



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET 23074

P. O. BOX 793 PHONE 793-7903
GREAT BEND, KANSAS

Formation LANSING Elevation Eff. Pay Ft.

District PRATT Date 7-27-77 Customer Order No.

COMPANY NAME Energy Reserves GROUP

ADDRESS 5012 PENNSYLVANIA - Suite 100 - OKLA. CITY - OKLA

LEASE AND WELL NO. Joe Tjaden #2-E COUNTY Kingman STATE KS. Sec. 28 Twp. 30 S. Rge. 8 W.

Mail Inv. To SAME No. Copies Requested Reg

Co. Name Address No. Copies Requested

Mail Charts To SAME Address No. Copies Requested

Formation Test No. 1 O.K. Misrun Interval Tested From 3975 to 4056 Total Depth 4056

Size Main Hole 7 7/8 Rat Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No

Top Packer Depth 3970 Ft. Size 3/4 Bottom Packer Depth 3975 Ft. Size 6 3/4

Straddle Conv. B.T. Damaged Yes No Packer Depth Ft. Size

Tool Size 5/200 Tool Joint Size 4 1/2 Anchor Length 81 Ft. Size 5/200 Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 3982 Ft. Clock No. 5665 Depth 3985 Ft. Clock No. 6894

Top Make KUSTER Cap 9694150 No. 969 Inside Bottom Make KUSTER Cap 4400 No. 2603 Inside

Below Straddle: Depth Rec. No. Clock No. Outside

Time Set Packer 7:15 P

Tool Open I.F.P. From 7:20 P M. to 7:40 P M. Hr. 30 Min. From (B) 4051 P.S.I. To (C) 153150 P.S.I.

Tool Closed I.C.I.P. From 7:40 P M. to 8:00 P M. Hr. 30 Min. (D) 612.1634 P.S.I.

Tool Open F.F.P. From 8:00 P M. to 9:00 P M. Hr. 00 Min. From (E) 163160 P.S.I. To (F) 286.217 P.S.I.

Tool Closed F.C.I.P. From 9:00 P M. to 10:00 P M. Hr. 00 Min. (G) 16441648 P.S.I.

Initial Hydrostatic Pressure (A) 2,115 P.S.I. Final Hydrostatic Pressure (H) 2,084 P.S.I. Maximum Temp. 120 degrees

INFORMATION

BLOW WEAK BLOW INCREASING TO GOOD BLOW ON I.F.P. - STRONG BLOW ON F.F.P.

Did Well Flow Yes No Recovery Total Ft. 493 FT. Muddy WATER

Reversed Out Yes No Mud Type Starch Viscosity 40 Weight 9.4 Water Loss 13.8 cc. Chlorides 62,000

EXTRA EQUIPMENT: Type Circ. Sub PIN Safety Joint Jars: Size 4/200 Make WTC Ser. No. 483

Dual Packers Did Packers Hold? Yes Did Tool Plug? NO Where?

DRILLING CONTRACTOR UNION DRILL Length Drill Pipe 307 ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 5" I.F.

Length Weight Pipe 564 ft. I.D. Weight Pipe 2.08 In. Tool Joint Size 4 1/2 In. Length Drill Collars 307 ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4 1/4 In. Length D.S.T. Tool 111 ft.

Remarks

INVOICE SECTION

Table with 2 columns: Item, Amount. Includes Open Hole Test (\$415.00), Straddle Test, Jars (\$175.00), Selective Zone, Safety Joint (\$30.00), Misrun, Evaluation, Packer, Circ. Sub, Total (\$620.00).

COMPANY TERMS

Western Testing Co., Inc., shall not be liable for damage of any kind to the property or personnel 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 10% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Approved By Roy Goodin Western Representative J. D. Rusk

WESTERN TESTING CO., INC.

Pressure Data

Date 7-27-77 Test Ticket No. 23074
 Order No. 969 Capacity 4150 Location 3982 Ft.
 Check No. 5665 Elevation _____ Well Temperature 120 °F

