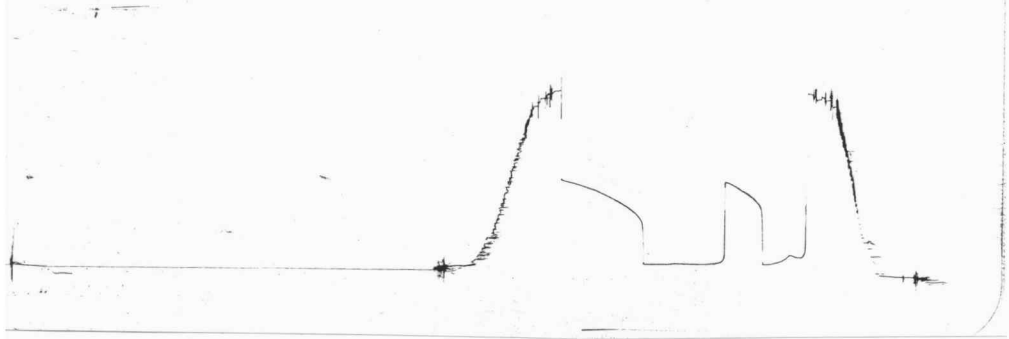
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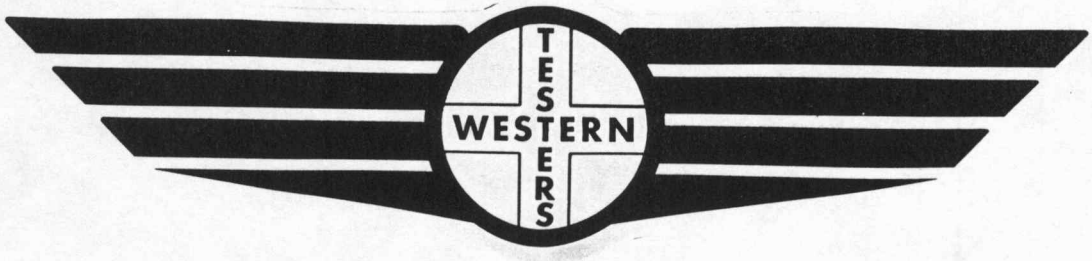


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FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

P.O. Box 1599 Phone **1-800-688-7021**

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. #1 MCNEE E SEC. 13 TWP. 32S RGE. 10E TEST NO. 3 DATE 4/30/93

DST REPORT

GENERAL INFORMATION

DATE	: 4/30/93	TICKET	: 18688
CUSTOMER	: RANGE OIL COMPANY INC.	LEASE	: MCNEE E
WELL	: #1 TEST: 3	GEOLOGIST	: LAUER
ELEVATION	: MISSISSIPPI	FORMATION	: 1130 KB
SECTION	: 13	TOWNSHIP	: 32S
RANGE	: 10E COUNTY: CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979 RANGE : 4100	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 1973.00 ft TO: 2003.00 ft TVD: 2003.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: GAS
DEPTH OF RECORDERS: 1997.0 ft 2000.0 ft
TEMPERATURE: 100.0

DRILL COLLAR LENGTH:	390.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	1563.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	30.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5FH
PACKER DEPTH:	1968.0 ft	SIZE:	6.630 in
PACKER DEPTH:	1973.0 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON.	: GLAVES RIG 1		
MUD TYPE	: CHEMICAL	VISCOSITY :	42.00 cp
WEIGHT	: 9.400 ppg	WATER LOSS:	10.000 cc
CHLORIDES	: 1000 ppm		
JARS-MAKE	:	SERIAL NUMBER:	
DID WELL FLOW?	: NO	REVERSED OUT?:	NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK TO VERY STRONG BLOW. GAS TO SURFACE IN 8 MINUTES. SEE GAS SHEET ATTACHED.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
40.0	0.0	0.0	0.0	100.0	DRILLING MUD

