



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

No 16385

OK

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

Elevation 2199 G.L. Formation Miss Eff. Pay - Ft.

District Pratt Date 8/21/82 Customer Order No. -

COMPANY NAME Graham-Michaelis Corp 211 N. Blum

ADDRESS P.O. Box 247 Wichita, KS 67201

LEASE AND WELL NO. Kane #2-13 COUNTY Kiowa STATE KS Sec. 13 Twp. 30 Rge. 19W

Mail Invoice To Same #2-13 KANE No. Copies Requested 5

Co. Name Same Address No. Copies Requested 5

Formation Test No. 1 Interval Tested From 4980 ft. to 5035 ft. Total Depth 5035 ft.

Packer Depth 4975 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Packer Depth 4980 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set - Recorder Number 2607 Cap. 4150

Top Recorder Depth (Inside) 4992 ft. Recorder Number 3357 Cap. 4000

Bottom Recorder Depth (Outside) 4995 ft. Recorder Number - Cap. -

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

Drilling Contractor Red Tiger Rig #1 Drill Collar Length - I. D. - in.

Mud Type Starch Viscosity 42 Weight Pipe Length 1047 I. D. 2.7 in.

Weight 9.7 Water Loss 14.4 cc. Drill Pipe Length 4804 I. D. 3.8 in.

Chlorides 85,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 410 Anchor Length 55 ft. Size 5 1/2 in.

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

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

Blow: Strong blow throughout flow periods Gas to surface in 15 min on pre flow

Recovered 120 ft. of Gas Cut Mud See attached sheet for gas measurements.

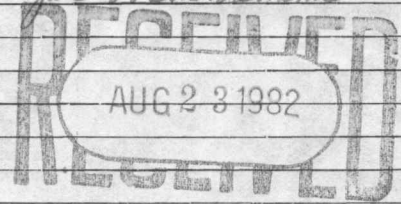
Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Recovered - ft. of

Remarks:



Time On Location 9:00 A.M. Time Pick Up Tool 10:00 A.M. Time Off Location 7:00 P.M.

Time Set Packer(s) 12:20 P.M. Time Started Off Bottom 3:50 P.M. Maximum Temperature 129°

Initial Hydrostatic Pressure (A) 2731 P.S.I.

Initial Flow Period Minutes 60 (B) 95 P.S.I. to (C) 95 P.S.I.

Initial Closed In Period Minutes 45 (D) 296 P.S.I.

Final Flow Period Minutes 60 (E) 95 P.S.I. to (F) 95 P.S.I.

Final Closed In Period Minutes 45 (G) 296 P.S.I.

Final Hydrostatic Pressure (H) 2710 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 Jim Howell Signature of Customer or his authorized representative

Western Representative Jim Wordra Thank You

FIELD INVOICE

Table with 2 columns: Item Name and Price. Items include Open Hole Test (\$750), Misrun, Straddle Test (\$300), Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL (\$1115).



Nº 3267

GAS FLOW REPORT

Date 8/21/82 Ticket 16385 Company Graham-Michaelis Corp
 Well Name and No. Kane #2-13 Dst No. 1 Interval Tested 4980-5035
 County Kiowa State Ks Sec. 13 Twp. 30 Rg. 19

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 in <u>15 min</u>					
<u>20</u>	<u>11 H₂O</u>	<u>1"</u>		<u>OK 85</u>	<u>900 C.F.P.D</u>
<u>30</u>	<u>12 "</u>	<u>"</u>		<u>OK 89</u>	<u>800 "</u>
<u>40</u>	<u>14 "</u>	<u>"</u>		<u>OK 97</u>	<u>300 "</u>
<u>50</u>	<u>16 "</u>	<u>"</u>		<u>OK 103</u>	<u>000 "</u>
<u>60</u>	<u>17 "</u>	<u>"</u>		<u>OK 106</u>	<u>000 "</u>

SECOND FLOW					
<u>5</u>	<u>14 H₂O</u>	<u>1"</u>		<u>OK 97</u>	<u>300 C.F.P.D</u>
<u>10</u>	<u>19 "</u>	<u>"</u>		<u>OK 113</u>	<u>000 "</u>
<u>20</u>	<u>"</u>	<u>"</u>		<u>"</u>	<u>"</u>
<u>30</u>	<u>"</u>	<u>"</u>		<u>"</u>	<u>"</u>
<u>40</u>	<u>"</u>	<u>"</u>		<u>"</u>	<u>"</u>
<u>50</u>	<u>"</u>	<u>"</u>		<u>"</u>	<u>"</u>
<u>60</u>	<u>"</u>	<u>"</u>		<u>"</u>	<u>"</u>

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 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME _____

Authorized by _____

WESTERN TESTING CO., INC.