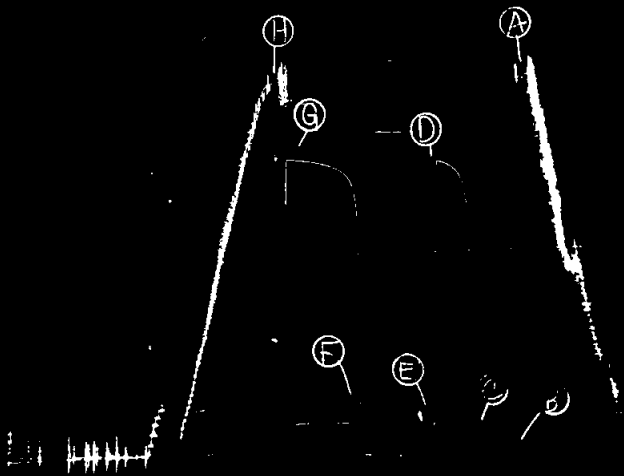
Point	Pressure	Open Tool	Time Given	Time Computed
Initial Hydrostatic Mud	<u>2114</u> P.S.I.		<u>7 15 P</u> M	
First Initial Flow Pressure	<u>51</u> P.S.I.	First Flow Pressure	<u>30</u> Mins	<u>30</u> Mins.
First Final Flow Pressure	<u>156</u> P.S.I.	Initial Closed-in Pressure	<u>30</u> Mins	<u>27</u> Mins.
Initial Closed-in Pressure	<u>1634</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins	<u>60</u> Mins.
Second Initial Flow Pressure	<u>168</u> P.S.I.	Final Closed-in Pressure	<u>60</u> Mins	<u>57</u> Mins.
Second Final Flow Pressure	<u>277</u> P.S.I.			
Final Closed-in Pressure	<u>1648</u> P.S.I.			
Final Hydrostatic Mud	<u>2076</u> P.S.I.			

PRESSURE BREAKDOWN

Point Ins.	First Flow Pressure Breakdown	Initial Shut-In Breakdown	Second Flow Pressure Breakdown	Final Shut-In Breakdown	
0	<u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	<u>9</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	<u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	<u>19</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
0	<u>51</u>	0	<u>156</u>	0	<u>277</u>
5	<u>65</u>	3	<u>1397</u>	3	<u>1397</u>
10	<u>84</u>	6	<u>1510</u>	6	<u>1504</u>
15	<u>106</u>	9	<u>1559</u>	9	<u>1540</u>
20	<u>125</u>	12	<u>1586</u>	12	<u>1567</u>
25	<u>139</u>	15	<u>1602</u>	15	<u>1582</u>
30	<u>156</u>	18	<u>1615</u>	18	<u>1594</u>
35		21	<u>1623</u>	21	<u>1602</u>
40		24	<u>1630</u>	24	<u>1609</u>
45		27	<u>1634</u>	27	<u>1617</u>
50		30		30	<u>1621</u>
55		33		33	<u>1625</u>
60		36		36	<u>1630</u>
		39		39	<u>1634</u>
		42		42	<u>1637</u>
		45		45	<u>1638</u>
		48		48	<u>1642</u>
		51		51	<u>1644</u>
		54		54	<u>1646</u>
		57		57	<u>1648</u>
		60		60	

TH#23074

I.





Home Office: Wichita, Kansas 67201
 P. O. Box 1599 (316) 838-0601

Company Energy Reserves Group, Inc. Lease & Well No. Joe Tjaden E #2

Elevation - Formation Lansing Effective Pay - Ft. Ticker No. 23074

Date 7-27-77 Sec. 28 Twp. 30S Range 8W County Kingman State Kansas

Test Approved by Ray Goodin Western Representative Joe N. Lusk

Formation Test No. 1 O.K. Misrun Interval Tested From 3975' to 4056' Total Depth 4056'

Size Main Hole 7 7/8 Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No

Top Packer Depth 3970 Ft. Size 6 3/4 Bottom Packer Depth 3975 Ft. Size 6 3/4

Straddle Conv. B.T. Damaged Yes No Packer Depth - Ft. Size -

Tool Size 5 1/2 OD Tool Joint Size 4 1/2 FH Anchor Length 81 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 3982 Ft. Clock No. 5665 Depth 3985 Ft. Clock No. 6894

Top Make Kuster Cap. 4150 No. 969 Inside Outside Bottom Make Kuster Cap. 4400 No. 2603 Inside Outside

Below Straddle: Depth - Rec. No. - Clock No. - Inside Outside Depth - Ft. Rec. No. - Clock No. - Inside Outside

Time Set Packer 7:15P. M

Tool Open I.F.P. From 7:17P. M. to 7:47P. M. - Hr. 30 Min. From (B) 51 P.S.I. To (C) 156 P.S.I.

Tool Closed I.C.I.P. From 7:47P. M. to 8:17P. M. - Hr. 30 Min (D) 1634 P.S.I.

