

CONFIDENTIAL

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

ORIGINAL

API NO. 15- 051-24,846-0000
County Ellis
N2-S2-NW Sec. 17 Twp. 11S Rge. 17 X W

Operator: License # 3613
Name: HALLWOOD PETROLEUM, INC.
Address 4582 S. Ulster Street
Parkway, Ste #1700
City/State/Zip Denver, CO 80237

3630 Feet from S/N (circle one) Line of Section
3960 Feet from E/W (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)

Purchaser: _____
Operator Contact Person: _____
Phone (303) 850-6257
Contractor: Name: ALLEN DRILLING COMPANY
License: 5418
Wellsite Geologist: Jim Musgrove

Lease Name CARMICHAEL Well # C-11
Field Name Bemis-Shutts
Producing Formation _____
Elevation: Ground 1834 KB 1839
Total Depth 3500 PBDT _____

Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD SIOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

Amount of Surface Pipe Set and Cemented at 1091 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set _____ Feet
If Alternate II completion, cement circulated from _____
feet depth to _____ w/ _____ ex cmt.

If Workover/Re-Entry: old well info as follows:
Operator: N/A
Well Name: _____
Comp. Date _____ Old Total Depth _____
 Deepening Re-perf. _____
 Plug Back _____
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Inj?) Docket No. 9-1-93
8/01/93 8/07/93 9/1/93
Spud Date Date Reached TD Completion Date

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)
Chloride content 10,000 ppm Fluid volume _____ bbls
Dewatering method used Evaporation
Location of fluid disposal if hauled offsite: _____
Operator Name _____
Lease Name _____ License No. _____
Quarter Sec. Twp. S Rng. E/W
County _____ Docket No. _____

RELEASED

JUN 1 1994

FROM CONFIDENTIAL

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Bruce Hoffman
Title SR Tech Date 1-11-94
Subscribed and sworn to before me this 11th day of Jan
19 94
Notary Public John M. Christian
Date Commission Expires 9/1/97

RECEIVED
KANSAS CORPORATION COMMISSION
01-13-94
JAN 17 1994
K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other
(Specify)
PI

Operator Name HALLWOOD PETROLEUM, INC. Lease Name carmichael Well # C-11

Sec. 17 Twp. 11 Rge. 17 East West County Ellis

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken (Attach Additional Sheets.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Anhydrite	1087	+ 753
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Howard	2748	- 908
List All E.Logs Run:		Severy	2762	- 922
		Topeka	2774	- 934
		Heebner	3006	-1166
		Toronto	3026	-1186
		Lansing	3048	-1208
		Base K.C.	3285	-1445
		Conglomerate	3299	-1459
		Simpson	3316	-1476 con't.

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
surface	12-1/4"	8-5/8"	25#	1092'	40/60poz	490	3%cc, 1/2#flo/per sk
production	7-7/8"	5-1/2"	14#	3498'	common	225	5%EA2 10%salt 3/4%Halid322 5#gil 1/2#flo.

ADDITIONAL CEMENTING/SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	#Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type		Acid, Fracture, Shot, Cement Squeeze Record	
	Specify Footage of Each Interval Perforated		(Amount and Kind of Material Used)	Depth

TUBING RECORD		Size	Set At	Packer At	Liner Run	<input type="checkbox"/> Yes <input type="checkbox"/> No
Date of First, Resumed Production, SWD or Inj.	Producing Method		<input type="checkbox"/> Flowing	<input checked="" type="checkbox"/> Pumping	<input type="checkbox"/> Gas Lift	<input type="checkbox"/> Other (Explain)
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity	
	142 DBL					

Disposition of Gas: Vented Sold Used on Lease (If vented, submit ACO-18.)

METHOD OF COMPLETION: Open Hole Perf. Dually Comp. Commingled Other (Specify) _____

Production Interval: _____

Hallwood Energy Companies

4582 South Ulster Street Parkway • Stanford Place III • Suite 1700 • Post Office Box 378111
Denver, Colorado 80237 • (303) 850-7373

CONFIDENTIAL

ORIGINAL

CARMICHAEL C-11

API#15.051-24846

NAME	TOP	DATUM
1st Simpson Dol.	3320	-1480
2nd " "	3326	-1486
Simpson Sand	3345	-1505
Arbuckle	3349	-1509
Rotary T.D.	3500	-1660
Log T.D.	3496	-1656

RELEASED

JUN 1 1994

FROM CONFIDENTIAL

RECEIVED
STATE CORPORATION COMMISSION

JUN 1 3 1994

CONSERVATION DIVISION
Wichita, Kansas

ORIGINAL



HALLIBURTON ENERGY SERVICES

P.O. BOX 951046 DALLAS, TX 75395-1046

INVOICE

CONFIDENTIAL

INVOICE NO.	DATE
512196	08/08/1999

WELL LEASE NO./PROJECT		WELL/PROJECT LOCATION		STATE	OWNER
ARMICHAEL C-11		ELLIS		KS	SAME
SERVICE LOCATION		CONTRACTOR	JOB PURPOSE		TICKET DATE
MAYS		ALLEN DRILLING CO	CEMENT PRODUCTION CASING		08/08/1999
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.
355880	AVEN WEAVERLING			COMPANY TRUCK	545

ORIGINAL

HALLWOOD PETROLEUM, INC.
915 PATTON ROAD
GREAT BEND, KS 67530

DIRECT CORRESPONDENCE TO:
OKLAHOMA TOWER
210 WEST PARK AVENUE
SUITE 2000
OKLAHOMA CITY, OK 73102-5601

RELEASED

REFERENCE NO.	DESCRIPTION	QUANTITY	UM	UNIT PRICE	AMOUNT
PRICING AREA - MID CONTINENT					
000-117	MILEAGE	15	MI	2.75	41.25
		1	UNT		
001-016	PUMP CHARGE 08-08-93	3499	FT	1,285.00	1,285.00
		1	UNT		
030-018	CEMENTING PLUG SW, PLASTIC T	5	1/2 IN	65.00	65.00
		1	EA		
12A	GUIDE SHOE - 5 1/2" 8RD THD.	1	EA	121.00	121.00
825.205					
24A	INSERT FLOAT VALVE - 5 1/2" 8	1	EA	110.00	110.00
815.19251					
27	FILL-UP UNIT 5 1/2"-6 5/8"	1	EA	55.00	55.00
815.19311					
40	CENTRALIZER 5-1/2" X 7 7/8"	6	EA	44.00	264.00
807.93022					
60	ROTO WALL CLEANER 2 1/8" SPI	1	EA	22.00	22.00
807.0007					
504-308	CEMENT - STANDARD	225	SK	6.76	1,521.00
508-127	CAL SEAL 60	11	SK	20.70	227.70
507-775	HALAD-322	159	LB	6.90	1,097.10
509-968	SALT	2050	LB	.13	266.50
508-291	GILSONITE BULK	625	LB	.40	250.00
507-210	FLOCELE	31	LB	1.40	43.40
500-207	BULK SERVICE CHARGE	282	CFT	1.25	352.50
500-306	MILEAGE CMTG MAT DEL OR RETU	188.363	TMI	.85	160.11

INVOICE SUBTOTAL

DISCOUNT-(BID)
INVOICE BID AMOUNT

*-KANSAS STATE SALES TAX

***** CONTINUED ON NEXT PAGE *****

RECEIVED
STATE CORPORATION COMMISSION

JAN 13 1994

CONSERVATION DIVISION
Topeka, Kansas

5,881.50

1,058.65
4,822.90

172.30

AFFIX JOB TKT

TERMS: If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of service rendered.

ORIGINAL



HALLIBURTON ENERGY SERVICES

DALLAS, TX 75395-1046

INVOICE

CONFIDENTIAL

INVOICE NO.	DATE
512196	08/08/1993

WELL LEASE NO./PROJECT		WELL/PROJECT LOCATION		STATE	OWNER
RMICHAEL C-11		ELLIS		KS	SAME
SERVICE LOCATION	CONTRACTOR	JOB PURPOSE			TICKET DATE
YS	ALLEN DRILLING CO	CEMENT PRODUCTION CASING			08/08/1993
CT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.
5880	AVEN WEAVERLING			COMPANY TRUCK	54519

ORIGINAL

HALLWOOD PETROLEUM, INC.
 915 PATTON ROAD
 GREAT BEND, KS 67530

DIRECT CORRESPONDENCE TO:
 OKLAHOMA TOWER
 210 WEST PARK AVENUE
 SUITE 2000
 OKLAHOMA CITY, OK 73102-5601

REFERENCE NO.	DESCRIPTION	QUANTITY	UM	UNIT PRICE	AMOUNT
	*-HAYS CITY SALES TAX				35.16

RELEASED
 JUN 1 1994
 FROM CONFIDENTIAL

RECEIVED
 STATE CORPORATION COMMISSION

JAN 13 1994

INVOICE TOTAL - PLEASE PAY THIS AMOUNT ===== CONSERVATION DIVISION \$5,030.38
 Wichita Kansas

AFFIX JOB TKT

TERMS: If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If customer has an approved open account, invoices are payable on the twentieth day after date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 12% per annum. In the event Halliburton employs an attorney for collection of any account, Customer



CHARGE TO: Hollywood Petroleum
 ADDRESS: **CONFIDENTIAL**
 CITY, STATE, ZIP CODE:

No. **512196-3**

FORM 1906 R-12

1. SERVICE LOCATIONS: Hoys K2 025505 WELL/PROJECT NO.: C-11 LEASE: Carmichael COUNTY/PARISH: Ellis STATE: K2 CITY/OFFSHORE LOCATION: DATE: 8-8-90 OWNER: 06000

2. TICKET TYPE: SERVICE SALES NITROGEN JOB? YES NO CONTRACTOR: Allan Dels RIG NAME/NO.: SHIPPED VIA: CT DELIVERED TO: Well Site ORDER NO.: WELL PERMIT NO.: WELL LOCATION: 17-11-11

3. WELL TYPE: WELL CATEGORY: 01 JOB PURPOSE: 035

4. REFERRAL LOCATION: INVOICE INSTRUCTIONS: 188

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY.	U/M	QTY.	U/M	UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
000-117						MILEAGE on PT	15	mi			2.75	41.25
001-016						Pump Chg 8-8-90	3499	ft			1285.00	1285.00
030-018						SW Top Plug	1	ea	5 1/2	in	65.00	65.00
12A	825.205					Cement Guide Shoe	1	ea	5 1/2	in	121.00	121.00
24A	815.19251					Insert Float Valve	1	ea	5 1/2	in	110.00	110.00
27	815.19311					Fill-up Unit	1	ea			55.00	55.00
40	807.93022					S-11 Centralizers	6	ea	5 1/2	in	41.00	246.00
60	807.0007					Retowall cleaner	1	ea			22.00	22.00

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

CUSTOMER OR CUSTOMER'S AGENT SIGNATURE: X

DATE SIGNED: 8-8-90 TIME SIGNED: 10:30 A.M. P.M.

