



WESTERN TESTING CO., INC.
P.O. BOX 1599 — WICHITA, KANSAS 67201

DATE 4/16/81

Cities Service Company
700 Sutton Place Bldg
209 E William
Wichita, Kansas 67202

WELL REPORT NO. 6769
UNIT NO.
DISTRICT

FOR CUSTOMER'S USE ONLY	
REGISTER NO.	VOUCHER NO.
TERMS APPROVED	PRICE APPROVED
CALCULATIONS CHECKED	
ADJUSTMENTS	
ACCOUNTING DISTRIBUTION	
AUDITED	FINAL APPROVAL

YOUR ORDER NO.	OWNER	CONTRACTOR
WELL NO.	FARM	
#1	Bradley "A"	Sumner County, Kansas

SECTION	TWP.	RANGE
8	31S	2E

One drill stem test from 3705' to 3770' (Test 4)	\$ 625.00
Jars	300.00
Safety Joint	65.00
Circ. Sub.	35.00
Mileage: Thirty-four miles @ .75¢ per mile	25.50
Total	\$1,050.50

POSTED

DISCOUNT \$10.51	1% DISCOUNT ALLOWED ON THIS INVOICE IF PAID BY THE 20TH OF THE FOLLOWING MONTH.	PLEASE INCLUDE OUR INVOICE NUMBER WITH YOUR REMITTANCE.	INVOICE NUMBER 6769
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SEND ALL REMITTANCES TO POST OFFICE BOX 1599, WICHITA, KANSAS 67201



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

WESTERN TESTING CO., INC.

FORMATION TESTING

Groundwater

TICKET No 6769

Elevation 1197 ~~62~~ Formation ARBuckle Eff. Pay Ft.

District Augusta Date 4-16-81 Customer Order No.

COMPANY NAME Cities Service Company
ADDRESS 800 Sutton Place BLDG. 209 E. William Wichita, KS 67202
LEASE AND WELL NO. Bradley A#1 COUNTY Sumner STATE KS Sec. 8 Twp 31S Rge 2E OK
Mail Invoice To SAME No. Copies Requested 1
Co. Name SAME Address
Mail Charts To SAME No. Copies Requested 5
Address

Formation Test No. 4 Interval Tested from 3705 ft. to 3770 ft. Total Depth 3770 ft.
Packer Depth 3700 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Packer Depth 3705 ft. Size 6 3/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 3728 ft. Recorder Number 3354 Cap. 4200
Bottom Recorder Depth (Outside) 3731 ft. Recorder Number 5666 Cap. 3950
Below Straddle Recorder Depth ft. Recorder Number Cap.
Drilling Contractor Reynolds DRUG #1 Drill Collar Length 186 I. D. 2 1/4 in.
Mud Type Chem Viscosity 44 Weight Pipe Length I. D. in.
Weight 9.4 Water Loss 13.2 cc. Drill Pipe Length 3545 I. D. 3.8 in.
Chlorides 9,000 P.P.M. Test Tool Length 28 ft. Tool Size 4 1/2 in. 00
Jars: Make WTC Serial Number 407 Anchor Length 65 ft. Size 4 1/2 in. 00
Did Well Flow? NO Reversed Out Yes Surface Choke Size in. Bottom Choke Size in.
blow blow Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 X H in.

Blow: FAIR to Strong Thruout test.

Recovered 730 ft. of salt water with RAINBOW showy oil
Recovered ft. of chlorides 34,000 ppm
Recovered ft. of
Recovered ft. of
Recovered ft. of

Remarks:

ON LOC 10:00 AM Pickup tool 10:30 AM Job complete 8:00 PM

Time Set Packer(s) 1:45 P.M. Time Started Off Bottom 4:45 P.M. Maximum Temperature 118
Initial Hydrostatic Pressure 1845 P.S.I.
Initial Flow Period 30 Minutes (B) 65 P.S.I. to (C) 180 P.S.I.
Initial Closed In Period 60 Minutes (D) 1485 P.S.I.
Final Flow Period 30 Minutes (E) 220 P.S.I. to (F) 285 P.S.I.
Final Closed In Period 60 Minutes (G) 1475 P.S.I.
Final Hydrostatic Pressure 1760 P.S.I. (H)

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 Jim Kendall
Signature of Customer or his authorized representative

Western Representative Allen Edgington

FIELD INVOICE

Open Hole Test \$ 625.00
Misrun \$
Straddle Test \$
Jars \$ 300.00
Selective Zone \$
Safety Joint \$ 65.00
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$ 35.00
Mileage 34 \$ 25.50
Fluid Sampler \$
Extra Charts \$

TOTAL \$ 1050.50

WESTERN TESTING CO., INC.

