



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

Nº

5585

OK

P. O. BOX 1599

PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation

Formation

Miss

Eff. Pay

Ft.

District Pratt Date 6-25-84 Customer Order No.

COMPANY NAME Abercrombie Drlg. Inc.

ADDRESS 801 Union Center Wichita KS

LEASE AND WELL NO. Vogel #1 COUNTY Harper STATE KS Sec. 1 Twp. 33s Rge. 6w

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

Co. Name Same Address _____ No. Copies Requested Reg

Mail Charts To _____ Address _____ No. Copies Requested _____

Formation Test No. 1 Interval Tested From 4380 ft. to 4392 ft. Total Depth 4392 ft.

Packer Depth 4375 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 4380 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4383 ft. Recorder Number 13402 Cap. 4025

Bottom Recorder Depth (Outside) 4386 ft. Recorder Number 1559 Cap. 4200

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

Drilling Contractor Brandt #2 Drill Collar Length 240 I. D. 2.2 in.

Mud Type Chem Viscosity 40 Weight Pipe Length _____ I. D. _____ in.

Weight 9.5 Water Loss 10.0 cc. Drill Pipe Length 4120 I. D. 3.8 in.

Chlorides 12,000 P.P.M. Test Tool Length 20 ft. Tool Size 5/8 OD in.

Jars: Make _____ Serial Number _____ Anchor Length 12 ft. Size 5/8 OD in.

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

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

Blow: Strong GTS 25min FSI. See Gas Flow Report

Recovered 120 ft. of Gas Cut Mud

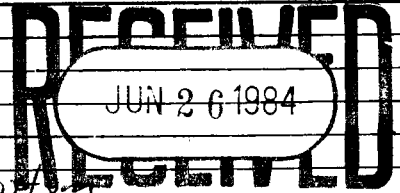
Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Chlorides _____ P.P.M. Sample Jars used _____ Remarks: Slid 5' to Bottom



Time On Location 5:00 A.M. Time Pick Up Tool 6:30 A.M. Time Off Location 1:30 A.M.

Time Set Packer(s) 8:00 A.M. Time Started Off Bottom 11:30 A.M. Maximum Temperature 118°

Initial Hydrostatic Pressure (A) 2228 P.S.I.

Initial Flow Period Minutes 30 (B) 59 P.S.I. to (C) 59 P.S.I.

Initial Closed In Period Minutes 60 (D) 1075 P.S.I.

Final Flow Period Minutes 60 (E) 59 P.S.I. to (F) 59 P.S.I.

Final Closed In Period Minutes 60 (G) 1755 P.S.I.

Final Hydrostatic Pressure (H) 2178 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 [Signature]
Signature of Customer or his authorized representative

Western Representative [Signature] 1625

Thank you

FIELD INVOICE

Open Hole Test	\$ <u>595</u>
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ _____
Selective Zone	\$ _____
Safety Joint	\$ _____
Standby	\$ _____
Evaluation	\$ _____
Extra Packer	\$ _____
Circ. Sub.	\$ _____
Mileage	\$ _____
Fluid Sampler	\$ _____
Extra Charts	\$ _____
Insurance	\$ _____
Telecopier	\$ _____
TOTAL	\$ _____

WESTERN TESTING CO., INC.

Pressure Data

Date 6-25-84 Test Ticket No. _____
 Recorder No. 13402 Capacity _____ Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud <u>2227</u> P.S.I.			M
B First Initial Flow Pressure <u>51</u> P.S.I.		Mins.	Mins.
C First Final Flow Pressure <u>56</u> P.S.I.		Mins.	Mins.
D Initial Closed-in Pressure <u>1086</u> P.S.I.		Mins.	Mins.
E Second Initial Flow Pressure <u>49</u> P.S.I.		Mins.	Mins.
F Second Final Flow Pressure <u>49</u> P.S.I.		Mins.	Mins.
G Final Closed-in Pressure <u>1750</u> P.S.I.			
H Final Hydrostatic Mud <u>2186</u> P.S.I.			

