P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No. 1651

Elevation 1456 KB Formation Drum Eff. Pay Ft.

District Pratt Jnc. Date 4-27-79 Customer Order No.

COMPANY NAME Gabbert & Jones Drilling Co

ADDRESS 830 Sutton Place Wichita, Kansas

LEASE AND WELL NO. #1 Reida COUNTY Kingman STATE KANSAS Sec. 20 Twp. 30S Rge. 6W

Mail Invoice To Same No. Copies Requested
Co. Name Address

Mail Charts To Same No. Copies Requested
Address

Formation Test No. 1 Interval Tested from 3681 ft. to 3693 ft. Total Depth 3693 ft.

Packer Depth 3676 ft.	Size 6 3/4 in.	Packer Depth — ft.	Size — in.
Packer Depth 3681 ft.	Size 6 3/4 in.	Packer Depth — ft.	Size — in.

Depth of Selective Zone Set —

Top Recorder Depth (Inside)	3683 ft.	Recorder Number 2604	Cap. 4150
Bottom Recorder Depth (Outside)	3686 ft.	Recorder Number 2606	Cap. 4150
Below Straddle Recorder Depth	— ft.	Recorder Number —	Cap. —

Drilling Contractor Co. Tools		Drill Collar Length 440	I. D. 2 1/4 in.
Mud Type Starch	Viscosity 40	Weight Pipe Length —	I. D. — in.
Weight 9.2	Water Loss 8.8 cc.	Drill Pipe Length 3227	I. D. 3.8 in.
Chlorides 17,000 P.P.M.		Test Tool Length 21 in.	Tool Size 5 1/2 in.
Jars: Make NO	Serial Number —	Anchor Length 12 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 7/8 in.	Tool Joint Size 4 1/2 FH in.

Blow: Good building to strong blow in 15 min. on initial Strong blow in 20 min. on final flow period

Recovered 30 ft. of Slightly oil spotted gassy mud
Recovered 120 ft. of Gassy oil cut mud
Recovered 120 ft. of Gassy oil & water cut mud
Recovered 280 ft. of ~~Water~~ muddy water
Recovered ft. of

Remarks: Slid tool eleven ft. to bottom

RECEIVED MAY 1 - 1979

Time Set Packer(s) 1:55 ~~A.M.~~ P.M.	Time Started Off Bottom 4:10 ~~A.M.~~ P.M.			Maximum Temperature 126° F	
Initial Hydrostatic Pressure		(A) 1894	P.S.I.		
Initial Flow Period	Minutes 30	(B) 106	P.S.I. to	(C) 106	P.S.I.
Initial Closed In Period	Minutes 45	(D) 1223	P.S.I.		
Final Flow Period	Minutes 60	(E) 181	P.S.I. to	(F) 202	P.S.I.
Final Closed In Period	Minutes 60	(G) 1192	P.S.I.		
Final Hydrostatic Pressure		(H) 1884	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 Elton L. Schreiber
Signature of Customer or his authorized representative

Western Representative Rod Tritt Thank You

FIELD INVOICE

Open Hole Test	$ 440 00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage	$
Extra Charts	$
TOTAL	$ 440 00

WESTERN TESTING CO., INC.
Pressure Data

Date 4-27-79 Test Ticket No. 1651

Recorder No. 2604 Capacity 4150 Location 3683 Ft.

Clock No. Elevation 1456 KB Well Temperature 126 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	1897	P.S.I.	Open Tool	1:55 PM	
B	First Initial Flow Pressure	111	P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	115	P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D	Initial Closed-in Pressure	1234	P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	190	P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F	Second Final Flow Pressure	207	P.S.I.			
G	Final Closed-in Pressure	1201	P.S.I.			
H	Final Hydrostatic Mud	1886	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	111
P 2 5	107
P 3 10	102
P 4 15	102
P 5 20	104
P 6 25	109
P 7 30	115
P 8 ~~35~~	
P 9 40	
P10 45	
P11 50	
P12 ~~55~~	
P13 60	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	115
3 260	[illegible]
6 619	[illegible]
9 776	[illegible]
12 866	[illegible]
15 939	[illegible]
18	996
21	1038
24	1073
27 1107	[illegible]
30 1136	[illegible]
33	1158
36	1178
39	1190
42	1212
45	1234
~~48~~	
51	
54	
57	
~~60~~	

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	190
5	185
10	181
15	182
20	183
25	184
30	185
35	189
40	193
45	196
50	200
55	204
60	207
~~65~~	
~~70~~	
75	
80	
85	
90	

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	207
3	226
6	464
9	692
12	793
15	886
18	908
21	950
24	985
27	1017
30	1044
33	1063
36	1088
39	1109
42	1125
45	1140
48	1155
51	1167
54	1180
57	1192
60	1201

Company Gabbert-Jones, Inc. Lease & Well No. Reida #1

Elevation 1456 Kelly Bushing Formation Drum Effective Pay -- Ft. Ticket No. 1651

Date 4/27/79 Sec. 20 Twp. 30S Range 6W County Kingman State Kansas

Test Approved by Eldon J. Schierfling Western Representative Rod Tritt

Formation Test No. 1 Interval Tested from 3681 ft. to 3693 ft. Total Depth 3693 ft.

Packer Depth 3676 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 3681 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set --

Top Recorder Depth (Inside) 3683 ft. Recorder Number 2604 Cap. 4150

Bottom Recorder Depth (Outside) 3686 ft. Recorder Number 2606 Cap. 4150

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

Drilling Contractor Gabbert-Jones, Inc. Drill Collar Length 440 I. D. 2¼ in.

Mud Type starch Viscosity 40 Weight Pipe Length - I. D. - in.

Weight 9.2 Water Loss 8.8 cc. Drill Pipe Length 3221 I. D. 3.8 in.

Chlorides 17,000 P.P.M. Test Tool Length 21' Tool Size 5½ in.

Jars: Make No Serial Number - Anchor Length 12' ft. Size 5½ in.

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

Main Hole Size 7 7/8 in. Tool Joint Size 4½FH in.

Blow: Good building to strong blow in 15 minutes on initial period. Strong blow in 20 minutes on final flow period.

Recovered 30 ft. of slightly oil spotted gassy mud

Recovered 120 ft. of gassy oil cut mud

Recovered 120 ft. of gassy oil and water cut mud

Recovered 280 ft. of muddy water

Recovered ft. of

Remarks: Slid tool eleven feet to bottom.

Time Set Packer(s) 1:55 ~~A.M.~~ P.M. Time Started Off Bottom 4:10 ~~A.M.~~ P.M. Maximum Temperature 126

Initial Hydrostatic Pressure ..... (A) 1897 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 111 P.S.I. to (C) 115 P.S.I.

Initial Closed In Period ..... Minutes 45 (D) 1234 P.S.I.

Final Flow Period ..... Minutes 60 (E) 190 P.S.I. to (F) 207 P.S.I.

Final Closed In Period ..... Minutes 60 (G) 1201 P.S.I.

Final Hydrostatic Pressure ..... (H) 1886 P.S.I.

WESTERN TESTING CO., INC.
Pressure Data

Date 4/27/79 Test Ticket No. 1651

Recorder No. 2604 Capacity 4150 Location 3683 Ft.

Clock No. -- Elevation 1456 Kelly Bushing Well Temperature 126 °F

Point		Pressure	
A	Initial Hydrostatic Mud	1897	P.S.I.
B	First Initial Flow Pressure	111	P.S.I.
C	First Final Flow Pressure	115	P.S.I.
D	Initial Closed-in Pressure	1234	P.S.I.
E	Second Initial Flow Pressure	190	P.S.I.
F	Second Final Flow Pressure	207	P.S.I.
G	Final Closed-in Pressure	1201	P.S.I.
H	Final Hydrostatic Mud	1886	P.S.I.

	Time Given		Time Computed	
Open Tool	1:55P	M.		
First Flow Pressure	30	Mins.	30	Mins.
Initial Closed-in Pressure	45	Mins.	45	Mins.
Second Flow Pressure	60	Mins.	60	Mins.
Final Closed-in Pressure	60	Mins.	60	Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	111
P 2	5	107
P 3	10	102
P 4	15	102
P 5	20	104
P 6	25	109
P 7	30	115
P 8		
P 9		
P10		
P11		
P12		
P13		
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	115
3	260
6	619
9	776
12	866
15	939
18	996
21	1038
24	1073
27	1107
30	1136
33	1158
36	1178
39	1190
42	1212
45	1234

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

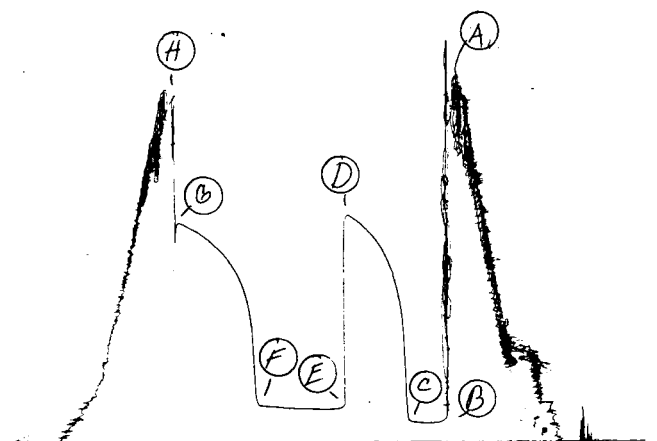
Point Minutes	Press.
0	190
5	185
10	181
15	182
20	183
25	184
30	184
35	189
40	193
45	196
50	200
55	204
60	207

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	207
3	226
6	464
9	692
12	793
15	886
18	908
21	950
24	985
27	1017
30	1044
33	1063
36	1088
39	1107
42	1125
45	1140
48	1155
51	1167
54	1180
57	1192
60	1201

2604 DST #1

Tkt # 1651
I



P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No. 1652

Elevation 1456 KB Formation Swope Eff. Pay Ft.

District Pratt Date 4-28-79 Customer Order No.

COMPANY NAME Gabbert & Jones ~~Dorling Co~~

ADDRESS 830 Sutton Place Wichita, Kansas

LEASE AND WELL NO. #1 Reida COUNTY Kingman STATE Kansas Sec 20 Twp 30S Rge 6W

Mail Invoice To Same No. Copies Requested
Co. Name Address

Mail Charts To Same No. Copies Requested
Address

Formation Test No. 2 Interval Tested from 3708 ft. to 3720 ft. Total Depth 3720 ft.

Packer Depth 3703 ft.	Size 6 3/4 in.	Packer Depth — ft.	Size — in.
Packer Depth 3708 ft.	Size 6 3/4 in.	Packer Depth — ft.	Size — in.
Depth of Selective Zone Set —			

Top Recorder Depth (Inside)	3712 ft.	Recorder Number 2600	Cap. 4150
Bottom Recorder Depth (Outside)	3708 ft.	Recorder Number 2606	Cap. 4150
Below Straddle Recorder Depth	— ft.	Recorder Number —	Cap. —

Drilling Contractor Co Tools		Drill Collar Length 440	I. D. 2 1/4 in.
Mud Type Starch	Viscosity 40	Weight Pipe Length —	I. D. — in.
Weight 9.2	Water Loss 8.8 cc.	Drill Pipe Length 3247	I. D. 3.8 in.
Chlorides 17,000 P.P.M.		Test Tool Length 21 in.	Tool Size 5 1/2 OD in.
Jars: Make NO	Serial Number N—	Anchor Length 12 ft.	Size 5 1/2 OD in.
Did Well Flow? NO	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 blow building to fair blow on initial flow
fair to good blow on final flow period

Recovered 410 ft. of water
Recovered ft. of
Recovered ft. of
Recovered ft. of
Recovered ft. of

Remarks: Hit a tight spot 240 ft off bottom - also a tight spot 35 ft off bottom

Time Set Packer(s) 4:40 A.M. ~~P.M.~~	Time Started Off Bottom 7:55 A.M. ~~P.M.~~			Maximum Temperature 129°F	
Initial Hydrostatic Pressure		(A) 1874 P.S.I.			
Initial Flow Period	Minutes 30	(B) 63 P.S.I.	to (C) 85 P.S.I.		
Initial Closed In Period	Minutes 45	(D) 1401 P.S.I.			
Final Flow Period	Minutes 60	(E) 149 P.S.I.	to (F) 191 P.S.I.		
Final Closed In Period	Minutes 60	(G) 1401 P.S.I.			
Final Hydrostatic Pressure		(H) 1873 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 Elton J. Schierling
Signature of Customer or his authorized representative

Western Representative Rod Litt Thank you

RECEIVED MAY 1 1979

FIELD INVOICE

Open Hole Test	$ 440 00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage	$
Extra Charts	$
TOTAL	$ 440 00

WESTERN TESTING CO., INC.
Pressure Data

Date 4-28-79 Test Ticket No. 1652

Recorder No. 2604 Capacity 4150 Location 3712 Ft.