do do not require IPC (Instrument Protection). Not offered

SUB SURFACE SAFETY VALVE WAS: PULLED & RETURN PULLED RUN

TYPE LOCK: DEPTH: BEAN SIZE: SPACERS: TYPE OF EQUALIZING SUB.: CASING PRESSURE: TUBING SIZE: TUBING PRESSURE: WELL DEPTH: TREE CONNECTION: TYPE VALVE:

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN? AGREE UN-DECIDED DIS-AGREE

WE UNDERSTOOD AND MET YOUR NEEDS? AGREE UN-DECIDED DIS-AGREE

OUR SERVICE WAS PERFORMED WITHOUT DELAY? AGREE UN-DECIDED DIS-AGREE

WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY? AGREE UN-DECIDED DIS-AGREE

ARE YOU SATISFIED WITH OUR SERVICE? YES NO

CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL: FROM CONTINUATION PAGE(S): 39/8 31

SUB-TOTAL APPLICABLE TAXES WILL BE ADDED ON INVOICE

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket

CUSTOMER OR CUSTOMER'S AGENT (PLEASE PRINT): X CUSTOMER OR CUSTOMER'S AGENT (SIGNATURE): [Signature] HALLIBURTON OPERATOR/ENGINEER: [Signature] EMP #: 410220 HALLIBURTON APPROVAL: [Signature]

FORMATION NAME _____ TYPE _____
 FORMATION THICKNESS _____ FROM _____ TO _____
 INITIAL PROD. OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD _____
 PRESENT PROD. OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD _____
 COMPLETION DATE _____ MUD TYPE _____ MUD WT _____
 PACKER TYPE _____ SET AT _____
 BOTTOM HOLE TEMP. _____ PRESSURE _____
 MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	<input checked="" type="checkbox"/>	12 7/8	5 1/2	0	3499	
LINER	<input type="checkbox"/>					
TUBING	<input type="checkbox"/>					
OPEN HOLE	<input type="checkbox"/>		7 3/8	3499	3500	SHOTS/FT.
PERFORATIONS	<input type="checkbox"/>					
PERFORATIONS	<input type="checkbox"/>					
PERFORATIONS	<input type="checkbox"/>					

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG		
HEAD		
PACKER		
OTHER		

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>8-8-93</u>	DATE <u>8-8-93</u>	DATE <u>8-8-93</u>	DATE _____
TIME <u>08:00</u>	TIME <u>10:30</u>	TIME <u>10:30</u>	TIME _____

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. API _____
 DISPL. FLUID _____ DENSITY _____ LB/GAL. API _____
 PROP. TYPE _____ SIZE _____ LB. _____
 ACID TYPE _____ GAL _____ % _____
 SURFACTANT TYPE _____ GAL _____ IN _____
 NE AGENT TYPE _____ GAL _____ IN _____
 FLUID LOSS ADD. TYPE _____ GAL-LB. _____ IN _____
 GELLING AGENT TYPE _____ GAL-LB. _____ IN _____
 FRIC. RED. AGENT TYPE _____ GAL-LB. _____ IN _____
 BREAKER TYPE _____ GAL-LB. _____ IN _____
 BLOCKING AGENT TYPE _____ GAL-LB. _____
 PERFFAC BALLS TYPE _____ QTY. _____
 OTHER _____
 OTHER _____

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>J Beck</u>	<u>43022</u>	<u>Perm</u>
<u>D A L</u>	<u>E 1109</u>	<u>Hays Ks</u>
<u>Arkaali</u>	<u>RT</u>	<u>"</u>
	<u>11601</u>	<u>"</u>

CONFIDENTIAL

RELEASED

JUN 1 1994

FROM CONFIDENTIAL ORIGINAL

DEPARTMENT Perm
 DESCRIPTION OF JOB Perm Red

JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.

CUSTOMER REPRESENTATIVE X Ann Weasley
 HALLIBURTON OPERATOR J. E. Beiden COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	<u>110</u>	<u>Standard</u>		<u>B</u>	<u>5" Col Seal, 11" Seal, 2 1/2" H 207</u>	<u>1.24</u>	<u>15.4</u>
	<u>125</u>	<u>Standard</u>		<u>B</u>	<u>5" Col Seal, 11" Seal, 2 1/2" H 207, 5/8" Seal, 4" Seal</u>	<u>1.49</u>	<u>15.4</u>

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____
 BREAKDOWN _____ MAXIMUM _____
 AVERAGE _____ FRACTURE GRADIENT _____
 SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN _____
 HYDRAULIC HORSEPOWER _____
 ORDERED _____ AVAILABLE _____ USED _____
 AVERAGE RATES IN BPM _____
 TREATING _____ DISPL _____ OVERALL _____
 CEMENT LEFT IN PIPE _____

SUMMARY

PRESLUSH: BBL-GAL _____ TYPE _____
 LOAD & BKDN: BBL-GAL _____
 TREATMENT: BBL-GAL _____
 CEMENT SLURRY: BBL-GAL 239
 TOTAL VOLUME: BBL-GAL _____

VOLUMES

PAD: BBL-GAL _____
 STATE: BBL-GAL _____
 DISPL: BBL-GAL 182.9

JAN 13 1994

RAMARKS

See Job Log
Thank you
Wichita Kan State

LEASE Comanche WELL NO. 17 JOB TYPE Perm

JOB LOG FORM 2013R-3

CUSTOMER: *W. W. ...* WELL NO.: *...* LEASE: *...* JOB TYPE: *...* TICKET NO.: *512196*
... *...* *...* *...*

TIME	RATE (BPM)	CONC.	UNIT	MEMBERSHIP	DESCRIPTION OF OPERATION AND MATERIALS
08:00					Called Out
10:30					On Loc
10:15					Spot, Set up Equip - Discuss Job
12:05					Start 5 1/2" Cog in Hole
12:10					Cog in Hole
12:10					Hook up Rotating Head, PC, Man. Field
13:10					Break Circ 1/2 Rig Pump
13:10					Hook up PT.
13:18	50			400	Start Pump Salt Flush - 50 BRB
13:31				500	Salt Flush in
					Plug Rat Hole 1/2" Lead Cmt
				650	Start Pump Cmt
					100sk Com 1/5" Cals. 1 1/2" S. Ho 3 1/2" H. 300
					125sk Com 1/5" Cals. 1 1/2" S. Ho 3 1/2" H. 300
					5" Cals. 1 1/2" S. Ho
13:40	50			350	Finish Mud Cmt
					Release Plug wire line
					Wash Out Pump lines
13:42				250	Start Displ
13:57				900	Finished Displ
13:57	85			1400	Plug Landed - Dog Plug 1/2" Wire Line
14:06				0	Release Pias - Float Held
					Wash up & Rack up
					Job Complete

CONFIDENTIAL

RELEASED

JUN 1 1996

FROM CONFIDENTIAL

Thank you
John ...

RECEIVED
STATE CORPORATION COMMISSION

JAN 13 1997



HALLIBURTON
ENERGY SERVICES
CONFIDENTIAL

P.O. BOX 951048
DALLAS, TX 75395-1046

INVOICE

INVOICE NO.	DATE
512193	08/02/1993

WELL LEASE NO./PROJECT		WELL/PROJECT LOCATION		STATE	OWNER
CARMICHAEL C-11		ELLIS ORIGINAL		KS	SAME
SERVICE LOCATION		CONTRACTOR		JOB PURPOSE	
HAYS		ALLEN DRLG		CEMENT SURFACE CASING	
TICKET DATE					
08/02/1993					
ACCT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.
355080	GEORGE HUTTON			COMPANY TRUCK	5435

HALLWOOD PETROLEUM, INC.
915 PATTON ROAD
GREAT BEND, KS 67530

AFE #3122009
800.040

DIRECT CORRESPONDENCE TO:
OKLAHOMA TOWER
210 WEST PARK AVENUE
SUITE 2000
OKLAHOMA CITY, OK 73102-5601

RELEASED

REFERENCE NO.	DESCRIPTION	QUANTITY	UM	UNIT PRICE	AMOUNT
PRICING AREA - MID CONTINENT JUN 1 1994					
000-117	MILEAGE	15	MI	2.75	41.25
FROM CONFIDENTIAL					
001-016	CEMENTING CASING	1091	FT	945.00	945.00
030-503	CMTG PLUG LA-11,CP-1,CP-3,TO	8 5/8	IN	95.00	95.00
40	CENTRALIZER 8-5/8" X 12.25"	3	EA	72.00	216.00
807.93059					
504-316	CEMENT - HALL. LIGHT STANDAR	360	SK	6.30	2,268.00
504-136	CEMENT - 40/60 POZMIX STANDA	130	SK	5.55	721.50
509-406	ANHYDROUS CALCIUM CHLORIDE	12	SK	28.25	339.00
507-210	FLOCELE	90	LB	1.40	126.00
500-207	BULK SERVICE CHARGE	520	CFT	1.25	650.00
500-306	MILEAGE CMTG MAT DEL OR RETU	332.385	TMI	.85	282.53

INVOICE SUBTOTAL	5,684.28
DISCOUNT-(BID)	1,136.85
INVOICE BID AMOUNT	4,547.43
*-KANSAS STATE SALES TAX	180.45
*-HAYS CITY SALES TAX	36.82

INVOICE TOTAL - PLEASE PAY THIS AMOUNT ***** \$4,764.70

RECEIVED
STATE CORPORATION COMMISSION
JAN 13 1994
CONSERVATION DIVISION
Topeka, Kansas

AFFIX JOB TRK

TERMS: If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If customer has an approved open account, invoices are payable on the twentieth day after date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never to exceed 18% per annum. In the event Halliburton employs an attorney for collection of any account, Customer



COPY

TICKET

No.

