



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 18996

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

Elevation 1668 K.B. Formation MISS. Eff. Pay 10 Ft.

District Garden City Date 4-26-93 Customer Order No. _____

COMPANY NAME White & Ellis Drilling Co.

ADDRESS P.O. Box 48848 Wichita, KS. 67201-8848

LEASE AND WELL NO. #1 Knowles Trust COUNTY Remo STATE KS. Sec. 17 Twp. 23S Rge. 8W

Mail Invoice To W+E Drilling #1 - 17 Same Co. Name Address No. Copies Requested Req.

Mail Charts To W+E Drilling Knowles Same Address No. Copies Requested Req.

Formation Test No. 1 Interval Tested From 3623 ft. to 3666 ft. Total Depth 3666 ft.

Packer Depth 3618 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 3623 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3625 ft.

Recorder Number 3849 Cap. 4200

Bottom Recorder Depth (Outside) 3628 ft.

Recorder Number 2604 Cap. 4150

Below Straddle Recorder Depth _____ ft.

Recorder Number _____ Cap. _____

Drilling Contractor White & Ellis Rig 8

Drill Collar Length _____ I. D. _____ in.

Mud Type Chem. Viscosity 48

Weight Pipe Length _____ I. D. _____ in.

Weight 8.74 Water Loss 7.2 cc.

Drill Pipe Length 3603 I. D. 3.8 in.

Chlorides 3,000 P.P.M.

Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make _____ Serial Number _____

Anchor Length (31+12) 43 ft. Size 4 1/2 5 1/2 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 X.H. in.

Blow: Strong "B.O.B." in 1 Min. I.F.
Strong "B.O.B." in 3 Min. G.T.S. in 32 Min. See Flow Chart F.F.

Recovered 75 ft. of C.G.O. 37° Gravity at 60°F

Recovered 190 ft. of Gassy, Watery mud cut Oil 18% Oil 55% Gas 19% mud 8% WTR

Recovered 120 ft. of Oil + Gassy mud cut NTR 6% Oil 25% Gas 10% mud 59% WTR

Recovered 375 ft. of Salt WTR 71,000 P.P.M.

Recovered _____ ft. of Total Fluid Rec. 760'

Chlorides 71,000 P.P.M. Sample Jars used _____ Remarks: SLTD tool 5' to Bottom **MAY 07 1993**

Time On Location 11:00 ^{A.M.}/_{P.M.} Time Pick Up Tool 12:15 ^{A.M.}/_{P.M.} Time Off Location _____ ^{A.M.}/_{P.M.}

Time Set Packer(s) 1:35 ^{A.M.}/_{P.M.} Time Started Off Bottom 5:20 ^{A.M.}/_{P.M.} Maximum Temperature 119°F

Initial Hydrostatic Pressure _____ (A) 1661 P.S.I.

Initial Flow Period _____ Minutes 30 (B) 68 P.S.I. to (C) 148 P.S.I.

Initial Closed In Period _____ Minutes 45 (D) 1096 P.S.I.

Final Flow Period _____ Minutes 60 (E) 182 P.S.I. to (F) 342 P.S.I.

Final Closed In Period _____ Minutes 90 (G) 1069 P.S.I.

Final Hydrostatic Pressure _____ (H) 1644 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 Shovan Paul
Signature of Customer or his authorized representative

Western Representative Jimmy J. Sabiga

FIELD INVOICE

Open Hole Test	\$	<input checked="" type="checkbox"/>
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 4-26-52