Clock No. — Elevation 1456 KB Well Temperature 129 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	1905 P.S.I.	Open Tool	4'40 + M	
B First Initial Flow Pressure	81 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	80 P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D Initial Closed-in Pressure	1405 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	164 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	200 P.S.I.			
G Final Closed-in Pressure	1399 P.S.I.			
H Final Hydrostatic Mud	1876 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	81
P 2 5	64
P 3 10	64
P 4 15	66
P 5 20	70
P 6 25	75
P 7 30	80
P 8 35	
P 9 40	
P10 45	
P11 50	
P12 55	
P13 60	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	80
3	393
6	1251
9	1291
12	1320
15	1339
18	1351
21	1362
24	1370
27	1378
30	1385
33	1389
36	1393
39	1399
42	1401
45	1405
48	
51	
54	
57	
60	

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	164
5	147
10	143
15	143
20	146
25	151
30	155
35	162
40	168
45	177
50	183
55	192
60	200
65	
70	
75	
80	
85	
90	

Final Shut-In
Breakdown: 28 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	200
3	393
6	1217
9	1291
12	1316
15	1330
18	1345
21	1355
24	1364
27	1370
30	1375
33	1380
36	1385
39	1387
42	1390
45	1391
48	1393
51	1395
54	1396
57	1397
60	1399

Company Gabbert-Jones, Inc. Lease & Well No. Reida #1

Elevation 1456 Kelly Bushing Formation Swope Effective Pay -- Ft. Ticket No. 1652

Date 4/28/79 Sec. 20 Twp. 30S Range 6W County Kingman State Kansas

Test Approved by Eldon J. Schierling Western Representative Rod Tritt

Formation Test No. 2 Interval Tested from 3708 ft. to 3720 ft. Total Depth 3720 ft.

Packer Depth 3703 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 3708 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set --

Top Recorder Depth (Inside) 3712 ft. Recorder Number 2604 Cap. 4150

Bottom Recorder Depth (Outside) 3715 ft. Recorder Number 2606 Cap. 4150

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

Drilling Contractor Gabbert & Jones Drill Collar Length 440 I. D. 2¼ in.

Mud Type starch Viscosity 40 Weight Pipe Length - I. D. - in.

Weight 9.2 Water Loss 8.8 cc. Drill Pipe Length 3247 I. D. 3.8 in.

Chlorides 17,000 P.P.M. Test Tool Length 21' Tool Size 5½OD in.

Jars: Make No Serial Number -- Anchor Length 12' ft. Size 5½OD in.

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

Main Hole Size 7 7/8 in. Tool Joint Size 4½FH in.

Blow: Weak blow building to fair blow on initial flow;fair to good blow on final flow period.

Recovered 410 ft. of water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks: Hit a tight spot 240 feet off bottom, also a tight spot 35 feet off bottom.

Time Set Packer(s) 4:40 A.M. P.M. Time Started Off Bottom 7:55 A.M. P.M. Maximum Temperature 129

Initial Hydrostatic Pressure			(A) 1905	P.S.I.		
Initial Flow Period	Minutes 30	(B) 81	P.S.I. to	(C) 80	P.S.I.	
Initial Closed In Period	Minutes 45	(D) 1405	P.S.I.			
Final Flow Period	Minutes 60	(E) 164	P.S.I. to	(F) 200	P.S.I.	
Final Closed In Period	Minutes 60	(G) 1399	P.S.I.			
Final Hydrostatic Pressure			(H) 1876	P.S.I.		

WESTERN TESTING CO., INC.
Pressure Data

Date 4/28/79 Test Ticket No. 1652

Recorder No. 2604 Capacity 4150 Location 3712 Ft.

Clock No. -- Elevation 1456 Kelly Bushing Well Temperature 129 °F

Point	Pressure		Time Given		Time Computed	
A Initial Hydrostatic Mud	1905 P.S.I.	Open Tool	4:40A	M		
B First Initial Flow Pressure	81 P.S.I.	First Flow Pressure	30	Mins.	30	Mins.
C First Final Flow Pressure	80 P.S.I.	Initial Closed-in Pressure	45	Mins.	45	Mins.
D Initial Closed-in Pressure	1405 P.S.I.	Second Flow Pressure	60	Mins.	60	Mins.
E Second Initial Flow Pressure	164 P.S.I.	Final Closed-in Pressure	60	Mins.	60	Mins.
F Second Final Flow Pressure	200 P.S.I.					
G Final Closed-in Pressure	1399 P.S.I.					
H Final Hydrostatic Mud	1876 P.S.I.					

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	81
P 2 5	64
P 3 10	64
P 4 15	66
P 5 20	70
P 6 25	75
P 7 30	80
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	80
3	393
6	1251
9	1291
12	1320
15	1339
18	1351
21	1362
24	1370
27	1378
30	1385
33	1389
36	1393
39	1399
42	1401
45	1405

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

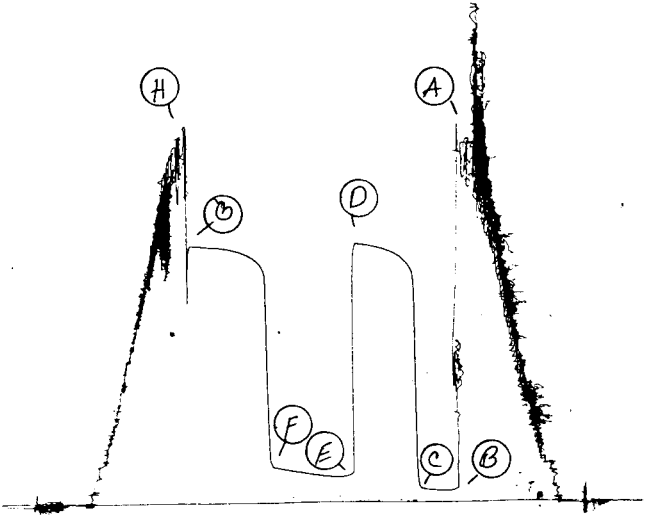
Point Minutes	Press.
0	164
5	147
10	143
15	143
20	146
25	151
30	155
35	162
40	168
45	177
50	183
55	192
60	200

Final Shut-In
Breakdown 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	200
3	393
6	1217
9	1291
12	1316
15	1330
18	1345
21	1355
24	1364
27	1370
30	1375
33	1380
36	1385
39	1387
42	1390
45	1391
48	1393
51	1395
54	1396
57	1397
60	1399

DST #2 2604

TKt # 1652
I



P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No. 1605

Elevation 1456 K.B. Formation Mississippi Eff. Pay Ft.

District Pratt Date 4-30-79 Customer Order No.

COMPANY NAME Grabbert & Jones, Inc.

ADDRESS 830 Sutton Place Wichita 67202 20 30S 6W

LEASE AND WELL NO. Reida #1 COUNTY Kingman STATE Kans. Sec. 20 Twp. 30S Rge. 6W

Mail Invoice To Same (Co. Name) Address No. Copies Requested Reg

Mail Charts To Same Address No. Copies Requested Reg

Formation Test No. 3 Interval Tested from 4111 ft. to 4121 ft. Total Depth 4121 ft.

Packer Depth 4106 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 4111 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4113 ft. Recorder Number 6246 Cap. 5200

Bottom Recorder Depth (Outside) 4116 ft. Recorder Number 5673 Cap. 5400

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Company Tools #12 Drill Collar Length 439 I. D. 2¼ in.

Mud Type Starch Viscosity 45 Weight Pipe Length I. D. in.

Weight 9.5 Water Loss 9.6 cc. Drill Pipe Length 3652 I. D. 3.8 in.

Chlorides 22,500 P.P.M. Test Tool Length 20 in. Tool Size 5½ in.

Jars: Make Serial Number Anchor Length 10 ft. Size 5½ 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 4½ FH in.

Blow: Strong Blow Thru-out Test. Gas To Surface 5 min.
See Attached Sheet

Recovered 70 ft. of DRLG MUD

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

RECEIVED
MAY 1 1979

Time Set Packer(s) 11:25 A.M. P.M. Time Started Off Bottom 2:40 A.M. P.M. Maximum Temperature 132

Initial Hydrostatic Pressure			(A)	2070	P.S.I.	
Initial Flow Period	Minutes	30	(B)	52	P.S.I. to (C)	91 P.S.I.
Initial Closed In Period	Minutes	45	(D)	1409	P.S.I.	
Final Flow Period	Minutes	60	(E)	52	P.S.I. to (F)	52 P.S.I.
Final Closed In Period	Minutes	60	(G)	1409	P.S.I.	
Final Hydrostatic Pressure			(H)	2070	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 Elton J. Scherling
Signature of Customer or his authorized representative

Western Representative Bill Hagen
David Sloan

FIELD INVOICE

Open Hole Test	$ 460.00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage	$
Extra Charts	$
TOTAL	$ 460.00

Phone 316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

No. 1218

Date 4-30-79 Ticket 1605 Company Gabbert & Jones

Well Name and No. Reida #1 Dst No. 3 Interval Tested 4111 TO 4121

County Kingman State Kans. Sec. 20 Twp. 30S Rg. 6W

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					
Tool open 11:25 A.M.					
Gas To Surface 5 min.					
10 Min	23 LBS.	1/4 inch			51,800 C.F.P.D.
20 min	38 LBS.	"			73,000 "
30 min	55 LBS.	"			96,700 "
SECOND FLOW					
Tool open 12:40 P.M.					
10 min	14 LBS.	1/4 inch			141,000 C.F.P.D.
20	15 LBS.	"			147,000 "
30	"	"			" "
40	"	"			" "
50	"	"			" "
60	"	"			" "

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 1% per month, equal to 12% 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 _____

Authorized by _____

FORM WTC 9

Gas Production

B.T. Gauge Numbers	6246		Ticket Number		1605
		Pressure			
Initial Hydrostatic		2136	Elevation		1456 KB ft.
Final Hydrostatic		2068	Production Rate	Intial	96.100 m cu. ft.
	Time			Final	147.000 m cu. ft.
1st Flow Initial	— — — —	42	Hole Size		7.785 in.
1st Flow Final		97			
Initial Closed In Pressure		1409	Footage Tested		10 ft.
2nd Flow Initial	— — — —	45	Mud Weight		9.7 lbs. gal.
2nd Flow Final		45	Gas Viscosity		.018 cp
Final Closed In Pressure		1393	Gas Gravity		—
Extrapolated Static Pressure Initial			Gas Compressibility		.82 —
Extrapolated Static Pressure Final		1229-1524			
Slope Psi²/cycle Initial					
Slope Psi²/cycle Final		812,135			

Remarks:

SUMMARY

BT Gauge Number Depth

Product	Equation	Initial	Final	Units
Transmissability	$\frac{Kh}{\mu} = \frac{1637\ Q_g\ ZT}{m}$		143.837	$\frac{md.\ ft.}{cp}$
Theoretical Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$		2.589	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$		.517	md.
	$K_1 = \frac{Kh}{h_1}$		.517	md.
Indicated Flow Capacity	$(Kh)_g = \frac{3200\ Q_g\ \mu\ ZT\ Log(0.472\ b/r_w)}{P_s^2 - P_f^2}$		1.794	md. ft.
Damage Ratio	$DR = \frac{\text{Theo. Flow Cap}}{\text{Indicated Flow Cap}} \frac{Kh}{(Kh)_g}$		1.443	—
Indicated Flow Rate	$OF_1 = \frac{Q_g\ \ P_s^2}{P_s^2 - P_f^2}$		147.128	MCFD
	OF_2		147.064	MCFD
Theoretical Potential Rate	$OF_3 = OF_1\ DR$ Max.		212.323	MCFD
	$OF_4 = OF_2\ DR$ Min.		212.230	MCFD
Approx. Radius of Investigation	$b \leftrightarrows \sqrt{Kt}$ or $\sqrt{Kt_0}$		6.826	ft.
	$b_1 \leftrightarrows \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		6.826	ft.
Potentiometric Surface *	$Pot. = (El - GD) + (2.319\ Ps)$		877.156	ft.

INTERPRETATIONS AND CALCULATIONS

WESTERN TESTING CO., INC.
Pressure Data

Date 4-30-79 Test Ticket No. 1605

Recorder No. 6246 Capacity Location 4113 Ft.