O-rings cut on shut in tool.

PRESSURE BREAKDOWN

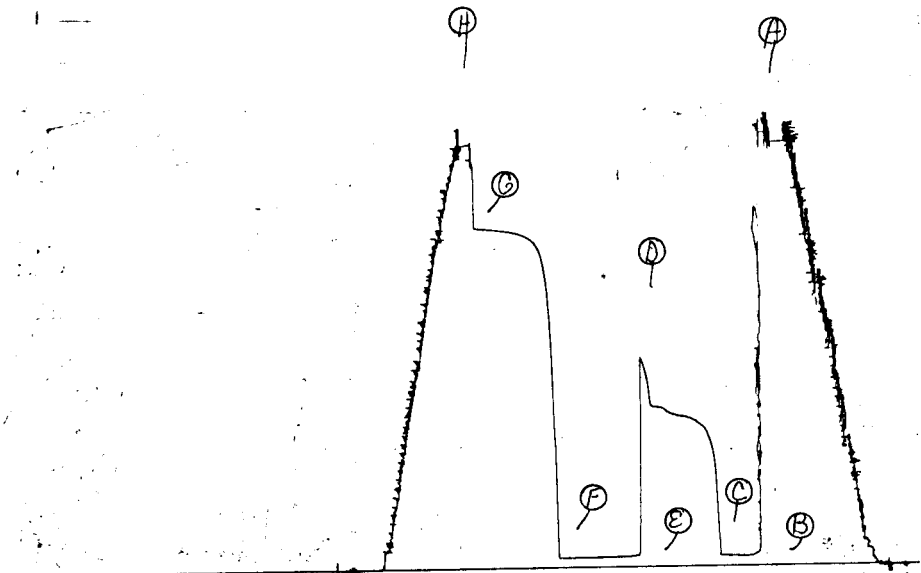
First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: <u>7</u> Inc.		Breakdown: <u>21</u> Inc.		Breakdown: <u>13</u> Inc.		Breakdown: <u>21</u> Inc.	
of <u>5</u> mins. and a		of <u>3</u> mins. and a		of <u>5</u> mins. and a		of <u>3</u> mins. and a	
final inc. of <u>0</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	51	0	56	0	49	0	49
P 2 5	1	3	448	5		3	766
P 3 10	51	6	620	10		6	1238
P 4 15	52	9	684	15		9	1503
P 5 20	54	12	719	20		12	1605
P 6 25	55	15	737	25		15	1655
P 7 30	56	18	755	30		18	1681
P 8 35		21	766	35		21	1697
P 9 40		24	773	40		24	1709
P 10 45		27	777	45		27	1717
P 11 50		30	781	50		30	1723
P 12 55		33	786	55		33	1728
P 13 60		36	794	60	49	36	1732
P 14		39	807	65		39	1735
P 15		42	822	70		42	1738
P 16		45	826	75		45	1741
P 17		48	829	80		48	1743
P 18		51	843	85		51	1745
P 19		54	988	90		54	1747
P 20		57	1055			57	1749
		60	1086			60	1750

13402

DST #1

TKT # 5585

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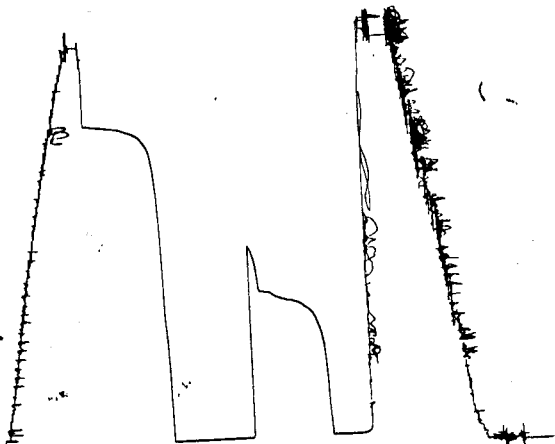