Test Ticket No. 18996

Recorder No. 5849 Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1669</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>113</u> P.S.I.	First Flow Pressure	Mins. <u>30</u>	Mins.
C First Final Flow Pressure	<u>155</u> P.S.I.	Initial Closed-in Pressure	Mins. <u>42</u>	Mins.
D Initial Closed-in Pressure	<u>1104</u> P.S.I.	Second Flow Pressure	Mins. <u>55</u>	Mins.
E Second Initial Flow Pressure	<u>202</u> P.S.I.	Final Closed-in Pressure	Mins. <u>87</u>	Mins.
F Second Final Flow Pressure	<u>350</u> P.S.I.			
G Final Closed-in Pressure	<u>1077</u> P.S.I.			
H Final Hydrostatic Mud	<u>1038</u> 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 0	<u>113</u> OK	0	<u>155</u>	0	<u>202</u>	0	<u>350</u>
P 2 5	<u>193</u> OK	3	<u>584</u>	5	<u>205</u>	3	<u>654</u>
P 3 10	<u>101</u>	6	<u>755</u>	10	<u>219</u>	6	<u>742</u>
P 4 15	<u>110</u>	9	<u>860</u>	15	<u>238</u>	9	<u>812</u>
P 5 20	<u>129</u>	12	<u>924</u>	20	<u>252</u>	12	<u>858</u>
P 6 25	<u>146</u>	15	<u>961</u>	25	<u>265</u>	15	<u>888</u>
P 7 30	<u>155</u>	18	<u>997</u>	30	<u>280</u>	18	<u>912</u>
P 8 35		21	<u>1020</u>	35	<u>292</u>	21	<u>928</u>
P 9 40		24	<u>1038</u>	40	<u>308</u>	24	<u>941</u>
P10 45		27	<u>1052</u>	45	<u>325</u>	27	<u>958</u>
P11 50		30	<u>1069</u>	50	<u>338</u>	30	<u>971</u>
P12 55		33	<u>1076</u>	55	<u>350</u>	33	<u>982</u>
P13 60		36	<u>1088</u>	60		36	<u>996</u>
P14 65		39	<u>1096</u>	65		39	<u>1004</u>
P15 70		42	<u>1104</u>	70		42	<u>1014</u>
P16 75		45		75		45	<u>1022</u>
P17 80		48		80		48	<u>1030</u>
P18 85		51		85		51	<u>1034</u>
P19 90		54		90		54	<u>1039</u>
P20 95		57		95		57	<u>1043</u>
100		60		100		60	<u>1047</u>

WESTERN TESTING CO., INC.

Pressure Data

Date _____

Test Ticket No. 18996

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.			

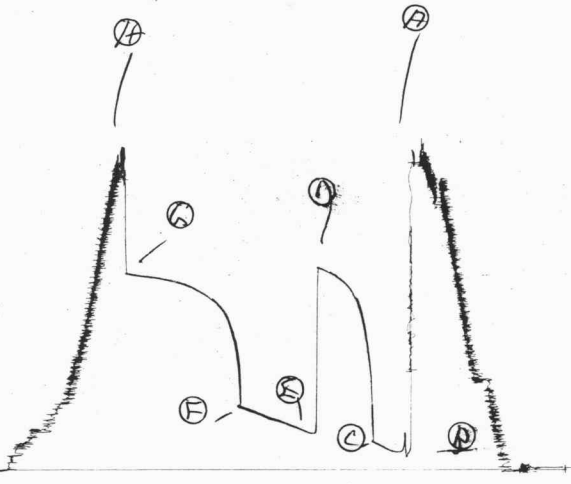
PRESSURE BREAKDOWN

Point Mins.	First Flow Pressure		Initial Shut-In		Second Flow Pressure		Final Shut-In	
	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.	Breakdown: _____ Inc.	of _____ mins. and a final inc. of _____ Min.
	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes
P 1 105	_____	63	_____	105	_____	63	1051	
P 2 110	_____	66	_____	110	_____	66	1054	
P 3 115	_____	69	_____	115	_____	69	1057	
P 4 120	_____	72	_____	120	_____	72	1060	
P 5 125	_____	75	_____	125	_____	75	1063	
P 6 130	_____	78	_____	130	_____	78	1066	
P 7 135	_____	81	_____	135	_____	81	1069	
P 8 140	_____	84	_____	140	_____	84	1073	
P 9 145	_____	87	_____	145	_____	87	1077	
P10 150	_____	90	_____	150	_____	90		
P11 155	_____	93	_____	155	_____	93		
P12 160	_____	96	_____	160	_____	96		
P13 165	_____	99	_____	165	_____	99		
P14 170	_____	102	_____	170	_____	102		
P15 175	_____	105	_____	175	_____	105		
P16 180	_____	108	_____	180	_____	108		
P17 185	_____	111	_____	185	_____	111		
P18 190	_____	114	_____	190	_____	114		
P19 195	_____	117	_____	195	_____	117		
P20 200	_____	120	_____	200	_____	120		