512193-0

CHARGE TO:
 Hallwood Petroleum Inc
 ADDRESS
 915 Patton Rd CONFIDENTIAL
 CITY, STATE, ZIP CODE
 Grant Blvd, KS

FORM 1906 R-12

SERVICE LOCATIONS
 1. Hwy - Ks 025525
 2. C-11 Carmichael
 3. Allen Dale
 4. 01 01 010
 WELL/PROJECT NO. LEASE COUNTY/PARISH STATE CITY/OFFSHORE LOCATION DATE
 TICKET TYPE SERVICE JOB? YES NO CONTRACTOR RIG NAME/NO. SHIPPED VIA DELIVERED TO ORDER NO.
 WELL TYPE WELL CATEGORY JOB PURPOSE WELL PERMIT NO. WELL LOCATION
 REFERRAL LOCATION INVOICE INSTRUCTIONS 20 05

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOG	ACCT	DF								
000-117		1				MILEAGE on PT. 3477	15				2.75	41.25
001-014		1				Pump Chg 8-2-93	1091				945 pc	945 pc
230-503		1				CP-1 Top Plug	1				95.00	95.00
410	807.93059	1				S-4 Centralizer	3				72.00	216.00

ORIGINAL

RELEASED

JUN 1 1994

FROM CONFIDENTIAL

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

CUSTOMER OR CUSTOMER'S AGENT SIGNATURE
 X George Nutton
 DATE SIGNED 8-2-93 TIME SIGNED 12:30

SUB SURFACE SAFETY VALVE WAS:
 PULLED & RETURN PULLED RUN

TUBE LOCK DEPTH
 BEAN SIZE SPACERS
 TYPE OF EQUALIZING SUB. CASING PRESSURE
 TUBING SIZE TUBING PRESSURE WELL DEPTH
 TREE CONNECTION TYPE VALVE

SURVEY
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?
 WE UNDERSTOOD AND MET YOUR NEEDS?
 OUR SERVICE WAS PERFORMED WITHOUT DELAY?
 WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?
 ARE YOU SATISFIED WITH OUR SERVICE?
 YES NO
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 1297.25
 FROM CONTINUATION PAGE(S) 4387.03
 SUB-TOTAL APPLICABLE TAXES WILL BE ADDED ON INVOICE 5684.28

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket

CUSTOMER OR CUSTOMER'S AGENT (PLEASE PRINT) CUSTOMER OR CUSTOMER'S AGENT (SIGNATURE) HALLIBURTON OPERATOR/ENGINEER EMP # HALLIBURTON APPROVAL
 George Nutton X George Nutton J. P. Becker 45222 C. Palenberg



HALLIBURTON
ENERGY SERVICES

CONFIDENTIAL TICKET CONTINUATION

COPY

TICKET No. 5724
DATE 8-2-93
PAGE 5
COMMISSION
DIVISION

CUSTOMER Hallwood Petroleum Inc. WELL Carmicha#1-C-11

FORM 1911 R-8

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT	
		LOC	ACCT	DF									
504-316	ORIGINAL	1		B		Halliburton Light Cement	360				6.30	2,268	
504-136		1		B		40/60 Pozmix Standard	130				5.55	721.5	
509-406		890.50812	1		B		Calcium Chloride Blended	12				28.25	339
507-210		890.50071	1		B		Flocle Blended W/ HLC	90	lb			1.40	126
500-207		1		B		SERVICE CHARGE					1.25	650	
500-306		1		B		MILEAGE CHARGE						282	
						TOTAL WEIGHT						44,318	
						LOADED MILES						15	
						CUBIC FEET						520	
						TON MILES						332.385	

RELEASED
JUN 1 1994
FROM CONFIDENTIAL

CONTINUATION TOTAL 4,387

WELL DATA

FIELD NO. _____ SEC. *12* TWP. *11^s* RNG. *17^w* COUNTY *Ellis* STATE *Ko*

FORMATION NAME _____ TYPE _____

FORMATION THICKNESS _____ FROM _____ TO _____

INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____

PACKER TYPE _____ SET AT _____

BOTTOM HOLE TEMP. _____ PRESSURE _____

MISC. DATA _____ TOTAL DEPTH _____

JOB DATA

CALLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <i>8-2-93</i>	DATE <i>8-2-93</i>	DATE <i>8-2-93</i>	DATE _____
TIME <i>09:30</i>	TIME <i>12:30</i>	TIME <i>12:30</i>	TIME _____

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS <i>S-4</i>	<i>3</i>	<i>Hamm</i>
BOTTOM PLUG		
TOP PLUG <i>CP-1</i>	<i>1</i>	
HEAD		
PACKER		
OTHER		

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. ⁹API

DISPL. FLUID _____ DENSITY _____ LB/GAL. ⁹API

PROP. TYPE _____ SIZE _____ LB.

PROP. TYPE _____ SIZE _____ LB.

ACID TYPE _____ GAL. _____ %

ACID TYPE _____ GAL. _____ %

ACID TYPE _____ GAL. _____ %

SURFACTANT TYPE _____ GAL. _____ IN

NE AGENT TYPE _____ GAL. _____ IN

FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN

GELLING AGENT TYPE _____ GAL.-LB. _____ IN

FRIC. RED. AGENT TYPE _____ GAL.-LB. _____ IN

BREAKER TYPE _____ GAL.-LB. _____ IN

BLOCKING AGENT TYPE _____ GAL.-LB. _____

PERFPAC BALLS TYPE _____ QTY. _____

OTHER _____

OTHER _____

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<i>J Beck</i>	<i>Comb</i>	
<i>A Gehl</i>	<i>3470</i>	<i>Haystack</i>
<i>R Kuhn</i>	<i>81 3360</i>	
<i>M K...</i>	<i>51250</i>	

RELEASED **ORIGINAL**

JUN 1 1994

FROM CONFIDENTIAL

DEPARTMENT *Cont*

DESCRIPTION OF JOB *Emergency Service*

JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.

CUSTOMER REPRESENTATIVE *X Morgan & Sutton*

HALLIBURTON OPERATOR *Jh Beck* COPIES REQUESTED _____

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	<i>360</i>	<i>HLC</i>		<i>B</i>	<i>4% Flocc + 3% CC</i>	<i>1.24</i>	<i>12.7</i>
	<i>130</i>	<i>40-10 Pac</i>		<i>B</i>	<i>Notate 2% CC</i>	<i>1.09</i>	<i>15.2</i>

PRESSURES IN PSI

SUMMARY

VOLUMES

CIRCULATING _____ DISPLACEMENT _____ PRESLSH: BBL.-GAL. _____ TYPE _____

BREAKDOWN _____ MAXIMUM _____ LOAD & BKDN: BBL.-GAL. _____ PAD: BBL.-GAL. _____

AVERAGE _____ FRACTURE GRADIENT _____ TREATMENT: BBL.-GAL. _____ DISPL: BBL.-GAL. *60*

SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN _____ CEMENT SLURRY: BBL.-GAL. *1187 25 25*

HYDRAULIC HORSEPOWER _____ TOTAL VOLUME: BBL.-GAL. _____

ORDERED _____ AVAILABLE _____ USED _____

AVERAGE RATES IN BPM _____

TREATING _____ DISPL. _____ OVERALL _____

CEMENT LEFT IN PIPE _____

FEET _____ REASON _____

RAMARKS

See job log

Jh Beck

RECEIVED

NOV 15 1994

CUSTOMER *Halliburton Oil Tools* LEASE *Carroll* WELL NO. *C-11* JOB TYPE *Service* DATE *NOV 15 1994*

JOB LOG FORM 2013

CUSTOMER: Halliburton Pot T. WELDING: [] JOB TYPE: Surface
 WELDER: [] TICKET NO: 57293

TIME	DESCRIPTION OF OPERATION
09:30	Called out
12:30	On location - Rig Crew
	Spot Set up Equip - Discuss Job
13:00	Start 8 5/8 x 25' Csg in Hole
14:25	Csg in Hole
	Hook up PC & Manifold
14:30	Break Circ 7 Rtg Pump
	Heat up & PT
14:50	100 Start & M & Cmt
	360sk HLC 7/8" Flange & 3" CC
	130sk 40-LOB & No Cal & 3" CC
15:28	600 Finish & M & Cmt
	Release Plug & Wire Line
15:22	600 Start Displ
15:30	950 Finish Displ
15:33	500 Shut in - Tag Plug @ 1070'
	Cmt, Did Circ

RELEASED

Job Complete

JUN 1 1994

FROM CONFIDENTIAL

*Thank You
John Allen Richman*

ORIGINAL

RECEIVED

JUN 15 1994

ORIGINAL



HALLIBURTON ENERGY SERVICES

P.O. BOX 951046 DALLAS, TX 75395-1046 F

INVOICE

CONFIDENTIAL

INVOICE NO.	DATE
512196	08/08/1993

WELL LEASE NO./PROJECT		WELL/PROJECT LOCATION		STATE	OWNER
MICHAEL C-11		ELLIS		KS	SAME
SERVICE LOCATION	CONTRACTOR	JOB PURPOSE			TICKET DATE
IS	ALLEN DRILLING CO	CEMENT PRODUCTION CASING			08/08/1993
CT. NO.	CUSTOMER AGENT	VENDOR NO.	CUSTOMER P.O. NUMBER	SHIPPED VIA	FILE NO.
5880	AVEN WEAVERLING			COMPANY TRUCK	54519

ORIGINAL

HALLWOOD PETROLEUM, INC.
915 PATTON ROAD
GREAT BEND, KS 67530

RELEASED

JUN 1 1994

DIRECT CORRESPONDENCE TO:
OKLAHOMA TOWER
210 WEST PARK AVENUE
SUITE 2000
OKLAHOMA CITY, OK 73102-5601

REFERENCE NO.	DESCRIPTION	QUANTITY	UM	UNIT PRICE	AMOUNT
FROM CONFIDENTIAL					
000-117	MILEAGE	15	MI	2.75	41.25
		1	UNT		
001-016	PUMP CHARGE 08-08-93	3499	FT	1,285.00	1,285.00
		1	UNT		
030-018	CEMENTING PLUG 5W, PLASTIC T	5	1/2 IN	65.00	65.00
		1	EA		
12A	GUIDE SHOE - 5 1/2" 8RD THD.	1	EA	121.00	121.00
825.205					
24A	INSERT FLOAT VALVE - 5 1/2"	1	EA	110.00	110.00
815.19251					
27	FILL-UP UNIT 5 1/2"-6 5/8"	1	EA	55.00	55.00
815.19311					
40	CENTRALIZER 5-1/2" X 7 7/8"	6	EA	44.00	264.00
807.93022					
60	ROTO WALL CLEANER 2 1/8" SPI	1	EA	22.00	22.00
807.0007					
504-308	CEMENT - STANDARD	225	SK	6.76	1,521.00
508-127	CAL SEAL 60	11	SK	20.70	227.70
507-775	HALAD-322	159	LB	6.90	1,097.10
509-968	SALT	2050	LB	.13	266.50
508-291	GILSONITE BULK	625	LB	.40	250.00
507-210	FLOCELE	31	LB	1.40	43.40
500-207	BULK SERVICE CHARGE	282	CFT	1.25	352.50
500-306	MILEAGE CMTG MAT DEL OR RETU	188.363	TMI	.85	160.11

INVOICE SUBTOTAL

5,881.56

DISCOUNT-(BID)
INVOICE BID AMOUNT

1,058.65

--KANSAS STATE SALES TAX

RECEIVED
STATE CORPORATION COMMISSION
172.31

JAN 13 1994

***** CONTINUED ON NEXT PAGE *****

CONSERVATION DIVISION
Wichita, Kansas

AFFIX JOB TKT

TERMS: If Customer does not have an approved open account with Halliburton, all sums due are payable in cash at the time of performance of services or delivery of equipment, products or materials. If customer has an approved open account, invoices are payable on the twentieth day after date of invoice. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable, but never on any amount in excess of the amount on account for collection of any account. Customer

PAGE:

TRILOBITE TESTING, L.L.C.

