



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

WESTERN TESTING CO., INC.
FORMATION TESTING

Formation Missouppi Elevation 1647 Ft. Ticket 24859
Eff. Pay Kelly Buehry Ft.

District St Bend Date 8-6-77 Customer Order No. _____
COMPANY NAME Graves - Drilling Co., Inc. - Etal
ADDRESS 910 Union Center Wichita Ks 67202
LEASE AND WELL NO. Updegraff #1 COUNTY Barber STATE Ks Sec. 22 Twp. 31³ Rge. 12^W
Mail Inv. To Same Co. Name AS Address Above No. Copies Requested 5
Mail Charts To _____ No. Copies Requested 5

Formation Test No. 1 O.K. Misrun Interval Tested From 4314' to 4356' Total Depth 4356'
Size Main Hole 7 7/8 Rat Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Top Packer Depth 4309 Ft. Size 6 3/4 Bottom Packer Depth 4314 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 42 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4348 Ft. Clock No. 6892 Depth 4351 Ft. Clock No. 6861
Top Make Kuster Cap. 6300 No. 1563 Inside Bottom Make Kuster Cap. 6000 No. 1560 Outside
Below Straddle: Depth _____ Rec. No. _____ Clock No. _____ Depth _____ Ft. Rec. No. _____ Clock No. _____ Outside

Time Set Packer 11:12 A.M.
Tool Open I.F.P. From 11:15 M. to 11:30 M. - Hr. 15 Min. From (B) 43 P.S.I. To (C) 43 P.S.I.
Tool Closed I.C.I.P. From 11:30 M. to 12:15 M. - Hr. 45 Min. (D) 1038 P.S.I. To (E) 1038 P.S.I.
Tool Open F.F.P. From 12:15 M. to 1:15 M. - Hr. 1 Min. From (E) 58 P.S.I. To (F) 67 P.S.I.
Tool Closed F.C.I.P. From 1:15 M. to 2:00 M. - Hr. 45 Min. (G) 803 P.S.I. To (H) 818 P.S.I.
Initial Hydrostatic Pressure (A) 2158 P.S.I. Final Hydrostatic Pressure (H) 2098 P.S.I. Maximum Temp. 124

BLOW Strong flow throughout test. See attached sheet for 900 measurements
Did Well Flow Yes No Recovery Total Ft. 20' Gas Cut Mud 60' Gas Cut Mud with a slight show of Oil

Reversed Out Yes No Mud Type Driscoll Viscosity 40 Weight 9.2 Water Loss 10.8 cc. Chlorides 14,000 P.P.M.
EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint _____ Jars: Size _____ In. Make _____ Ser. No. _____
Dual Packers Yes Did Packers Hold? Yes Did Tool Plug? NO Where? _____
DRILLING CONTRACTOR Graves Drilling Co. Length Drill Pipe 4179 ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 FH In.
Length Weight Pipe _____ ft. I.D. Weight Pipe _____ In. Tool Joint Size _____ In. Length Drill Collars 120 ft. I.D. Drill Collars 2 1/4 In.
Tool Joint Size 4 1/2 In. Length D.S.T. Tool 57 ft.

Remarks Read recorder # 1560
(P.S.I. From 1560)

INVOICE SECTION	
Open Hole Test	\$ <u>415.00</u>
Straddle Test	\$ _____
Jars	\$ _____
Selective Zone	\$ _____
Safety Joint	\$ _____
Misrun	\$ _____
Evaluation	\$ _____
Packer	\$ _____
Circ. Sub.	\$ _____
Total	\$ <u>415.00</u>

COMPANY TERMS
Western Testing Co., Inc. shall not be liable for damage 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 10% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.
Test Approved By Donald Steinkamp Western Representative Max Kape
Signature of Customer or his Authorized Representative Donald Steinkamp Operator's Time Thank You Hrs.