K+18996

#3849 DST1

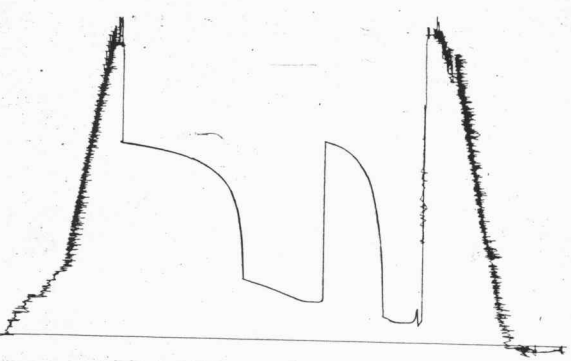
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K+18996

2004 DST1

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

COMPANY WHITE & ELLIS DRILLING INC LEASE & WELL NO. #1-17 KNOWLES SEC. 17 TWP. 23S RGE. 8W TEST NO. 1 DATE 4/26/93

DST REPORT

GENERAL INFORMATION

DATE : 4/26/93
CUSTOMER : WHITE & ELLIS DRLG.
WELL : #1-17 TEST: 1
ELEVATION: 1668 K.B.
SECTION : 17
RANGE : 8W COUNTY: RENO
GAUGE SN#: 3849 RANGE : 4200
TICKET : 18996
LEASE : KNOWLES TRUST
GEOLOGIST: THOMAS FUNK
FORMATION: MISSISSIPPI
TOWNSHIP : 23S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3623.00 ft TO: 3666.00 ft TVD: 3666.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: GAS
DEPTH OF RECORDERS: 3625.0 ft 3628.0 ft
TEMPERATURE: 119.0
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3603.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 43.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 3618.0 ft SIZE: 6.630 in
PACKER DEPTH: 3623.0 ft SIZE: 6.630 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : WHITE & ELLIS RIG 8
MUD TYPE : CHEMICAL VISCOSITY : 48.00 cp
WEIGHT : 8.700 ppg WATER LOSS: 7.200 cc
CHLORIDES : 3000 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

STRONG BLOW OFF BOTTOM OF BUCKET IN 1 MIN. ON
INITIAL FLOW PERIOD. STRONG BLOW OFF BOTTOM OF
BUCKET IN 3 MINUTES. GAS TO SURFACE IN 32 MIN.

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

SEE ATTACHED SHEET FOR GAS MEASUREMENTS.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
75.0	100.0	0.0	0.0	0.0	CLEAN GASSY OIL
0.0	0.0	0.0	0.0	0.0	37 GRAVITY @ 60 DEGREES F
190.0	18.0	55.0	8.0	19.0	GASSY WTRY MUD CUT OIL
120.0	6.0	25.0	10.0	59.0	OIL & GASSY MUD CUT WATER
375.0	0.0	0.0	0.0	100.0	SALTWATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 71000 PPM

RATE INFORMATION

OIL VOLUME:	1.6327 STB	TOTAL FLOW TIME:	85.0000 min.
GAS VOLUME:	10.5929 SCF	AVERAGE OIL RATE:	39.9069 STB/D
MUD VOLUME:	6.7593 STB	AVERAGE WATER RATE:	19.6176 STB/D
WATER VOLUME:	0.3815 STB		
TOTAL FLUID :	8.7735 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1661.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	68.00	148.00
INITIAL SHUT-IN	45.00		1096.00
FINAL FLOW	60.00	182.00	342.00
FINAL SHUT-IN	90.00		1069.00

FINAL HYDROSTATIC PRESSURE: 1644.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1669.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	113.00	155.00
INITIAL SHUT-IN	42.00		1106.00
FINAL FLOW	55.00	202.00	350.00
FINAL SHUT-IN	87.00		1077.00