1559

DST #1

TKT# 5585

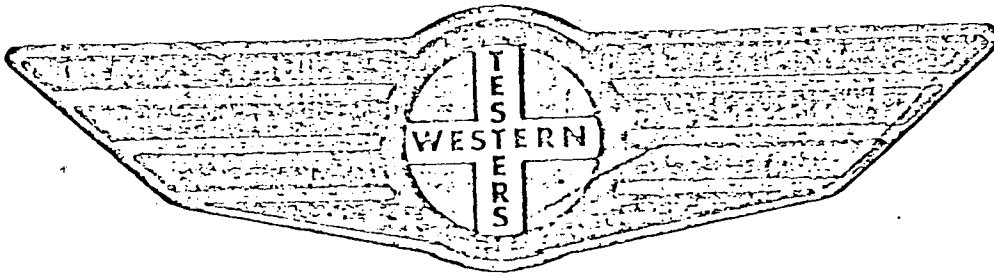
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FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company _____ ABERCROMBIE DRILLING, INC. Lease and Well No. _____ #1 VOGEL _____ Sec. 1 _____ Twp. 33S Rge. 6W Test No. 1 Date 6/23/84

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 6/25/84
 CUSTOMER: ABERCROMBIE DRILLING INC
 WELL: 1 TEST: 1
 ELEVATION (KB): 0 FORMATION: MISSISSIPPI
 SECTION: 1 TOWNSHIP: 33S
 RANGE: 6W COUNTY: HARPER STATE: KANSAS
 GAUGE SN #13402 RANGE: 4025 CLOCK: 12

TICKET #5585
 LEASE: VOGEL
 GEOLOGIST: STEVE ?

INTERVAL TEST FROM: 4380 FT TO: 4392 FT TOTAL DEPTH: 4392 FT
 DEPTH OF SELECTIVE ZONE: FT
 PACKER DEPTH: 4375 FT SIZE: 6 3/4 IN PACKER DEPTH: 4380 FT SIZE: 6 3/4 IN
 PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: BRANDT DRLG
 MUD TYPE: CHEMICAL VISCOSITY: 40
 WEIGHT: 9.5 WATER LOSS (CC): 10.0
 CHLORIDES (P.P.M.): 12000
 JARS - MAKE: SERIAL NUMBER:
 DID WELL FLOW? NO REVERSED OUT? NO
 DRILL COLLAR LENGTH: 240 FT I.D.: 2.2 IN
 WEIGHT PIPE LENGTH: FT I.D.: IN
 DRILL PIPE LENGTH: 4120 FT I.D.: 3.8 IN
 TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
 ANCHOR LENGTH: 12 FT SIZE: 5 1/2 OD IN
 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: STRONG BLOW THROUGHOUT TEST.
 GAS TO SURFACE IN 25 MINUTES ON
 THE INITIAL SHUT-IN. 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:
 RECOVERED: FT OF:
 RECOVERED: FT OF:
 RECOVERED: FT OF:
 RECOVERED: FT OF:
 RECOVERED: FT OF:

REMARKS: SLID TOOL 5 FEET TO BOTTOM.

TIME SET PACKER(S): 8:00 AM TIME STARTED OFF BOTTOM: 11:30 AM
 WELL TEMPERATURE: 118 °F
 INITIAL HYDROSTATIC PRESSURE: (A) 2227 PSI
 INITIAL FLOW PERIOD MIN: 30 (B) 51 PSI TO (C) 56 PSI
 INITIAL CLOSED IN PERIOD MIN: 60 (D) 1086 PSI
 FINAL FLOW PERIOD MIN: 60 (E) 49 PSI TO (F) 49 PSI
 FINAL CLOSED IN PERIOD MIN: 60 (G) 1750 PSI
 FINAL HYDROSTATIC PRESSURE (H) 2186 PSI

WESTERN TESTING CO. INC.
GAS FLOW REPORT

DATE: 6/25/84
 CUSTOMER: ABERCROMBIE DRILLING INC.
 WELL: 1 TEST: 1
 ELEVATION (KB): 0 FORMATION: MISSISSIPPI
 SECTION: 1 TOWNSHIP: 33S
 RANGE: 6W COUNTY: HARPER STATE: KANSAS
 GAUGE SN #13402 RANGE: 4025 CLOCK: 12

TICKET #5585
 LEASE: VOGEL
 GEOLOGIST: STEVE ?