Phone 316 262-5861
316 838-0601



P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

No. 217

Drilling Co., Inc. Etal

Date 8-6-77 Ticket 24859 Company Graves Etal
Well Name and No. Updegraff # 1 Dst No. 1 Interval Tested 4314'-4356'
County Barber State Ks Sec. 22 Twp. 31E Rg. 12W

Time Gauge Pre-Flow	Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	P.S.I. on Pitor Tester	P.S.I. on Side Static Tester	P.S.I. on U-Tube Tester	Description of Flow
PRE FLOW						

SECOND FLOW

~~Gas start at 1:45~~ ~~Orifice~~

1:50 PM	5 MIN	5" of water	1/4 orifice	1,800 C.F.P.D.
2:00 PM	15 MIN	8" of water	1/4 orifice	1,500 C.F.P.D.
2:10 PM	25 MIN	7" of water	1/4 orifice	1,390 C.F.P.D.
<u>Gas to surface at 1:45 P.M.</u>				

GAS BOTTLE

Serial No. — Date Bottle Filled 8-6-77 Date to be Invoiced 8-6-77

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 Graves Drilling Co., Inc. Etal
Authorized by Harold Steincamp

Phone 316 262-5861
316 838-0601



P. O. Box 1599
WICHITA, KANSAS 67201

GAS FLOW REPORT

Nº 217

Date 8-6-77 Ticket _____ Company Groves-Elva
Well Name and No. Updegraff #1 Dst No. 1 Interval Tested 4314-4356
County Barber State KS Sec. 22 Twp. 31 1/2 Rg. 12 1/2

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
PRE FLOW						

SECOND FLOW						
<u>150</u>	<u>5</u>	<u>5" 1/2</u>	<u>1/4</u>	---	---	<u>1,800 CFPD</u>
<u>200</u>	<u>15</u>	<u>8"</u>	<u>1/4</u>	---	---	<u>1,500</u>
<u>210</u>	<u>25</u>	<u>7"</u>	<u>1/4</u>	---	---	<u>1,340</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.

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COMPANY'S NAME _____

Authorized by _____

WESTERN TESTING CO., INC.

Pressure Data

Date 8-6-77 Test Ticket No. 24859
 Recorder No. 1563 / 1560 Capacity 6300 / 6000 Location 43548 Ft.
 Block No. 68926861 Elevation 1647 K.B. Well Temperature 124 °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2164</u> P.S.I.	<u>11:12 A</u> M	
B First Initial Flow Pressure	<u>55</u> P.S.I.	<u>15</u> Mins.	<u>15</u> Mins.
C First Final Flow Pressure	<u>47</u> P.S.I.	<u>45</u> Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1038</u> P.S.I.	<u>60</u> Mins.	<u>60</u> Mins.
E Second Initial Flow Pressure	<u>53</u> P.S.I.	<u>75</u> Mins.	<u>45</u> Mins.
F Second Final Flow Pressure	<u>67</u> P.S.I.		
G Final Closed-in Pressure	<u>818</u> P.S.I.		
H Final Hydrostatic Mud	<u>2117</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 3 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

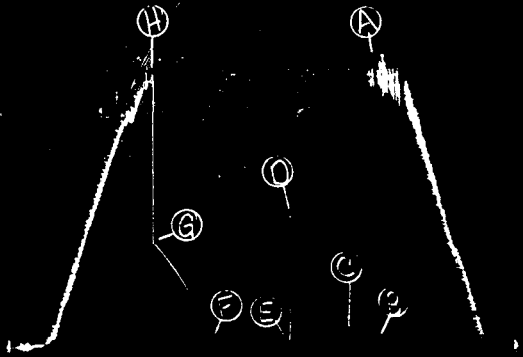
Initial Shut-In
 Breakdown: 15 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

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	<u>55</u>	0	<u>47</u>	0	<u>53</u>	0	<u>67</u>
P 2	<u>44</u>	3	<u>146</u>	5	<u>50</u>	3	<u>126</u>
P 3	<u>47</u>	6	<u>245</u>	10	<u>51</u>	6	<u>196</u>
P 4	<u>47</u>	9	<u>345</u>	15	<u>53</u>	9	<u>260</u>
P 5		12	<u>420</u>	20	<u>55</u>	12	<u>321</u>
P 6		15	<u>502</u>	25	<u>56</u>	15	<u>383</u>
P 7		18	<u>578</u>	30	<u>58</u>	18	<u>441</u>
P 8		21	<u>654</u>	35	<u>61</u>	21	<u>493</u>
P 9		24	<u>722</u>	40	<u>61</u>	24	<u>542</u>
P 10		27	<u>783</u>	45	<u>64</u>	27	<u>593</u>
P 11		30	<u>839</u>	50	<u>65</u>	30	<u>637</u>
P 12		33	<u>889</u>	55	<u>67</u>	33	<u>681</u>
P 13		36	<u>936</u>	60	<u>67</u>	36	<u>725</u>
P 14		39	<u>977</u>	65		39	<u>760</u>
P 15		42	<u>1018</u>	70		42	<u>798</u>
P 16		45	<u>1038</u>	75		45	<u>818</u>
P 17		48		80		48	
P 18		51		85		51	
P 19		54		80		54	
P 20		57				57	
		60				60	

TR# 24859
S.