FINAL HYDROSTATIC PRESSURE: 1638.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 4/26/93 CUSTOMER : WHITE & ELLIS DRLG. WELL : #1-17 TEST: 1 ELEVATION: 1668 K.B. SECTION : 17 RANGE : 8W COUNTY: RENO GAUGE SN#: 38490 RANGE : 4200	TICKET : 18996 LEASE : KNOWLES TRUST GEOLOGIST: THOMAS FUNK FORMATION: MISSISSIPPI TOWNSHIP : 23S STATE : KS CLOCK : 12
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PRE FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
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SECOND FLOW

Time Guage (min)	Tester Type	Orifice Size	Pressure	Flow Desc.
35 MIN.	MERLA	0.380	4" WATER	7140 SCF/D
40 MIN	MERLA	0.380	4" WATER	7140 SCF/D
45 MIN	MERLA	0.380	3.6" WATER	6780 SCF/D
50 MIN	MERLA	0.380	3.4" WATER	6580 SCF/D
55 MIN	MERLA	0.380	3.4" WATER	6580 SCF/D
60 MIN	MERLA	0.380	3" WATER	6180 SCF/D

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 4/26/93	TICKET : 18996
CUSTOMER : WHITE & ELLIS DRLG.	LEASE : KNOWLES TRUST
WELL : #1-17 TEST: 1	GEOLOGIST: THOMAS FUNK
ELEVATION: 1668 K.B.	FORMATION: MISSISSIPPI
SECTION : 17	TOWNSHIP : 23S
RANGE : 8W COUNTY: RENO	STATE : KS
GAUGE SN#: 38490 RANGE : 4200	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	113.00	113.00
5.00	193.00	80.00
10.00	101.00	-92.00
15.00	110.00	9.00
20.00	129.00	19.00
25.00	146.00	17.00
30.00	155.00	9.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	586.00	586.00	0.00
6.00	755.00	169.00	0.00
9.00	860.00	105.00	0.00
12.00	924.00	64.00	0.00
15.00	961.00	37.00	0.00
18.00	997.00	36.00	0.00
21.00	1020.00	23.00	0.00
24.00	1038.00	18.00	0.00
27.00	1052.00	14.00	0.00
30.00	1069.00	17.00	0.00
33.00	1076.00	7.00	0.00
36.00	1088.00	12.00	0.00
39.00	1096.00	8.00	0.00
42.00	1106.00	10.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	202.00	202.00
5.00	205.00	3.00
10.00	219.00	14.00
15.00	238.00	19.00
20.00	252.00	14.00
25.00	265.00	13.00
30.00	280.00	15.00
35.00	293.00	13.00
40.00	308.00	15.00
45.00	325.00	17.00
50.00	338.00	13.00
55.00	350.00	12.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	654.00	654.00	0.00
6.00	743.00	89.00	0.00
9.00	812.00	69.00	0.00
12.00	858.00	46.00	0.00
15.00	888.00	30.00	0.00
18.00	913.00	25.00	0.00
21.00	928.00	15.00	0.00
24.00	941.00	13.00	0.00
27.00	958.00	17.00	0.00
30.00	971.00	13.00	0.00
33.00	982.00	11.00	0.00
36.00	996.00	14.00	0.00
39.00	1004.00	8.00	0.00
42.00	1014.00	10.00	0.00
45.00	1022.00	8.00	0.00
48.00	1033.00	11.00	0.00
51.00	1034.00	1.00	0.00
54.00	1039.00	5.00	0.00
57.00	1043.00	4.00	0.00
60.00	1047.00	4.00	0.00
63.00	1051.00	4.00	0.00
66.00	1054.00	3.00	0.00
69.00	1057.00	3.00	0.00
72.00	1060.00	3.00	0.00
75.00	1063.00	3.00	0.00
78.00	1066.00	3.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
81.00	1069.00	3.00	0.00
84.00	1073.00	4.00	0.00
87.00	1077.00	4.00	0.00



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 18997

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

Elevation 1668 K.B. Formation Miss. Eff. Pay _____ Ft.