Tool Open F.F.P. From 8:17P. M. to 9:17P. M. - Hr. 60 Min. From (E) 168 P.S.I. To (F) 277 P.S.I.

Tool Closed F.C.I.P. From 9:17P. M. to 10:17P. M. - Hr. 60 Min. (G) 1648 P.S.I.

Initial Hydrostatic Pressure (A) 2114 P.S.I. Final Hydrostatic Pressure (H) 2076 P.S.I. Maximum Temp. 120

INFORMATION

BLOW Weak blow increasing to a good blow on initial flow period. Strong blow throughout final flow period.

Did Well Flow Yes No Recovery Total Ft. 493' of muddy water.

Reversed Out Yes No Mud Type Starch Viscosity 40 Weight 9.4 Water Loss 13.8 cc. Chlorides 62,000 PPM

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint - Jars: Size 4 1/2 OD In. Make WTC Ser. No. 403

Dual Packer Yes Did Packers Hold? Yes Did Tool Plug? No Where? -

DRILLING CONTRACTOR Union Drlg. Length Drill Pipe? 3074 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 5" IF In.

Length Weight Pipe 564 Ft. I.D. Weight Pipe 2.8 In. Tool Joint Size 4 1/2 XH In. Length Drill Collars 307 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4" H-90 In. Length D.S.T. Tool 111 Ft.

Remarks:

WESTERN TESTING CO., INC.
Pressure Data

Date 9-27-77 Test Ticket No. 23074
 Recorder No. 969 Capacity 4150 Location 3982 Ft.
 Clock No. 5665 Elevation - Well Temperature 120 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2114</u>	P.S.I.	<u>7:15P</u>	<u>M</u>
B First Initial Flow Pressure	<u>51</u>	P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>156</u>	P.S.I.	<u>30</u> Mins.	<u>27</u> Mins.
D Initial Closed-in Pressure	<u>1634</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>168</u>	P.S.I.	<u>60</u> Mins.	<u>57</u> Mins.
F Second Final Flow Pressure	<u>277</u>	P.S.I.		
G Final Closed-in Pressure	<u>1648</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2076</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>9</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	Second Flow Pressure Breakdown: <u>12</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Final Shut-In Breakdown: <u>19</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.
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Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>51</u>	<u>0</u>	<u>156</u>	<u>0</u>	<u>168</u>	<u>0</u>	<u>277</u>
P 2 <u>5</u>	<u>65</u>	<u>3</u>	<u>1397</u>	<u>5</u>	<u>178</u>	<u>3</u>	<u>1397</u>
P 3 <u>10</u>	<u>84</u>	<u>6</u>	<u>1510</u>	<u>10</u>	<u>184</u>	<u>6</u>	<u>1504</u>
P 4 <u>15</u>	<u>106</u>	<u>9</u>	<u>1559</u>	<u>15</u>	<u>219</u>	<u>9</u>	<u>1540</u>
P 5 <u>20</u>	<u>125</u>	<u>12</u>	<u>1586</u>	<u>20</u>	<u>221</u>	<u>12</u>	<u>1567</u>
P 6 <u>25</u>	<u>139</u>	<u>15</u>	<u>1602</u>	<u>25</u>	<u>227</u>	<u>15</u>	<u>1582</u>
P 7 <u>30</u>	<u>156</u>	<u>18</u>	<u>1615</u>	<u>30</u>	<u>241</u>	<u>18</u>	<u>1594</u>
P 8		<u>21</u>	<u>1623</u>	<u>35</u>	<u>246</u>	<u>21</u>	<u>1602</u>
P 9		<u>24</u>	<u>1630</u>	<u>40</u>	<u>252</u>	<u>24</u>	<u>1609</u>
P10		<u>27</u>	<u>1634</u>	<u>45</u>	<u>258</u>	<u>27</u>	<u>1617</u>
P11				<u>50</u>	<u>264</u>	<u>30</u>	<u>1621</u>
P12				<u>55</u>	<u>270</u>	<u>33</u>	<u>1625</u>
P13				<u>60</u>	<u>277</u>	<u>36</u>	<u>1630</u>
P14						<u>39</u>	<u>1634</u>
P15						<u>42</u>	<u>1637</u>
P16						<u>45</u>	<u>1638</u>
P17						<u>48</u>	<u>1642</u>
P18						<u>51</u>	<u>1644</u>
P19						<u>54</u>	<u>1646</u>
P20						<u>57</u>	<u>1648</u>