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

Company Graves Drilling Co., Inc. - Etal Lease & Well No. Updegraff #1

Elevation 1647 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 24859

Date 8-6-77 Sec. 22 Twp. 31S Range 12W County Barber State Kansas

Test Approved by Harold Steincamp Western Representative Guy M. Knipe

Formation Test No. 1 O.K. Misrun Interval Tested From 4314' to 4356' Total Depth 4356'

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

Top Packer Depth 4309 Ft. Size 6 3/4 Bottom Packer Depth 4314 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 42 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4348 Ft. Clock No. 6892 Depth 4351 Ft. Clock No. 6861

Top Make Kuster Cap. 6300 No. 1563 Inside Outside Bottom Make Kuster Cap. 6000 No. 1560 Inside Outside

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

Time Set Packer 11:12A. M

Tool Open I.F.P. From 11:15A. to 11:30A. - Hr. 15 Min. From (B) 55 P.S.I. To (C) 47 P.S.I.

Tool Closed I.C.I.P. From 11:30A. to 12:15P. - Hr. 45 Min (D) 1038 P.S.I.

Tool Open F.F.P. From 12:15P. to 1:15P. - Hr. 60 Min. From (E) 53 P.S.I. To (F) 67 P.S.I.

Tool Closed F.C.I.P. From 1:15P. to 2:00P. - Hr. 45 Min. (G) 818 P.S.I.

Initial Hydrostatic Pressure (A) 2164 P.S.I. Final Hydrostatic Pressure (H) 2117 P.S.I. Maximum Temp. 124

INFORMATION

BLOW Strong blow throughout test. See attached sheet for gas measurements.

Did Well Flow Yes No Recovery Total Ft. 20' of gas cut mud, 60' of gas cut mud with a slight show of oil.

Reversed Cut Yes No Mud Type Drispa Viscosity 40 Weigh 0.2 Water Loss 10.8 cc. Chlorides 14,000 PPM

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint Jars: Size - In. Make - Ser. No. -

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

DRILLING CONTRACTOR Graves Drlg. Co. Length Drill Pipe? 4179 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 FH In.

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 120 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4 1/2 H-90 In. Length D.S.T. Tool 57 Ft.

Remarks: Read recorder #1560



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

GAS FLOW REPORT

Date 8-6-77 Ticket 24859 Company Graves Drilling Co., Inc. - Etal
 Well Name and No. Updegraff #1 Dst No. 1 Interval Tested 4314' - 4356'
 County Barber State Kansas Sec. 22 Twp. 31S Rg. 12W

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
PRE FLOW						

SECOND FLOW						
Time	Time in Min.	Water	Orifice	Pressure	Flow Rate	Description
1:50PM	5 min.	5" of water	1/4" orifice		1,800 C.F.P.D.	
2:00PM	15 min.	8" of water	1/4" orifice		1,500 C.F.P.D.	
2:10PM	25 min.	7" of water	1/4" orifice		1,390 C.F.P.D.	
Gas to surface at 1:45PM.						

GAS BOTTLE

Serial No. - Date Bottle Filled 8-6-77 Date to be Invoiced 8-6-77

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COMPANY'S NAME Graves Drilling Co., Inc. - Etal
 Authorized by Harold Steincamp

WESTERN TESTING CO., INC.

Pressure Data

Date 8-6-77 Test Ticket No. 24859
 Recorder No. 1560 Capacity 6000 Location 4351 Ft.
 Clock No. 6861 Elevation 1647 Kelly Bushing Well Temperature 124 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2164 P.S.I.	Open Tool	11:12A. M	
B First Initial Flow Pressure	55 P.S.I.	First Flow Pressure	15 Mins.	15 Mins.
C First Final Flow Pressure	47 P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D Initial Closed-in Pressure	1038 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	53 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F Second Final Flow Pressure	67 P.S.I.			
G Final Closed-in Pressure	818 P.S.I.			
H Final Hydrostatic Mud	2117 P.S.I.			

PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1 0	55	0	47	0	53	0	67	0
P 2 5	44	3	146	5	50	3	126	3
P 3 10	47	6	245	10	51	6	196	6
P 4 15	47	9	345	15	53	9	260	9
P 5		12	420	20	55	12	321	12
P 6		15	502	25	56	15	383	15
P 7		18	578	30	58	18	441	18
P 8		21	654	35	61	21	493	21
P 9		24	722	40	61	24	543	24
P10		27	783	45	64	27	593	27
P11		30	839	50	65	30	637	30
P12		33	889	55	67	33	681	33
P13		36	936	60	67	36	725	36
P14		39	977			39	760	39
P15		42	1018			42	798	42
P16		45	1038			45	818	45
P17								
P18								
P19								
P20								



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

WESTERN TESTING CO., INC.
 FORMATION TESTING

TICKET 24860
 Formation Missouri Elevation 1647K.B Eff. Pay Wichita Ft.

District Great Bend Date 8-7-77 Customer Order No. _____

COMPANY NAME Graves Drilling Co., Inc. Etal

ADDRESS 916 Union Center Wichita Ks 67202

CASE AND WELL NO. Updegraff #1 COUNTY Barber STATE Ks Sec 23 Twp. 31 1/2 Rge. 12 W

Oil Inv. To Same HS Above No. Copies Requested 5

Oil Charts To _____ No. Copies Requested 5

_____ Address _____

Formation Test No. 2 O.K. Misrun Interval Tested From 4356' to 4371' Total Depth 4371'

Size Main Hole 7 1/2" at Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No

Top Packer Depth 4351' Ft. Size 6 3/4" Bottom Packer Depth 4356' Ft. Size 6 3/4"

Riddle Conv. B.T. Damaged Yes No Packer Depth _____ Ft. Size _____

Tool Joint Size 5 1/2" Tool Joint Size 4 1/2" FH Anchor Length 15' Ft. Size 5 1/2" Surface Choke Size 3/4" In. Bottom Choke Size 3/4" In.

RECORDERS Depth 4363' Ft. Clock No. 6892 Depth 4366' Ft. Clock No. 6861

Top Make Kuster Cap. 6300 No. 1563 Inside Bottom Make Kuster Cap. 6000 No. 1560 Outside

Flow Straddle: Depth _____ Rec. No. _____ Clock No. _____ Outside _____

Time Set Packer 1:26 AM

Tool Open I.F.P. From 1:30A M. to 1:50A M. - Hr. 20 Min. From (B) 43 55 P.S.I. To (C) 52 58 P.S.I.

Tool Closed I.C.I.P. From 1:50A M. to 2:35A M. - Hr. 45 Min. (D) 906 909 P.S.I.

Tool Open F.F.P. From 2:35A M. to 3:35A M. 1 Hr. - Min. From (E) 73 88 P.S.I. To (F) 87 96 P.S.I.

Tool Closed F.C.I.P. From 3:35A M. to _____ M. Hr. 45 Min. (G) 627 643 P.S.I.

Initial Hydrostatic Pressure (A) 2158 P.S.I. Final Hydrostatic Pressure (H) 2128 P.S.I. Maximum Temp. 125

LOW Strongly Decreased To 3" by End of Flow Period. INFORMATION Final

Oil Well Flow Yes No Recovery Total Ft. 200' Gas - 30' Oil - 10' Gas Cut Mud

100' Gas - 50' Oil Cut Mud Water @ 9000 PPM Chlorides

Reversed Out Yes No Mud Type Dispac Viscosity 40 Weight 9.2 Water Loss 10.8 cc. Chlorides 14,000 PPM

EXTRA EQUIPMENT: Type Circ. Sub. P.H.T. Safety Joint _____ Jars: Size _____ In. Make _____ Ser. No. _____

Tool Joints Yes Did Packers Hold? Yes Did Tool Plug? NO Where? _____

DRILLING CONTRACTOR Graves Drilling Co. Length Drill Pipe 4216 ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2" FH In.

Length Weight Pipe _____ ft. I.D. Weight Pipe _____ In. Tool Joint Size _____ In. Length Drill Collars 120 ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4 1/2" FH Length D.S.T. Tool 35 ft.

Remarks P.S.I. from 1560 Recorder
Read recorder #1560

INVOICE SECTION
 Open Hole Test \$ 415.00
 Straddle Test \$ _____
 Jars \$ _____
 Selective Zone \$ _____
 Safety Joint \$ _____
 Misrun \$ _____
 Evaluation \$ _____
 Packer \$ _____
 Circ. Sub. \$ _____
 Total \$ 415.00

COMPANY TERMS

Western Testing Co., Inc., shall not be liable for damage 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.