RATE INFORMATION

OIL VOLUME:	0.0000 STB		
GAS VOLUME:	0.0000 SCF	TOTAL FLOW TIME:	90.0000 min.
MUD VOLUME:	0.1967 STB	AVERAGE OIL RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB	AVERAGE WATER RATE:	0.0000 STB/D
TOTAL FLUID :	0.1967 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 990.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	85.00	30.00
INITIAL SHUT-IN	30.00		500.00
FINAL FLOW	30.00	30.00	30.00
FINAL SHUT-IN	30.00		500.00

FINAL HYDROSTATIC PRESSURE: 980.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1009.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	95.00	52.00
INITIAL SHUT-IN	30.00		511.00
FINAL FLOW	60.00	47.00	49.00
FINAL SHUT-IN	60.00		509.00

FINAL HYDROSTATIC PRESSURE: 1000.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE	: 4/30/93	TICKET	: 18688
CUSTOMER	: RANGE OIL COMPANY INC.	LEASE	: MCNEE E
WELL	: #1 TEST: 3	GEOLOGIST	: LAUER
ELEVATION	: MISSISSIPPI	FORMATION	: 1130 KB
SECTION	: 13	TOWNSHIP	: 32S
RANGE	: 10E COUNTY: CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979 RANGE : 4100	CLOCK	: 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
5 MIN	MERLA	0.500	20 PSIG	177000 SCF/D
10 MIN	MERLA	0.500	11 PSIG	121000 SCF/D
20 MIN	MERLA	0.750	14" WATER	53300 SCF/D
30 MIN	MERLA	0.750	12" WATER	49300 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
5 MIN	MERLA	1.000	17.5 WTR	108000 SCF/D
10 MIN	MERLA	1.000	15 WTR	101000 SCF/D
20 MIN	MERLA	1.000	13.5 WTR	95000 SCF/D
30 MIN	MERLA	1.000	12.5 WTR	91000 SCF/D
40 MIN	MERLA	1.000	12 WTR	89800 SCF/D
50 MIN	MERLA	1.000	12 WTR	89800 SCF/D
60 MIN	MERLA	1.000	11.5 WTR	87900 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 4/30/93			TICKET	: 18688
CUSTOMER	: RANGE OIL COMPANY INC.			LEASE	: MCNEE E
WELL	: #1	TEST: 3		GEOLOGIST	: LAUER
ELEVATION	: MISSISSIPPI			FORMATION	: 1130 KB
SECTION	: 13			TOWNSHIP	: 32S
RANGE	: 10E	COUNTY:	CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979	RANGE :	4100	CLOCK	: 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	95.00	95.00
5.00	95.00	0.00
10.00	104.00	9.00
15.00	85.00	-19.00
20.00	68.00	-17.00
25.00	54.00	-14.00
30.00	52.00	-2.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	314.00	314.00	0.00
6.00	396.00	82.00	0.00
9.00	420.00	24.00	0.00
12.00	441.00	21.00	0.00
15.00	458.00	17.00	0.00
18.00	473.00	15.00	0.00
21.00	486.00	13.00	0.00
24.00	496.00	10.00	0.00
27.00	505.00	9.00	0.00
30.00	511.00	6.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	47.00	47.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
5.00	47.00	0.00
10.00	47.00	0.00
15.00	47.00	0.00
20.00	47.00	0.00
25.00	48.00	1.00
30.00	49.00	1.00
35.00	49.00	0.00
40.00	49.00	0.00
45.00	49.00	0.00
50.00	49.00	0.00
55.00	49.00	0.00
60.00	49.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	264.00	264.00	0.00
6.00	307.00	43.00	0.00
9.00	334.00	27.00	0.00
12.00	351.00	17.00	0.00
15.00	372.00	21.00	0.00
18.00	389.00	17.00	0.00
21.00	405.00	16.00	0.00
24.00	416.00	11.00	0.00
27.00	427.00	11.00	0.00
30.00	438.00	11.00	0.00
33.00	450.00	12.00	0.00
36.00	456.00	6.00	0.00
39.00	463.00	7.00	0.00
42.00	469.00	6.00	0.00
45.00	475.00	6.00	0.00
48.00	482.00	7.00	0.00
51.00	489.00	7.00	0.00
54.00	496.00	7.00	0.00
57.00	502.00	6.00	0.00
60.00	509.00	7.00	0.00

WESTERN TESTING CO., INC.
FORMATION TESTING TICKET

Nº 18689

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

Elevation 1130KB Formation Miss Eff. Pay Ft.