CONFIDENTIAL

P.O. Box 362 • Hays, Kansas 67601

Drill-Stem Test Data

API#15-051-24846

Well Name J. CARMICHAEL C-11 Test No. 1 Date 8/6/93
Company HALLWOOD PETROLEUM INC. Zone SIMPSON
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 1839
Co. Rep./Geo. JIM MUSGROVE Cont. ALLEN RIG #3 Est. Ft. of Pay 2
Location: Sec. 17 Twp. - 11S Rge. 17W Co. ELLIS State KS

Interval Tested 3283-3351 Drill Pipe Size 4.5" XH
Anchor Length 68 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3278 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3283 Mud Wt. 9.3 lb/Gal.
Total Depth 3351 Viscosity 45 Filtrate 8

Tool Open @ 11:22 AM ^{Initial Blow} WEAK-BUILDING TO BOTTOM OF BUCKET IN 12 MINUTES
Final Blow WEAK- BUILDING TO BOTTOM OF BUCKET IN 20 MINUTES ORIGINAL
RELEASED ORIGINAL

Recovery - Total Feet 558 JUN 1 1994 Flush Tool? NO

Rec. 310 Feet of GAS IN PIPE **FROM CONFIDENTIAL**
Rec. 434 Feet of CLEAN GASSY OIL-20% GAS/ 80% OIL
Rec. 124 Feet of MUD CUT GASSY OIL- 20% GAS/ 60% OIL/ 20% MUD
Rec. _____ Feet of _____
Rec. _____ Feet of _____

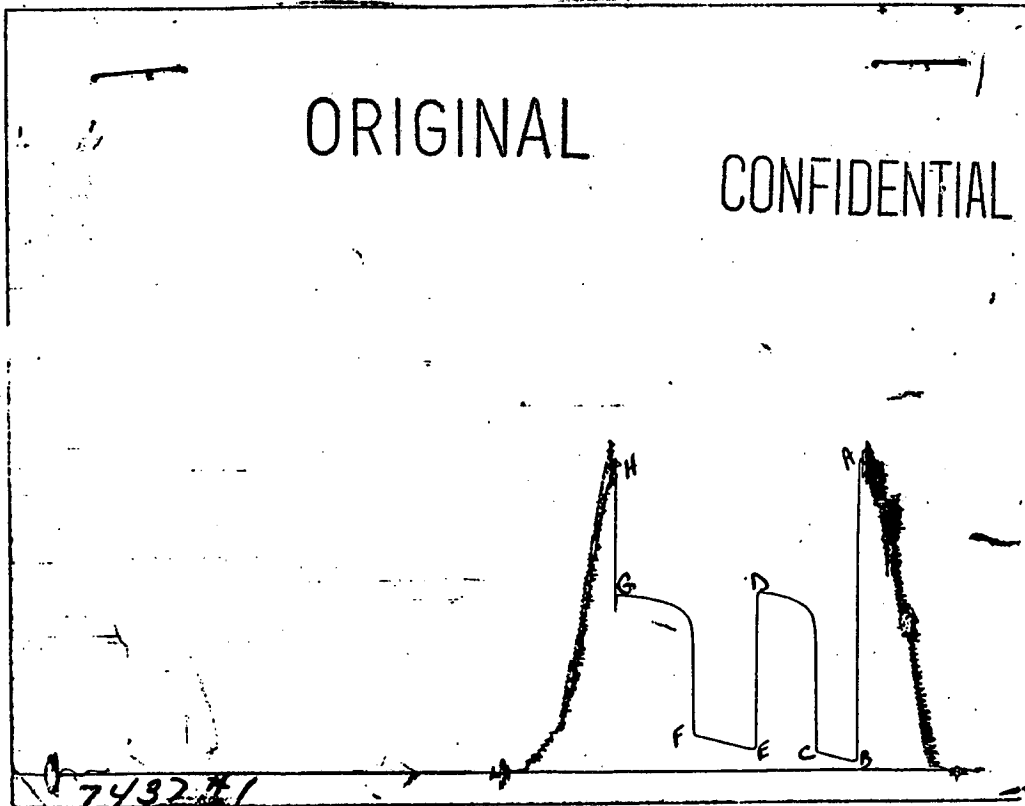
BHT 111 °F Gravity _____ °API @ _____ °F Corrected Gravity 34 °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud 1815.9 PSI AK1 Recorder No. 13754 Range 4000
(B) First Initial Flow Pressure 48.5 PSI @ (depth) 3287 w / Clock No. 27501
(C) First Final Flow Pressure 102.4 PSI AK1 Recorder No. 7437 Range 4200
(D) Initial Shut-in Pressure 978.0 PSI @ (depth) 3347 w / Clock No. 27567
(E) Second Initial Flow Pressure 117.8 PSI AK1 Recorder No. _____ Range _____
(F) Second Final Flow Pressure 203.7 PSI @ (depth) _____ w / Clock No. _____
(G) Final Shut-in Pressure 963.3 PSI Initial Opening 30 Final Flow 45
(H) Final Hydrostatic Mud 1766.3 PSI Initial Shut-in 45 Final Shut-in 60

Our Representative DAN BANGLE

RECEIVED
STATE CORPORATION COMMISSION
JAN 13 1994
CONSERVATION DIVISION

CHART PAGE



This is an actual photograph of recorder chart

RELEASED

JUN 1 1994

FIELD
READING

OFFICE
READING

FROM CONFIDENTIAL

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1806	1815.9
(B) FIRST INITIAL FLOW PRESSURE	49	48.5
(C) FIRST FINAL FLOW PRESSURE	98	102.4
(D) INITIAL CLOSED-IN PRESSURE	946	978
(E) SECOND INITIAL FLOW PRESSURE	127	117.8
(F) SECOND FINAL FLOW PRESSURE	196	203.7
(G) FINAL CLOSED-IN PRESSURE	936	963.3
(H) FINAL HYDROSTATIC MUD	1756	1766.3

CONFIDENTIAL

COMPUTER OIL EVALUATION BY TRILOBITE TESTING, L.L.C.

HALLWOOD PETROLEUM INC.

J. CARMICHAEL C-11

DST 1

ORIGINAL

17

11S

17W

ELLIS KS

ELEVATION:	1839	KB	EST. PAY	2	FT
DATUM:	-1509		ZONE TESTED:	SIMPSON	
TEST INTERVAL:	3283-3351		TIME INTERVALS:	30-45-45-60	
RECORDER DEPTH:	3347		VISCOSITY:	9.59	CP
BOTTOM HOLE TEMP:	111		HOLE SIZE:	7.875	IN

CUBIC FEET OF GAS IN PIPE:	25				
TOTAL FEET OF RECOVERY:	558.00	CORRECTED PIPE FILLUP:	550.541		
TOTAL BARRELS OF RECOVERY:	7.93	CORR. BARRELS OF RECOVERY:	7.821	BBL	
BARRELS IN DRILL PIPE:	7.93	API GRAVITY:	34		
BARRELS IN WEIGHT PIPE:	0.00	FLUID GRADIENT:	0.370		
BARRELS IN DRILL COLLARS:	0.00				
GAS OIL RATIO:	3.12	CU.FT/BBL			
BUBBLE POINT PRESSURE:	34				
UNCORRECTED INITIAL PRODUCTION:			152.35	BBL	
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:			150.16	BBL/DAY	
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:			104.385		

INITIAL SLOPE	242.91	PSI/CYCL	FINAL SLOPE	71.83	PSI/CYCLE
INITIAL P*	1031.89	PSI	FINAL P*	988.60	PSI

TRANSMISSIBILITY		339.93	(MD.-FT./CP.)
PERMEABILITY	RELEASED	1630.59	(MD.)
INDICATED FLOW CAPACITY		3261.18	(MD.FT)
PRODUCTIVITY INDEX	JUN 1 1994	0.38	(BARREL/DAY/PSI)
DAMAGE RATIO		2.00	
RADIUS OF INVESTIGATION	FROM CONFIDENTIAL	349.71	(FT.)
POTENTIOMETRIC SURFACE		784.56	(FT.)
DRAWDOWN FACTOR		4.195	(%)
THEORETICAL POTENTIAL FROM FINAL FLOW PRESSURE		300.28	
THEORETICAL POTENTIAL FROM PSEUDO STEADY FLOW STATE		208.74	

CONFIDENTIAL

CALCULATED RECOVERY ANALYSIS DRILL PIPE
TICKET 6160
DST # 1

ORIGINAL

SAMPLE #	TOTAL FEET	GAS		OIL		WATER		MUD	
		%	FEET	%	FEET	%	FEET	%	FEET
1	434	20	86.8	80	347.2	0	0	0	0
2	124	20	24.8	60	74.4	0	0	20	24.8
3			0		0		0		0
4			0		0		0		0
5			0		0		0		0
TOTAL	558	20	111.6	75.6	421.6	0	0	4.44	24.8

HRS BBL/DAY

BBL OIL= 5.995152 * 1.25 115.11

BBL WATER= 0 * 0

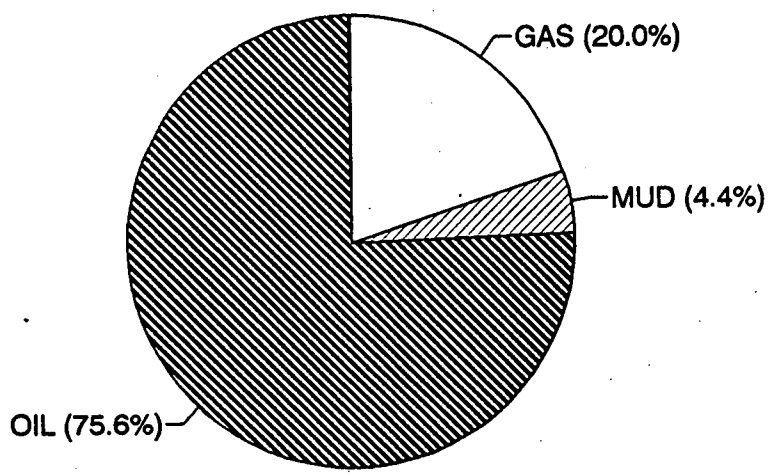
BBL MUD= 0.352656

BBL GAS 1.586952

RELEASED

JUN 1 1994

FROM CONFIDENTIAL



INITIAL FLOW

CONFIDENTIAL

RECORDER 7437

DST # 1

TIME(MIN) PRESSURE <> PRESSURE

ORIGINAL

TIME(MIN)	PRESSURE	<> PRESSURE
0	48.5	48.5
3	50.7	2.2
6	55.1	4.4
9	61.7	6.6
12	66.1	4.4
15	71.6	5.5
18	77.1	5.5
21	83.7	6.6
24	89.2	5.5
27	95.8	6.6
30	102.4	6.6

RELEASED

JUN 1 1994

FINAL FLOW

FROM CONFIDENTIAL

RECORDER 7437

DST # 1

TIME(MIN) PRESSURE <> PRESSURE

TIME(MIN)	PRESSURE	<> PRESSURE
0	117.8	117.8
3	120.0	2.2
6	124.4	4.4
9	128.8	4.4
12	136.5	7.7
15	142.0	5.5
18	148.6	6.6
21	154.1	5.5
24	159.6	5.5
27	165.2	5.6
30	170.7	5.5
33	176.2	5.5
36	181.7	5.5
39	187.2	5.5
42	192.7	5.5
45	198.2	5.5
48	203.7	5.5