District Garden City Date 4-27-93 Customer Order No. _____

COMPANY NAME White & Ellis Drig. Co.

ADDRESS P.O. Box 48848 Wichita, KS. 67201-8848

LEASE AND WELL NO. #1 Knowles Trust COUNTY Raw STATE KS. Sec. 17 Twp. 23S Rge. 8W

Mail Invoice To W & E Drig. Co. Name Same Address #1-17 No. Copies Requested Req.

Mail Charts To W & E Drig. Address Same Knowles No. Copies Requested Req.

Formation Test No. 2 Interval Tested From 3671 ft. to 3684 ft. Total Depth 3684 ft.

Packer Depth 3666 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.

Packer Depth 3671 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 3674 ft. Recorder Number 3849 Cap. 4200

Bottom Recorder Depth (Outside) 3677 ft. Recorder Number 2604 Cap. 4150

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

Drilling Contractor White & Ellis Rg 8 Drill Collar Length _____ I. D. _____ in.

Mud Type Chem. Viscosity 51 Weight Pipe Length _____ I. D. _____ in.

Weight 8.7 Water Loss 7.2 cc. Drill Pipe Length 3651 I. D. 3.8 in.

Chlorides 3,000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.

Jars: Make _____ Serial Number _____ Anchor Length 13 ft. Size 5 1/2 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 X H. in.

Blow: _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

MAY 07 1993

Chlorides _____ P.P.M. Sample Jars used _____ Remarks: Miss-Run due to 26' of fill on Bottom. Tool wasn't opened.

Time On Location 12:00 ^{A.M.} P.M. Time Pick Up Tool 2:30 ^{A.M.} P.M. Time Off Location _____ A.M. P.M.

Time Set Packer(s) _____ A.M. P.M. Time Started Off Bottom 4:20 ^{A.M.} P.M. Maximum Temperature _____

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

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

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

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

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

Final Hydrostatic Pressure _____ (H) _____ 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]

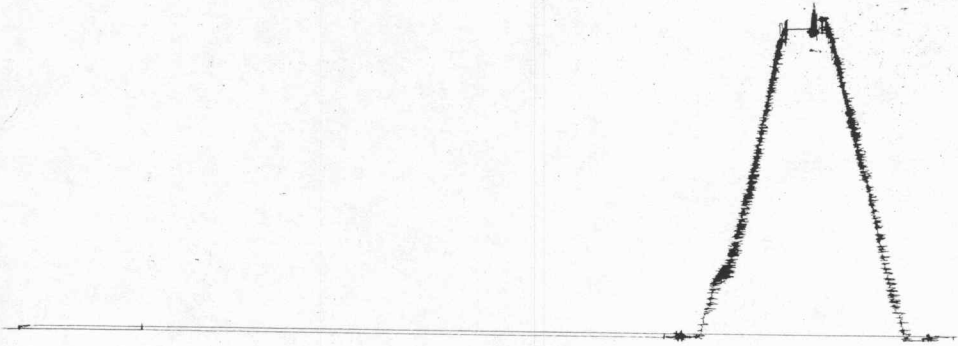
FIELD INVOICE

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

JKT 18997

#3849 DST 2

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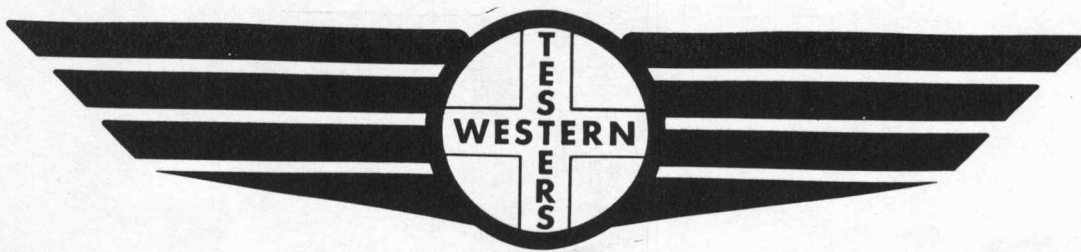