Clock No. Elevation 1456 KB Well Temperature 132 °F

Point		Pressure			Time Given	Time Computed
A	Initial Hydrostatic Mud	2136	P.S.I.	Open Tool	11:25 AM	
B	First Initial Flow Pressure	42	P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	97	P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D	Initial Closed-in Pressure	1409	P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	45	P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F	Second Final Flow Pressure	45	P.S.I.			
G	Final Closed-in Pressure	1396	P.S.I.			
H	Final Hydrostatic Mud	2068	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	42
P 2 5	41
P 3 10	52
P 4 15	68
P 5 20	84
P 6 25	93
P 7 30	97
P 8 ~~35~~	
P 9 40	
P10 45	
P11 50	
P12 55	
P13 60	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

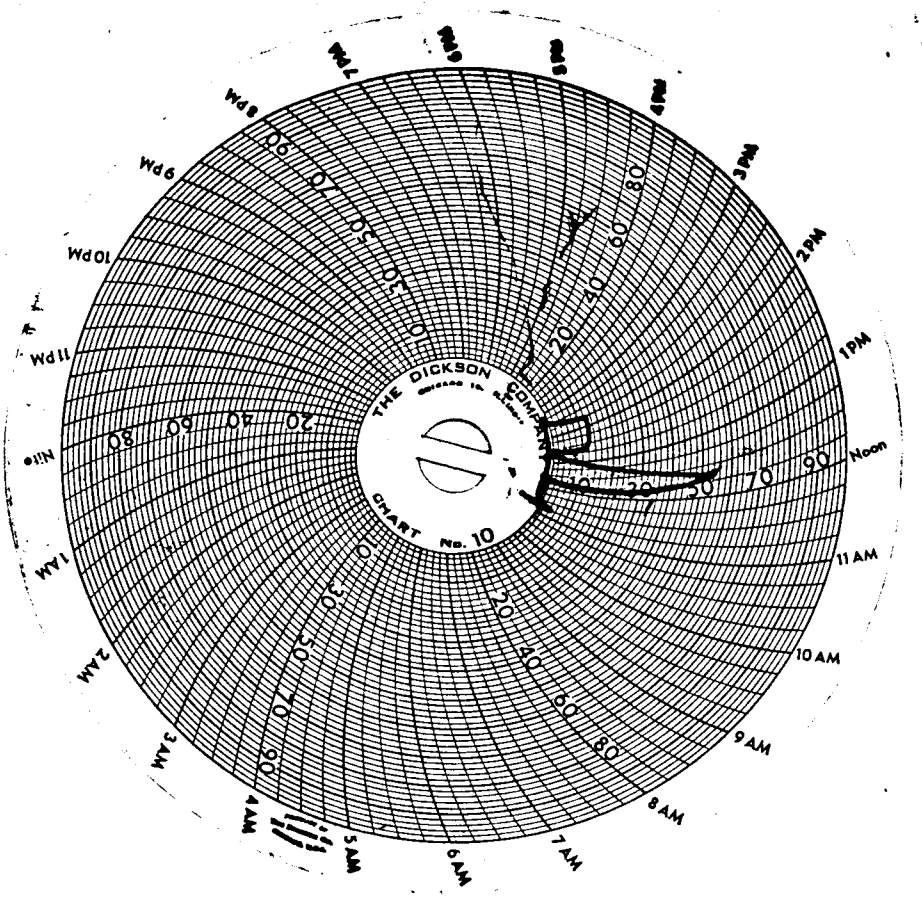
Point Minutes	Press.
0	97
3	882
6	1205
9	1290
12	1332
15	1355
18	1365
21	1378
24	1386
27	1391
30	1396
33	1399
36	1402
39	1405
42	1407
45	1409
~~48~~	
51	
54	
57	
60	

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	45
5	39
10	37
15	
20	
25	
30	37
35	38
40	39
45	41
50	43
55	44
60	45
~~65~~	
70	
75	
80	
85	
90	

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	45
3	429
6	1047
9	1194
12	1251
15	1288
18	1311
21	1326
24	1339
27	1350
30	1360
33	1368
36	1374
39	1377
42	1379
45	1381
48	1384
51	1387
54	1390
57	1393
60	1396


THE DICKSON COMPANY
CHART No. 10
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mpany Gabbert-Jones, Inc. Lease & Well No. Reida #1

evation 1456 Kelly Bushing Formation Mississippi Effective Pay -- Ft. Ticket No. 1605

te 4/30/79 Sec. 20 Twp. 30S Range 6W County Kingman State Kansas

st Approved by Eldon J. Schierling Western Representative Bill Hager-David Sloan

rmation Test No. 3 Interval Tested from 4111' ft. to 4121' ft. Total Depth 4121' ft.

cker Depth 4106 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

cker Depth 4111 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

pth of Selective Zone Set --

p Recorder Depth (Inside) 4113 ft. Recorder Number 6246 Cap. 5200

ttom Recorder Depth (Outside) 4116 ft. Recorder Number 5673 Cap. 5400

low Straddle Recorder Depth - ft. Recorder Number - Cap. -

illing Contractor Gabbert Jones Drilling #12 Drill Collar Length 439 I. D. 2¼ in.

id Type starch Viscosity 45 Weight Pipe Length - I. D. - in.

eight 9.5 Water Loss 9.6 cc. Drill Pipe Length 3652 I. D. 3.8 in.

lorides 22,500 P.P.M. Test Tool Length 20' ~~ft~~ Tool Size 5½ in.

s: Make - Serial Number - Anchor Length 10' ft. Size 5½ in.

d 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 4½FH in.

ow: Strong blow throughout test. Gas to surface five minutes. See attached sheet for gas measurements.

covered 70 ft. of drilling mud

covered ft. of

covered ft. of

covered ft. of

covered ft. of

marks:

me Set Packer(s) 11:25 ~~A.M.~~ ~~P.M.~~ Time Started Off Bottom 2:40 ~~A.M.~~ P.M. Maximum Temperature 132

itial Hydrostatic Pressure ..... (A) 2136 P.S.I.

itial Flow Period ..... Minutes 30 (B) 42 P.S.I. to (C) 97 P.S.I.

itial Closed In Period ..... Minutes 45 (D) 1409 P.S.I.

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

nal Closed In Period ..... Minutes 60 (G) 1396 P.S.I.

nal Hydrostatic Pressure ..... (H) 2068 P.S.I.

Phone 316 262-5861
316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

Date 4/30/79 Ticket 1605 Company Gabbert-Jones, Inc.

Well Name and No. Reida #1 Dst No. 3 Interval Tested 4111'-4121

County Kingman State Kansas Sec. 20 Twp. 30S Rg. 6W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
Tool open 11:25AM			**PRE FLOW**			
Gas to surface five minutes.						
	10 min.	23 lbs.	1/4" orifice			51,800 CFPD
	20 min.	38 lbs.	1/4" orifice			73,000 CFPD
	30 min.	55 lbs.	1/4" orifice			96,700 CFPD
Tool open 12:40 PM			**SECOND FLOW**			
	10 min.	14 lbs.	1/2" orifice			141,000 CFPD
	20 min.	15 lbs.	1/2" orifice			147,000 CFPD
	30 min.	15 lbs.	1/2" orifice			147,000 CFPD
	40 min.	15 lbs.	1/2" orifice			147,000 CFPD
	50 min.	15 lbs.	1/2" orifice			147,000 CFPD
	60 min.	15 lbs.	1/2" orifice			147,000 CFPD

GAS BOTTLE

Serial No. --- Date Bottle Filled --- - Date to be Invoiced 4/30/79

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 1% per month, equal to 12% 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 Gabbert- Jones, Inc.

Authorized by Eldon J. Schierling

FORM WTC 6

WESTERN TESTING CO., INC.
Pressure Data

Date 4/30/79 Test Ticket No. 1605

Recorder No. 6246 Capacity 5200 Location 4113 Ft.

Clock No. - Elevation 1456 Kelly Bushing Well Temperature 132 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2136 P.S.I.	Open Tool	11:25A M	
B First Initial Flow Pressure	42 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	97 P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D Initial Closed-in Pressure	1409 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	45 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	45 P.S.I.			
G Final Closed-in Pressure	1396 P.S.I.			
H Final Hydrostatic Mud	2068 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	42
P 2 5	41
P 3 10	52
P 4 15	68
P 5 20	84
P 6 25	93
P 7 30	97
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	97
3	882
6	1205
9	1290
12	1332
15	1355
18	1365
21	1378
24	1386
27	1391
30	1396
33	1399
36	1402
39	1405
42	1407
45	1409

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	45
5	39
10	37
15	37
20	37
25	37
30	37
35	38
40	39
45	41
50	43
55	44
60	45

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	45
3	429
6	1047
9	1194
12	1251
15	1288
18	1311
21	1326
24	1339
27	1350
30	1360
33	1368
36	1374
39	1377
42	1379
45	1381
48	1384
51	1387
54	1390
57	1393
60	1396

Gas Production

B.T. Gauge Numbers	6246		**Ticket Number**	1605	
		Pressure			
Initial Hydrostatic		2136	**Elevation**	1456 K.B.	ft.
Final Hydrostatic		2086	**Production Rate** Intial	96.700	m cu. ft.
	Time		**Production Rate** Final	147.000	m cu. ft.
1st Flow Initial	— — — —	42			
1st Flow Final		97	**Hole Size**	7.785	in.
Initial Closed In Pressure		1409	**Footage Tested**	10	ft.
2nd Flow Initial	— — — —	45	**Mud Weight**	9.7	lbs. gal.
2nd Flow Final		45	**Gas Viscosity**	.018	cp
Final Closed In Pressure		1393	**Gas Gravity**		—
Extrapolated Static Pressure Initial			**Gas Compressibility**	.82	—
Extrapolated Static Pressure Final		1229 - 1524			
Slope Psi^2/cycle Initial					
Slope Psi^2/cycle Final		812.135			

Remarks:

SUMMARY

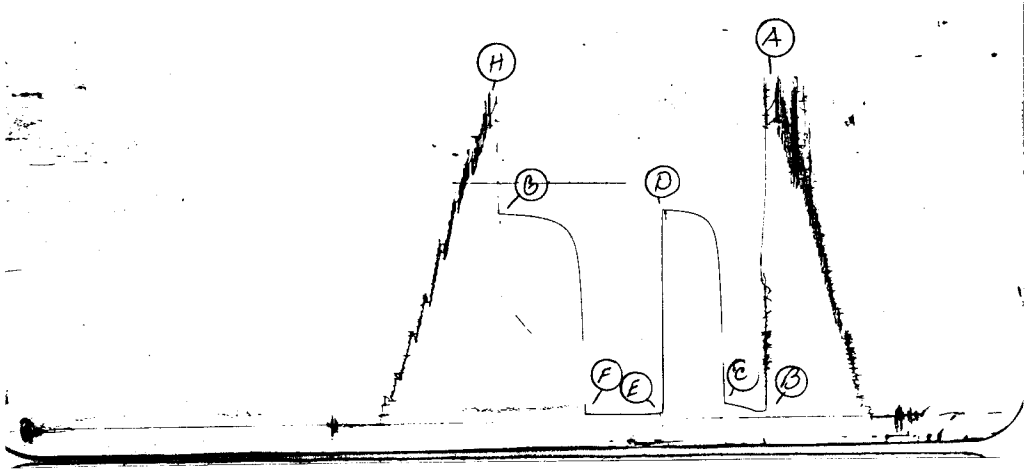
BT Gauge Number Depth

Product	Equation	Initial	Final	Units
Transmissability	$\frac{Kh}{\mu} = \frac{1637\ Q_g\ ZT}{m}$		143.837	$\frac{md.\ ft.}{cp}$
Theoretical Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$		2.589	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$		.517	md.
	$K_1 = \frac{Kh}{h_1}$		.517	md.
Indicated Flow Capacity	$(Kh)_3 = \frac{3200\ Q_g\ \mu\ ZT\ Log(0.472\ b/r_w)}{P_s^2 - P_f^2}$		1.794	md. ft.
Damage Ratio	$DR = \frac{\text{Theo. Flow Cap}}{\text{Indicated Flow Cap}}\ \frac{Kh}{(Kh)_3}$		1.443	—
Indicated Flow Rate	$OF_1 = \frac{Q_g\ P_s^2}{P_s^2 - P_f^2}$		147.128	MCFD
			147.064	MCFD
Theoretical Potential Rate	$OF_3 = OF_1\ DR$ Max.		212.323	MCFD
	$OF_4 = OF_2\ DR$ Min.		212.230	MCFD
Approx. Radius of Investigation	$b \backsimeq \sqrt{Kt}$ or $\sqrt{Kt_0}$		6.826	ft.
	$b_1 \backsimeq \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		6.826	ft.
Potentiometric Surface *	$Pot. = (El - GD) + (2.319\ Ps)$		877.156	ft.

INTERPRETATIONS AND CALCULATIONS

6246

Tkt # 1605
I



WESTERN TESTING CO., INC.
FORMATION TESTING
TICKET № 1606

P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

Elevation 1456 KB Formation mississippi Eff. Pay ____ Ft.