Charges subject to 10% interest after 60 days from date of invoice. Any expense incurred for collection will be added to the original amount.

Test Approved By 35 Stump Western Representative Max Krupke

Signature of Customer or his Authorized Representative Harold Steincamp Operator's Title Thank you Hrs. _____

WESTERN TESTING CO., INC.
Pressure Data

ate 8-7-
 Recorder No. 1560 Capacity 6000 Location 4366 Ft.
 Clock No. 6861 Elevation 1647 K.B Well Temperature 125 °F

Test Ticket No. 24860

	Pressure		Time Given	Time Computed
Point			<u>1:26 A.M</u>	
Initial Hydrostatic Mud	<u>2191</u> P.S.I.	Open Tool	<u>20</u> Mins.	<u>20</u> Mins.
First Initial Flow Pressure	<u>55</u> P.S.I.	First Flow Pressure	<u>45</u> Mins.	<u>45</u> Mins.
First Final Flow Pressure	<u>58</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	<u>60</u> Mins.
Initial Closed-in Pressure	<u>909</u> P.S.I.	Second Flow Pressure	<u>45</u> Mins.	<u>45</u> Mins.
Second Initial Flow Pressure	<u>88</u> P.S.I.	Final Closed-in Pressure		
Second Final Flow Pressure	<u>96</u> P.S.I.			
Final Closed-in Pressure	<u>643</u> P.S.I.			
Final Hydrostatic Mud	<u>2152</u> P.S.I.			

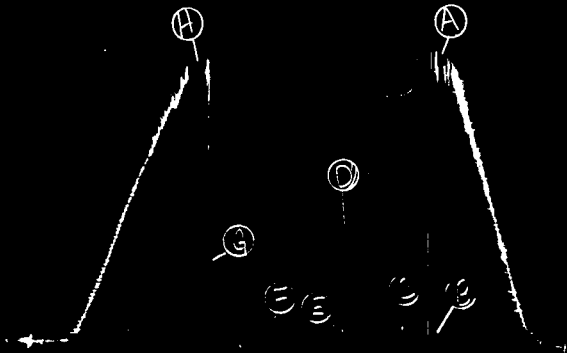
PRESSURE BREAKDOWN

First Flow Pressure Breakdown: <u>4</u> Inc. of <u>5</u> mins. and a final inc. of <u>0</u> Min.	Initial Shut-In Breakdown: <u>15</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>15</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 0	<u>55</u>	0	<u>58</u>	0	<u>88</u>	0	<u>96</u>
P 2 5	<u>47</u>	3	<u>93</u>	5	<u>76</u>	3	<u>120</u>
P 3 10	<u>53</u>	6	<u>140</u>	10	<u>77</u>	6	125 <u>155</u>
P 4 15	<u>55</u>	9	<u>187</u>	15	<u>79</u>	9	<u>187</u>
P 5 20	<u>58</u>	12	<u>248</u>	20	<u>82</u>	12	<u>222</u>
P 6 25		15	<u>321</u>	25	<u>85</u>	15	<u>263</u>
P 7 30		18	<u>400</u>	30	<u>88</u>	18	<u>307</u>
P 8 35		21	<u>476</u>	35	<u>89</u>	21	<u>345</u>
P 9 40		24	<u>549</u>	40	<u>92</u>	24	<u>389</u>
P10 45		27	<u>616</u>	45	<u>93</u>	27	<u>432</u>
P11 50		30	<u>678</u>	50	<u>94</u>	30	<u>473</u>
P12 55		33	<u>733</u>	55	<u>96</u>	33	<u>514</u>
P13 60		36	<u>780</u>	60	<u>96</u>	36	<u>546</u>
P14		39	<u>824</u>	65		39	<u>584</u>
P15		42	<u>865</u>	70		42	<u>616</u>
P16		45	<u>909</u>	75		45	<u>643</u>
P17		48		80		48	
P18		51		85		51	
P19		54		90		54	
P20		57				57	
		60				60	

TKT# 24860

0.





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

Company Graves Drilling Co., Inc -Etal Lease & Well No. Updegraff #1
Elevation 1647 Kelly Bush. Formation Mississippi Effective Pay - Ft. Ticket No. 24860
Date 8-7-77 Sec. 23 Twp. 31S Range 12W County Barber State Kansas
Test Approved by Harold Steincamp Western Representative Guy M. Knipe

Formation Test No. 2 O.K. Misrun Interval Tested From 4356' to 4371' Total Depth 4371'
Size Main Hole 7 7/8 Rat Hole Conv. B.T. Damaged Yes No Conv. B.T. Damaged Yes No
Top Packer Depth 4351 Ft. Size 6 3/4 Bottom Packer Depth 4356 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 15 Ft. Size 5 1/2 OD Surface Choke Size 3/4 In. Bottom Choke Size 3/4 In.