JKT 18997 2004 DST 2

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

DST REPORT

GENERAL INFORMATION

DATE : 4/27/93
CUSTOMER : WHITE & ELLIS DRLG.
WELL : #1-17 TEST: 2
ELEVATION: 1668 K.B.
SECTION : 17
RANGE : 8W COUNTY: RENO
GAUGE SN#: 3849 RANGE : 4200
TICKET : 18997
LEASE : KNOWLES TRUST
GEOLOGIST: THOMAS FUNK
FORMATION: MISSISSIPPI
TOWNSHIP : 23S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3671.00 ft TO: 3684.00 ft TVD: 3684.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3674.0 ft 3677.0 ft
TEMPERATURE: 0.0
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3651.0 ft I.D.: 3.800 in
TEST TOOL LENGTH : 20.0 ft TOOL SIZE : 5.500 in
ANCHOR LENGTH : 13.0 ft ANCHOR SIZE: 5.500 in
SURFACE CHOKE SIZE : 0.750 in BOTTOM CHOKE SIZE: 0.750 in
MAIN HOLE SIZE : 7.875 in TOOL JOINT SIZE : 4.5XH
PACKER DEPTH: 3666.0 ft SIZE: 6.630 in
PACKER DEPTH: 3671.0 ft SIZE: 6.630 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : WHITE & ELLIS RIG 8
MUD TYPE : CHEMICAL VISCOSITY : 51.00 cp
WEIGHT : 8.700 ppg WATER LOSS: 7.200 cc
CHLORIDES : 3000 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

MISRUN - DUE TO 26' OF FILL ON BOTTOM - TOOL WAS NOT OPENED. NO PRESSURES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	%	%	%	%	Comments
Oil	Gas	Water	Mud		
No Data Entered					

RATE INFORMATION

OIL VOLUME:	0.0000	STB			
GAS VOLUME:	0.0000	SCF			
MUD VOLUME:	0.0000	STB			
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.0000	STB			
				TOTAL FLOW TIME:	No Events Created
				AVERAGE OIL RATE:	0.0000 STB/D
				AVERAGE WATER RATE:	0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 0.00

Description	Duration	p1	p End
INITIAL FLOW	0.00	0.00	0.00
INITIAL SHUT-IN	0.00		0.00
FINAL FLOW	0.00	0.00	0.00
FINAL SHUT-IN	0.00		0.00

FINAL HYDROSTATIC PRESSURE: 0.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 0.00

Description	Duration	p1	p End
INITIAL FLOW	0.00	0.00	0.00
INITIAL SHUT-IN	0.00		0.00

FINAL HYDROSTATIC PRESSURE: 0.00



WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

No 18998

Last Test

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

Elevation 1668 K.B. Formation MISS. Eff. Pay Ft.

District Garden City Date 4-27-93 Customer Order No.

COMPANY NAME White & Ellis Drilling Co.
ADDRESS P.O. Box 48848 Wichita, KS 67201-8848
LEASE AND WELL NO. #1 Knowles Trust COUNTY Reno STATE KS. Sec. 17 Twp 23S Rge. 8W
Mail Invoice To W & E Drilling Co. Name Same #1-12 Knowles Address No. Copies Requested Reg.
Mail Charts To W & E Drilling Co. Name Same #1-12 Knowles Address No. Copies Requested Reg.

Formation Test No. 3 Interval Tested From 3671 ft. to 3684 ft. Total Depth 3684 ft.
Packer Depth 3666 ft. Size 6 5/8 in. Packer Depth ft. Size in.
Packer Depth 3671 ft. Size 6 5/8 in. Packer Depth ft. Size in.
Depth of Selective Zone Set

Top Recorder Depth (Inside) 3674 ft. Recorder Number 3849 Cap. 4200
Bottom Recorder Depth (Outside) 3677 ft. Recorder Number 2604 Cap. 4150
Below Straddle Recorder Depth ft. Recorder Number Cap.