RECEIVED
STATE CORPORATION COMMISSION

JAN 13 1994

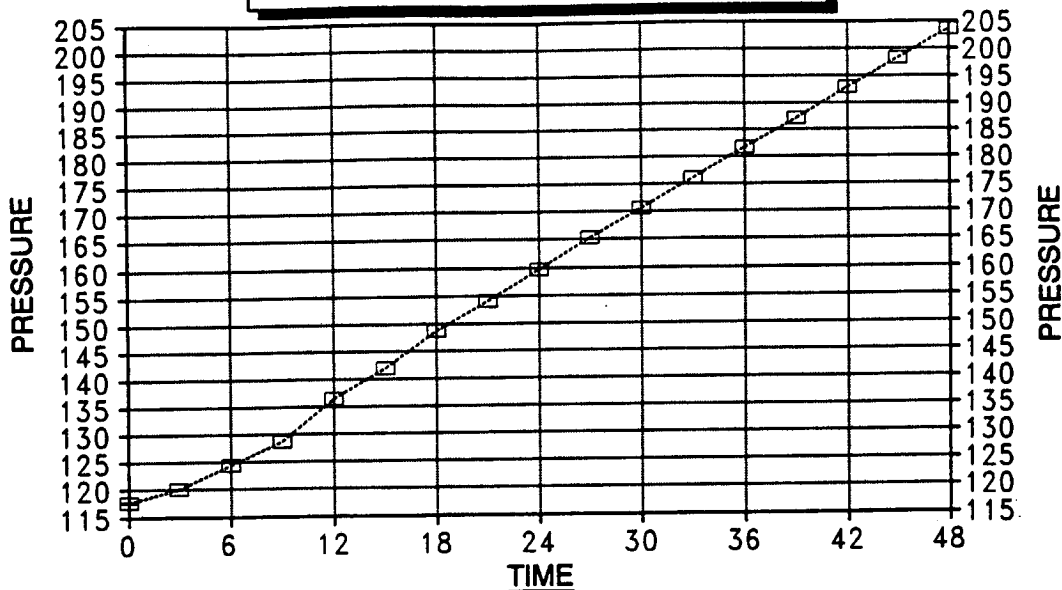
CONSERVATION DIVISION
Wichita Kansas

ORIGINAL

DELTA T DELTA P

FINAL FLOW / DST #1

CONFIDENTIAL



---□--- J CARMICHAEL C-11

INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:

104.385

RELEASED

JUN 1 1994

FROM CONFIDENTIAL

J CARMICHAEL C-11 DST #1
INITIAL SHUTIN

30 INITIAL FLOW TIME

SLOPE 242.9 PSI/CYCLE
P* 1031.89 PSI

ORIGINAL

Log <>

TIME(MIN)	Pws (psi)	Horn T	PRESSURE	Horn T
3	862.7	1.041	862.7	11
6	888.9	0.778	26.2	6
9	905.7	0.637	16.8	4
12	917.2	0.544	11.5	4
15	926.7	0.477	9.5	3
18	936.1	0.426	9.4	3
21	944.5	0.385	8.4	2
24	949.7	0.352	5.2	2
27	954.9	0.325	5.2	2
30	961.2	0.301	6.3	2
33	964.3	0.281	3.1	2
36	967.5	0.263	3.2	2
X 39	971.7	0.248	4.2	2
42	974.8	0.234	3.1	2
X 45	978.0	0.222	3.2	2

CONFIDENTIAL

RELEASED

JUN 1 1994

FROM CONFIDENTIAL

J CARMICHAEL C-11 DST #1
FINAL SHUTIN

75 TOTAL FLOW TIME

SLOPE 71.8 PSI/CYCLE
P* 988.6 PSI

ORIGINAL

Log <>
Pws (psi) Horn T PRESSURE Horn T

CONFIDENTIAL

	3	850.1	1.415	850.1	26
	6	872.1	1.130	22.0	14
	9	891.0	0.970	18.9	9
	12	903.6	0.860	12.6	7
	15	914.1	0.778	10.5	6
	18	920.4	0.713	6.3	5
	21	926.7	0.660	6.3	5
	24	932.9	0.615	6.2	4
	27	938.2	0.577	5.3	4
	30	942.4	0.544	4.2	4
	33	947.6	0.515	5.2	3
	36	949.7	0.489	2.1	3
	39	954.9	0.466	5.2	3
	42	957.0	0.445	2.1	3
X	45	958.0	0.426	1.0	3
	48	959.1	0.409	1.1	3
	51	960.1	0.393	1.0	2
	54	961.2	0.378	1.1	2
	57	962.2	0.365	1.0	2
X	60	963.3	0.352	1.1	2

RELEASED

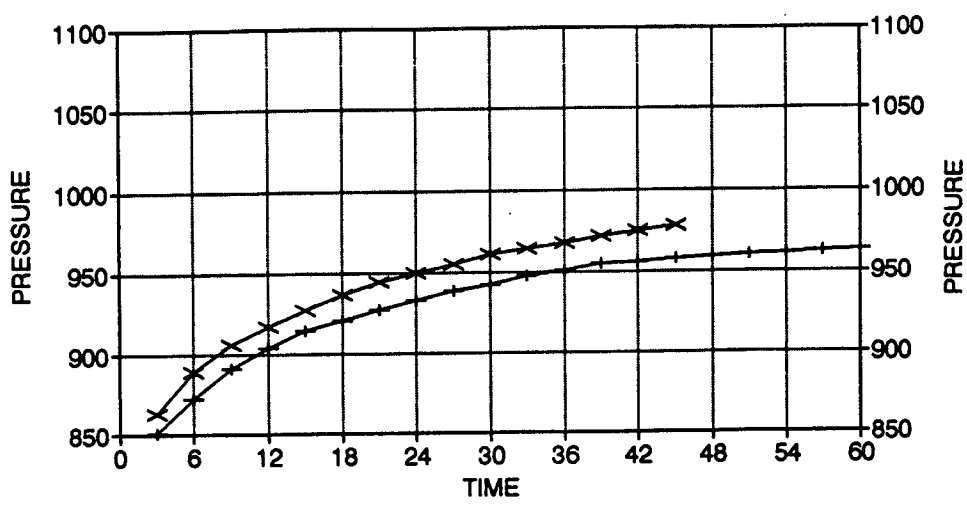
JUN 1 1994

FROM CONFIDENTIAL

ORIGINAL

J CARMICHAEL C-11 / DST #1 DELTA T DELTA P

CONFIDENTIAL

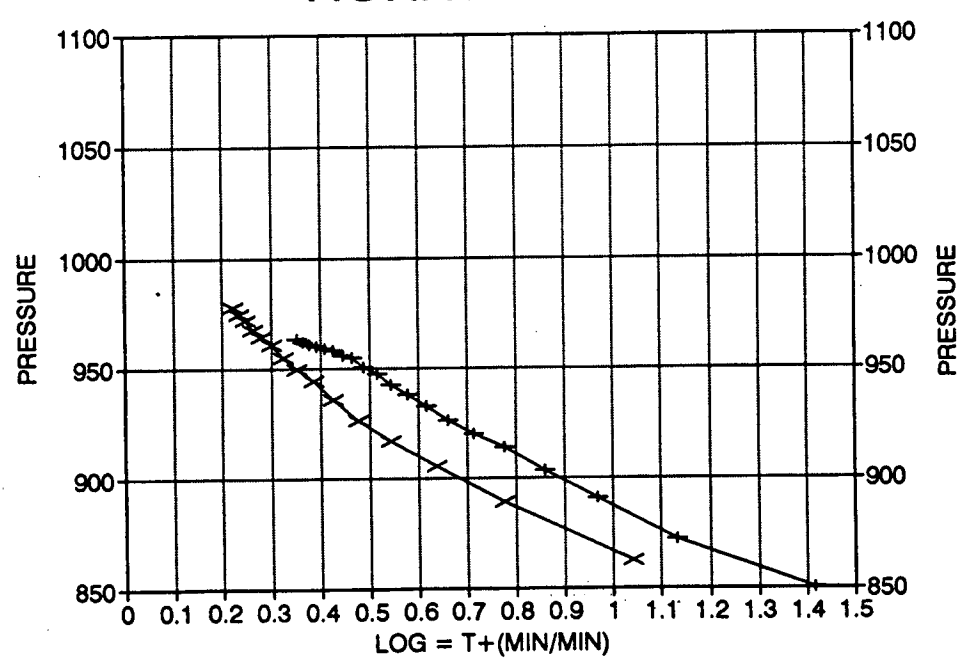


RELEASED

—x— INITIAL —+— FINAL

JUN 1 1994

FROM CONFIDENTIAL HORNER PLOT



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

CONFIDENTIAL

Test Ticket ORIGINAL No 6160

WCT

Well Name & No. J. Carmichael C-11 Test No. 1 Date 8-6-93
 Company Hallwood Petro, Inc. Zone Tested Simpson
 Address 45825 Ulster St. Parkway, Denver, Colo. 80237 Elevation 1839 K.B.
 Co. Rep./Geo. Jim Musgrave cont. Allen #3 Est. Ft. of Pay 2
 Location: Sec. 17 Twp. 11 Rge. 17 Co. Ellis State Ks.
 No. of Copies _____ Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No Evaluation

Interval Tested 3283-3351 Drill Pipe Size 4.5 XH
 Anchor Length 68 Top Choke — 1" _____ Bottom Choke — 1/4" _____
 Top Packer Depth 3278 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Bottom Packer Depth 3283 Wt. Pipe I.D. — 2.7 Ft. Run _____
 Total Depth 3351 Drill Collar — 2.25 Ft. Run _____
 Mud Wt. 9.3 lb/gal. Viscosity 45 Filtrate 8
 Tool Open @ 11:22 a.m. Initial Blow Weak-building to B.O.B. in 12 min.

Final Blow Weak-building to B.O.B. in 20 min.