RECORDERS Depth 4363 Ft. Clock No. 6892 Depth 4366 Ft. Clock No. 6861
Top Make Kuster Cap. 6300 No. 1563 ~~Inside~~ Outside Bottom Make Kuster Cap. 6000 No. 1560 ~~Inside~~ Outside
Below Straddle: Depth - Rec. No. - Clock No. - ~~Inside~~ Outside Depth - Ft. Rec. No. - Clock No. - ~~Inside~~ Outside

Time Set Packer 1:26A M
Tool Open I.F.P. From 1:30A M. to 1:50A M. - Hr. 30 Min. From (B) 55 P.S.I. To (C) 58 P.S.I.
Tool Closed I.C.I.P. From 1:50A M. to 2:35A M. - Hr. 45 Min (D) 909 P.S.I.
Tool Open F.F.P. From 2:35A M. to 3:35A M. - Hr. 60 Min. From (E) 88 P.S.I. To (F) 96 P.S.I.
Tool Closed F.C.I.P. From 3:35A M. to 4:20A M. - Hr. 45 Min. (G) 643 P.S.I.
Initial Hydrostatic Pressure (A) 2191 P.S.I. Final Hydrostatic Pressure (H) 2152 P.S.I. Maximum Temp. 125

INFORMATION

BLOW Strong blow decreasing to a 3" blow by end of final flow period.

Did Well Flow Yes No Recovery Total Ft. 200' of gas, 30' oil and gas cut mud, 100' gas and slightly
oil cut muddy water (69,000 PPM Chlorides)

Reversed Out Yes No Mud Type Drispar Viscosity 40 Weight 9.2 Water Loss 10.8 cc. Chlorides 14,000 PPM

EXTRA EQUIPMENT: Type Circ. Sub. Pin Safety Joint Jars: Size - In. Make - Ser. No. -

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

DRILLING CONTRACTOR Graves Drilling Co. Length Drill Pipe 4216 Ft. I.D. Drill Pipe 3.8 In. Tool Joint Size 4 1/2 FH In.

Length Weight Pipe - Ft. I.D. Weight Pipe - In. Tool Joint Size - In. Length Drill Collars 120 Ft. I.D. Drill Collars 2 1/4 In.

Tool Joint Size 4 1/2 H-90 n. Length D.S.T. Tool 35 Ft.

Remarks: Read recorder #1560.

WESTERN TESTING CO., INC.

Pressure Data

Date 8-7-77

Test Ticket No. 24860

Recorder No. 1560

Capacity 6000

Location 4366 Ft.

Clock No. 6861

Elevation 1647 Kelly Bushing

Well Temperature 125 °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	2191 P.S.I.	Open Tool	1:26A. M	
B First Initial Flow Pressure	55 P.S.I.	First Flow Pressure	20 Mins.	20 Mins.
C First Final Flow Pressure	58 P.S.I.	Initial Closed-in Pressure	45 Mins.	45 Mins.
D Initial Closed-in Pressure	909 P.S.I.	Second Flow Pressure	60 Mins.	60 Mins.
E Second Initial Flow Pressure	88 P.S.I.	Final Closed-in Pressure	45 Mins.	45 Mins.
F Second Final Flow Pressure	96 P.S.I.			
G Final Closed-in Pressure	643 P.S.I.			
H Final Hydrostatic Mud	2152 P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure
Breakdown: 4 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	55	0	58	0	88	0	96
P 2 5	47	3	93	5	76	3	120
P 3 10	53	6	140	10	77	6	155
P 4 15	55	9	187	15	79	9	187
P 5 20	58	12	248	20	82	12	222
P 6		15	321	25	85	15	263
P 7		18	400	30	88	18	307
P 8		21	476	35	89	21	345
P 9		24	549	40	92	24	388
P10		27	616	45	93	27	432
P11		30	678	50	94	30	473
P12		33	733	55	96	33	514
P13		36	780	60	96	36	546
P14		39	824			39	584
P15		42	865			42	616
P16		45	909			45	643
P17							
P18							
P19							
P20							