District Augusta Date 5-1-93 Customer Order No.

COMPANY NAME Range Oil Co

ADDRESS 125 N Market Suite 1120 Wichita Ks 67201

LEASE AND WELL NO. McNee "E" #1 COUNTY Chautauqua STATE Ks Sec. 13 Twp. 32 Rge. 10E

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

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. DST #4 Interval Tested From 2003 ft. to 2023 ft. Total Depth 2023 ft.

Packer Depth 1998 ft. Size 6 5/8 in. Packer Depth — ft. Size — in.

Packer Depth 2003 ft. Size 6 5/8 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 2019 ft. Recorder Number 10979 Cap. 4100

Bottom Recorder Depth (Outside) 2020 ft. Recorder Number 3354 Cap. 4200

Below Straddle Recorder Depth — ft. Recorder Number — Cap.

Drilling Contractor Slawes

Mud Type Chem Viscosity 42

Weight 9.3 Water Loss 10 cc.

Chlorides 1000 P.P.M.

Jars: Make — Serial Number —

Did Well Flow? — Reversed Out —

Drill Collar Length 390 I. D. 2.25 in.

Weight Pipe Length — I. D. — in.

Drill Pipe Length 1593 I. D. 3.8 in.

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

Anchor Length 30 ft. Size 5 7/8 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 to strong blow gas to surface in 8 min on (IFP)

Recovered 30 ft. of Drilling mud

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

MAY 03 1993

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

Time On Location Stand-by A.M. P.M. Time Pick Up Tool 12:01 A.M. P.M. Time Off Location A.M. P.M.

Time Set Packer(s) 1:00 A.M. P.M. Time Started Off Bottom 4:00 A.M. P.M. Maximum Temperature 99°F

Initial Hydrostatic Pressure			(A)	990	P.S.I.	
Initial Flow Period	Minutes 30		(B)	65	P.S.I. to (C)	30 P.S.I.
Initial Closed In Period	Minutes 30		(D)	605	P.S.I.	
Final Flow Period	Minutes 60		(E)	30	P.S.I. to (F)	40 P.S.I.
Final Closed In Period	Minutes 60		(G)	605	P.S.I.	
Final Hydrostatic Pressure			(H)	980	P.S.I.	

10979

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 Tim J. Laver
Signature of Customer or his authorized representative

Western Representative

FIELD INVOICE

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

Phone 316 262-5861

P. O. Box 1599

WICHITA, KANSAS 67201

Nº 3992

GAS FLOW REPORT

Date 5-1-93 Ticket 18689 Company Range Oil Co

Well Name and No. McPhee "E" #1 Dst No. DST #4 Interval Tested 2003-2023

County Chautauqua State Ks Sec. 13 Twp. 32 Rg. 10E

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
PRE FLOW					
10		1½	7 H20		184,000
20		1	17.5		108,000
30			17.5		108,000
SECOND FLOW					
5 30		¾	27		74,000
10 40		¾	20		63,5000
20 50		¾	17.5		59,000
30 60		¾	16		56,800
40 70		¾	15		55200
50 80		¾	15		55200
60 90		¾	14.5		54,000

GAS BOTTLE

Serial No. Date Bottle Filled Date to be Invoiced

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of $75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

All charges subject to 1½% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME Range Oil Co. Inc.

Authorized by Willis Sallee

FORM WTC 9

WESTERN TESTING CO., INC.
Pressure Data

Date 5-1-92 Test Ticket No. 18689

Recorder No. 10979 Capacity Location Ft.