Pressure Data

Date 8-21 Test Ticket No. 16385
 Recorder No. 2607 Capacity 4150 Location 4992 Ft.
 Clock No. --- Elevation 2199 Well Temperature 129 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2733</u>	P.S.I.	<u>12:20</u> AM	
B First Initial Flow Pressure	<u>105</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
C First Final Flow Pressure	<u>105</u>	P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>310</u>	P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>107</u>	P.S.I.	<u>45</u> Mins.	<u>48</u> Mins.
F Second Final Flow Pressure	<u>107</u>	P.S.I.		
G Final Closed-in Pressure	<u>307</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2668</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>12</u> Inc.		Breakdown: <u>15</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>16</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>0</u> <u>105</u>	<u>0</u> <u>105</u>	<u>0</u> <u>105</u>	<u>0</u> <u>107</u>	<u>0</u> <u>107</u>	<u>0</u> <u>107</u>	<u>0</u> <u>107</u>
P 2	<u>5</u>	<u>3</u> <u>246</u>	<u>3</u> <u>246</u>	<u>5</u>		<u>3</u> <u>255</u>	<u>3</u> <u>255</u>
P 3	<u>10</u>	<u>6</u> <u>271</u>	<u>6</u> <u>271</u>	<u>10</u>		<u>6</u> <u>268</u>	<u>6</u> <u>268</u>
P 4	<u>15</u>	<u>9</u> <u>280</u>	<u>9</u> <u>280</u>	<u>15</u>		<u>9</u> <u>275</u>	<u>9</u> <u>275</u>
P 5	<u>20</u>	<u>12</u> <u>287</u>	<u>12</u> <u>287</u>	<u>20</u>		<u>12</u> <u>282</u>	<u>12</u> <u>282</u>
P 6	<u>25</u>	<u>15</u> <u>292</u>	<u>15</u> <u>292</u>	<u>25</u>		<u>15</u> <u>286</u>	<u>15</u> <u>286</u>
P 7	<u>30</u>	<u>18</u> <u>296</u>	<u>18</u> <u>296</u>	<u>30</u>		<u>18</u> <u>290</u>	<u>18</u> <u>290</u>
P 8	<u>35</u>	<u>21</u> <u>300</u>	<u>21</u> <u>300</u>	<u>35</u>		<u>21</u> <u>293</u>	<u>21</u> <u>293</u>
P 9	<u>40</u>	<u>24</u> <u>302</u>	<u>24</u> <u>302</u>	<u>40</u>		<u>24</u> <u>295</u>	<u>24</u> <u>295</u>
P10	<u>45</u>	<u>27</u> <u>304</u>	<u>27</u> <u>304</u>	<u>45</u>		<u>27</u> <u>297</u>	<u>27</u> <u>297</u>
P11	<u>50</u>	<u>30</u> <u>306</u>	<u>30</u> <u>306</u>	<u>50</u>		<u>30</u> <u>299</u>	<u>30</u> <u>299</u>
P12	<u>55</u>	<u>33</u> <u>307</u>	<u>33</u> <u>307</u>	<u>55</u>		<u>33</u> <u>301</u>	<u>33</u> <u>301</u>
P13	<u>60</u> <u>105</u>	<u>36</u> <u>308</u>	<u>36</u> <u>308</u>	<u>60</u> <u>107</u>		<u>36</u> <u>303</u>	<u>36</u> <u>303</u>
P14		<u>39</u> <u>309</u>	<u>39</u> <u>309</u>	<u>65</u>		<u>39</u> <u>304</u>	<u>39</u> <u>304</u>
P15		<u>42</u> <u>310</u>	<u>42</u> <u>310</u>	<u>70</u>		<u>42</u> <u>305</u>	<u>42</u> <u>305</u>
P16		<u>45</u> <u>310</u>	<u>45</u> <u>310</u>	<u>75</u>		<u>45</u> <u>306</u>	<u>45</u> <u>306</u>
P17		<u>48</u>		<u>80</u>		<u>48</u> <u>307</u>	<u>48</u> <u>307</u>
P18		<u>51</u>		<u>85</u>		<u>51</u>	
P19		<u>54</u>		<u>90</u>		<u>54</u>	
P20		<u>57</u>				<u>57</u>	
		<u>60</u>				<u>60</u>	