District PRATT Date MAY 1, 79 Customer Order No. ____

COMPANY NAME Gabbert + Jones

ADDRESS ____

LEASE AND WELL NO. Reish #1 COUNTY Kingman STATE Kans. Sec. 20 Twp 30S Rge 6W

Mail Invoice To Same (Co. Name / Address) No. Copies Requested Reg

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

Formation Test No. 4 Interval Tested from 4112 ft. to 4129 ft. Total Depth 4129 ft.
Packer Depth 4107 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.
Packer Depth 4112 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 4116 ft. Recorder Number 5673 Cap. 5400
Bottom Recorder Depth (Outside) 4119 ft. Recorder Number 6246 Cap. ____
Below Straddle Recorder Depth ____ ft. Recorder Number ____ Cap. ____

Drilling Contractor Company Tools #12 Drill Collar Length 439 I. D. 2 1/4 in.
Mud Type STARCH Viscosity 45 Weight Pipe Length ____ I. D. ____ in.
Weight 9.5 Water Loss 9.6 cc. Drill Pipe Length 3653 I. D. 3.8 in.
Chlorides 22,500 P.P.M. Test Tool Length 20 in. Tool Size 5 1/2 in.
Jars: Make ____ Serial Number ____ Anchor Length 17 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 7/8 in. Tool Joint Size 4 1/2 F.H. in.

Blow: STRONG BLOW THRU-OUT TEST. GAS TO SURFACE 2 MIN.
See ATTACHED sheet

Recovered 25 ft. of OIL + GAS CUT MUD
Recovered 180 ft. of GAS CUT MUDDY OIL
Recovered 120 ft. of HEAVY OIL + GAS CUT WATER
Recovered 360 ft. of SLI. OIL + GAS CUT WATER
Recovered 120 ft. of GAS CUT WATER
Remarks: 805 Total

Time Set Packer(s) 12:25 A.M. Time Started Off Bottom 3:40 A.M. Maximum Temperature 136

Initial Hydrostatic Pressure		(A) 1972 P.S.I.		
Initial Flow Period	Minutes 30	(B) 222 P.S.I.	to	(C) 261 P.S.I.
Initial Closed In Period	Minutes 45	(D) 1277 P.S.I.		
Final Flow Period	Minutes 60	(E) 321 P.S.I.	to	(F) 353 P.S.I.
Final Closed In Period	Minutes 60	(G) 1224 P.S.I.		
Final Hydrostatic Pressure		(H) 1953 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, or 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 Eldon J. Schierling
Signature of Customer or his authorized representative

Western Representative Bill Hays Thank You
Wally Olson

FIELD INVOICE

Open Hole Test	$460.00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage	$
Extra Charts	$
TOTAL	$460.00

Phone 316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

No. 1219

Date 5-1-79 Ticket 1606 Company GABBERT-JONES

Well Name and No. Reida #1 Dst No. 4 Interval Tested 4112-4129

County KINGMAN State KANS. Sec. 20 Twp. 30S Rg. 6W

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					
GAS TO SURFACE 2 MIN.					
10 min	29 LBS.	3/4 IN.			510,000 C.F.P.D
20 min	28 LBS.	"			497,000 "
30 min	30 LBS	"			473,000 "
SECOND FLOW					
10 min.	48 LBS.	3/4"			732,000 C.F.P.D.
20 min.	44 LBS.				674,000 "
30 min	35 LBS.				584,000 "
35 min	30 LBS.				546,000 "
40 min					SPRAYED MUD - UNABLE TO GAUGE
50 min					" "
60 min					" "

RECEIVED
MAY 1 1979

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 1% per month, equal to 12% 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 _____

Authorized by _____

FORM WTC 9

Gas Production

B.T. Gauge Numbers	5673		Ticket Number	1606	
		Pressure			
Initial Hydrostatic		2067	Elevation	1456 K.B.	ft.
Final Hydrostatic		2043	Production Rate Intial	473	m cu. ft.
	Time		Production Rate Final	546	m cu. ft.
1st Flow Initial	----	270			
1st Flow Final	30	276	Hole Size	7 7/8	in.
Initial Closed In Pressure	45	1343	Footage Tested	17	ft.
2nd Flow Initial	----	341	Mud Weight	9.5	lbs. gal.
2nd Flow Final	60	383	Gas Viscosity	.018	cp
Final Closed In Pressure	60	1289	Gas Gravity	.70	—
Extrapolated Static Pressure Initial		921-1459	Gas Compressibility Z	.82	—
Extrapolated Static Pressure Final		1012-1469			
Slope Psi^2/cycle Initial		128.044			
Slope Psi^2/cycle Final		113.381			

Remarks:

SUMMARY

BT Gauge Number Depth

Product	Equation	Initial	Final	Units
Transmissability	$\frac{Kh}{\mu} = \frac{1637\ Q_g\ ZT}{m}$		385.264	md. ft. / cp
Theoretical Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$		6.934	md. ft.
Average Effective	$K = \frac{Kh}{h}$		1.386	md.
Permeability	$K_1 = \frac{Kh}{h_1}$		1.386	md.
Indicated Flow Capacity	$(Kh)_2 = \frac{3200\ Q_g\ \mu\ ZT\ \mathrm{Log}(0.472\ b/r_w)}{P_s^2 - P_f^2}$		9.409	md. ft.
Damage Ratio	$DR = \frac{\text{Theo. Flow Cap}}{\text{Indicated Flow Cap}}\ \frac{Kh}{(Kh)_2}$		.736	—
Indicated Flow Rate	$OF_1 = \frac{Q_g\ \ P_s^2}{P_s^2 - P_f^2}$ OF_1		585.821	MCFD
	OF_2		565.560	MCFD
Theoretical Potential Rate	$OF_3 = OF_1\ DR$ Max.		431.743	MCFD
	$OF_4 = OF_2\ DR$ Min.		416.811	MCFD
Approx. Radius of Investigation	$b \leftrightarrows \sqrt{Kt}$ or $\sqrt{Kt_0}$		11.172	ft.
	$b_1 \leftrightarrows \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		11.172	ft.
Potentiometric Surface *	$Pot. = (El - GD) + (2.319\ Ps)$		746.611	ft.

INTERPRETATIONS AND CALCULATIONS

Liquid Production

B.T. Gauge Numbers	5673		Ticket Number	1606	
		PRESSURE			
Initial Hydrostatic		2067	Elevation	1456 K.B	ft.
Final Hydrostatic		2043	Indicated Production 1st Flow		bbls. day
1st Flow Initial	Time ----	270	Total Flow ON DST	7.805	bbls. day
1st Flow Final	30	276	Drill Collar Length	439	ft.
Initial Closed In Pressure	45	1343	Drill Collar I.D.	2.5	in.
2nd Flow Initial	----	341	Drill Pipe Factor		bbls. ft.
2nd Flow Final	60	383	Hole Size	7 7/8	in.
Final Closed In Pressure	60	1289	Footage Tested	17	ft.
Extrapolated Static Pressure Initial		921 - 1459	Mud Weight	9.5	lbs. gal.
Extrapolated Static Pressure Final		1012 - 1469	Viscosity, Oil or Water		cp
Slope psi/cycle Initial		537.768	Oil API Gravity		—
Slope psi/cycle Final		456.874	Water Specific Gravity		—

Remarks:

3,158

SUMMARY

Gauge No. Depth

Product	Equation	INITIAL	FINAL	Units
Production	$Q = \frac{1440\ R}{t}$		124.891	bbls., day.
Transmissability	$\frac{Kh}{\mu} = \frac{162.6\ Q}{m}$		44.436	$\frac{md.\ ft.}{cp}$
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$		66.654	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$		13.330	md.
	$K_1 = \frac{Kh}{h_1}$		13.330	md.
Damage Ratio	$DR = .183\ \frac{Ps - Pf}{m}$		.434	—
Theoretical Potential w/Damage Removed	$Q_1 = Q\ DR$		54.312	bbls. day
Approx. Radius of Investigation	$b \leftrightarrows \sqrt{Kt}$ or $\sqrt{Kt_0}$		34.63	ft.
	$b_1 \leftrightarrows \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		34.63	ft.
Potentiometric Surface *	$Pot. = El - GD + 2.319\ Ps$			ft.

NOTICE: These calculations are based upon information furnished by you and taken from Drill Stem Test pressure charts, and are furnished you for your information. In furnishing such calculations and elevations based thereon, Western Testing Co., Inc. is merely expressing its opinion. You agree that Western Testing Co., Inc. makes no warranty express or implied as to the accuracy of such calculations or opinions, and that Western Testing Co., Inc. shall not be liable for any loss or damage, whether due to negligence or otherwise, in connection with such calculations and opinions.

INTERPRETATIONS AND CALCULATIONS

WESTERN TESTING CO., INC.
Pressure Data

Date May 1 79 — Test Ticket No. 1606

Recorder No. 5673 — Capacity 5900 — Location 4116 Ft.

Clock No. — — Elevation 1456 K.B. — Well Temperature 136 °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	2067 P.S.I.	Open Tool	12:25 A M	
B	First Initial Flow Pressure	270 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	276 P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D	Initial Closed-in Pressure	1343 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	341 P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F	Second Final Flow Pressure	383 P.S.I.			
G	Final Closed-in Pressure	1289 P.S.I.			
H	Final Hydrostatic Mud	2043 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	270
P 2	5	251
P 3	10	259
P 4	15	265
P 5	20	270
P 6	25	273
P 7	30	276
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 15 Inc. of 3 mins. and a final inc. of 0 Min.

Point	Minutes	Press.
	0	276
	3	827
	6	1038
1	9 43.	1118
2	12 3.5	1170
3	15 3.	1200
4	18 2.6	1230
5	21 2.4	1251
6	24 2.5	1270
7	27 2.3	1286
8	30 2.	1300
9	33 1.9	1311
10	36 1.8	1321
11	39 1.76	1329
12	42 1.7	1338
13	45 1.6	1343
	48	
	51	
	54	
	57	
	60	

Second Flow Pressure
Breakdown: 12 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	341
5	328
10	328
15	330
20	334
25	356
30	342
35	350
40	361
45	369
50	372
55	378
60	383
65	
70	
75	
80	
85	
90	

Final Shut-In
Breakdown: 20 Inc. of 3 mins. and a final inc. of 0 Min.

	Point Minutes	Press.
	0	383
	3	793
	6	929
1	9 11.	1000
	12 8.5	1041
2	15 7	1081
	18 6.	1114
3	21 5.2	1135
	24 4.8	1159
4	27 4.3	1178
5	30 4	1195
6	33 3.7	1208
7	36 3.5	1223
8	39 3.3	1235
9	42 3.1	1243
10	45 3.	1254
11	48 2.87	1262
12	51 2.76	1270
13	54 2.66	1276
14	57 2.57	1281
15	60 2.5	1289

WTC - 4

Company Gabbert- Jones, Inc. Lease & Well No. Reida #1

Elevation 1456 Kelly Bushing Formation Mississippi Effective Pay --- Ft. Ticket No. 1606

Date 5/1/79 Sec. 20 Twp. 30S Range 6W County Kingman State Kansas

Test Approved by Eldon J. Schierling Western Representative Bill Hager-David Sloan

Formation Test No. 4 Interval Tested from 4112 ft. to 4129 ft. Total Depth 4129 ft.

Packer Depth 4107 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4112 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set --

Top Recorder Depth (Inside) 4116 ft. Recorder Number 5673 Cap. 5400

Bottom Recorder Depth (Outside) 4119 ft. Recorder Number 6246 Cap. 5200

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

Drilling Contractor Gabbert Jones Drilling Co. #12 Drill Collar Length 439 I. D. 2¼ in.

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

Weight 9.5 Water Loss 9.6 cc. Drill Pipe Length 3653 I. D. 3.8 in.

Chlorides 22,500 P.P.M. Test Tool Length 20' Tool Size 5½ in.

Jars: Make -- Serial Number -- Anchor Length 17' ft. Size 5½ 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 4½FH in.

Blow: Strong blow throughout test. Gas to surface two minutes. See attached sheet for gas measurements.

Recovered 25 ft. of oil and gas cut mud

Recovered 180 ft. of gas cut muddy oil

Recovered 120 ft. of heavy oil and gas cut water

Recovered 360 ft. of slightly oil and gas cut water

Recovered 120 ft. of gas cut water

Remarks: 805 TOTAL

Time Set Packer(s) 12:25 A.M. P.M. Time Started Off Bottom 3:40 A.M. P.M. Maximum Temperature 136

Initial Hydrostatic Pressure ..... (A) 2067 P.S.I.

Initial Flow Period ..... Minutes 30 (B) 270 P.S.I. to (C) 276 P.S.I.

Initial Closed In Period ..... Minutes 45 (D) 1343 P.S.I.

Final Flow Period ..... Minutes 60 (E) 341 P.S.I. to (F) 383 P.S.I.

Final Closed In Period ..... Minutes 60 (G) 1289 P.S.I.

Final Hydrostatic Pressure ..... (H) 2043 P.S.I.

