

Company Graves Drilling Company, Inc. Lease & Well No. #1 Grigsby
Elevation ---- Formation Mississippi Effective Pay -- Ft. Ticket No. 16434
Date 10/7/82 Sec. 29 Twp. 32S Range 9W County Harper State Kansas
Test Approved by Ken Hamlin Western Representative Jeff Piotrowski
Formation Test No. 1 Interval Tested from 4330 ft. to 4369 ft. Total Depth 4369 ft.
Packer Depth 4325 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Packer Depth 4330 ft. Size 6 3/4 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set -
Top Recorder Depth (Inside) 4359 ft. Recorder Number 1565 Cap. 4900
Bottom Recorder Depth (Outside) 4362 ft. Recorder Number 1560 Cap. 4500
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor Graves Drlg. Rig #1 Drill Collar Length 90 I. D. 2.2 in.
Mud Type gel Viscosity 43 Weight Pipe Length - I. D. - in.
Weight 9.4 Water Loss 9.6 cc. Drill Pipe Length 4220 I. D. 3.8 in.
Chlorides 16,500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.
Jars: Make - Serial Number - Anchor Length 39 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: Strong blow. Gas to surface in one minute. See attached sheet for gas measurements.

Recovered 5 ft. of clean oil
Recovered 5 ft. of oil cut water Chlorides 49,000 ppm
Recovered ft. of
Recovered ft. of
Recovered ft. of
Remarks:

Time Set Packer(s) 8:25 ~~A.M.~~ P.M. Time Started Off Bottom 10:55 ~~A.M.~~ P.M. Maximum Temperature 110°
Initial Hydrostatic Pressure 2283 P.S.I.
Initial Flow Period 15 Minutes (B) 779 P.S.I. to (C) 782 P.S.I.
Initial Closed In Period 45 Minutes (D) 1416 P.S.I.
Final Flow Period 45 Minutes (E) 806 P.S.I. to (F) 786 P.S.I.
Final Closed In Period 45 Minutes (G) 1381 P.S.I.
Final Hydrostatic Pressure 2197 P.S.I. (H)

GAS FLOW REPORT

Date 10/7/82 Ticket 16434 Company Graves Drilling Company, Inc.
 Well Name and No. Grigsby #1 Dst No. 1 Interval Tested 4330'-4369'
 County Harper State Kansas Sec. 29 Twp. 32S Rg. 9W

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
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PRE FLOW

5 min.	40PSIG	1½" orifice			3,155,000 CFPD
10 min.	49 PSIG	1½" orifice			3,692,000 CFPD
15 min.	51 PSIG	1½" orifice			3,811,000 CFPD

SECOND FLOW

5 min.	51 PSIG	1½" orifice			3,811,000 CFPD

Started blowing mud six minutes into final flow period.

GAS BOTTLE

Serial No. ---- Date Bottle Filled ---- Date to be Invoiced 10/7/82

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

COMPANY'S NAME Graves Drilling Co., Inc.

Authorized by Ken Hamlin

WESTERN TESTING CO., INC.

Pressure Data

Date 10/7/82 Test Ticket No. 16434
 Recorder No. 1565 Capacity 4900 Location 4359 Ft. ---
 Clock No. --- Elevation --- Well Temperature 110 °F