Company Graham - Michaelis Corporation Lease & Well No. #2-13 Kane
 Elevation 2199 Ground Level Formation Mississippi Effective Pay --- Ft. Ticket No. 16385
 Date 8/21/82 Sec. 13 Twp. 30S Range 19W County Kiowa State Kansas
 Test Approved by Vern Howell Western Representative Jim Wondra

Formation Test No. 1 Interval Tested from 4980 ft. to 5035 ft. Total Depth 5035 ft.
 Packer Depth 4975 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 4980 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set -
 Top Recorder Depth (Inside) 4992 ft. Recorder Number 2607 Cap. 4150
 Bottom Recorder Depth (Outside) 4995 ft. Recorder Number 3351 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Red Tiger Drlg. Rig #1 Drill Collar Length - I. D. - in.
 Mud Type starch Viscosity 42 Weight Pipe Length 1047 I. D. 2.7 in.
 Weight 9.7 Water Loss 14.4 cc. Drill Pipe Length 4804 I. D. 3.8 in.
 Chlorides 85,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number 410 Anchor Length 55 ft. Size 5 1/2 OD in.
 Did Well Flow? Yes 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: Strong blow throughout both flow periods. Gas to surface in fifteen minutes on pre-flow.
See attached sheet for gas measurements.

Recovered 120 ft. of gas cut mud
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: _____

Time Set Packer(s) 12:20 A.M. Time Started Off Bottom 3:50 A.M. Maximum Temperature 129°
P.M. P.M.
 Initial Hydrostatic Pressure (A) 2733 P.S.I.
 Initial Flow Period Minutes 60 (B) 105 P.S.I. to (C) 105 P.S.I.
 Initial Closed In Period Minutes 45 (D) 310 P.S.I.
 Final Flow Period Minutes 60 (E) 107 P.S.I. to (F) 107 P.S.I.
 Final Closed In Period Minutes 48 (G) 307 P.S.I.
 Final Hydrostatic Pressure (H) 2668 P.S.I.

GAS FLOW REPORT

Date 8/21/82 Ticket 16385 Company Graham- Michaelis Corporation
 Well Name and No. Kane #2-13 Dst No. 1 Interval Tested 4980'-5035'
 County Kiowa State Kansas Sec. 13 Twp. 30S Rg. 19W

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
Gas to surface in fifteen minutes. PRE FLOW					
20 min.	11" of water	1" orifice			85,900 CFPD
30 min.	12" of water	1" orifice			89,800 CFPD
40 min.	14" of water	1" orifice			97,300 CFPD
50 min.	16" of water	1" orifice			103,000 CFPD
60 min.	17" of water	1" orifice			106,000 CFPD

SECOND FLOW

5 min.	14" of water	1" orifice			97,000 CFPD
10 min.	19" of water	1" orifice			113,000 CFPD
20 min.	19" of water	1" orifice			113,000 CFPD
30 min.	19" of water	1" orifice			113,000 CFPD
40 min.	19" of water	1" orifice			113,000 CFPD
50 min.	19" of water	1" orifice			113,000 CFPD
60 min.	19" of water	1" orifice			113,000 CFPD

GAS BOTTLE

Serial No. ---- Date Bottle Filled --- Date to be Invoiced 8/21/82

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 1/2% per month, equal to 18% interest per annum after 30 days from date of invoice. Any expense incurred for collection will be added to the original amount.