Phone 316 262-5861
316 838-0601

WESTERN TESTING

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

Date 5/1/79 Ticket 1606 Company Gabbert-Jones, Inc.

Well Name and No. Reida #1 Dst No. 4 Interval Tested 4112'-4129'

County Kingman State Kansas Sec. 20 Twp. 30S Rg. 6W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
	Gas to surface two minutes.				**PRE FLOW**	
	10 min.	29 lbs.	3/4" orifice			510,000 CFPD
	20 min.	28 lbs.	3/4" orifice			497,000 CFPD
	30 min.	30 lbs.	3/4" orifice			473,000 CFPD
					SECOND FLOW	
	10 min.	48 lbs.	3/4" orifice			732,000 CFPD
	20 min.	44 lbs.	3/4" orifice			674,000 CFPD
	30 min.	35 lbs.	3/4" orifice			581,000 CFPD
	35 min.	30 lbs.	3/4" orifice			546,000 CFPD
	40 min.				Sprayed mud --unable to gauge	
	50 min.				Sprayed mud -- unable to gauge	
	60 min.				Sprayed mud -- unable to gauge	

GAS BOTTLE

Serial No. -- Date Bottle Filled -- Date to be Invoiced 5/1/79

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 1% per month, equal to 12% 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 Gabbert-Jones, Inc.

Authorized by Eldon J. Schierling

FORM WTC 6

WESTERN TESTING CO., INC.

Pressure Data

Date: May 1, 1979 | Test Ticket No. 1606

Recorder No. 5673 | Capacity 5400 | Location 4116 Ft.

Clock No. - | Elevation 1456 Kelly Bushing | Well Temperature 136 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2067	P.S.I.
B	First Initial Flow Pressure	270	P.S.I.
C	First Final Flow Pressure	276	P.S.I.
D	Initial Closed-in Pressure	1343	P.S.I.
E	Second Initial Flow Pressure	341	P.S.I.
F	Second Final Flow Pressure	383	P.S.I.
G	Final Closed-in Pressure	1289	P.S.I.
H	Final Hydrostatic Mud	2043	P.S.I.

	Time Given	Time Computed
Open Tool	12:25A M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	45 Mins.	45 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	60 Mins.	60 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	270
P 2 5	251
P 3 10	254
P 4 15	265
P 5 20	270
P 6 25	273
P 7 30	276
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	276
3	827
6	1038
9	1118
12	1170
15	1200
18	1230
21	1251
24	1270
27	1286
30	1300
33	1311
36	1321
39	1329
42	1338
45	1343

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	341
5	328
10	328
15	330
20	334
25	336
30	342
35	350
40	361
45	369
50	372
55	378
60	383

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	383
3	793
6	929
9	1000
12	1041
15	1081
18	1114
21	1135
24	1159
27	1178
30	1195
33	1208
36	1223
39	1235
42	1243
45	1254
48	1262
51	1270
54	1276
57	1281
60	1289

Gas Production

B.T. Gauge Numbers	5673		Ticket Number	1606	
		Pressure			
Initial Hydrostatic		2067	Elevation	1456 K.B.	ft.
Final Hydrostatic		2043	Production Rate Intial	473	m cu. ft.
	Time		Production Rate Final	546	m cu. ft.
1st Flow Initial	— — — —	270			
1st Flow Final	30	276	Hole Size	7 7/8	in.
Initial Closed In Pressure	45	1343	Footage Tested	17	ft.
2nd Flow Initial	— — — —	341	Mud Weight	9.5	lbs. gal.
2nd Flow Final	60	383	Gas Viscosity	.018	cp
Final Closed In Pressure	60	1289	Gas Gravity	.70	—
Extrapolated Static Pressure Initial		921 - 1459	Gas Compressibility	.82	—
Extrapolated Static Pressure Final		1012 - 1469			
Slope Psi²/cycle Initial		128.044			
Slope Psi²/cycle Final		113.381			

Remarks:

SUMMARY

BT Gauge Number Depth

Product	Equation	Initial	Final	Units
Transmissability	$\frac{Kh}{\mu} = \frac{1637\ Q_g\ ZT}{m}$		385.264	$\frac{md.\ ft.}{cp}$
Theoretical Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$		6.934	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$		1.386	md.
	$K_1 = \frac{Kh}{h_1}$		1.386	md.
Indicated Flow Capacity	$(Kh)_2 = \frac{3200\ Q_g\ \mu\ ZT\ Log(0.472\ b/r_w)}{P_s^2 - P_f^2}$		9.409	md. ft.
Damage Ratio	$DR = \frac{\text{Theo. Flow Cap}}{\text{Indicated Flow Cap}}\ \frac{Kh}{(Kh)_2}$		.736	—
Indicated Flow Rate	$OF_1 = \frac{Q_g\ \ P_s^2}{P_s^2 - P_f^2}$		585.821	MCFD
			565.560	MCFD
Theoretical Potential Rate	$OF_3 = OF_1\ DR$ Max.		431.743	MCFD
	$OF_4 = OF_2\ DR$ Min.		416.811	MCFD
Approx. Radius of Investigation	$b \leq \sqrt{Kt}$ or $\sqrt{Kt_0}$		11.172	ft.
	$b_1 \leq \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		11.172	ft.
Potentiometric Surface *	$Pot. = (El - GD) + (2.319\ Ps)$		746.611	ft.

INTERPRETATIONS AND CALCULATIONS

Liquid Production

B.T. Gauge Numbers	5673		**Ticket Number**	1606	
		PRESSURE			
Initial Hydrostatic		2067	Elevation	1456 K.B.	ft.
Final Hydrostatic		2043	Indicated Production — 1st Flow		bbls. day
	Time		Indicated Production — Total Flow on DST	7.805	bbls. day
1st Flow — Initial	— — — —	270			
1st Flow — Final	30	276	Drill Collar Length	439	ft.
Initial Closed In Pressure	45	1343	Drill Collar I.D.	2.5	in.
2nd Flow — Initial	— — — —	341	Drill Pipe Factor		bbls. ft.
2nd Flow — Final	60	383	Hole Size	7 7/8	in.
Final Closed In Pressure	60	1289	Footage Tested	17	ft.
Extrapolated Static Pressure — Initial		921 - 1459	Mud Weight	9.5	lbs. gal.
Extrapolated Static Pressure — Final		1012 - 1469	Viscosity, Oil or Water		cp
Slope psi/cycle — Initial		537.768	Oil API Gravity		—
Slope psi/cycle — Final		456.874	Water Specific Gravity		—

Remarks:

SUMMARY

Gauge No.
Depth

Product	Equation	INITIAL	FINAL	Units
Production	$Q = \frac{1440\ R}{t}$		124.891	bbls., day.
Transmissability	$\frac{Kh}{\mu} = \frac{162.6\ Q}{m}$		44.436	$\frac{\text{md. ft.}}{\text{cp}}$
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$		66.654	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$		13.330	md.
	$K_1 = \frac{Kh}{h_1}$		13.330	md.
Damage Ratio	$DR = .183\ \frac{Ps - Pf}{m}$		.434	—
Theoretical Potential w/Damage Removed	$Q_1 = Q\ DR$		54.312	bbls. day
Approx. Radius of Investigation	$b \leftrightarrows \sqrt{Kt}$ or $\sqrt{Kt_0}$		34.63	ft.
	$b_1 \leftrightarrows \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		34.63	ft.
Potentiometric Surface *	$Pot. = El - GD + 2.319\ Ps$			ft.

INTERPRETATIONS AND CALCULATIONS

P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET № 1606

Elevation 1456 KB Formation Mississippi Eff. Pay ____ Ft.

District Pratt Date May 1, 79 Customer Order No. ____

COMPANY NAME Gabbert & Jones

ADDRESS ____

LEASE AND WELL NO. Reida #1 COUNTY Kingman STATE Kans. Sec. 20 Twp. 30S Rge. 6W

Mail Invoice To Same (Co. Name / Address) No. Copies Requested Reg

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

Formation Test No. 4 Interval Tested from 4112 ft. to 4129 ft. Total Depth 4129 ft.
Packer Depth 4107 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.
Packer Depth 4112 ft. Size 6 3/4 in. Packer Depth ____ ft. Size ____ in.
Depth of Selective Zone Set ____

Top Recorder Depth (Inside) 4116 ft. Recorder Number 5673 Cap. 5400
Bottom Recorder Depth (Outside) 4119 ft. Recorder Number 6246 Cap. ____
Below Straddle Recorder Depth ____ ft. Recorder Number ____ Cap. ____

Drilling Contractor Company Tools #12 Drill Collar Length 439 I. D. 2 1/4 in.
Mud Type Starch Viscosity 45 Weight Pipe Length ____ I. D. ____ in.
Weight 9.5 Water Loss 9.6 cc. Drill Pipe Length 3653 I. D. 3.8 in.
Chlorides 22,500 P.P.M. Test Tool Length 20 in. Tool Size 5 1/2 in.
Jars: Make ____ Serial Number ____ Anchor Length 17 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 7/8 in. Tool Joint Size 4 1/2 F.H. in.

Blow: Strong blow thru-out test. Gas to surface 2 min.
See attached sheet

Recovered 25 ft. of Oil & gas cut mud
Recovered 180 ft. of Gas cut muddy oil
Recovered 120 ft. of Heavy oil & gas cut water
Recovered 360 ft. of Sl. oil & gas cut water
Recovered 120 ft. of Gas cut water
Remarks: 805 Total

Time Set Packer(s) 12:25 A.M. Time Started Off Bottom 3:40 A.M. Maximum Temperature 136

Initial Hydrostatic Pressure		(A) 1992 P.S.I.		
Initial Flow Period	Minutes 30	(B) 222 P.S.I.	to (C) 261 P.S.I.	
Initial Closed In Period	Minutes 45	(D) 1279 P.S.I.		
Final Flow Period	Minutes 60	(E) 301 P.S.I.	to (F) 353 P.S.I.	
Final Closed In Period	Minutes 60	(G) 1227 P.S.I.		
Final Hydrostatic Pressure		(H) 1953 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 Eldon J. Schierling
Signature of Customer or his authorized representative

Western Representative [signature] Thank You
[signature]

FIELD INVOICE

Open Hole Test	$460.00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$
Mileage	$
Extra Charts	$
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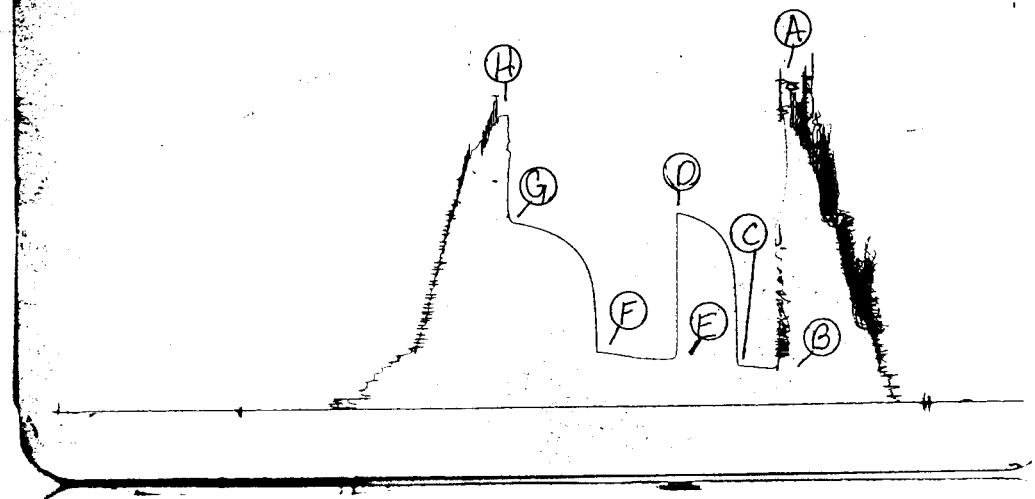