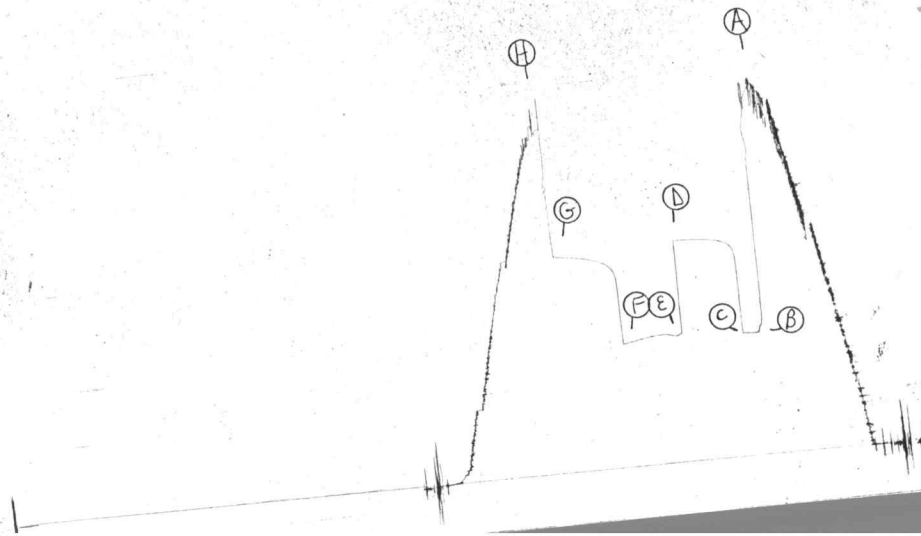
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2283	P.S.I.	8:25P	M
B First Initial Flow Pressure	779	P.S.I.	15	15
C First Final Flow Pressure	782	P.S.I.	45	45
D Initial Closed-in Pressure	1416	P.S.I.	45	45
E Second Initial Flow Pressure	806	P.S.I.	45	45
F Second Final Flow Pressure	786	P.S.I.		
G Final Closed-in Pressure	1381	P.S.I.		
H Final Hydrostatic Mud	2197	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>3</u> Inc.		Breakdown: <u>15</u> Inc.		Breakdown: <u>9</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>0</u>	<u>779</u>	<u>0</u>	<u>782</u>	<u>0</u>	<u>806</u>	<u>0</u>	<u>786</u>
P 2 <u>5</u>	<u>779</u>	<u>3</u>	<u>1345</u>	<u>5</u>	<u>807</u>	<u>3</u>	<u>1282</u>
P 3 <u>10</u>	<u>781</u>	<u>6</u>	<u>1368</u>	<u>10</u>	<u>819</u>	<u>6</u>	<u>1305</u>
P 4 <u>15</u>	<u>782</u>	<u>9</u>	<u>1381</u>	<u>15</u>	<u>821</u>	<u>9</u>	<u>1319</u>
P 5		<u>12</u>	<u>1389</u>	<u>20</u>	<u>818</u>	<u>12</u>	<u>1332</u>
P 6		<u>15</u>	<u>1396</u>	<u>25</u>	<u>814</u>	<u>15</u>	<u>1340</u>
P 7		<u>18</u>	<u>1400</u>	<u>30</u>	<u>807</u>	<u>18</u>	<u>1346</u>
P 8		<u>21</u>	<u>1403</u>	<u>35</u>	<u>797</u>	<u>21</u>	<u>1352</u>
P 9		<u>24</u>	<u>1406</u>	<u>40</u>	<u>791</u>	<u>24</u>	<u>1357</u>
P10		<u>27</u>	<u>1409</u>	<u>45</u>	<u>786</u>	<u>27</u>	<u>1362</u>
P11		<u>30</u>	<u>1411</u>			<u>30</u>	<u>1367</u>
P12		<u>33</u>	<u>1412</u>			<u>33</u>	<u>1370</u>
P13		<u>36</u>	<u>1413</u>			<u>36</u>	<u>1373</u>
P14		<u>39</u>	<u>1414</u>			<u>39</u>	<u>1376</u>
P15		<u>42</u>	<u>1415</u>			<u>42</u>	<u>1379</u>
P16		<u>45</u>	<u>1416</u>			<u>45</u>	<u>1381</u>
P17							
P18							
P19							
P20							

1565
DST #1

TKT. # 16434
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WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

No 16434

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

Elevation _____ Formation Miss Eff. Pay _____ Ft.

District 10/7/82 Path Date 10/7/82 Customer Order No. _____

COMPANY NAME Graves E & L Drilling Co., Inc.

ADDRESS 910 Union Center, Wichita, KS

LEASE AND WELL NO. Grigsby #1 COUNTY Harper STATE KS Sec. 29 Twp. 32s Rge. 9w

Mail Invoice To Same #1 GRIGSBY No. Copies Requested Reg

Co. Name _____ Address _____ No. Copies Requested Reg

Mail Charts To Same Address _____ No. Copies Requested _____

Formation Test No. 1 Interval Tested From 4330 ft. to 4369 ft. Total Depth 4369 ft.

Packer Depth 4325 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 4330 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4359 ft. Recorder Number 1565 Cap. 4900

Bottom Recorder Depth (Outside) 4362 ft. Recorder Number 1560 Cap. 4500

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

Drilling Contractor Graves #1 Drill Collar Length 90 I. D. 2.2 in.

Mud Type Gel Viscosity 43 Weight Pipe Length _____ I. D. _____ in.

Weight 9.4 Water Loss 9.4 cc. Drill Pipe Length 4220 I. D. 3.8 in.

Chlorides 16,500 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.

Jars: Make _____ Serial Number _____ Anchor Length 39 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: Strong GTS 1 min - See GTS Flow Report for gas measurements

Recovered 5 ft. of Clean Oil

Recovered 5 ft. of Oil Cut Water

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Remarks: _____

Time On Location 3:00 A.M. P.M. Time Pick Up Tool 6:30 A.M. P.M. Time Off Location 1:30 A.M. P.M.