COMPANY'S NAME Graham - Michaelis Corporation

Authorized by Vern Howell

WESTERN TESTING CO., INC.
Pressure Data

Date 8/21/82 Test Ticket No. 16385
 Order No. 2607 Capacity 4150 Location 4992 Ft.
 Block No. - Elevation 2199 Ground Level Well Temperature 129 °F

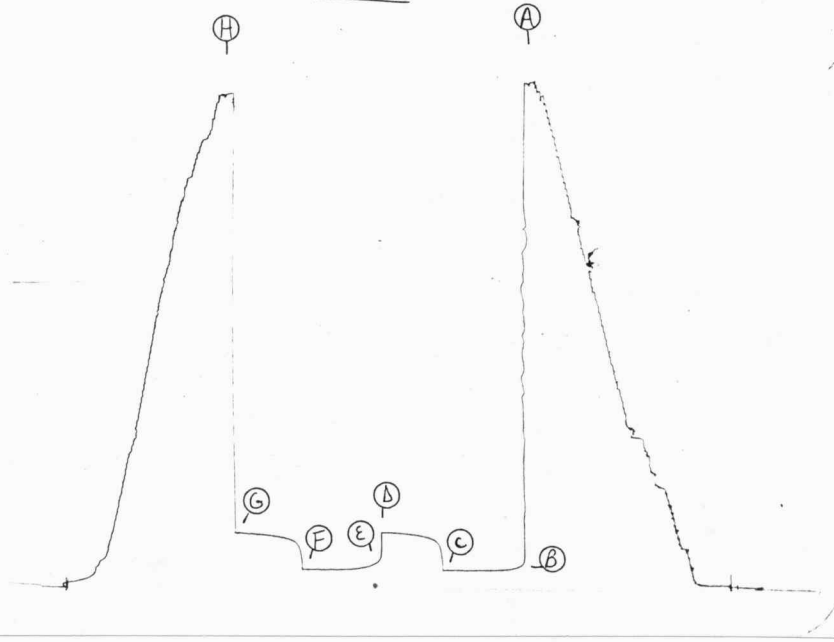
Point	Pressure		Time Given	Time Computed
Initial Hydrostatic Mud	<u>2733</u>	P.S.I.	<u>12:20A</u>	<u>M</u>
First Initial Flow Pressure	<u>105</u>	P.S.I.	<u>60</u>	<u>60</u> Mins.
First Final Flow Pressure	<u>105</u>	P.S.I.	<u>45</u>	<u>45</u> Mins.
Initial Closed-in Pressure	<u>310</u>	P.S.I.	<u>60</u>	<u>60</u> Mins.
Second Initial Flow Pressure	<u>107</u>	P.S.I.	<u>45</u>	<u>48</u> Mins.
Second Final Flow Pressure	<u>107</u>	P.S.I.		
Final Closed-in Pressure	<u>307</u>	P.S.I.		
Final Hydrostatic Mud	<u>2668</u>	P.S.I.		