Pressure Data

Date 4-16 Test Ticket No. 6769
 Recorder No. 3354 Capacity 4200 Location 3728 Ft.
 Clock No. Elevation 1197 Well Temperature 118 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1867</u> P.S.I.	<u>1:45</u> P.M.	
B First Initial Flow Pressure	<u>78</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
C First Final Flow Pressure	<u>188</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
D Initial Closed-in Pressure	<u>1515</u> P.S.I.	<u>30</u> Mins.	<u>30</u> Mins.
E Second Initial Flow Pressure	<u>247</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
F Second Final Flow Pressure	<u>302</u> P.S.I.		
G Final Closed-in Pressure	<u>1501</u> P.S.I.		
H Final Hydrostatic Mud	<u>1767</u> P.S.I.		

PRESSURE BREAKDOWN

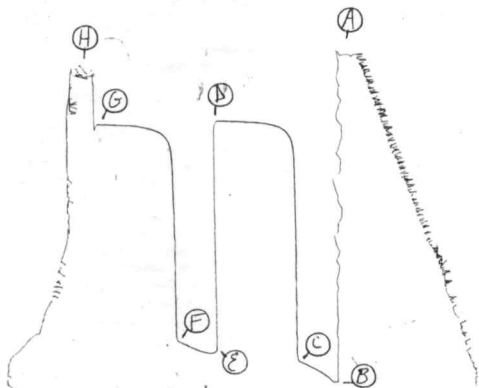
First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>6</u> Inc.		Breakdown: <u>20</u> Inc.		Breakdown: <u>6</u> Inc.		Breakdown: <u>20</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	<u>78</u>	0	<u>188</u>	0	<u>247</u>	0	<u>302</u>
P 2 5	<u>82</u>	3	<u>1325</u>	5	<u>234</u>	3	<u>1034</u>
P 3 10	<u>114</u>	6	<u>1426</u>	10	<u>243</u>	6	<u>1376</u>
P 4 15	<u>139</u>	9	<u>1456</u>	15	<u>255</u>	9	<u>1387</u>
P 5 20	<u>154</u>	12	<u>1473</u>	20	<u>272</u>	12	<u>1447</u>
P 6 25	<u>173</u>	15	<u>1481</u>	25	<u>289</u>	15	<u>1458</u>
P 7 30	<u>188</u>	18	<u>1487</u>	30	<u>302</u>	18	<u>1466</u>
P 8 35		21	<u>1496</u>	35		21	<u>1475</u>
P 9 40		24	<u>1498</u>	40		24	<u>1479</u>
P 10 45		27	<u>1502</u>	45		27	<u>1485</u>
P 11 50		30	<u>1504</u>	50		30	<u>1492</u>
P 12 55		33	<u>1506</u>	55		33	<u>1493</u>
P 13 60		36	<u>1508</u>	60		36	<u>1494</u>
P 14		39	<u>1511</u>	65		39	<u>1495</u>
P 15		42	<u>1512</u>	70		42	<u>1496</u>
P 16		45	<u>1512</u>	75		45	<u>1497</u>
P 17		48	<u>1513</u>	80		48	<u>1497</u>
P 18		51	<u>1513</u>	85		51	<u>1498</u>
P 19		54	<u>1514</u>	90		54	<u>1499</u>
P 20		57	<u>1514</u>			57	<u>1500</u>
		60	<u>1515</u>			60	<u>1501</u>

TKT # 6769

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6769

6769



Company Cities Service Company Lease & Well No. Bradley "A" #1
 Elevation 1197 Ground Level Formation Arbuckle Effective Pay - Ft. Ticket No. 6769
 Date 4/16/81 Sec. 8 Twp. 31S Range 2E County Sumner State Kansas
 Test Approved by Jim Kendall Western Representative Allen Edgington
 Formation Test No. 4 Interval Tested from 3705 ft. to 3770 ft. Total Depth 3770 ft.
 Packer Depth 3700 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 3705 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 3728 ft. Recorder Number 3354 Cap. 4200
 Bottom Recorder Depth (Outside) 3731 ft. Recorder Number 5666 Cap. 3950
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
 Drilling Contractor Reynolds Drilling Rig #1 Drill Collar Length 186 I. D. 2 1/4 in.
 Mud Type Chemical Viscosity 44 Weight Pipe Length - I. D. - in.
 Weight 9.4 Water Loss 13.2 cc. Drill Pipe Length 3545 I. D. 3.8 in.
 Chlorides 9000 P.P.M. Test Tool Length 28 ft. Tool Size 4 1/2 OD in.
 Jars: Make WTC Serial Number 407 Anchor Length 65 ft. Size 4 1/2 OD in.
 Did Well Flow? No Reversed Out Yes Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
 Main Hole Size 7 7/8 in. Tool Joint Size 4 1/2 XH in.