Drilling Contractor White & Ellis Rig 8 Drill Collar Length I. D. in.
Mud Type Chem Viscosity 66 Weight Pipe Length I. D. in.
Weight 8.8 Water Loss 6.8 cc. Drill Pipe Length 3651 I. D. 3.8 in.
Chlorides 7000 P.P.M. Test Tool Length 20 ft. Tool Size 5 1/2 in.
Jars: Make Serial Number Anchor Length 13 ft. Size 5 1/2 in.
Did Well Flow? No Reversed Out 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 X H. in.

Blow: Strong "B.O.B." in 30 Sec. I.F.
Strong "B.O.B." in 30 Sec. Dial back to 5" in Bucket 45 Min. F.F.
Recovered 170 ft. of Gassy mud cut W.T.R. 15% Gas 17% mud 68% W.T.R.
Recovered 125 ft. of Heavy Gas cut W.T.R. 28% Gas 72% W.T.R.
Recovered 2410 ft. of Sl. Gas cut S.H. W.T.R. 3% Gas 97% W.T.R. 68,000 P.P.M.
Recovered ft. of
Recovered ft. of Total Fluid Rec. 2,705
Chlorides 68,000 P.P.M. Sample Jars used Remarks: MAY 07 1993

Time On Location 12:00 A.M. Time Pick Up Tool 11:40 A.M. Time Off Location A.M.
Time Set Packer(s) 12:50 P.M. Time Started Off Bottom 3:50 P.M. Maximum Temperature 119°F
Initial Hydrostatic Pressure (A) 1746 P.S.I.
Initial Flow Period Minutes 30 (B) 355 P.S.I. to (C) 1182 P.S.I.
Initial Closed In Period Minutes 45 (D) 1278 P.S.I.
Final Flow Period Minutes 45 (E) 1244 P.S.I. to (F) 1278 P.S.I.
Final Closed In Period Minutes 60 (G) 1278 P.S.I.
Final Hydrostatic Pressure (H) 1711 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]

FIELD INVOICE

- Open Hole Test \$
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 4-27-92 Test Ticket No. 18998
 Recorder No. 5849 Capacity _____ Location _____ Ft. _____
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>1759</u> P.S.I.	Open Tool		M _____
B First Initial Flow Pressure	<u>364</u> P.S.I.	First Flow Pressure	_____ Mins.	<u>50</u> Mins.
C First Final Flow Pressure	<u>1185</u> P.S.I.	Initial Closed-in Pressure	_____ Mins.	<u>45</u> Mins.
D Initial Closed-in Pressure	<u>1281</u> P.S.I.	Second Flow Pressure	_____ Mins.	<u>45</u> Mins.
E Second Initial Flow Pressure	<u>1251</u> P.S.I.	Final Closed-in Pressure	_____ Mins.	<u>54</u> Mins.
F Second Final Flow Pressure	<u>1291</u> P.S.I.			
G Final Closed-in Pressure	<u>1293</u> P.S.I.			
H Final Hydrostatic Mud	<u>1709</u> P.S.I.			