PRESSURE BREAKDOWN

Point Inches	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown:	of	Breakdown:	of	Breakdown:	of	Breakdown:	of
	<u>12</u> Inc.	<u>5</u> mins. and a	<u>15</u> Inc.	<u>3</u> mins. and a	<u>12</u> Inc.	<u>5</u> mins. and a	<u>16</u> Inc.	<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.	
	Press.	Point	Press.	Point	Press.	Point	Press.	Point
	<u>105</u>	Minutes	<u>105</u>	Minutes	<u>107</u>	Minutes	<u>107</u>	Minutes
<u>0</u>		<u>0</u>		<u>0</u>		<u>0</u>		<u>0</u>
<u>1</u>	<u>105</u>	<u>3</u>	<u>246</u>	<u>5</u>	<u>107</u>	<u>3</u>	<u>255</u>	<u>3</u>
<u>2</u>	<u>105</u>	<u>6</u>	<u>271</u>	<u>10</u>	<u>107</u>	<u>6</u>	<u>268</u>	<u>6</u>
<u>3</u>	<u>105</u>	<u>9</u>	<u>280</u>	<u>15</u>	<u>107</u>	<u>9</u>	<u>275</u>	<u>9</u>
<u>4</u>	<u>105</u>	<u>12</u>	<u>287</u>	<u>20</u>	<u>107</u>	<u>12</u>	<u>282</u>	<u>12</u>
<u>5</u>	<u>105</u>	<u>15</u>	<u>292</u>	<u>25</u>	<u>107</u>	<u>15</u>	<u>286</u>	<u>15</u>
<u>6</u>	<u>105</u>	<u>18</u>	<u>296</u>	<u>30</u>	<u>107</u>	<u>18</u>	<u>290</u>	<u>18</u>
<u>7</u>	<u>105</u>	<u>21</u>	<u>300</u>	<u>35</u>	<u>107</u>	<u>21</u>	<u>293</u>	<u>21</u>
<u>8</u>	<u>105</u>	<u>24</u>	<u>302</u>	<u>40</u>	<u>107</u>	<u>24</u>	<u>295</u>	<u>24</u>
<u>9</u>	<u>105</u>	<u>27</u>	<u>304</u>	<u>45</u>	<u>107</u>	<u>27</u>	<u>297</u>	<u>27</u>
<u>0</u>	<u>105</u>	<u>30</u>	<u>306</u>	<u>50</u>	<u>107</u>	<u>30</u>	<u>299</u>	<u>30</u>
<u>1</u>	<u>105</u>	<u>33</u>	<u>307</u>	<u>55</u>	<u>107</u>	<u>33</u>	<u>301</u>	<u>33</u>
<u>2</u>	<u>105</u>	<u>36</u>	<u>308</u>	<u>60</u>	<u>107</u>	<u>36</u>	<u>303</u>	<u>36</u>
<u>3</u>		<u>39</u>	<u>309</u>			<u>39</u>	<u>304</u>	<u>39</u>
<u>4</u>		<u>42</u>	<u>310</u>			<u>42</u>	<u>305</u>	<u>42</u>
<u>5</u>		<u>45</u>	<u>210</u>			<u>45</u>	<u>306</u>	<u>45</u>
<u>6</u>						<u>48</u>	<u>307</u>	<u>48</u>
<u>7</u>								
<u>8</u>								
<u>9</u>								
<u>0</u>								

TKT # 16385

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WESTERN TESTING CO., INC.
FORMATION TESTING

OK

TICKET

No 16386

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

Elevation 2199 G.L Formation Miss Eff. Pay Ft.

District Pratt Date 8/21/82 Customer Order No.

COMPANY NAME Graham-Michaelis Corp 2117 N. Benny

ADDRESS P.O. Box 247 Wichita, Ks 67201

LEASE AND WELL NO. Kane #2-13 COUNTY Kiowa STATE Ks Sec. 13 Twp. 30 Rge. 19W

Mail Invoice To Same #2-13 KANE No. Copies Requested 5

Co. Name Address No. Copies Requested 5

Mail Charts To Same Address No. Copies Requested 5

Formation Test No. 2 Interval Tested From 5038 ft. to 5070 ft. Total Depth 5070 ft.

Packer Depth 5033 ft. Size 6 7/8 in. Packer Depth - ft. Size - in.

Packer Depth 5038 ft. Size 6 7/8 in. Packer Depth - ft. Size - in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 5059 ft. Recorder Number 2607 Cap. 4150

Bottom Recorder Depth (Outside) 5062 ft. Recorder Number 3351 Cap. 4000

Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Red Tiger Rig #1 Drill Collar Length I. D. - in.

Mud Type Starch Viscosity 42 Weight Pipe Length 1078 I. D. 2.7 in.

Weight 9.6 Water Loss 15.2 cc. Drill Pipe Length 3931 I. D. 3.8 in.

Chlorides 90,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 in.

Jars: Make WTC Serial Number 410 Anchor Length 32 ft. Size 5 5/8 in.

Did Well Flow? No Reversed Out No Surface Choke Size 3 1/4 in. Bottom Choke Size 3 1/4 in.

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

Blow: Weak blow throughout flow periods

Recovered 30 ft. of Dry Mud

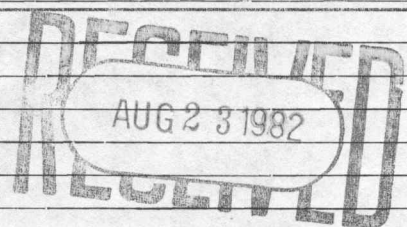
Recovered ft. of

Recovered ft. of

Recovered ft. of

Recovered ft. of

Remarks:



Time On Location 4:30 A.M. Time Pick Up Tool 6:30 A.M. Time Off Location 3:00 P.M.

Time Set Packer(s) 8:40 A.M. Time Started Off Bottom 12:10 P.M. Maximum Temperature 129 degrees

Initial Hydrostatic Pressure (A) 2752 P.S.I.