Clock No. Elevation Well Temperature °F

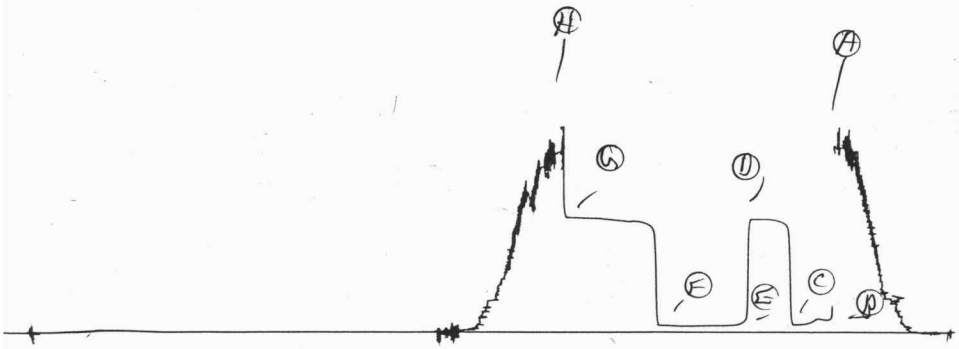
Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	1030	P.S.I.	Open Tool M	
B	First Initial Flow Pressure	70	P.S.I.	First Flow Pressure Mins. 30	Mins.
C	First Final Flow Pressure	46	P.S.I.	Initial Closed-in Pressure Mins. 30	Mins.
D	Initial Closed-in Pressure	614	P.S.I.	Second Flow Pressure Mins. 45	Mins.
E	Second Initial Flow Pressure	40	P.S.I.	Final Closed-in Pressure Mins. 69	Mins.
F	Second Final Flow Pressure	40	P.S.I.		
G	Final Closed-in Pressure	622	P.S.I.		
H	Final Hydrostatic Mud	974	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: Inc.		Breakdown: Inc.		Breakdown: Inc.		Breakdown: Inc.	
of 5 mins. and a		of 3 mins. and a		of 5 mins. and a		of 3 mins. and a	
final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.		final inc. of 0 Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	70	0	46	0	40	0	46
P 2 5	70	3	493	5		3	584
P 3 10	760 OK	6	584	10		6	549
P 4 15	602	9	600	15		9	581
P 5 20	50	12	606	20		12	592
P 6 25	46	15	611	25		15	598
P 7 30	46	18	614	30		18	602
P 8 35		21		35		21	603
P 9 40		24		40		24	603
P10 45		27		45		27	604
P11 50		30	614	50		30	605
P12 55		33		55		33	606
P13 60		36		60	40	36	608
P14 65		39		65	40	39	610
P15 70		42		70		42	615
P16 75		45		75		45	614
P17 80		48		80		48	615
P18 85		51		85		51	616
P19 90		54		90		54	617
P20 95		57		95		57	618
100		60		100		60	619

