



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

No. 18198

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

Elevation 1538 G.L. Formation Miss Eff. Pay Ft.

District Dodge City Date 11-13-84 Customer Order No.
COMPANY NAME Associated Petroleum Consultants, Inc.
ADDRESS Suite 600 - One Main Place Wichita, 67202
LEASE AND WELL NO. Mott Ranch #17 COUNTY Barber STATE KS Sec. 1 Twp. 31 S 12 W
Mail Invoice To Co. Name Address No. Copies Requested Reg
Mail Charts To #17 Mott Ranch SAME Address No. Copies Requested Reg

Formation Test No. 1 Interval Tested From 4239 ft. to 4270 ft. Total Depth 4270 ft.
Packer Depth 4239 ft. Size 63/4 in. Packer Depth ft. Size in.
Packer Depth 4239 ft. Size 63/4 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 4256 ft. Recorder Number 6233 Cap. 4,000
Bottom Recorder Depth (Outside) 4259 ft. Recorder Number 13400 Cap. 3,950
Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor Heartland Drilling Inc. Drill Collar Length 454 I. D. 2.2 in.
Mud Type Chemical Viscosity 40 Weight Pipe Length I. D. in.
Weight 9.1 Water Loss 15.2 cc. Drill Pipe Length 3765 I. D. 3.8 in.
Chlorides 8,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 O.D. in.
Jars: Make Serial Number Anchor Length 31 ft. Size 5 1/2 O.D. in.
Did Well Flow? NO Reversed Out NO Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.
Main Hole Size 7 1/8 in. Tool Joint Size 4 1/2 XH in.

Blow: IFP STRONG INCREASING Blow Bottom of Bucket in 1 min.
FFP STRONG INCREASING Blow Bottom of Bucket in 1 min.

Recovered 30 ft. of 5% Oil Cut mud 5% Oil 95% mud
Recovered 60 ft. of Oil Cut mud 10% Oil 90% mud
Recovered 60 ft. of Oil Cut mud 45% Oil 55% mud
Recovered ft. of
Recovered ft. of

Remarks: Gas to Surface in 45 min F.F.P.
Chlorides 13,000

Time On Location 12:00 A.M. Time Pick Up Tool 3:30 A.M. Time Off Location A.M.
Time Set Packer(s) 5:45 A.M. Time Started Off Bottom 9:45 A.M. Maximum Temperature 118 P.M.
Initial Hydrostatic Pressure (A) 2097 P.S.I.
Initial Flow Period Minutes 30 (B) 40 P.S.I. to (C) 71 P.S.I.
Initial Closed In Period Minutes 60 (D) 1253 P.S.I.
Final Flow Period Minutes 60 (E) 71 P.S.I. to (F) 81 P.S.I.
Final Closed In Period Minutes 90 (G) 1055 P.S.I.
Final Hydrostatic Pressure (H) 2047 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 John D. Howard
Signature of Customer or his authorized representative

Western Representative Kevin E. Zimmerman

Thank You!

FIELD INVOICE

Open Hole Test \$ 845.00
Misrun \$
Straddle Test \$
Jars \$
Selective Zone \$
Safety Joint \$
Standby \$
Evaluation \$
Extra Packer \$
Circ. Sub. \$
Mileage \$
Fluid Sampler \$
Extra Charts \$
Insurance \$
Telecopier \$
TOTAL \$

Phone 316 262-5861



P. O. Box 1599

WICHITA, KANSAS 67201

Nº 2995

GAS FLOW REPORT

Date 11-13-84 Ticket 18198 Company Associated Petroleum Consultants Inc.
Well Name and No. Mott Ranch #17 Dst No. 1 Interval Tested 4239-4270
County Barber State Kansas Sec. 1 Twp. 31 Rg. 12

Time Gauge in Min.	P.S.I. on Merla Orifice Well Tester	Size of Orifice	P.S.I. on Pitot Tester	P.S.I. on Side Static Tester	Description of Flow
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PRE FLOW

[illegible]

SECOND FLOW

[illegible]

GAS BOTTLE

Serial No. ~~17055~~ Date Bottle Filled ~~11/13/84~~ Date to be Invoiced ~~12/13/84~~

Requisition and Provisions for high pressure stainless steel gas bottles. Western Testing Co., Inc. shall not be liable for damage of any kind to property or personnel of the one whom gas bottle is filled or for any loss suffered or sustained directly or indirectly through the use of these bottles. By signing of this ticket showing receipt of a gas testing bottle, the undersigned agrees for himself and as agent for operator, to return this bottle to Western Testing Co., Inc. within thirty (30) days free of charge, or be invoiced in the amount of \$75.00 (total charge). Should valve or seal plug be missing or damaged beyond repair, operator shall be invoiced for repairs at our invoiced price.