Initial Flow Period (B) 84 P.S.I. to (C) 84 P.S.I.

Initial Closed In Period (D) 95 P.S.I.

Final Flow Period (E) 84 P.S.I. to (F) 84 P.S.I.

Final Closed In Period (G) 95 P.S.I.

Final Hydrostatic Pressure (H) 2731 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 Jim Wondra Signature of Customer or his authorized representative

Western Representative Jim Wondra Thank You

FIELD INVOICE

Table with 2 columns: Item and Price. Items include Open Hole Test (\$750.00), Misrun, Straddle Test, Jars, Selective Zone, Safety Joint, Standby, Evaluation, Extra Packer, Circ. Sub., Mileage, Fluid Sampler, Extra Charts, Insurance, Telecopier, and TOTAL (\$1115.00).

WESTERN TESTING CO., INC.

Pressure Data

Date: 8-21 Recorder No. 2607 Capacity 4150 Test Ticket No. 16386
 Location 5059 Ft. Clock No. --- Elevation 2199 Well Temperature 129 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2769</u> P.S.I.	<u>8:40 P</u>	<u>M</u>
B First Initial Flow Pressure	<u>86</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
C First Final Flow Pressure	<u>86</u> P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>103</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>84</u> P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
F Second Final Flow Pressure	<u>84</u> P.S.I.		
G Final Closed-in Pressure	<u>100</u> P.S.I.		
H Final Hydrostatic Mud	<u>2756</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>12</u> Inc.		Breakdown: <u>15</u> Inc.		Breakdown: <u>12</u> Inc.		Breakdown: <u>15</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.		final inc. of <u>0</u> Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1	<u>86</u>	0	<u>86</u>	0	<u>84</u>	0	<u>84</u>
P 2		3	<u>5</u>	5		3	
P 3		6	<u>5</u>	10		6	
P 4		9	<u>86</u>	15		9	
P 5		12	<u>85</u>	20		12	
P 6		15	<u>84</u>	25		15	<u>84</u>
P 7		18	<u>88</u>	30		18	<u>85</u>
P 8		21	<u>88</u>	35		21	<u>87</u>
P 9		24	<u>91</u>	40		24	<u>89</u>
P10		27	<u>94</u>	45		27	<u>91</u>
P11		30	<u>97</u>	50		30	<u>93</u>
P12		33	<u>99</u>	55		33	<u>95</u>
P13	<u>86</u>	36	<u>100</u>	60	<u>84</u>	36	<u>97</u>
P14		39	<u>101</u>	65		39	<u>98</u>
P15		42	<u>102</u>	70		42	<u>99</u>
P16		45	<u>103</u>	75		45	<u>100</u>
P17		48		80		48	
P18		51		85		51	
P19		54		90		54	
P20		57				57	
		60				60	

Company Graham - Michaelis Corporation Lease & Well No. #2-13 Kane
 Elevation 2199 Ground Level Formation Mississippi Effective Pay --- Ft. Ticket No. 16386
 Date 8/21/82 Sec. 13 Twp. 30S Range 19W County Kiowa State Kansas
 Test Approved by Vern Howell Western Representative Jim Wondra

Formation Test No. 2 Interval Tested from 5038 ft. to 5070 ft. Total Depth 5070 ft.
 Packer Depth 5033 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Packer Depth 5038 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
 Depth of Selective Zone Set -

Top Recorder Depth (Inside) 5059 ft. Recorder Number 2607 Cap. 4150
 Bottom Recorder Depth (Outside) 5062 ft. Recorder Number 3351 Cap. 4000
 Below Straddle Recorder Depth - ft. Recorder Number - Cap. -

Drilling Contractor Red Tiger Drllg. Rig #1 Drill Collar Length - I. D. - in.
 Mud Type starch Viscosity 42 Weight Pipe Length 1078 I. D. 2.7 in.
 Weight 9.6 Water Loss 15.2 cc. Drill Pipe Length 3931 I. D. 3.8 in.
 Chlorides 90,000 P.P.M. Test Tool Length 29 ft. Tool Size 5 1/2 OD in.
 Jars: Make WTC Serial Number 410 Anchor Length 32 ft. Size 5 1/2 OD 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: Weak blow throughout flow periods.