TIME GAUGE (MIN)	TESTER TYPE	ORIFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
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SECOND FLOW

5	MERLA	1/2	13" WTR	22800 CFPD
10			14	23700
15			18	26600
20			22	29400
30			28	33200
40			34	36500
50		3/4	8	40000
60			9	42500

GAS BOTTLE SN #:
 DATE BOTTLE FILLED:
 DATE TO BE INVOICED:



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

N^o 5586

OK

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

Elevation _____ Formation Miss. Eff. Pay _____ Ft.

District Pratt Date 6-25-84 Customer Order No. _____

COMPANY NAME Abercrombie Dely Inc.

ADDRESS 801 Union Center Wichita KS

LEASE AND WELL NO. Vogel #1 COUNTY Harper STATE KS Sec. 1 Twp. 33 Rge. 6W

Mail Invoice To #1 VOGEL No. Copies Requested _____

Co. Name _____ Address _____ No. Copies Requested _____

Mail Charts To _____ Address _____ No. Copies Requested _____

Formation Test No. 2 Interval Tested From 4393 ft. to 4407 ft. Total Depth 4407 ft.

Packer Depth 4388 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 4393 ft. Size 6 3/4 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4396 ft. Recorder Number 13402 Cap. 4025

Bottom Recorder Depth (Outside) 4399 ft. Recorder Number 1559 Cap. 4200

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

Drilling Contractor Brandt #2 Drill Collar Length 240 I. D. 2.2 in.

Mud Type Chem Viscosity 40 Weight Pipe Length _____ I. D. _____ in.

Weight 9.5 Water Loss 10.0 cc. Drill Pipe Length 4133 I. D. 3.8 in.

Chlorides 12,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 OD in.

Jars: Make _____ Serial Number _____ Anchor Length 14 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 IF in.

Blow: Weak slowly Building to Strong I.F. Strong thru F.F.

Recovered 60 ft. of Mud

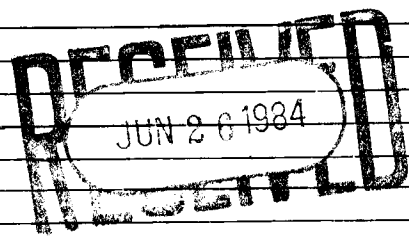
Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Chlorides _____ P.P.M. Sample Jars used _____ Remarks: _____



Time On Location _____ A.M. P.M. Time Pick Up Tool 8:00 A.M. P.M. Time Off Location 3:30 A.M. P.M.

Time Set Packer(s) 9:30 A.M. P.M. Time Started Off Bottom 1:00 A.M. P.M. Maximum Temperature 118°

Initial Hydrostatic Pressure _____ (A) 2238 P.S.I.

Initial Flow Period _____ Minutes 30 (B) 39 P.S.I. to (C) 39 P.S.I.

Initial Closed In Period _____ Minutes 60 (D) 68 P.S.I.

Final Flow Period _____ Minutes 60 (E) 39 P.S.I. to (F) 39 P.S.I.

Final Closed In Period _____ Minutes 60 (G) 68 P.S.I.

Final Hydrostatic Pressure _____ (H) 2238 P.S.I.

COMPANY TERMS

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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 [Signature]
Signature of Customer or his authorized representative

Western Representative [Signature]

Thank you

FIELD INVOICE

Open Hole Test	\$ <u>575</u>
Misrun	\$ _____
Straddle Test	\$ _____
Jars	\$ _____
Selective Zone	\$ _____
Safety Joint	\$ _____
Standby	\$ _____
Evaluation	\$ _____
Extra Packer	\$ _____
Circ. Sub.	\$ _____
Mileage	\$ _____
Fluid Sampler	\$ _____
Extra Charts	\$ _____
Insurance	\$ _____
Telecopier	\$ _____
TOTAL	\$ _____

WESTERN TESTING CO., INC.