Recovery — Total Feet	Feet of Gas In Pipe	Flush Tool?
<u>558</u>	<u>310</u>	_____
Rec. <u>434</u> Feet Of <u>CGSYO</u>	<u>20% gas 80% oil</u>	%water _____ %mud _____
Rec. <u>124</u> Feet Of <u>MCGSYO</u>	<u>20% gas 60% oil</u>	%water <u>20</u> %mud _____
Rec. _____ Feet Of RELEASED	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____ Feet Of _____	%gas _____ %oil _____	%water _____ %mud _____
Rec. _____ Feet Of <u>JUN 1 1994</u>	%gas _____ %oil _____	%water _____ %mud _____

BHT 111 °F Gravity _____ FROM CONFIDENTIAL _____ °F Corrected Gravity 34 °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6,000 ppm System

- (A) Initial Hydrostatic Mud 1806 PSI Ak1 Recorder No. 13754 Range 4000
- (B) First Initial Flow Pressure 49 PSI @ (depth) 3287 w/Clock No. 27501
- (C) First Final Flow Pressure 98 PSI Ak1 Recorder No. 7437 Range 4200
- (D) Initial Shut-in Pressure 946 PSI @ (depth) 3347 w/Clock No. 27567
- (E) Second Initial Flow Pressure 127 PSI Ak1 Recorder No. _____ Range _____
- (F) Second Final Flow Pressure 196 PSI @ (depth) _____ w/Clock No. _____
- (G) Final Shut-in Pressure 936 PSI Initial Opening 30 Test 600
- (H) Final Hydrostatic Mud 1756 PSI Initial Shut-in 45 Jars _____

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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 FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Final Flow 45 Safety Joint _____
 Final Shut-in 60 Straddle _____
 Circ. Sub _____
 Sampler _____
 Extra Packer _____
 Other _____
 TOTAL PRICE \$ 600

Approved By Jim Musgrave
 Our Representative Dan [Signature]
 Printcraft Printers - Hays, KS

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL
CONFIDENTIAL

Drill-Stem Test Data

Well Name J. CARMICHAEL C-11 Test No. 2 Date 8/6/93
Company HALLWOOD PETROLEUM INC. Zone ARBUCKLE
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 1839
Co. Rep./Geo. JIM MUSGROVE Cont. ALLEN RIG #3 Est. Ft. of Pay _____
Location: Sec. 17 Twp. 11S Rge. 17W Co. ELLIS State KS

Interval Tested	<u>3352-3357</u>	Drill Pipe Size	<u>4.5" XH</u>
Anchor Length	<u>5</u>	Wt. Pipe I.D. - 2.7 Ft. Run	_____
Top Packer Depth	<u>3347</u>	Drill Collar - 2.25 Ft. Run	_____
Bottom Packer Depth	<u>3352</u>	Mud Wt.	<u>9.3</u> lb/Gal.
Total Depth	<u>3357</u>	Viscosity	<u>45</u> Filtrate <u>8</u>

Tool Open @ 10:25 PM ^{Initial} Blow 3" BLOW DECREASING TO NO BLOW IN 10 MINUTES

Final Blow NO BLOW - FLUSHED TOOL - NO HELP

Recovery - Total Feet 30 Flush Tool? YES

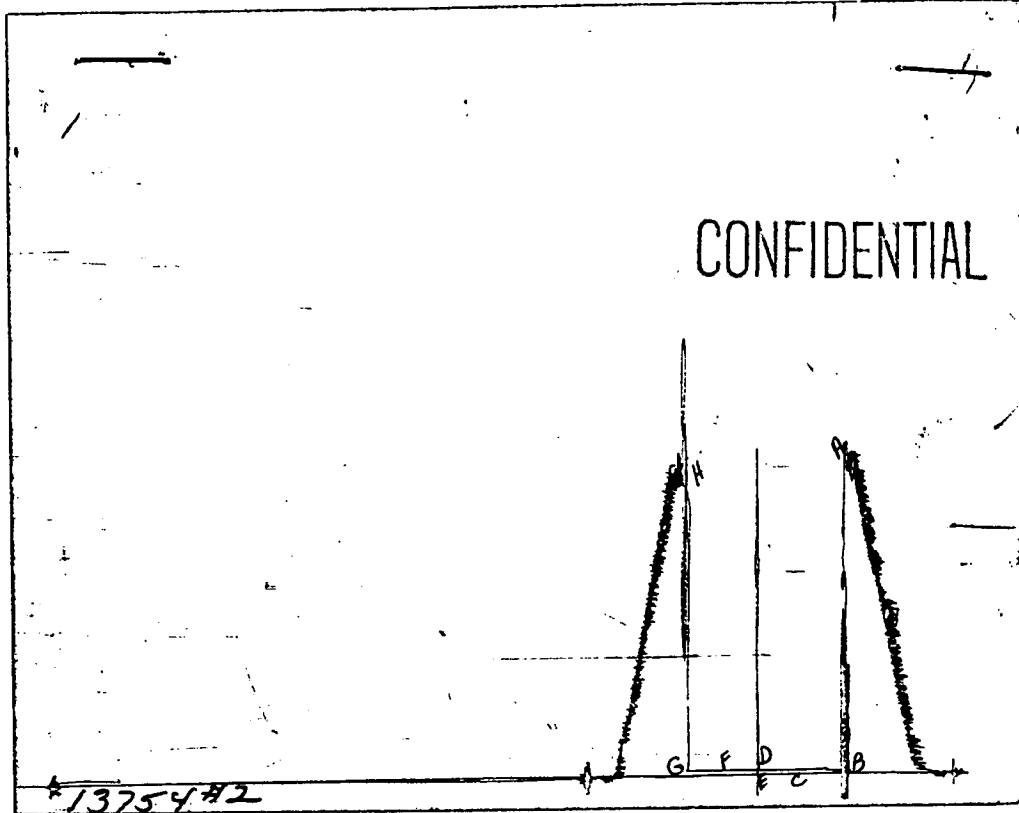
Rec. 30 Feet of DRILLING MUD
Rec. _____ Feet of RELEASED
Rec. _____ Feet of _____
Rec. _____ Feet of JUN 1 1994
Rec. _____ Feet of _____

FROM CONFIDENTIAL

BHT 108 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6000 ppm System

(A) Initial Hydrostatic Mud	<u>1723.1</u> PSI	AK1 Recorder No.	<u>13754</u>	Range	<u>4000</u>
(B) First Initial Flow Pressure	<u>21.9</u> PSI	@ (depth)	<u>3342</u>	w / Clock No.	<u>27501</u>
(C) First Final Flow Pressure	<u>21.9</u> PSI	AK1 Recorder No.	<u>7437</u>	Range	<u>4200</u>
(D) Initial Shut-in Pressure	<u>21.9</u> PSI	@ (depth)	<u>3353</u>	w / Clock No.	<u>27567</u>
(E) Second Initial Flow Pressure	<u>21.9</u> PSI	AK1 Recorder No.	_____	Range	_____
(F) Second Final Flow Pressure	<u>21.9</u> PSI	@ (depth)	_____	w / Clock No.	_____
(G) Final Shut-in Pressure	<u>21.9</u> PSI	Initial Opening	<u>30</u>	Final Flow	<u>30</u>
(H) Final Hydrostatic Mud	<u>1696.1</u> PSI	Initial Shut-in	<u>30</u>	Final Shut-in	<u>30</u>

Our Representative DAN BANGLE



This is an actual photograph of recorder chart

RELEASED

JUN 1 1994

FIELD
READING

OFFICE
READING

FROM CONFIDENTIAL

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1736	1723.1
(B) FIRST INITIAL FLOW PRESSURE	22	21.9
(C) FIRST FINAL FLOW PRESSURE	22	21.9
(D) INITIAL CLOSED-IN PRESSURE	22	21.9
(E) SECOND INITIAL FLOW PRESSURE	22	21.9
(F) SECOND FINAL FLOW PRESSURE	22	21.9
(G) FINAL CLOSED-IN PRESSURE	22	21.9
(H) FINAL HYDROSTATIC MUD	1704	1696.1

RECEIVED
STATE REGULATION COMMISSION

JAN 13 1994

CONSERVATION DIVISION
Wichita, Kansas

TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

CONFIDENTIAL

Test Ticket ORIGINAL

No 6161

Well Name & No. J. Carmichael C-11 Test No. 2 Date 8-6-93
 Company Hollywood Petro. Inc. Zone Tested Arbuckle
 Address _____ Elevation 1829 K.B.
 Co. Rep./Geo. Jim Musgrove Cont. Allen #3 Est. Ft. of Pay _____
 Location: Sec. 17 Twp. 11 Rge. 17 Co. Ellis State Ks.
 No. of Copies _____ Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No _____ Evaluation _____

Interval Tested 3352 - 3357 Drill Pipe Size 4.5 XH
 Anchor Length 5 Top Choke — 1" _____ Bottom Choke — 3/4" _____
 Top Packer Depth 3347 Hole Size — 7 7/8" _____ Rubber Size — 6 3/4" _____
 Bottom Packer Depth 3352 Wt. Pipe I.D. — 2.7 Ft. Run _____
 Total Depth 3357 Drill Collar — 2.25 Ft. Run _____
 Mud Wt. 9.3 lb/gal. Viscosity 45 Filtrate 8
 Tool Open @ 10:25 p.m. Initial Blow 3" blow decreasing to no blow in 10 min.
 Final Blow No blow - flushed tool - no help

Recovery — Total Feet	Feet of Gas in Pipe	Flush Tool?
<u>30</u>	_____	<input checked="" type="checkbox"/>
Rec. <u>30</u> Feet Of <u>D.M.</u>	% gas _____ % Oil _____ % water _____ % mud _____	
Rec. _____ Feet Of _____	% gas _____ % Oil _____ % water _____ % mud _____	
Rec. _____ Feet Of _____	% gas _____ % Oil _____ % water _____ % mud _____	
Rec. _____ Feet Of _____	% gas _____ % Oil _____ % water _____ % mud _____	
Rec. _____ Feet Of _____	% gas _____ % Oil _____ % water _____ % mud _____	

RELEASED
JUN 1 1994

BHT 108 °F Gravity _____ °API @ _____ °F Corrected Gravity _____ °API
 RW _____ @ _____ °F Chlorides _____ ppm Recovery Chlorides 6,000 ppm System
 (A) Initial Hydrostatic Mud 1736 PSI Ak1 Recorder No. 13754 Range 4000
 (B) First Initial Flow Pressure 22 PSI @ (depth) 3342 w/Clock No. 27501
 (C) First Final Flow Pressure 22 PSI AK1 Recorder No. 7437 Range 4200
 (D) Initial Shut-In Pressure 22 PSI @ (depth) 3353 w/Clock No. 27567
 (E) Second Initial Flow Pressure 22 PSI AK1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 22 PSI @ (depth) _____ w/Clock No. _____
 (G) Final Shut-In Pressure 22 PSI Initial Opening 30 Test 600.00
 (H) Final Hydrostatic Mud 1704 PSI Initial Shut-In 30 Jars _____

TRILOBITE TESTING L.L.C. SHALL NOT BE LIABLE FOR DAMAGE OF ANY KIND OF 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 FOR AT COST BY THE PARTY FOR WHOM THE TEST IS MADE.

Final Flow 30 Safety Joint _____
 Final Shut-In 30 Straddle _____
 Circ. Sub _____
 Sampler _____
 Extra Packer _____
 Other _____
 TOTAL PRICE \$ _____

Approved By _____
 Our Representative Dan Banje

TRILOBITE TESTING, L.L.C.