Recovered 30 ft. of drilling mud
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of
 Recovered ft. of

Remarks:

Time Set Packer(s) 8:40 A.M. Time Started Off Bottom 12:10 P.M. Maximum Temperature 129°
 Initial Hydrostatic Pressure 2769 P.S.I. (A)
 Initial Flow Period 60 Minutes (B) 86 P.S.I. to (C) 86 P.S.I.
 Initial Closed In Period 45 Minutes (D) 103 P.S.I.
 Final Flow Period 60 Minutes (E) 84 P.S.I. to (F) 84 P.S.I.
 Final Closed In Period 45 Minutes (G) 100 P.S.I.
 Final Hydrostatic Pressure 2756 P.S.I. (H)

WESTERN TESTING CO., INC.
Pressure Data

Date 8/21/82

Test Ticket No. 16386

Recorder No. 2607 Capacity 4150 Location 5059 Ft.

Clock No. - Elevation 2199 Ground Level Well Temperature 129 °F

Point	Pressure			Time Given	Time Computed
A Initial Hydrostatic Mud	2769	P.S.I.	Open Tool	8:40P	M
B First Initial Flow Pressure	86	P.S.I.	First Flow Pressure	60	60
C First Final Flow Pressure	86	P.S.I.	Initial Closed-in Pressure	45	45
D Initial Closed-in Pressure	103	P.S.I.	Second Flow Pressure	60	60
E Second Initial Flow Pressure	84	P.S.I.	Final Closed-in Pressure	45	45
F Second Final Flow Pressure	84	P.S.I.			
G Final Closed-in Pressure	100	P.S.I.			
H Final Hydrostatic Mud	2756	P.S.I.			

PRESSURE BREAKDOWN

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

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

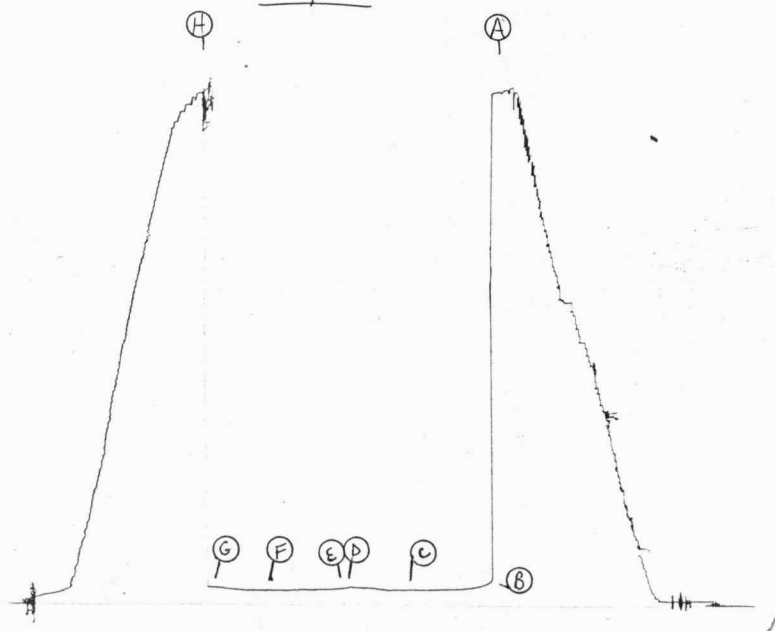
Second Flow Pressure
Breakdown: 12 Inc.
of 5 mins. and a
final inc. of 0 Min.

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

Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 0	86	0	86	0	84	0	84
P 2 5	86	3	86	5	84	3	84
P 3 10	86	6	86	10	84	6	84
P 4 15	86	9	86	15	84	9	84
P 5 20	86	12	85	20	84	12	84
P 6 25	86	15	84	25	84	15	84
P 7 30	86	18	86	30	84	18	85
P 8 35	86	21	88	35	84	21	87
P 9 40	86	24	91	40	84	24	89
P10 45	86	27	94	45	84	27	91
P11 50	86	30	97	50	84	30	93
P12 55	86	33	99	55	84	33	95
P13 60	86	36	100	60	84	36	97
P14		39	101			39	98
P15		42	102			42	99
P16		45	103			45	100
P17							
P18							
P19							
P20							

TKT # 16386

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