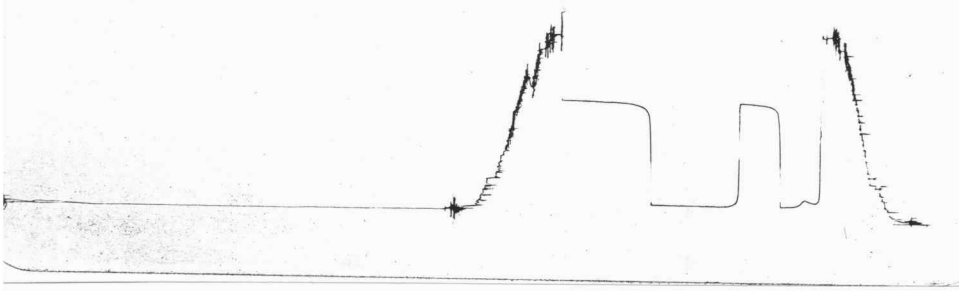
PKT 18689

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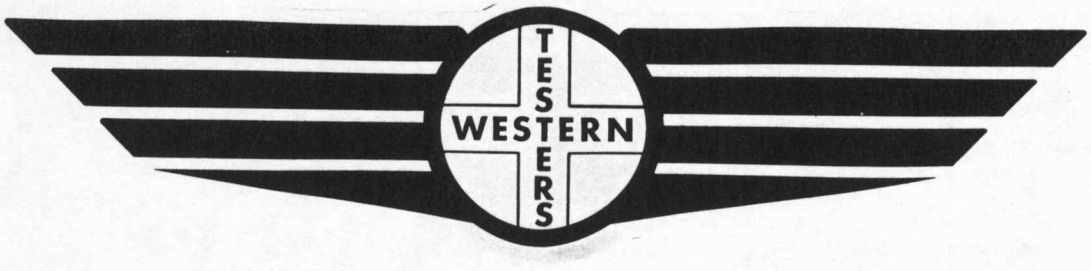


PKT 18689

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FORMATION TEST REPORT



Home Office: Wichita, Kansas 67201

P.O. Box 1599 Phone **1-800-688-7021**

COMPANY RANGE OIL COMPANY, INC. LEASE & WELL NO. #1 MCNEE E SEC. 13 TWP. 32S RGE. 10E TEST NO. 4 DATE 4/1/93

DST REPORT

GENERAL INFORMATION

DATE	: 5/1/93	TICKET	: 18689
CUSTOMER	: RANGE OIL COMPANY INC.	LEASE	: MCNEE E
WELL	: #1 TEST: 4	GEOLOGIST	: LAUER
ELEVATION	: MISSISSIPPI	FORMATION	: 1130 KB
SECTION	: 13	TOWNSHIP	: 32S
RANGE	: 10E COUNTY: CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979 RANGE : 4100	CLOCK	: 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 2003.00 ft TO: 2023.00 ft TVD: 2023.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: GAS
DEPTH OF RECORDERS: 2017.0 ft 2020.0 ft
TEMPERATURE: 99.0

DRILL COLLAR LENGTH:	390.0 ft	I.D.:	2.250 in
WEIGHT PIPE LENGTH :	0.0 ft	I.D.:	0.000 in
DRILL PIPE LENGTH :	1593.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	20.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	20.0 ft	ANCHOR SIZE:	5.500 in
SURFACE CHOKE SIZE :	0.750 in	BOTTOM CHOKE SIZE:	0.750 in
MAIN HOLE SIZE :	7.875 in	TOOL JOINT SIZE :	4.5FH
PACKER DEPTH:	1998.0 ft	SIZE:	6.630 in
PACKER DEPTH:	2003.0 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON.	: GLAVES RIG 1		
MUD TYPE	: CHEMICAL	VISCOSITY :	42.00 cp
WEIGHT	: 9.300 ppg	WATER LOSS:	10.000 cc
CHLORIDES	: 1000 ppm		
JARS-MAKE	:	SERIAL NUMBER:	
DID WELL FLOW?	: NO	REVERSED OUT?:	NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK TO VERY STRONG BLOW. GAS TO SURFACE IN 8 MINUTES. SEE GAS SHEET ATTACHED.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
30.0	0.0	0.0	0.0	100.0	DRILLING MUD

RATE INFORMATION

OIL VOLUME:	0.0000 STB		
GAS VOLUME:	0.0000 SCF	TOTAL FLOW TIME:	95.0000 min.
MUD VOLUME:	0.1475 STB	AVERAGE OIL RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB	AVERAGE WATER RATE:	0.0000 STB/D
TOTAL FLUID :	0.1475 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 990.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	65.00	30.00
INITIAL SHUT-IN	30.00		605.00
FINAL FLOW	60.00	30.00	40.00
FINAL SHUT-IN	60.00		605.00

FINAL HYDROSTATIC PRESSURE: 980.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1030.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	70.00	46.00
INITIAL SHUT-IN	30.00		614.00
FINAL FLOW	65.00	40.00	40.00
FINAL SHUT-IN	69.00		622.00

FINAL HYDROSTATIC PRESSURE: 974.00

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
30.0	0.0	0.0	0.0	100.0	DRILLING MUD