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

COMPANY'S NAME Associated Petroleum Consultants Inc.

Authorized by _____

WESTERN TESTING CO., INC.

Pressure Data

Date 11-13-84 Test Ticket No. 18198
 Recorder No. 6233 Capacity 4000 Location 4256
 Clock No. Elevation Well Temperature

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2078</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>57</u> P.S.I.	First Flow Pressure	<u>30</u> Mins.	
C First Final Flow Pressure	<u>62</u> P.S.I.	Initial Closed-in Pressure	<u>60</u> Mins.	
D Initial Closed-in Pressure	<u>1254</u> P.S.I.	Second Flow Pressure	<u>60</u> Mins.	
E Second Initial Flow Pressure	<u>71</u> P.S.I.	Final Closed-in Pressure	<u>90</u> Mins.	
F Second Final Flow Pressure	<u>81</u> P.S.I.			
G Final Closed-in Pressure	<u>1059</u> P.S.I.			
H Final Hydrostatic Mud	<u>2058</u> P.S.I.			

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>31</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	<u>57</u>	0	<u>62</u>	0	<u>71</u>	0	<u>81</u>
P 2 5	<u>57</u>	3	<u>154</u>	5	<u>72</u>	3	<u>123</u>
P 3 10	<u>58</u>	6	<u>251</u>	10	<u>73</u>	6	<u>175</u>
P 4 15	<u>59</u>	9	<u>342</u>	15	<u>74</u>	9	<u>236</u>
P 5 20	<u>60</u>	12	<u>427</u>	20	<u>76</u>	12	<u>274</u>
P 6 25	<u>61</u>	15	<u>512</u>	25	<u>78</u>	15	<u>321</u>
P 7 30	<u>62</u>	18	<u>594</u>	30	<u>80</u>	18	<u>372</u>
P 8 35		21	<u>678</u>	35	<u>80</u>	21	<u>415</u>
P 9 40		24	<u>745</u>	40	<u>80</u>	24	<u>457</u>
P10 45		27	<u>812</u>	45	<u>81</u>	27	<u>500</u>
P11 50		30	<u>873</u>	50	<u>81</u>	30	<u>540</u>
P12 55		33	<u>930</u>	55	<u>81</u>	33	<u>576</u>
P13 60		36	<u>985</u>	60	<u>81</u>	36	<u>615</u>
P14		39	<u>1026</u>	65		39	<u>651</u>
P15		42	<u>1068</u>	70		42	<u>682</u>
P16		45	<u>1107</u>	75		45	<u>718</u>
P17		48	<u>1139</u>	80		48	<u>749</u>
P18		51	<u>1171</u>	85		51	<u>781</u>
P19		54	<u>1199</u>	90		54	<u>811</u>
P20		57	<u>1226</u>			57	<u>837</u>
		60	<u>1254</u>			60	<u>862</u>

WESTERN TESTING CO., INC.