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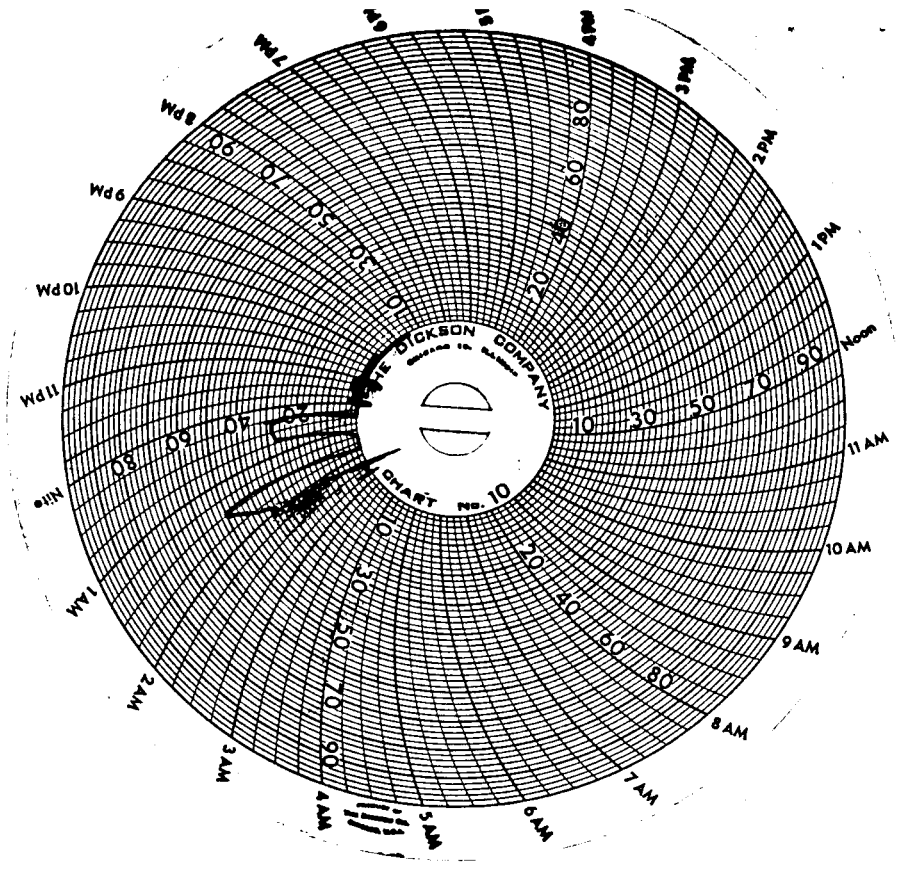
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Phone 316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

No. 1219

Date 5-1-79 Ticket Company Gabbert-Jones

Well Name and No. Reida #1 Dst No. 4 Interval Tested 4112-4129

County Kingman State Kans. Sec. 20 Twp. 30S Rg. 6W

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					
Gas To Surface 2 min.					
10 min	29 LBS.	¾ Inch			510,000 C.F.P.D
20 min	28 LBS.	"			497,000 "
30 min	30 LBS	"			473,000 "
SECOND FLOW					
10 min.	48 LBS.				732,000 C.F.P.D.
20 min	44 LBS.				674,000 "
30 min	35 LBS.				581,000 "
35 min	30 LBS.				546,000 "
40 min					Sprayed Mud - Unable To Gauge
50 min					" "
~~60~~ 85 min	Total				" "

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 1% per month, equal to 12% 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

Authorized by

FORM WTC 9

Liquid Production

B.T. Gauge Numbers	5673		Ticket Number	1606	
		PRESSURE	Elevation	1456 K.B	ft.
Initial Hydrostatic		2067			
Final Hydrostatic		2043	Indicated Production — 1st Flow		bbls. day
	Time		Indicated Production — Total Flow ON DST	7,805	bbls. day
1st Flow — Initial	----	270			
1st Flow — Final	30	276	Drill Collar Length	439	ft.
Initial Closed In Pressure	45	1343	Drill Collar I.D.	2.5	in.
2nd Flow — Initial	----	341	Drill Pipe Factor		bbls. ft.
2nd Flow — Final	60	383	Hole Size	7 7/8	in.
Final Closed In Pressure	60	1289	Footage Tested	17	ft.
Extrapolated Static Pressure — Initial		921 - 1459	Mud Weight	9.5	lbs. gal.
Extrapolated Static Pressure — Final		1012 - 1469	Viscosity, Oil or Water		cp
Slope psi/cycle — Initial		537.768	Oil API Gravity		—
Slope psi/cycle — Final		456.874	Water Specific Gravity		—

Remarks:

3,158

SUMMARY

Gauge No.
Depth

Product	Equation	INITIAL	FINAL	Units
Production	$Q = \frac{1440\ R}{t}$		124.891	bbls., day.
Transmissibility	$\frac{Kh}{\mu} = \frac{162.6\ Q}{m}$		44.436	$\frac{md.\ ft.}{cp.}$
Indicated Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$		66.654	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$		13.330	md.
	$K_1 = \frac{Kh}{h_1}$		13.330	md.
Damage Ratio	$DR = .183\ \frac{Ps - Pf}{m}$		.434	—
Theoretical Potential w/Damage Removed	$Q_1 = Q\ DR$		54.312	bbls. day
Approx. Radius of Investigation	$b \cong \sqrt{Kt}$ or $\sqrt{Kt_0}$		34.63	ft.
	$b_1 \cong \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		34.63	ft.
Potentiometric Surface *	$Pot. = El - GD + 2.319\ Ps$			ft.

INTERPRETATIONS AND CALCULATIONS

Gas Production

B.T. Gauge Numbers	5673		Ticket Number		1606
		Pressure			
Initial Hydrostatic		2067	Elevation		1456 K.B. ft.
Final Hydrostatic		2043	Production Rate	Intial	473 m cu. ft.
	Time			Final	546 m cu. ft.
1st Flow Initial	----	270	Hole Size		7 7/8 in.
1st Flow Final	30	276	Footage Tested		17 ft.
Initial Closed In Pressure	45	1343	Mud Weight		9.5 lbs. gal.
2nd Flow Initial	----	341	Gas Viscosity		.018 cp
2nd Flow Final	60	383	Gas Gravity		.70 —
Final Closed In Pressure	60	1289	Gas Compressibility Z		.82 —
Extrapolated Static Pressure Initial		921-1459			
Extrapolated Static Pressure Final		1012-1469			
Slope Psi^2/cycle Initial		128.044			
Slope Psi^2/cycle Final		113.381			

Remarks:

SUMMARY

BT Gauge Number Depth

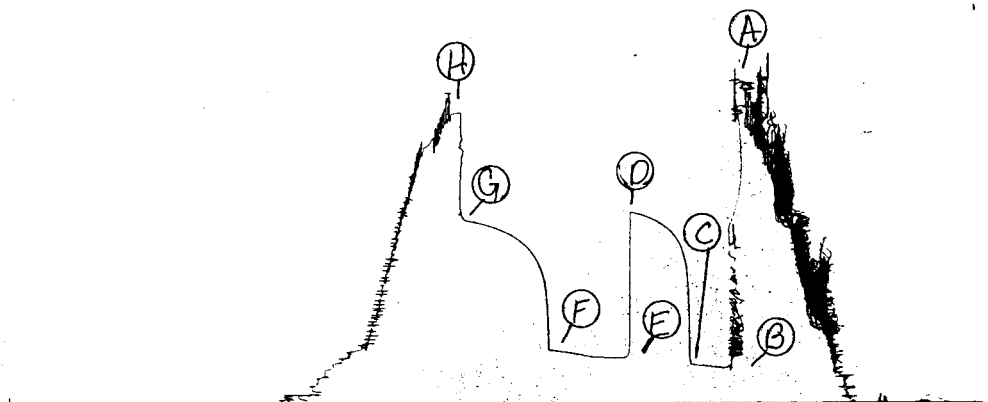
Product	Equation	Initial	Final	Units
Transmissability	$\frac{Kh}{\mu} = \frac{1637\ Q_s\ ZT}{m}$		385.264	$\frac{md.\ ft.}{cp}$
Theoretical Flow Capacity	$Kh = \frac{Kh}{\mu}\ \mu$		6.934	md. ft.
Average Effective Permeability	$K = \frac{Kh}{h}$		1.386	md.
	$K_1 = \frac{Kh}{h_1}$		1.386	md.
Indicated Flow Capacity	$(Kh)_s = \frac{3200\ Q_s\ \mu\ ZT\ \log(0.472\ b/r_w)}{P_s^2 - P_f^2}$		9.409	md. ft.
Damage Ratio	$DR = \frac{\text{Theo. Flow Cap}}{\text{Indicated Flow Cap}} \frac{Kh}{(Kh)_s}$		.736	—
Indicated Flow Rate	$OF_1 = \frac{Q_s \quad P_s^2}{P_s^2 - P_f^2}$ OF_1		585.821	MCFD
	OF_2		565.560	MCFD
Theoretical Potential Rate	$OF_3 = OF_1\ DR$ Max.		431.743	MCFD
	$OF_4 = OF_2\ DR$ Min.		416.811	MCFD
Approx. Radius of Investigation	$b \cong \sqrt{Kt}$ or $\sqrt{Kt_0}$		11.172	ft.
	$b_1 \cong \sqrt{K_1 t}$ or $\sqrt{K_1 t_0}$		11.172	ft.
Potentiometric Surface *	$Pot. = (EI - GD) + (2.319\ Ps)$		746.611	ft.

INTERPRETATIONS AND CALCULATIONS

5673

JR #1606

I.



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No. 2540

P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

Elevation 1456 KB Formation Simpson Sand Eff. Pay Ft.

District Augusta Date 5/3/79 Customer Order No.

COMPANY NAME Gabbert & Jones. ~~Oil Co.~~ Inc.

ADDRESS 530 Sutton Place City [redacted] 67202

LEASE AND WELL NO. [redacted] Reida #1 COUNTY Kingman STATE Ks. Sec. 20 Twp. 30S Rge. 6W

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

Mail Charts To Same.
Address No. Copies Requested

Formation Test No. #5 Interval Tested from 4508 ft. to 4516 ft. Total Depth 4516 ft.

Packer Depth 4492 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 4497 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4510 ft. Recorder Number 3085 Cap. 4500

Bottom Recorder Depth (Outside) 4513 ft. Recorder Number 1561 Cap. 3200

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor C.D. Tools Rig 12.

Mud Type Starch Viscosity 43

Weight 9.5 Water Loss 10.8 cc.

Chlorides 23000 P.P.M.

Jars: Make — Serial Number —

Did Well Flow? — Reversed Out Yes

Drill Collar Length 439 I. D. 2 1/2 ID in.

Weight Pipe Length — I. D. — in.

Drill Pipe Length 4038 I. D. 3.8 in.

Test Tool Length 39' in. Tool Size 5 1/2 OD in.

Anchor Length 19' ft. Size 5 1/2 OD in.

Surface Choke Size in. Bottom Choke Size in.

Main Hole Size 7 7/8" in. Tool Joint Size 4 1/2 FH in.

Blow: Good Blow Gas To Surface 6 Min.
2nd Flow Weak Blow.

Recovered 3360 ft. of Gas Cut Muddy Salt Water.

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

RECEIVED
MAY 7 - 1979

Time Set Packer(s) 1225 A.M. P.M. Time Started Off Bottom 3:10 A.M. P.M. Maximum Temperature 129°

Initial Hydrostatic Pressure		(A)	2463	P.S.I.		
Initial Flow Period	Minutes 30	(B)	262	P.S.I. to	(C) 1527	P.S.I.
Initial Closed In Period	Minutes 45	(D)	1580	P.S.I.		
Final Flow Period	Minutes 60	(E)	1580	P.S.I. to	(F) 1580	P.S.I.
Final Closed In Period	Minutes 60	(G)	1580	P.S.I.		
Final Hydrostatic Pressure		(H)	2470	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 Elton J. Schierling
Signature of Customer or his authorized representative

Western Representative James Rogers.

FIELD INVOICE

Open Hole Test	$ 460.00
Misrun	$
Straddle Test	$
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$ 25.00
Mileage	$
Extra Charts	$
TOTAL	$ 485.00

Phone 316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

No. 1118

Date 5/3/79 Ticket 2540 Company Gabbert & Jones Drlg Co

Well Name and No. Reida #1 Dst No. #5 Interval Tested 4508 - 4516

County Kingman State Kansas Sec. 20 Twp. 30S Rg. 6W

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
Tool opened At 12:25 AM					**PRE FLOW**
Gas to Surface 6 Min					
10 Min	6 Inches	3/4			34.7 MCF/Per Day.
20 Min	10 Inches	1/4			5.32 MCF/Per Day.
30 Min	13 Inches	1/4			6.10 MCF/Per Day.
Closed Tool At 12:55 AM					
Open Tool At 1:40 AM.					**SECOND FLOW**
40 Min	Not Enought To Measure				
50 Min	"	"		"	"
60 Min	"	"		"	"
70 Min	"	"		"	"
80 Min	"				
90 Min					

GAS BOTTLE

Serial No. 14# Date Bottle Filled 5/3/79 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 1% per month, equal to 12% 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 Gabbert & Jones

Authorized by

FORM WTC 9

WESTERN TESTING CO., INC.
Pressure Data

Date 5-3-79 Test Ticket No. 2540

Recorder No. 3085 Capacity 4500 Location 4516 Ft.

Clock No. Elevation 1456 KB Well Temperature 129 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2493	P.S.I.	Open Tool	12:25A M	
B First Initial Flow Pressure	325	P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C First Final Flow Pressure	1546	P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D Initial Closed-in Pressure	1587	P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	1587	P.S.I.	Final Closed-in Pressure	60 Mins.	60 Mins.
F Second Final Flow Pressure	1587	P.S.I.			
G Final Closed-in Pressure	1587	P.S.I.			
H Final Hydrostatic Mud	2470	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc. of 5 mins. and a final inc. of 0 Min.