Time Set Packer(s) 8:25 A.M. P.M. Time Started Off Bottom 10:55 A.M. P.M. Maximum Temperature 110°

Initial Hydrostatic Pressure _____ (A) 2295 P.S.I.

Initial Flow Period _____ Minutes 15 (B) 779 P.S.I. to (C) 779 P.S.I.

Initial Closed In Period _____ Minutes 45 (D) 1408 P.S.I.

Final Flow Period _____ Minutes 45 (E) 804 P.S.I. to (F) 779 P.S.I.

Final Closed In Period _____ Minutes 45 (G) 1371 P.S.I.

Final Hydrostatic Pressure _____ (H) 2209 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 Ken H. Smith
Signature of Customer or his authorized representative

Western Representative W. P. Pritchard

FIELD INVOICE

Open Hole Test \$ 675.00
Misrun \$ _____
Straddle Test \$ _____
Jars \$ _____
Selective Zone \$ _____
Safety Joint \$ _____
Standby \$ _____
Evaluation \$ _____
Extra Packer \$ _____
Circ. Sub. \$ _____
Mileage \$ _____
Fluid Sampler \$ _____
Extra Charts \$ _____

N^o 4080

GAS FLOW REPORT

Date 10/7/82 Ticket 16434 Company Graves Ets
 Well Name and No. Grigsby #1 Dst No. 1 Interval Tested 4330-69
 County Harper State KS Sec. 29 Twp. 32S Rg. 9W

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
PRE FLOW					
5	40	1 1/2			3,155,000
10	49	7			3,692,000
15	51			OK	3,811,000

SECOND FLOW

5	51	1 1/2		OK	3,811,000 381,100
					Started Blowing Mud
					16 min. into F.F.

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 10-7 Recorder No. 1565 Capacity 4900 Test Ticket No. 16434 Location 4359 Ft.
Clock No. --- Elevation --- Well Temperature 110 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2283</u>	P.S.I.	<u>8:25</u> P	<u>8:25</u> M
B First Initial Flow Pressure	<u>779</u>	P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>782</u>	P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1416</u>	P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
E Second Initial Flow Pressure	<u>806</u>	P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
F Second Final Flow Pressure	<u>786</u>	P.S.I.		
G Final Closed-in Pressure	<u>1381</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2197</u>	P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>3</u> Inc.		Breakdown: <u>15</u> Inc.		Breakdown: <u>9</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>0</u>	<u>779</u>	<u>0</u>	<u>782</u>	<u>0</u>	<u>806</u>	<u>0</u>	<u>786</u>
P 2 <u>5</u>	<u>779</u>	<u>3</u>	<u>1345</u>	<u>5</u>	<u>807</u>	<u>3</u>	<u>1282</u>
P 3 <u>10</u>	<u>781</u>	<u>6</u>	<u>1368</u>	<u>10</u>	<u>819</u>	<u>6</u>	<u>1305</u>
P 4 <u>15</u>	<u>782</u>	<u>9</u>	<u>1381</u>	<u>15</u>	<u>821</u>	<u>9</u>	<u>1319</u>
P 5 <u>20</u>		<u>12</u>	<u>1389</u>	<u>20</u>	<u>818</u>	<u>12</u>	<u>1332</u>
P 6 <u>25</u>		<u>15</u>	<u>1396</u>	<u>25</u>	<u>814</u>	<u>15</u>	<u>1340</u>
P 7 <u>30</u>		<u>18</u>	<u>1400</u>	<u>30</u>	<u>807</u>	<u>18</u>	<u>1346</u>
P 8 <u>35</u>		<u>21</u>	<u>1403</u>	<u>35</u>	<u>797</u>	<u>21</u>	<u>1352</u>
P 9 <u>40</u>		<u>24</u>	<u>1406</u>	<u>40</u>	<u>791</u>	<u>24</u>	<u>1357</u>
P10 <u>45</u>		<u>27</u>	<u>1409</u>	<u>45</u>	<u>786</u>	<u>27</u>	<u>1362</u>
P11 <u>50</u>		<u>30</u>	<u>1411</u>	<u>50</u>		<u>30</u>	<u>1367</u>
P12 <u>55</u>		<u>33</u>	<u>1412</u>	<u>55</u>		<u>33</u>	<u>1370</u>
P13 <u>60</u>		<u>36</u>	<u>1413</u>	<u>60</u>		<u>36</u>	<u>1373</u>
P14		<u>39</u>	<u>1414</u>	<u>65</u>		<u>39</u>	<u>1376</u>
P15		<u>42</u>	<u>1415</u>	<u>70</u>		<u>42</u>	<u>1379</u>
P16		<u>45</u>	<u>1416</u>	<u>75</u>		<u>45</u>	<u>1381</u>
P17		<u>48</u>		<u>80</u>		<u>48</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>	