RATE INFORMATION

OIL VOLUME:	0.0000 STB		
GAS VOLUME:	0.0000 SCF	TOTAL FLOW TIME:	95.0000 min.
MUD VOLUME:	0.1475 STB	AVERAGE OIL RATE:	0.0000 STB/D
WATER VOLUME:	0.0000 STB	AVERAGE WATER RATE:	0.0000 STB/D
TOTAL FLUID :	0.1475 STB		

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OFFICE TIME & PRESSURE INFORMATION

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GAS FLOW REPORT

GENERAL INFORMATION

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CUSTOMER	: RANGE OIL COMPANY INC.	LEASE	: MCNEE E
WELL	: #1 TEST: 4	GEOLOGIST	: LAUER
ELEVATION	: MISSISSIPPI	FORMATION	: 1130 KB
SECTION	: 13	TOWNSHIP	: 32S
RANGE	: 10E COUNTY: CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979 RANGE : 4100	CLOCK	: 12

PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
10 MIN	MERLA	1.500	7" WATER	184000 SCF/D
20 MIN	MERLA	1.000	17.5" WATER	108000 SCF/D
30 MIN	MERLA	1.000	17.5" WATER	108000 SCF/D

SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
5 MIN	MERLA	0.750	27" WATER	74000 SCF/D
10 MIN	MERLA	0.750	20" WATER	63500 SCF/D
20 MIN	MERLA	0.750	17.5" WATER	59000 SCF/D
30 MIN	MERLA	0.750	16" WATER	56800 SCF/D
40 MIN	MERLA	0.750	15" WATER	55200 SCF/D
50 MIN	MERLA	0.750	15" WATER	55200 SCF/D
60 MIN	MERLA	0.750	14.5" WATER	54000 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE	: 5/1/933			TICKET	: 18689
CUSTOMER	: RANGE OIL COMPANY INC.			LEASE	: MCNEE E
WELL	: #1	TEST: 4		GEOLOGIST	: LAUER
ELEVATION	: MISSISSIPPI			FORMATION	: 1130 KB
SECTION	: 13			TOWNSHIP	: 32S
RANGE	: 10E	COUNTY:	CHAUTAUQUA	STATE	: KS
GAUGE SN#	: 10979	RANGE :	4100	CLOCK	: 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	70.00	70.00
5.00	70.00	0.00
10.00	76.00	6.00
15.00	63.00	-13.00
20.00	50.00	-13.00
25.00	46.00	-4.00
30.00	46.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	493.00	493.00	0.00
6.00	584.00	91.00	0.00
9.00	600.00	16.00	0.00
12.00	606.00	6.00	0.00
15.00	611.00	5.00	0.00
18.00	614.00	3.00	0.00
21.00	614.00	0.00	0.00
24.00	614.00	0.00	0.00
27.00	614.00	0.00	0.00
30.00	614.00	0.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	40.00	40.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

Time (min)	Pressure	Delta P
5.00	40.00	0.00
10.00	40.00	0.00
15.00	40.00	0.00
20.00	40.00	0.00
25.00	40.00	0.00
30.00	40.00	0.00
35.00	40.00	0.00
40.00	40.00	0.00
45.00	40.00	0.00
50.00	40.00	0.00
55.00	40.00	0.00
60.00	40.00	0.00
65.00	40.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	384.00	384.00	0.00
6.00	549.00	165.00	0.00
9.00	581.00	32.00	0.00
12.00	593.00	12.00	0.00
15.00	598.00	5.00	0.00
18.00	603.00	5.00	0.00
21.00	603.00	0.00	0.00
24.00	603.00	0.00	0.00
27.00	604.00	1.00	0.00
30.00	605.00	1.00	0.00
33.00	606.00	1.00	0.00
36.00	608.00	2.00	0.00
39.00	610.00	2.00	0.00
42.00	612.00	2.00	0.00
45.00	614.00	2.00	0.00
48.00	615.00	1.00	0.00
51.00	616.00	1.00	0.00
54.00	617.00	1.00	0.00
57.00	618.00	1.00	0.00
60.00	619.00	1.00	0.00
63.00	620.00	1.00	0.00
66.00	621.00	1.00	0.00
69.00	622.00	1.00	0.00