Pressure Data

Date 6-25-84 Test Ticket No. 5586
 Recorder No. 13402 Capacity _____ Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2246</u> P.S.I.		M
B First Initial Flow Pressure	<u>35</u> P.S.I.		Mins.
C First Final Flow Pressure	<u>35</u> P.S.I.		Mins.
D Initial Closed-in Pressure	<u>66</u> P.S.I.		Mins.
E Second Initial Flow Pressure	<u>34</u> P.S.I.		Mins.
F Second Final Flow Pressure	<u>34</u> P.S.I.		Mins.
G Final Closed-in Pressure	<u>61</u> P.S.I.		Mins.
H Final Hydrostatic Mud	<u>2200</u> P.S.I.		

PRESSURE BREAKDOWN

First Flow Pressure
 Breakdown: 7 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Initial Shut-In
 Breakdown: 21 Inc.
 of 3 mins. and a
 final inc. of 0 Min.

Second Flow Pressure
 Breakdown: 13 Inc.
 of 5 mins. and a
 final inc. of 0 Min.

Final Shut-In
 Breakdown: 21 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>35</u>	0	<u>35</u>	0	<u>34</u>	0	<u>34</u>
P 2		3	<u>45</u>	5		3	<u>47</u>
P 3		6	<u>51</u>	10		6	<u>54</u>
P 4		9	<u>54</u>	15		9	<u>57</u>
P 5		12	<u>56</u>	20		12	<u>59</u>
P 6		15	<u>58</u>	25		15	<u>60</u>
P 7	<u>35</u>	18	<u>59</u>	30		18	
P 8		21	<u>60</u>	35		21	
P 9		24	<u>61</u>	40		24	
P 10		27	<u>62</u>	45		27	<u>60</u>
P 11		30	<u>62</u>	50		30	<u>61</u>
P 12		33	<u>63</u>	55		33	
P 13		36	<u>63</u>	60	<u>34</u>	36	
P 14		39	<u>64</u>	65		39	
P 15		42	<u>64</u>	70		42	
P 16		45	<u>65</u>	75		45	<u>61</u>
P 17		48	<u>65</u>	80		48	
P 18		51	<u>66</u>	85		51	
P 19		54		90		54	
P 20		57				57	
		60	<u>66</u>			60	<u>61</u>

13402
DST #2

TRK# 5584

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(A)

(A)

(G)

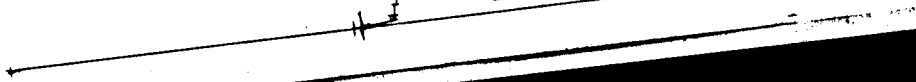
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(E)

(D)

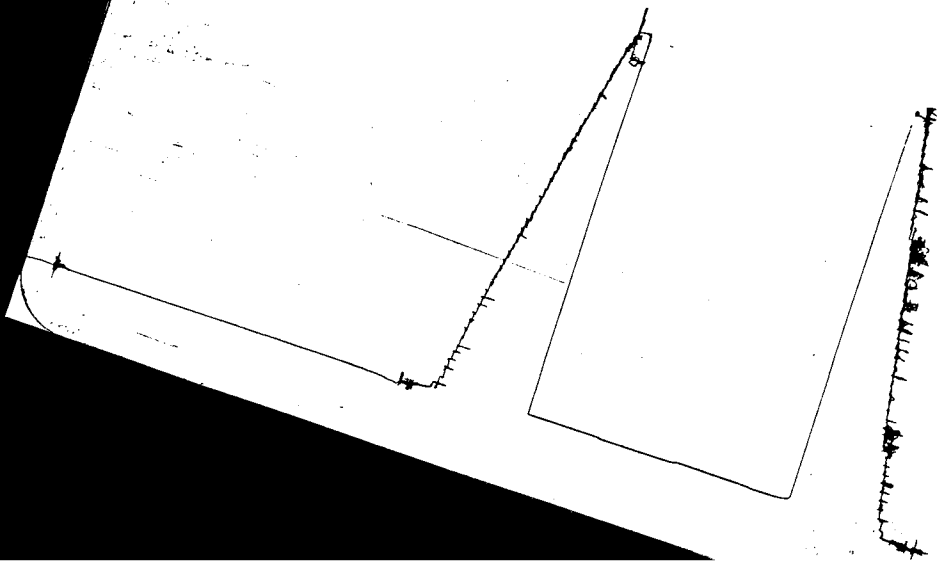
(C)