Pressure Data

Date _____

Test Ticket No. 18198

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

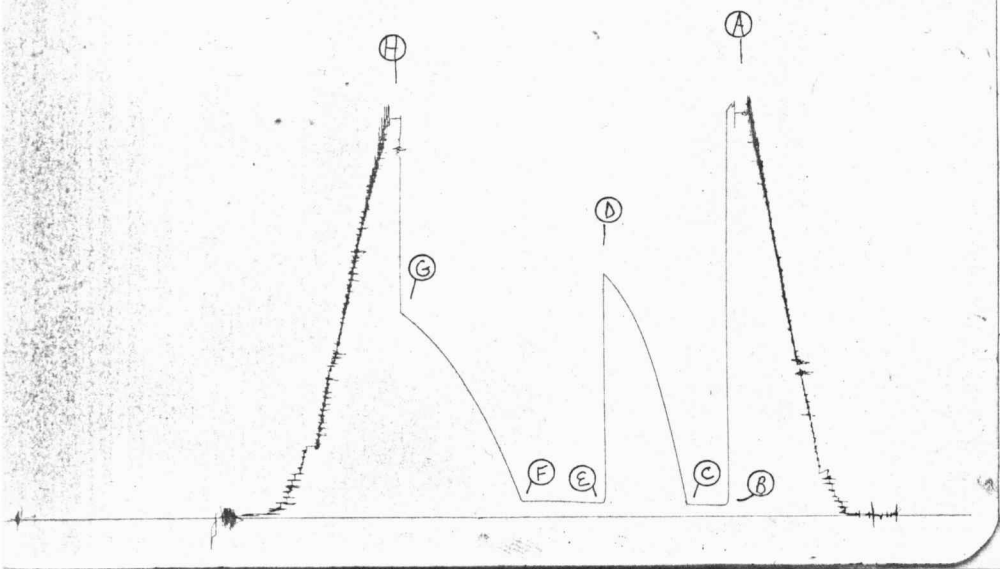
Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud _____	P.S.I.	Open Tool _____	M _____	
B First Initial Flow Pressure _____	P.S.I.	First Flow Pressure _____	Mins. _____	Mins. _____
C First Final Flow Pressure _____	P.S.I.	Initial Closed-in Pressure _____	Mins. _____	Mins. _____
D Initial Closed-in Pressure _____	P.S.I.	Second Flow Pressure _____	Mins. _____	Mins. _____
E Second Initial Flow Pressure _____	P.S.I.	Final Closed-in Pressure _____	Mins. _____	Mins. _____
F Second Final Flow Pressure _____	P.S.I.			
G Final Closed-in Pressure _____	P.S.I.			
H Final Hydrostatic Mud _____	P.S.I.			

PRESSURE BREAKDOWN

First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ Inc.		Breakdown: _____ 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 _____	_____	63 _____	_____	_____	_____	63 _____	889
P 2 _____	_____	66 _____	_____	_____	_____	66 _____	909
P 3 _____	_____	69 _____	_____	_____	_____	69 _____	932
P 4 _____	_____	72 _____	_____	_____	_____	72 _____	954
P 5 _____	_____	75 _____	_____	_____	_____	75 _____	975
P 6 _____	_____	78 _____	_____	_____	_____	78 _____	994
P 7 _____	_____	81 _____	_____	_____	_____	81 _____	1012
P 8 _____	_____	84 _____	_____	_____	_____	84 _____	1031
P 9 _____	_____	87 _____	_____	_____	_____	87 _____	1046
P10 _____	_____	90 _____	_____	_____	_____	90 _____	1059
P11 _____	_____	93 _____	_____	_____	_____	93 _____	_____
P12 _____	_____	96 _____	_____	_____	_____	96 _____	_____
P13 _____	_____	99 _____	_____	_____	_____	99 _____	_____
P14 _____	_____	102 _____	_____	_____	_____	102 _____	_____
P15 _____	_____	105 _____	_____	_____	_____	105 _____	_____
P16 _____	_____	108 _____	_____	_____	_____	108 _____	_____
P17 _____	_____	111 _____	_____	_____	_____	111 _____	_____
P18 _____	_____	114 _____	_____	_____	_____	114 _____	_____
P19 _____	_____	117 _____	_____	_____	_____	117 _____	_____
P20 _____	_____	120 _____	_____	_____	_____	120 _____	_____