Point	Mins.	Press.
P 1	0	325
P 2	5	632
P 3	10	967
P 4	15	1171
P 5	20	1361
P 6	25	1488
P 7	30	1546
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 15 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	1546
3	1571
6	1580
9	1583
12	1585
15	1587
18	1587
21	1587
24	
27	
30	
33	
36	
39	
42	
45	1587
48	
51	
54	
57	
60	

Second Flow Pressure
Breakdown: 12 Inc. of 5 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	1587
5	
10	
15	
20	
25	
30	
35	
40	
45	
50	
55	
60	1587
65	
70	
75	
80	
85	
90	

Final Shut-In
Breakdown: 20 Inc. of 3 mins. and a final inc. of 0 Min.

Point Minutes	Press.
0	1587
3	
6	
9	
12	
15	
18	
21	
24	
27	
30	
33	
36	
39	
42	
45	
48	
51	
54	
57	
60	1587

WTC - 4

Company Gabbert-Jones, Inc. Lease & Well No. Reida #1

Elevation 1456 Kelly Bushing Formation Simpson Effective Pay --- Ft. Ticket No. 2540

Date 5/3/79 Sec. 20 Twp. 30S Range 6W County Kingman State Kansas

Test Approved by Eldon J. Schierling Western Representative James Rogers

Formation Test No. 5 Interval Tested from 4508' ft. to 4516' ft. Total Depth 4516' ft.

Packer Depth 4492' ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4497 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set --

Top Recorder Depth (Inside) 4510 ft. Recorder Number 3085 Cap. 4500

Bottom Recorder Depth (Outside) 4513 ft. Recorder Number 1561 Cap. 3200

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

Drilling Contractor Gabbert-Jones Rig #12 Drill Collar Length 439 I. D. 2½ID in.

Mud Type starch Viscosity 43 Weight Pipe Length - I. D. - in.

Weight 9.5 Water Loss 10.8 cc. Drill Pipe Length 4038 I. D. 3.8 in.

Chlorides 23,000 P.P.M. Test Tool Length 39' Tool Size 5½OD in.

Jars: Make -- Serial Number -- Anchor Length 19' ft. Size 5½OD in.

Did Well Flow? - Reversed Out - Surface Choke Size in. Bottom Choke Size in.

Main Hole Size 7 7/8 in. Tool Joint Size 4½FH in.

Blow: Good blow. Gas to surface six minutes. Second flow weak blow.
See attached sheet for gas measurements.

Recovered 3360 ft. of gas cut muddy salt water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 12:25 A.M. P.M. Time Started Off Bottom 3:40 A.M. P.M. Maximum Temperature 129

Initial Hydrostatic Pressure (A) 2493 P.S.I.

Initial Flow Period Minutes 30 (B) 325 P.S.I. to (C) 1546 P.S.I.

Initial Closed In Period Minutes 45 (D) 1587 P.S.I.

Final Flow Period Minutes 60 (E) 1587 P.S.I. to (F) 1587 P.S.I.

Final Closed In Period Minutes 60 (G) 1587 P.S.I.

Final Hydrostatic Pressure (H) 2470 P.S.I.

Phone 316 262-5861
316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

Date 5/3/79 Ticket 2540 Company Gabbert-Jones, Inc.

Well Name and No. Reida #1 Dst No. 5 Interval Tested 4508'-4516'

County Kingman State Kansas Sec. 20 Twp. 30S Rg. 6W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
Tool opened at 12:25 AM. Gas to surface **PRE FLOW** six minutes.						
	10 min.	6" of water 3/4" orifice				34.700 CFPD
	20 min.	10" of water 1/4" orifice				5,320 CFPD
	30 min.	13" of water 1/4" orifice				6,100 CFPD
	Closed tool at 12:55 AM					
	Open tool at 1:40 AM **SECOND FLOW**					
	40 min.	NOT ENOUGH TO MEASURE				Not enough to measure
	50 min.	"				
	60 min.	"				
	70 min.	"				
	80 min.	"				
	90 min.	"				

GAS BOTTLE

Serial No. -=- #14 Date Bottle Filled 5/3/79 Date to be Invoiced 5/3/79

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 1% per month, equal to 12% 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 Gabbert-Jones, Inc.

Authorized by Eldon J. Schierling

FORM WTC 6

WESTERN TESTING CO., INC.
Pressure Data

Date 5/3/79 Test Ticket No. 2540

Recorder No. 3085 Capacity 4500 Location 4516 Ft.

Clock No. -- Elevation 1456 Kelly Bushing Well Temperature 129 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2493	P.S.I.
B	First Initial Flow Pressure	325	P.S.I.
C	First Final Flow Pressure	1546	P.S.I.
D	Initial Closed-in Pressure	1587	P.S.I.
E	Second Initial Flow Pressure	1587	P.S.I.
F	Second Final Flow Pressure	1587	P.S.I.
G	Final Closed-in Pressure	1587	P.S.I.
H	Final Hydrostatic Mud	2470	P.S.I.

	Time Given	Time Computed
Open Tool	12:25A M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	45 Mins.	45 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	60 Mins.	60 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	325
P 2 5	632
P 3 10	967
P 4 15	1171
P 5 20	1361
P 6 25	1488
P 7 30	1546
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	1546
3	1571
6	1580
9	1583
12	1585
15	1587
18	1587
21	1587
24	1587
27	1587
30	1587
33	1587
36	1587
39	1587
42	1587
45	1587

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	1587
5	1587
10	1587
15	1587
20	1587
25	1587
30	1587
35	1587
40	1587
45	1587
50	1587
55	1587
60	1587

Final Shut-In
Breakdown: 20 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	1587
3	1587
6	1587
9	1587
12	1587
15	1587
18	1587
21	1587
24	1587
27	1587
30	1587
33	1587
36	1587
39	1587
42	1587
45	1587
48	1587
51	1587
54	1587
57	1587
60	1587

TR+ #2540

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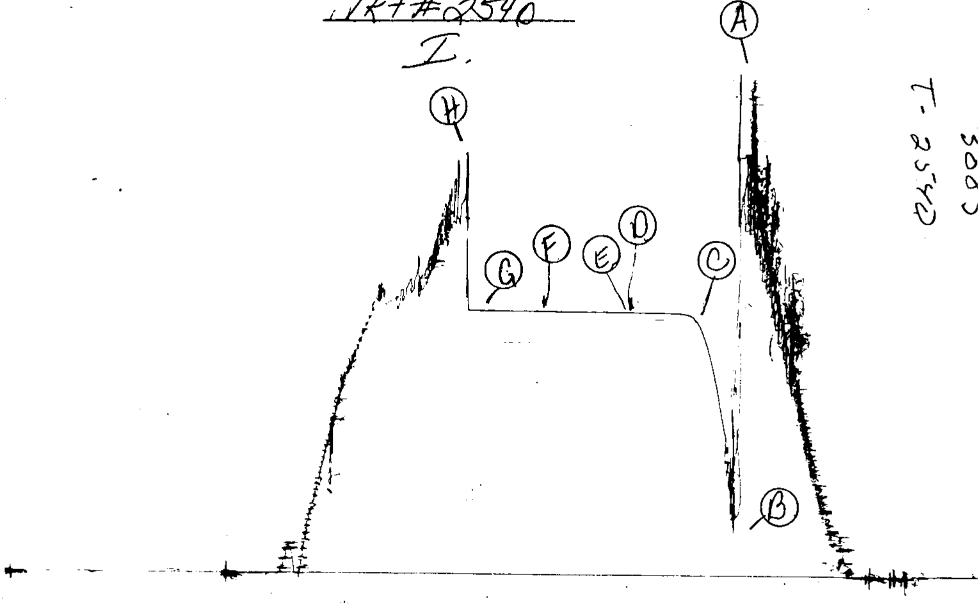


T-2540
3000

P. O. BOX 1599 PHONE (316) 838-0601
WICHITA, KANSAS 67201

WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No. 2541

Elevation 1456 KB. Formation Viola Eff. Pay Ft.

District Augusta Date 5/3/79 Customer Order No.

COMPANY NAME Gabbert & Jones ~~Drlg Co~~ Inc.

ADDRESS

LEASE AND WELL NO. Reida #1 COUNTY Kingman STATE Ks. Sec. 20 Twp. 30S Rge. 6W

Mail Invoice To Same (Co. Name) Address No. Copies Requested

Mail Charts To Same Address No. Copies Requested

Formation Test No. #6 Interval Tested from 4491 ft. to 4508 ft. Total Depth 4516 ft.

Packer Depth 4491 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Packer Depth 4508 ft. Size 6 3/4 in. Packer Depth ft. Size in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 4502 ft. Recorder Number 3085 Cap. 4500

Bottom Recorder Depth (Outside) 4505 ft. Recorder Number 1561 Cap. 3200

Below Straddle Recorder Depth 4516 ft. Recorder Number Western Cap.

Drilling Contractor Gabbert & Jones Drlg Drill Collar Length 439 I. D. 2.25 in.

Mud Type Starch Viscosity 43 Weight Pipe Length — I. D. in.

Weight 9.5 Water Loss 10.8 cc. Drill Pipe Length 4040 I. D. 3.8 in.

Chlorides 23000 P.P.M. Test Tool Length 37' in. Tool Size 5 1/2 DR in.

Jars: Make — Serial Number — Anchor Length 17' ft. Size 5 1/2 DP in.

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

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

Blow: Good Blow Gas to surface 20 min.
Weak Blow 2nd Flow.

Recovered 3240 ft. of Gas cut Salt Water.

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

RECEIVED
MAY 7 - 1979

Time Set Packer(s) 9:05 A.M. P.M. Time Started Off Bottom 1205 A.M. P.M. Maximum Temperature 138°.

Initial Hydrostatic Pressure		(A) 2577	P.S.I.	
Initial Flow Period	Minutes 30	(B) 305	P.S.I. to (C) 1407	P.S.I.
Initial Closed In Period	Minutes 45	(D) 1580	P.S.I.	
Final Flow Period	Minutes 60	(E) 1523	P.S.I. to (F) 1580	P.S.I.
Final Closed In Period	Minutes 45	(G) 1580	P.S.I.	
Final Hydrostatic Pressure		(H) 2554	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 Elton J. Schmidt
Signature of Customer or his authorized representative

Western Representative James Rogers

FIELD INVOICE

Open Hole Test	$ 460.00
Misrun	$
Straddle Test	$ 250.00
Jars	$
Selective Zone	$
Safety Joint	$
Standby	$
Evaluation	$
Extra Packer	$
Circ. Sub.	$ 25.00
Mileage	$
Extra Charts	$
TOTAL	$ 735.00

Phone 316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

No. 1120

Date 5/3/79 Ticket 2541 Company Gabbert & Jones.

Well Name and No. Reida #1 Dst No. #6 Interval Tested 4491-4508

County Kingman State Kansas Sec. 20 Twp. 30S Rg. 6W

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
opened Tool at 9:05 AM					**PRE FLOW**
Gas to Surface 20 min.					
20 min	10 inches	1/4			5.32 MCF/Per Day
26 min	11 inches	1/4			6.60 MCF/Per Day
30 min	8 inches	1/4			4.75 MCF/Per Day
Closed Tool at 9:35 AM					
Opened Tool at 10:20					**SECOND FLOW**
Closed Tool at 11:20.					
40 min	8 inches	1/4			4.75 MCF/Per Day
50 min	To weak to measure				

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 1% per month, equal to 12% 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 Gabbert & Jones.

Authorized by _____

FORM WTC 9

WESTERN TESTING CO., INC.
Pressure Data

Date 5-3-79 Test Ticket No. 2541

Recorder No. [redacted] 3085 Capacity 4500 Location 4508 Ft.