(B)



11" 5584

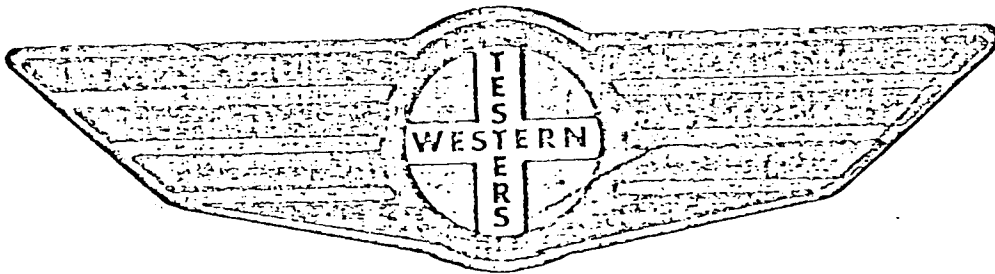
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FORMATION

TEST

REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

Company _____ ABERCROMBIE DRILLING, INC. Lease and Well No. _____ #1 VOGEL _____ Sec. 1 _____ Twp. _____ 33S Rge. _____ 6W Test No. 2 _____ Date 6/25/84

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE: 6/25/84
CUSTOMER: ABERCROMBIE DRILLING INC.
WELL: 1
ELEVATION (KB): 0
SECTION: 1
RANGE: 6W
GAUGE SN #13402

TEST: 2
FORMATION:
TOWNSHIP: 33S
COUNTY: HARPER
RANGE: 4025

TICKET #5586
LEASE: VOGEL
GEOLOGIST: STEVE ?
MISSISSIPPI
STATE: KANSAS
CLOCK: 12

INTERVAL TEST FROM: 4393 FT TO: 4407 FT TOTAL DEPTH: 4407 FT
DEPTH OF SELECTIVE ZONE:
PACKER DEPTH: 4388 FT SIZE: 6 3/4 IN PACKER DEPTH: 4393 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN PACKER DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: BRANDT DRLG
MUD TYPE: CHEMICAL VISCOSITY: 40
WEIGHT: 9.5 WATER LOSS (CC): 10.0
CHLORIDES (P.P.M.): 12000
JARS - MAKE: SERIAL NUMBER:
DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 240 FT I.D.: 2.2 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 4133 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 14 FT SIZE: 5 1/2 OD IN
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: INITIAL FLOW PERIOD WEAK BLOW
SLOWLY BUILDING TO A STRONG BLOW.
FINAL FLOW PERIOD STRONG BLOW.

RECOVERED: 60 FT OF: MUD.
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:
RECOVERED: FT OF:

REMARKS:

TIME SET PACKER(S): 9:30 PM
WELL TEMPERATURE: 118 °F
INITIAL HYDROSTATIC PRESSURE:
INITIAL FLOW PERIOD MIN: 30
INITIAL CLOSED IN PERIOD MIN: 60
FINAL FLOW PERIOD MIN: 60
FINAL CLOSED IN PERIOD MIN: 60
FINAL HYDROSTATIC PRESSURE

TIME STARTED OFF BOTTOM: 1:00 AM
(A) 2246 PSI
(B) 35 PSI TO (C) 35 PSI
(D) 66 PSI
(E) 34 PSI TO (F) 34 PSI
(G) 61 PSI
(H) 2200 PSI