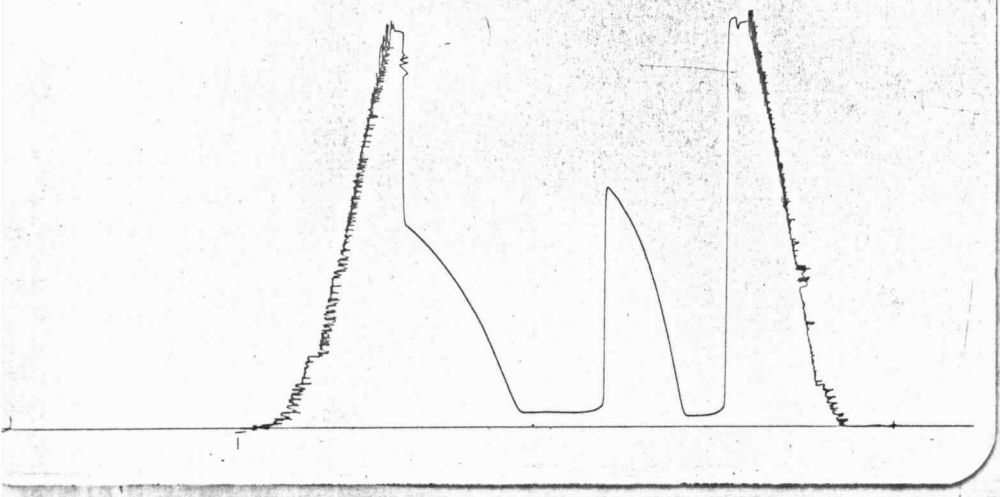
TKT # 18198 6233

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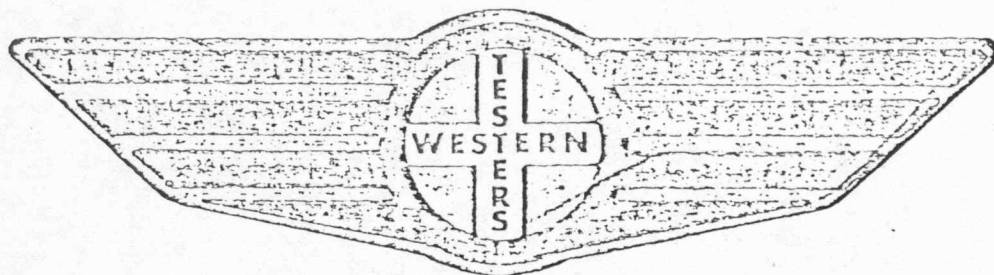


TKT # 18198 13400

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone (316) 262-5861

WESTERN TESTING COMPANY INC.
SUBSURFACE PRESSURE SURVEY

DATE: 11/13/84
CUSTOMER: A.P.C. INC.
WELL: 17
ELEVATION (KB): 1543
SECTION: 1
RANGE: 12W
GAUGE SN #6233

TEST: 1

COUNTY: BARBER
RANGE: 4000

TICKET #18198
LEASE: MOTT RANCH
GEOLOGIST: HOWARD
FORMATION: MISSISSIPPIAN
TOWNSHIP: 31S
STATE: KS
CLOCK: 12

INTERVAL TEST FROM: 4239 FT TO: 4270 FT TOTAL DEPTH: 4270 FT
DEPTH OF SELECTIVE ZONE: FT
PACKER DEPTH: 4234 FT SIZE: 6 3/4 IN Packer DEPTH: 4239 FT SIZE: 6 3/4 IN
PACKER DEPTH: FT SIZE: IN Packer DEPTH: FT SIZE: IN

DRILLING CONTRACTOR: HEARTLAND DRLG
MUD TYPE: CHEMICAL VISCOSITY: 40
WEIGHT: 9.1 WATER LOSS (CC): 15.2
CHLORIDES (P.P.M.): 8000
JARS - MAKE: SERIAL NUMBER:

DID WELL FLOW? NO REVERSED OUT? NO
DRILL COLLAR LENGTH: 454 FT I.D.: 2.2 IN
WEIGHT PIPE LENGTH: FT I.D.: IN
DRILL PIPE LENGTH: 3765 FT I.D.: 3.8 IN
TEST TOOL LENGTH: 20 FT TOOL SIZE: 5 1/2 OD IN
ANCHOR LENGTH: 31 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 STRONG INCREASING BLOW
BOTTOM OF BUCKET IN 1 MINUTE
FINAL FLOW PERIOD STRONG INCREASING BLOW
BOTTOM OF BUCKET IN 1 MINUTE

RECOVERED: 30	FT	OF: OIL CUT MUD (5% O; 95% M)
RECOVERED: 60	FT	OF: OIL CUT MUD (10% O; 90% M)
RECOVERED: 60	FT	OF: OIL CUT MUD (45% O; 55% M)
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:
RECOVERED:	FT	OF:

REMARKS: CHLORIDES 13000 P.P.M.
GAS TO SURFACE IN 45 MINUTES IN FINAL FLOW
PERIOD

TIME SET PACKER(S): 5:45 PM
WELL TEMPERATURE: 118 °F

TIME STARTED OFF BOTTOM: 9:45 PM

INITIAL HYDROSTATIC PRESSURE:		(A) 2078	PSI	
INITIAL FLOW PERIOD	MIN: 30	(B) 57	PSI TO (C) 62	PSI
INITIAL CLOSED IN PERIOD	MIN: 60	(D) 1254	PSI	
FINAL FLOW PERIOD	MIN: 60	(E) 71	PSI TO (F) 81	PSI
FINAL CLOSED IN PERIOD	MIN: 90	(G) 1059	PSI	
FINAL HYDROSTATIC PRESSURE		(H) 2058	PSI	

WESTERN TESTING COMPANY INC.
PRESSURE DATA

DATE: 11/13/84
CUSTOMER: A.P.C. INC.
WELL: 17
ELEVATION (KB): 1543
SECTION: 1
RANGE: 12W
GAUGE SN #6233

TEST: 1

FORMATION: MISSISSIPPIAN
TOWNSHIP: 31S

COUNTY: BARBER
RANGE: 4000

TICKET #18198
LEASE: MOTT RANCH
GEOLOGIST: HOWARD
MISSISSIPPIAN
315
STATE: KS
CLOCK: 12

(A)	INITIAL HYDROSTATIC PRESSURE:	2078	PSI
(B)	FIRST INITIAL FLOW PRESSURE:	57	PSI
(C)	FIRST FINAL FLOW PRESSURE:	62	PSI
(D)	INITIAL CLOSED-IN PRESSURE:	1254	PSI
(E)	SECOND INITIAL FLOW PRESSURE:	71	PSI
(F)	SECOND FINAL FLOW PRESSURE:	81	PSI
(G)	FINAL CLOSED-IN PRESSURE:	1059	PSI
(H)	FINAL HYDROSTATIC PRESSURE:	2058	PSI
	WELL TEMPERATURE:	118	'F
	OPEN TOOL:	5:45 PM	

	TIME - GIVEN	TIME - ACTUAL
FIRST FLOW PRESSURE:	30 MIN	30 MIN
INITIAL CLOSED-IN PRESSURE:	60 MIN	60 MIN
SECOND FLOW PRESSURE:	60 MIN	60 MIN
FINAL CLOSED-IN PRESSURE:	90 MIN	90 MIN

PRESSURE BREAKDOWN

PT	FIRST FLOW		INITIAL SHUT-IN		SECOND FLOW		FINAL SHUT-IN	
	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE	MIN	PRESSURE
1	0	57	0	62	0	71	0	81
2	5	57	3	154	5	72	3	123
3	10	58	6	251	10	73	6	175
4	15	59	9	342	15	74	9	226
5	20	60	12	427	20	76	12	274
6	25	61	15	512	25	78	15	321
7	30	62	18	594	30	80	18	372
8			21	678	35	80	21	415
9			24	745	40	80	24	457
10			27	812	45	81	27	500
11			30	873	50	81	30	540
12			33	930	55	81	33	576
13			36	985	60	81	36	615
14			39	1026			39	651
15			42	1068			42	682
16			45	1107			45	718
17			48	1139			48	749
18			51	1171			51	781
19			54	1199			54	811
20			57	1226			57	837
21			60	1254			60	862
22							63	889
23							66	909
24							69	932
25							72	954
26							75	975
27							78	994
28							81	1012
29							84	1031
30							87	1046

WESTERN TESTING COMPANY INC.
GAS FLOW REPORT

DATE: 11/13/84
CUSTOMER: A.P.C. INC.
WELL: 17
ELEVATION (KB): 1543
SECTION: 1
RANGE: 12W
GAUGE SN #6233

TEST: 1

COUNTY: BARBER
RANGE: 4000

TICKET #18198
LEASE: MOTT RANCH
GEOLOGIST: HOWARD
FORMATION: MISSISSIPPIAN
TOWNSHIP: 31S
STATE: KS
CLOCK: 12

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

SECOND FLOW

5	MERLA	1/8	7" WTR	1390 CFPD
10	"	"	15" WTR	2050 " "
15	"	"	19" WTR	2300 " "

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