P.O. Box 362 • Hays, Kansas 67601

ORIGINAL
CONFIDENTIAL

Drill-Stem Test Data

Well Name J. CARMICHAEL C-11 Test No. 3 Date 8/7/93
Company HALLWOOD PETROLEUM INC. Zone ARBUCKLE
Address P.O. BOX 378111 DENVER CO 80237-8111 Elevation 1839
Co. Rep./Geo. JIM MUSGROVE Cont. ALLEN RIG #3 Est. Ft. of Pay 6
Location: Sec. 17 Twp. 11S Rge. 17W Co. ELLIS State KS

Interval Tested 3357-3363 Drill Pipe Size 4.5" XH
Anchor Length 6 Wt. Pipe I.D. - 2.7 Ft. Run _____
Top Packer Depth 3352 Drill Collar - 2.25 Ft. Run _____
Bottom Packer Depth 3357 Mud Wt. 9.2 lb/Gal.
Total Depth 3363 Viscosity 44 Filtrate 8.8

Tool Open @ 8:15 AM Initial Blow STRONG-BOTTOM OF BUCKET IN 2 MINUTES

Final Blow STRONG-BOTTOM OF BUCKET IN 3 MINUTES

RELEASED

Recovery - Total Feet 2189 Flush Tool? NO

JUN 1 1994

Rec. 25 Feet of CLEAN GASSY OIL-10% GAS/ 90% OIL
Rec. 310 Feet of WTR CUT GASSY OIL-20% GAS/ 60% OIL/ 20% WTR
Rec. 620 Feet of OIL CUT WTR-40% OIL/ 60% WTR
Rec. 180 Feet of OIL CUT WTR-20% OIL/ 80% WTR
Rec. 1054 Feet of WATER WITH SHOW OF OIL

BHT 111 °F Gravity _____ °API @ _____ °F Corrected Gravity 36 °API
RW 0.114 @ 80 °F Chlorides 54000 ppm Recovery Chlorides 8000 ppm System

(A) Initial Hydrostatic Mud 1711.9 PSI AK1 Recorder No. 13754 Range 4000

(B) First Initial Flow Pressure 213.6 PSI @ (depth) 3348 w / Clock No. 27501

(C) First Final Flow Pressure 669.8 PSI AK1 Recorder No. 7437 Range 4200

(D) Initial Shut-in Pressure 1019.0 PSI @ (depth) 3359 w / Clock No. 27567

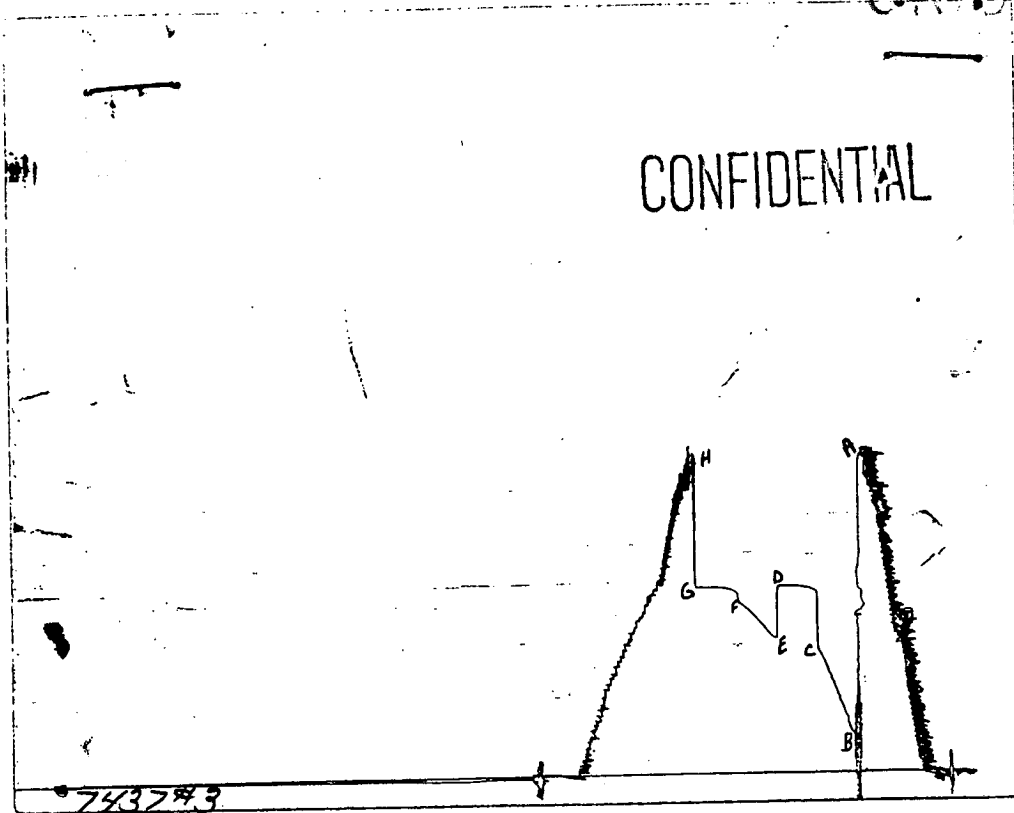
(E) Second Initial Flow Pressure 737.0 PSI AK1 Recorder No. _____ Range _____

(F) Second Final Flow Pressure 931.9 PSI @ (depth) _____ w / Clock No. _____

(G) Final Shut-in Pressure 1015.9 PSI Initial Opening 30 Final Flow 30

(H) Final Hydrostatic Mud 1696.1 PSI Initial Shut-in 30 Final Shut-in 30

Our Representative DAN BANGLE



This is an actual photograph of recorder chart

RELEASED

JUN 1 1994

FIELD
READING

OFFICE
READING

FROM CONFIDENTIAL

	FIELD READING	OFFICE READING
(A) INITIAL HYDROSTATIC MUD	1725	1711.9
(B) FIRST INITIAL FLOW PRESSURE	220	213.6
(C) FIRST FINAL FLOW PRESSURE	674	669.8
(D) INITIAL CLOSED-IN PRESSURE	1020	1019
(E) SECOND INITIAL FLOW PRESSURE	736	737
(F) SECOND FINAL FLOW PRESSURE	936	931.9
(G) FINAL CLOSED-IN PRESSURE	1020	1015.9
(H) FINAL HYDROSTATIC MUD	1704	1696.1

CONFIDENTIAL

COMPUTER OIL EVALUATION BY TRILOBITE TESTING, L.L.C.
HALLWOOD PETROLEUM INC.

J. CARMICHAEL C-11 DST 3

17 11S 17W ELLIS KS

ORIGINAL

ELEVATION:	1839	KB	EST. PAY	6	FT
DATUM:	-1521		ZONE TESTED:	ARBUCKLE	
TEST INTERVAL:	3357-3363		TIME INTERVALS:	30-30-30-30	
RECORDER DEPTH:	3359		VISCOSITY:	12.19	CP
BOTTOM HOLE TEMP:	111		HOLE SIZE:	7.875	IN

CUBIC FEET OF GAS IN PIPE:	0				
TOTAL FEET OF RECOVERY:	2189.00		CORRECTED PIPE FILLUP:	2546.175	
TOTAL BARRELS OF RECOVERY:	31.13		CORR. BARRELS OF RECOVERY:	36.204	BBL
BARRELS IN DRILL PIPE:	31.13		API GRAVITY:	36	
BARRELS IN WEIGHT PIPE:	0.00		FLUID GRADIENT:	0.366	
BARRELS IN DRILL COLLARS:	0.00				
GAS OIL RATIO:	0.01		CU.FT/BBL		
BUBBLE POINT PRESSURE:	0				
UNCORRECTED INITIAL PRODUCTION:				747.06	BBL
INITIAL PRODUCTION CORRECTED TO FINAL FLOW PRESSURE:				868.90	BBL/DAY
INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:				394.199	

INITIAL SLOPE	41.05	PSI/CYCL	FINAL SLOPE	8.07	PSI/CYCLE
INITIAL P*	1031.36	PSI	FINAL P*	1019.53	PSI

TRANSMISSIBILITY		17505.82	(MD.-FT./CP.)
PERMEABILITY	RELEASED	35561.61	(MD.)
INDICATED FLOW CAPACITY		213369.67	(MD.FT)
PRODUCTIVITY INDEX	JUN 1 1994	19.78	(BARREL/DAY/PSI)
DAMAGE RATIO		1.99	
RADIUS OF INVESTIGATION	FROM CONFIDENTIAL	1460.72	(FT.)
POTENTIOMETRIC SURFACE		844.29	(FT.)
DRAWDOWN FACTOR		1.147	(%)
THEORETICAL POTENTIAL FROM FINAL FLOW PRESSURE		1726.53	
THEORETICAL POTENTIAL FROM PSEUDO STEADY FLOW STATE		783.29	

CONFIDENTIAL

DST #	CALCULATED RECOVERY ANALYSIS					DRILL	PIPE	
	3	TICKET					6162	
SAMPLE #	TOTAL FEET	GAS %	OIL FEET	OIL %	WATER FEET	WATER %	MUD %	FEET
1	25	10	2.5	90	22.5	0	0	0
2	310	20	62	60	186	20	62	0
3	620	0	0	40	248	60	372	0
4	180	0	0	20	36	80	144	0
5	1054	0	0	0	0	100	1054	0
TOTAL	2189	2.9465509	64.5	22.5	492.5	74.554591	1632	0

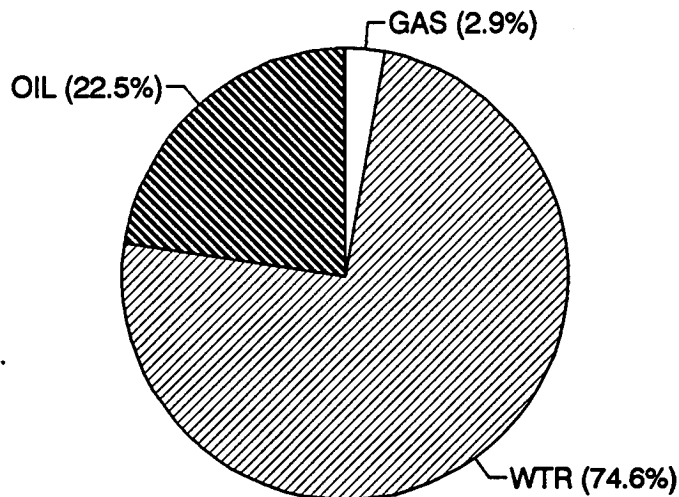
		HRS	BBL/DAY
BBL OIL=	7.00335	*	1 168.08
BBL WATER=	23.20704	*	556.97
BBL MUD=	0		
BBL GAS	0.91719		

ORIGINAL

RELEASED

JUN 1 1994

FROM CONFIDENTIAL



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STATE CORPORATION COM

JAN 1 1994

CONFIDENTIAL

INITIAL FLOW

RECORDER 7437

DST # 3

TIME(MIN)	PRESSURE	<> PRESSURE
0	213.6	213.6
3	250.0	36.4
6	327.0	77.0
9	379.9	52.9
12	434.9	55.0
15	491.2	56.3
18	541.7	50.5
21	595.5	53.8
24	639.4	43.9
27	669.8	30.4