Clock No. Elevation 1456 KB Well Temperature 138 °F

Point		Pressure		Time Given	Time Computed
A	Initial Hydrostatic Mud	2566 P.S.I.	Open Tool	905 A M	
B	First Initial Flow Pressure	305 P.S.I.	First Flow Pressure	30 Mins.	30 Mins.
C	First Final Flow Pressure	1393 P.S.I.	Initial Closed-in Pressure	45 Mins.	42 Mins.
D	Initial Closed-in Pressure	1588 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E	Second Initial Flow Pressure	1521 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F	Second Final Flow Pressure	1587 P.S.I.			
G	Final Closed-in Pressure	1592 P.S.I.			
H	Final Hydrostatic Mud	2543 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.		Press.
P 1	0	305
P 2	5	Plugging action
P 3	10	"
P 4	15	"
P 5	20	1247
P 6	25	1326
P 7	30	1393
P 8	35	
P 9	40	
P10	45	
P11	50	
P12	55	
P13	60	
P14		
P15		
P16		
P17		
P18		
P19		
P20		

Initial Shut-In
Breakdown: 14 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	1393
3	1574
6	1583
9	1587
12	1588
15	
18	
21	
24	
27	
30	
33	
36	
39	
42	1588
45	
48	
51	
54	
57	
60	

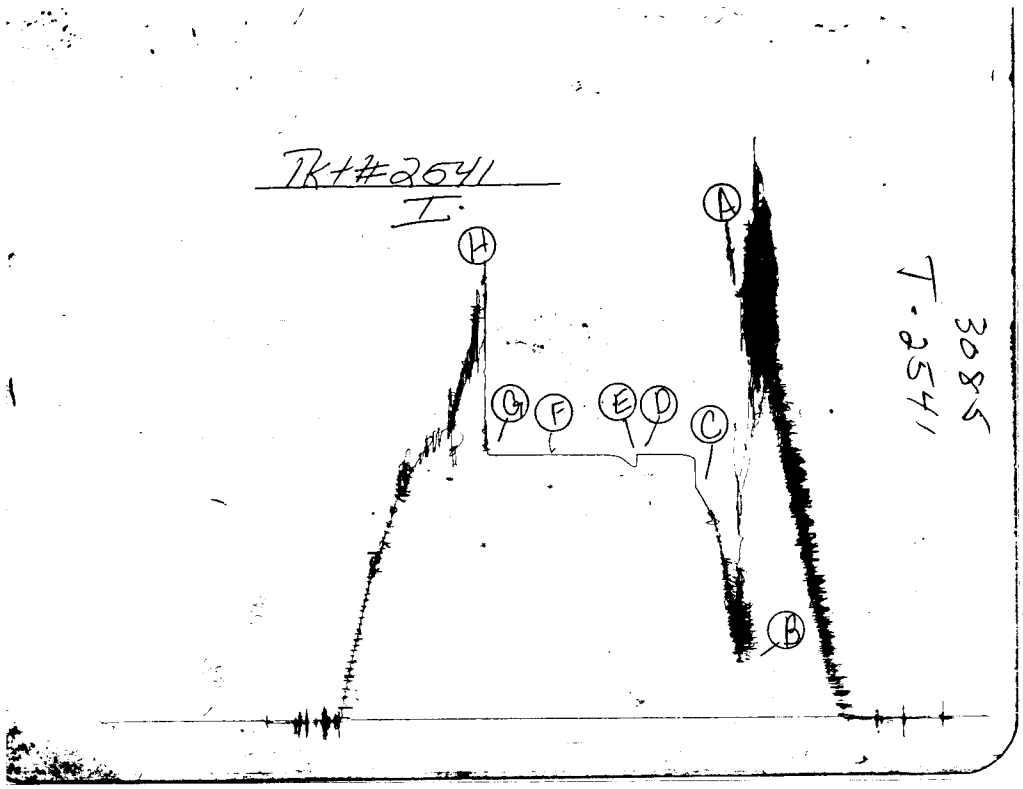
Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	1521
5	1528
10	1567
15	1580
20	1587
25	
30	
35	
40	
45	
50	
55	
60	1587
65	
70	
75	
80	
85	
90	

Final Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	1587
3	1592
6	
9	
12	
15	
18	
21	
24	
27	
30	
33	
36	
39	
42	
45	1592
48	
51	
54	
57	
60	

WTC - 4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I.
H
G
F
E
D
C
A
B
3085
T.2541

Company Gabbert-Jones, Inc. Lease & Well No. Reida #1

Elevation 1456 Kelly Bushing Formation Viola Effective Pay -- Ft. Ticket No. 2541

Date 5/3/79 Sec. 20 Twp. 30S Range 6W County Kingman State Kansas

Test Approved by Eldon J. Schierling Western Representative James Rogers

Formation Test No. 6 Interval Tested from 4491' ft. to 4508' ft. Total Depth 4516' ft.

Packer Depth 4491 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4508 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set --

Top Recorder Depth (Inside) 4502 ft. Recorder Number 3085 Cap. 4500

Bottom Recorder Depth (Outside) 4505 ft. Recorder Number 1561 Cap. 3200

Below Straddle Recorder Depth 4516 ft. Recorder Number WTC Cap.

Drilling Contractor Gabbert-Jones, Inc. Drill Collar Length 439 I. D. 2½ in.

Mud Type starch Viscosity 43 Weight Pipe Length - I. D. - in.

Weight 9.5 Water Loss 10.8 cc. Drill Pipe Length 4040 I. D. 3.8 in.

Chlorides 23,000 P.P.M. Test Tool Length 37' in. Tool Size 5½OD in.

Jars: Make -- Serial Number -- Anchor Length 17' ft. Size 5½OD in.

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

Main Hole Size 7 7/8 in. Tool Joint Size 4½FH in.

Blow: Good blow. Gas to surface 20 minutes. Weak blow second flow

Recovered 3240 ft. of gas cut salt water

Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:

Time Set Packer(s) 9:05 A.M. P.M. Time Started Off Bottom 12:05 A.M. P.M. Maximum Temperature 138

Initial Hydrostatic Pressure (A) 2566 P.S.I.

Initial Flow Period Minutes 30 (B) 305 P.S.I. to (C) 1393 P.S.I.

Initial Closed In Period Minutes 42 (D) 1588 P.S.I.

Final Flow Period Minutes 60 (E) 1521 P.S.I. to (F) 1587 P.S.I.

Final Closed In Period Minutes 45 (G) 1592 P.S.I.

Final Hydrostatic Pressure (H) 2543 P.S.I.

Phone 316 262-5861
316 838-0601

P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

Date 5/3/79 Ticket 2541 Company Gabbert-Jones, Inc.

Well Name and No. Reida #1 Dst No. 6 Interval Tested 4491'-4508'

County Kingman State Kansas Sec. 20 Twp. 30S Rg. 6W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
Opened tool at 9:05AM Gas to surface 20 minutes.				**PRE FLOW**		
	20 min.	10" of water	1/4"	orifice		5,320 CFPD
	25 min.	11" of water	1/4"	orifice		5,620 CFPD
	30 min.	8" of water	1/4"	orifice		4,750 CFPD
	Closed tool at 9:35 AM					
Opened tool at 10:20 Closed tool at 11:20				**SECOND FLOW**		
	40 min.	8" of water	1/4"	orifice		4,750 CFPD
	50 min.	Too weak to measure.				

GAS BOTTLE

Serial No. --- Date Bottle Filled --- Date to be Invoiced 5/3/79

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 1% per month, equal to 12% 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 Gabbert-Jones, Inc.

Authorized by Eldon J. Schierling

FORM WTC 6

WESTERN TESTING CO., INC.
Pressure Data

Date 5/3/79 Test Ticket No. 2541

Recorder No. 3085 Capacity 4500 Location 4508 Ft.

Clock No. -- Elevation 1456 Kelly Bushing Well Temperature 138 °F

Point		Pressure	
A	Initial Hydrostatic Mud	2566	P.S.I.
B	First Initial Flow Pressure	305	P.S.I.
C	First Final Flow Pressure	1393	P.S.I.
D	Initial Closed-in Pressure	1588	P.S.I.
E	Second Initial Flow Pressure	1521	P.S.I.
F	Second Final Flow Pressure	1587	P.S.I.
G	Final Closed-in Pressure	1592	P.S.I.
H	Final Hydrostatic Mud	2543	P.S.I.

	Time Given	Time Computed
Open Tool	9:05A M	
First Flow Pressure	30 Mins.	30 Mins.
Initial Closed-in Pressure	45 Mins.	42 Mins.
Second Flow Pressure	60 Mins.	60 Mins.
Final Closed-in Pressure	45 Mins.	45 Mins.

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 6 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Mins.	Press.
P 1 0	305
P 2 5	Plugging action
P 3 10	"
P 4 15	"
P 5 20	1247
P 6 25	1326
P 7 30	1393
P 8	
P 9	
P10	
P11	
P12	
P13	
P14	
P15	
P16	
P17	
P18	
P19	
P20	

Initial Shut-In
Breakdown: 14 Inc.
of 3 mins. and a
final inc. of 0 Min.

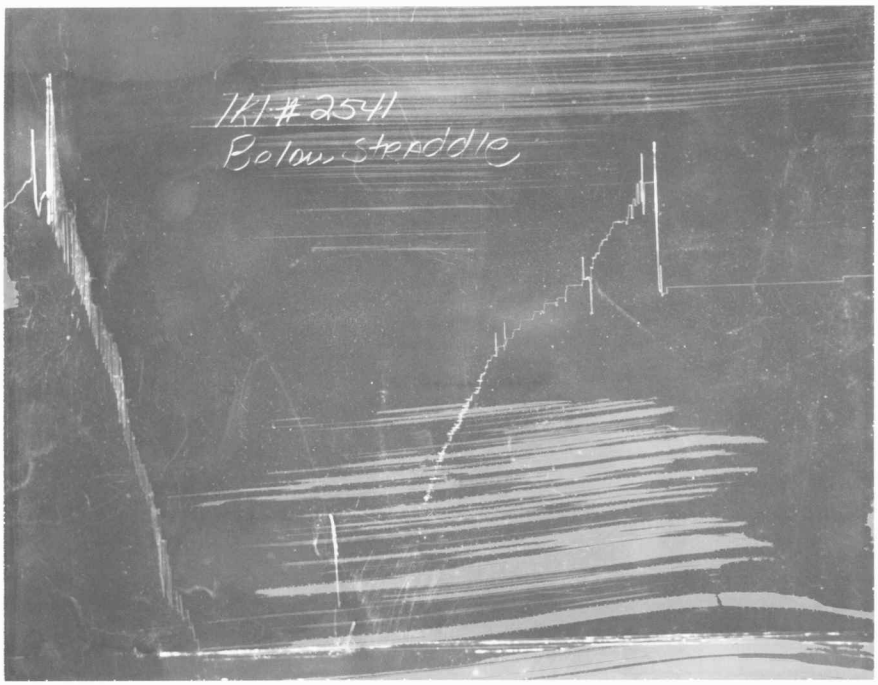
Point Minutes	Press.
0	1393
3	1574
6	1583
9	1587
12	1588
15	1588
18	1588
21	1588
24	1588
27	1588
30	1588
33	1588
36	1588
39	1588
42	1588

Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	1521
5	1528
10	1567
15	1580
20	1587
25	1587
30	1587
35	1587
40	1587
45	1587
50	1587
55	1587
60	1587

Final Shut-In
Breakdown: 15 Inc.
of 3 mins. and a
final inc. of 0 Min.

Point Minutes	Press.
0	1587
3	1592
6	1592
9	1592
12	1592
15	1592
18	1592
21	1592
24	1592
27	1592
30	1592
33	1592
36	1592
39	1592
42	1592
45	1592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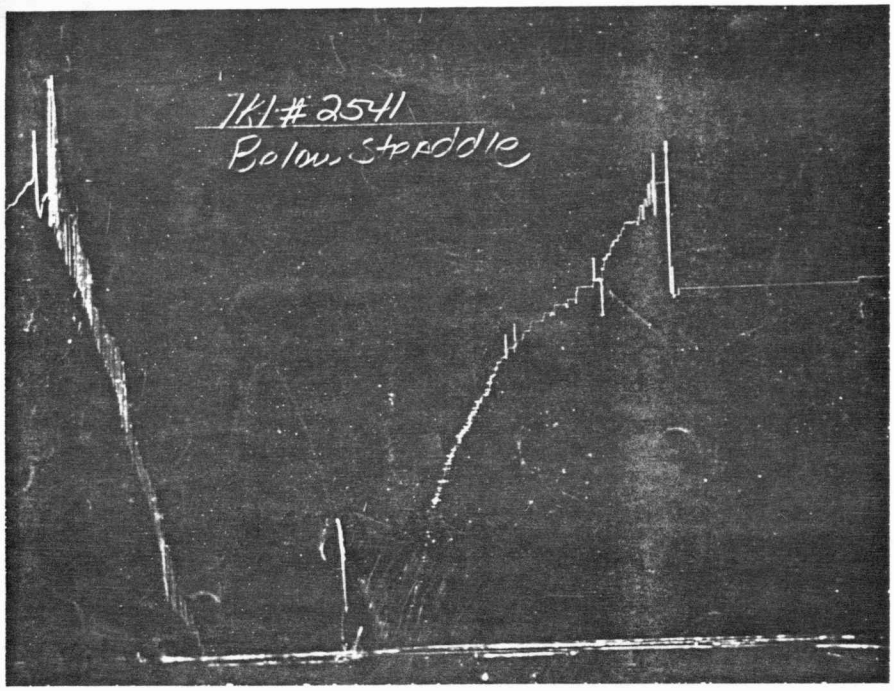
Below Straddle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Below Straddle