Blow: Fair blow to strong blow throughout test.

Recovered 730 ft. of Salt water with rainbow show of oil Chlorides 34,000 PPM
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Remarks:

Time Set Packer(s) 1:45 ~~AM~~ P.M. Time Started Off Bottom 4:45 ~~AM~~ P.M. Maximum Temperature 118
 Initial Hydrostatic Pressure 1867 (A) P.S.I.
 Initial Flow Period 30 Minutes (B) 78 P.S.I. to (C) 188 P.S.I.
 Initial Closed In Period 60 Minutes (D) 1515 P.S.I.
 Final Flow Period 30 Minutes (E) 247 P.S.I. to (F) 302 P.S.I.
 Final Closed In Period 60 Minutes (G) 1501 P.S.I.
 Final Hydrostatic Pressure 1767 (H) P.S.I.

WESTERN TESTING CO., INC.

Pressure Data

Date 4/16/81 Recorder No. 3354 Capacity 4200 Test Ticket No. 6769
 Clock No. - Elevation 1197 Ground Level Location 3728 Ft. 118
 Well Temperature 118 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	1867 P.S.I.	1:45P	M
B First Initial Flow Pressure	78 P.S.I.	30 Mins.	30 Mins.
C First Final Flow Pressure	188 P.S.I.	60 Mins.	60 Mins.
D Initial Closed-in Pressure	1515 P.S.I.	30 Mins.	30 Mins.
E Second Initial Flow Pressure	247 P.S.I.	60 Mins.	60 Mins.
F Second Final Flow Pressure	302 P.S.I.		
G Final Closed-in Pressure	1501 P.S.I.		
H Final Hydrostatic Mud	1767 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>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.		Second Flow Pressure Breakdown: <u>6</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.		Final Shut-In Breakdown: <u>20</u> Inc. of <u>3</u> mins. and a final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>78</u>	<u>0</u>	<u>188</u>	<u>0</u>	<u>247</u>	<u>0</u>	<u>302</u>
P 2 <u>5</u>	<u>82</u>	<u>3</u>	<u>1325</u>	<u>5</u>	<u>234</u>	<u>3</u>	<u>1034</u>
P 3 <u>10</u>	<u>114</u>	<u>6</u>	<u>1426</u>	<u>10</u>	<u>243</u>	<u>6</u>	<u>1376</u>
P 4 <u>15</u>	<u>139</u>	<u>9</u>	<u>1456</u>	<u>15</u>	<u>255</u>	<u>9</u>	<u>1387</u>
P 5 <u>20</u>	<u>154</u>	<u>12</u>	<u>1473</u>	<u>20</u>	<u>272</u>	<u>12</u>	<u>1447</u>
P 6 <u>25</u>	<u>173</u>	<u>15</u>	<u>1481</u>	<u>25</u>	<u>289</u>	<u>15</u>	<u>1458</u>
P 7 <u>30</u>	<u>188</u>	<u>18</u>	<u>1487</u>	<u>30</u>	<u>302</u>	<u>18</u>	<u>1466</u>
P 8		<u>21</u>	<u>1496</u>			<u>21</u>	<u>1475</u>
P 9		<u>24</u>	<u>1498</u>			<u>24</u>	<u>1479</u>
P10		<u>27</u>	<u>1502</u>			<u>27</u>	<u>1485</u>
P11		<u>30</u>	<u>1504</u>			<u>30</u>	<u>1492</u>
P12		<u>33</u>	<u>1506</u>			<u>33</u>	<u>1493</u>
P13		<u>36</u>	<u>1508</u>			<u>36</u>	<u>1494</u>
P14		<u>39</u>	<u>1511</u>			<u>39</u>	<u>1495</u>
P15		<u>42</u>	<u>1512</u>			<u>42</u>	<u>1496</u>
P16		<u>45</u>	<u>1512</u>			<u>45</u>	<u>1497</u>
P17		<u>48</u>	<u>1513</u>			<u>48</u>	<u>1497</u>
P18		<u>51</u>	<u>1513</u>			<u>51</u>	<u>1498</u>
P19		<u>54</u>	<u>1514</u>			<u>54</u>	<u>1499</u>
P20		<u>57</u>	<u>1514</u>			<u>57</u>	<u>1500</u>
		<u>60</u>	<u>1515</u>			<u>60</u>	<u>1501</u>