ORIGINAL

RELEASED

FINAL FLOW

JUN 1 1994

RECORDER 7437 FROM CONFIDENTIAL
DST # 3

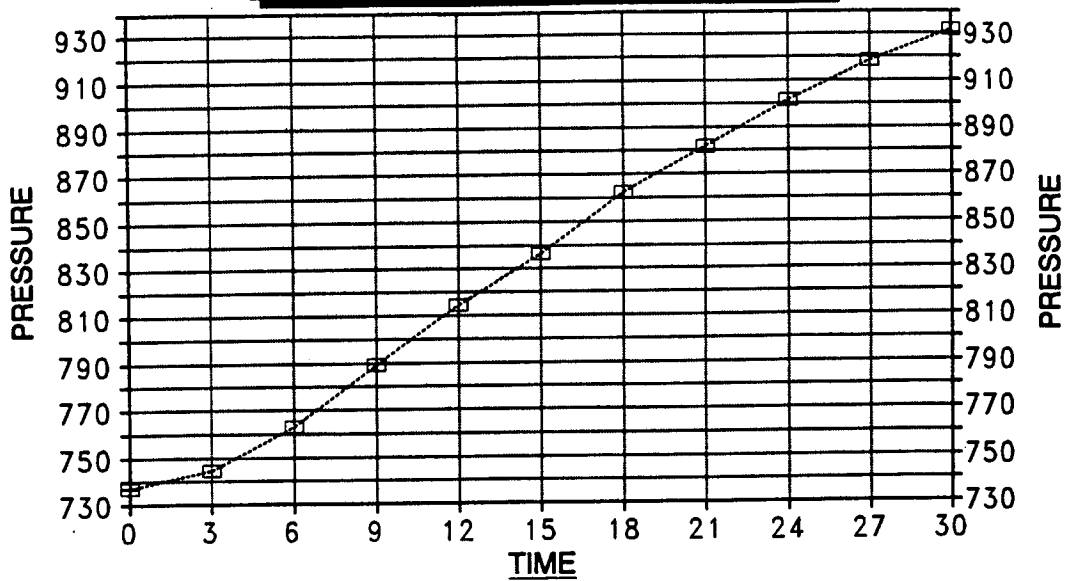
TIME(MIN)	PRESSURE	<> PRESSURE
0	737.0	737.0
3	744.3	7.3
6	763.1	18.8
9	789.4	26.3
12	814.5	25.1
15	836.5	22.0
18	862.7	26.2
21	881.6	18.9
24	901.5	19.9
27	918.3	16.8
30	931.9	13.6

CONFIDENTIAL

DELTA T DELTA P

FINAL FLOW / DST #3

ORIGINAL



—□— J CARMICHAEL C-11

INITIAL PRODUCTION CORRECTED TO PSEUDO STEADY FLOW STATE:

394.199

RELEASED

JUN 1 1994

FROM CONFIDENTIAL

J CARMICHAEL C-11 DST #3
INITIAL SHUTIN

30 INITIAL FLOW TIME SLOPE 41.1 PSI/CYCLE
P* 1031.36 PSI

Log <>

TIME(MIN)	Pws (psi)	Horn T	PRESSURE	Horn T
3	991.7	1.041	991.7	11
6	1002.2	0.778	10.5	6
9	1006.4	0.637	4.2	4
12	1010.6	0.544	4.2	4
15	1012.7	0.477	2.1	3
18	1014.8	0.426	2.1	3
21	1015.9	0.385	1.1	2
X 24	1016.9	0.352	1.0	2
27	1018.0	0.325	1.1	2
X 30	1019.0	0.301	1.0	2

CONFIDENTIAL

ORIGINAL

RELEASED

JUN 1 1994

FROM CONFIDENTIAL

J CARMICHAEL C-11 DST #3
FINAL SHUTIN

60 TOTAL FLOW TIME SLOPE 8.1 PSI/CYCLE
P* 1019.5 PSI

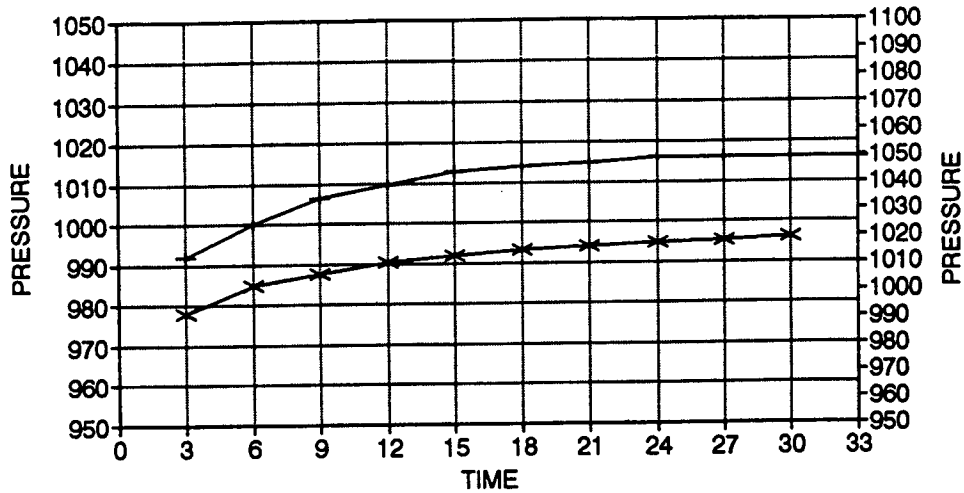
Log <>

	Pws (psi)	Horn T	PRESSURE	Horn T
	991.7	1.322	991.7	21
	1000.1	1.041	8.4	11
	1006.4	0.885	6.3	8
	1009.5	0.778	3.1	6
	1012.7	0.699	3.2	5
	1013.8	0.637	1.1	4
X 21	1014.8	0.586	1.0	4
	1015.9	0.544	1.1	4
	1015.9	0.508	0.0	3
	1015.9	0.477	0.0	3
X 33	1015.9	0.450	0.0	3

CONFIDENTIAL

J CARMICHAEL C-11 / DST #3 DELTA T DELTA P

ORIGINAL

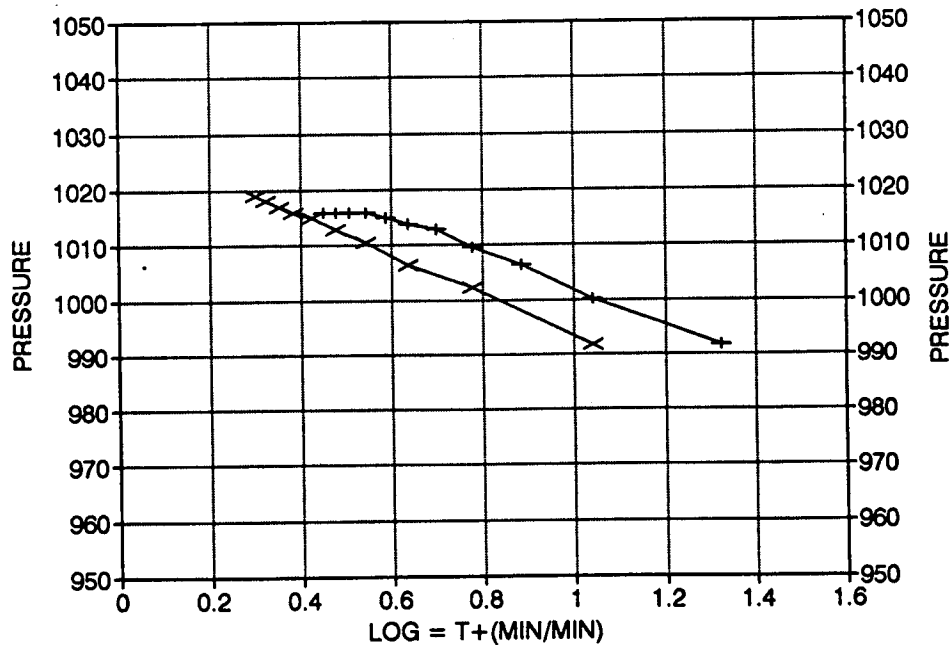


—x— INITIAL —+— FINAL

RELEASED

JUN 1 1994

HORNER PLOT FROM CONFIDENTIAL



TRILOBITE TESTING L.L.C.

P.O. Box 362 • Hays, Kansas 67601

CONFIDENTIAL

Test Ticket

ORIGINAL^{NO} 6162

Well Name & No. J. Carmichael C-11 Test No. 3 Date 8-7-93
 Company Hallwood Petro. Inc. Zone Tested Arbuckle
 Address _____ Elevation 1839 K.B
 Co. Rep./Geo. Jim Musgrave Cont. Allen #3 Est. Ft. of Pay 6
 Location: Sec. 17 Twp. 11 Rge. 17 Co. Ellis State Ks.
 No. of Copies _____ Distribution Sheet _____ Yes _____ No Turnkey _____ Yes _____ No X Evaluation

Interval Tested 3357-3363 Drill Pipe Size 4.5 XH
 Anchor Length 6 Top Choke - 1" _____ Bottom Choke - 3/4" _____
 Top Packer Depth 3352 Hole Size - 7 7/8" _____ Rubber Size - 6 3/4" _____
 Bottom Packer Depth 3357 Wt. Pipe I.D. - 2.7 Ft. Run _____
 Total Depth 3363 Drill Collar - 2.25 Ft. Run _____
 Mud Wt. 9.2 lb/gal. Viscosity 44 Filtrate 8.8
 Tool Open @ 8:15 a.m. Initial Blow Strong - B.O.B in 2 min.
 Final Blow Strong - B.O.B. in 3 min.

RELEASED

JUN 1 1994

Recovery - Total Feet	Feet of Gas in Pipe	Flush Tool?
Rec. <u>25</u> Feet Of <u>CGSYO</u>	<u>FROM CONFIDENTIAL</u>	% gas <u>70</u> % oil <u>70</u> % water _____ % mud _____
Rec. <u>310</u> Feet Of <u>WC GSYO</u>	<u>20</u> % gas <u>60</u> % oil <u>20</u> % water _____ % mud _____	
Rec. <u>620</u> Feet Of <u>OCW</u>	<u>40</u> % gas <u>40</u> % oil <u>60</u> % water <u>20</u> % mud	
Rec. <u>180</u> Feet Of <u>OCW</u>	<u>20</u> % gas <u>20</u> % oil <u>80</u> % water _____ % mud _____	
Rec. <u>1054</u> Feet Of <u>W'show of air t/o</u>	% gas _____ % oil _____ % water _____ % mud _____	

BHT 111 °F Gravity _____ °API @ _____ °F Corrected Gravity 36 °API
 RW .114 @ 80 °F Chlorides 54,000 ppm Recovery Chlorides 8,000 ppm System

(A) Initial Hydrostatic Mud 1725 PSI AK1 Recorder No. 13754 Range 4000
 (B) First Initial Flow Pressure 220 PSI @ (depth) 3348 w/Clock No. 27501
 (C) First Final Flow Pressure 674 PSI AK1 Recorder No. 7437 Range 4200
 (D) Initial Shut-In Pressure 1020 PSI @ (depth) 3359 w/Clock No. 27567
 (E) Second Initial Flow Pressure 736 PSI AK1 Recorder No. _____ Range _____
 (F) Second Final Flow Pressure 936 PSI @ (depth) _____ w/Clock No. _____
 (G) Final Shut-In Pressure 1020 PSI Initial Opening 30 Test 600.00
 (H) Final Hydrostatic Mud 1704 PSI Initial Shut-In 30 Jars _____

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Final Flow 30 Safety Joint _____
 Final Shut-In 30 Straddle _____
 Circ. Sub _____
 Sampler _____

Approved By [Signature]
 Our Representative [Signature]
 Printcraft Printers - Hays, KS

Extra Packer _____
 Other oil eval
 TOTAL PRICE \$ 600.00