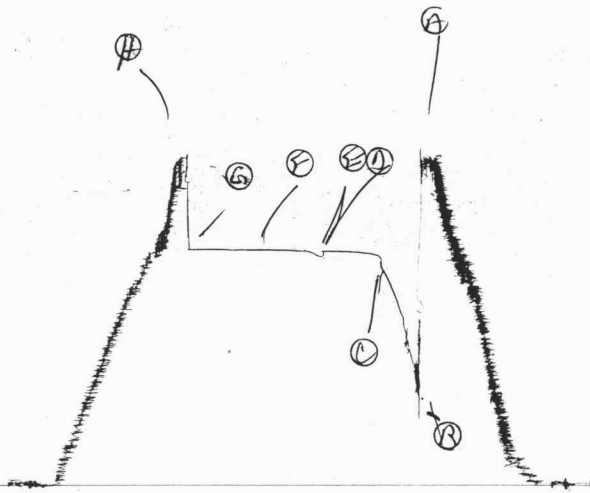
PRESSURE BREAKDOWN

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 0	<u>364</u>	0	<u>1185</u>	0	<u>1251</u>	0	<u>1291</u>
P 2 5	<u>682</u>	3	<u>1255</u>	5	<u>1265</u>	3	
P 3 10	<u>822</u>	6	<u>1264</u>	10	<u>1278</u>	6	
P 4 15	<u>969</u>	9	<u>1269</u>	15	<u>1284</u>	9	
P 5 20	<u>1065</u>	12	<u>1270</u>	20	<u>1286</u>	12	
P 6 25	<u>1143</u>	15	<u>1274</u>	25	<u>1287</u>	15	<u>1291</u>
P 7 30	<u>1185</u>	18	<u>1276</u>	30	<u>1288</u>	18	
P 8 35		21	<u>1278</u>	35	<u>1289</u>	21	
P 9 40		24	<u>1279</u>	40	<u>1290</u>	24	<u>1291</u>
P10 45		27	<u>1280</u>	45	<u>1291</u>	27	<u>1292</u>
P11 50		30	<u>1281</u>	50		30	<u>1293</u>
P12 55		33		55		33	
P13 60		36		60		36	
P14 65		39		65		39	
P15 70		42		70		42	
P16 75		45	<u>1281</u>	75		45	<u>1293</u>
P17 80		48		80		48	
P18 85		51		85		51	
P19 90		54		90		54	<u>1293</u>
P20 95		57		95		57	
100		60		100		60	

JKT 18998

#3847 DST3

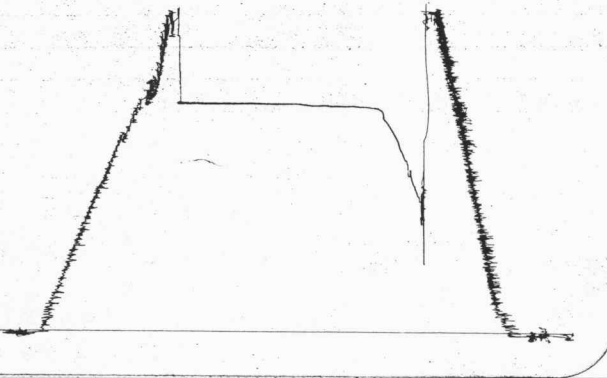
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JKT 18998

2604 DST3

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FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone **1 - 800-688-7021**

DST REPORT

GENERAL INFORMATION

DATE : 4/27/93
CUSTOMER : WHITE & ELLIS DRLG.
WELL : #1-17 TEST: 3
ELEVATION: 1668 K.B.
SECTION : 17
RANGE : 8W COUNTY: RENO
GAUGE SN#: 3849 RANGE : 4200
TICKET : 18998
LEASE : KNOWLES TRUST
GEOLOGIST: THOMAS FUNK
FORMATION: MISSISSIPPI
TOWNSHIP : 23S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 3671.00 ft TO: 3684.00 ft TVD: 3684.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 3674.0 ft 3677.0 ft
TEMPERATURE: 119.0
DRILL COLLAR LENGTH: 0.0 ft I.D.: 0.000 in
WEIGHT PIPE LENGTH : 0.0 ft I.D.: 0.000 in
DRILL PIPE LENGTH : 3651.0 ft I.D.: 3.800 in
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PACKER DEPTH: 3671.0 ft SIZE: 6.630 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in
PACKER DEPTH: 0.0 ft SIZE: 0.000 in

MUD INFORMATION

DRILLING CON. : WHITE & ELLIS RIG 8
MUD TYPE : CHEMICAL VISCOSITY : 66.00 cp
WEIGHT : 8.800 ppg WATER LOSS: 6.800 cc
CHLORIDES : 7000 ppm
JARS-MAKE :
DID WELL FLOW?: NO SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD STRONG BLOW - BOTTOM OF BUCKET
IN 30 SECONDS. FINAL FLOW PERIOD STRONG BLOW -
BOTTOM OF BUCKET IN 30 SECONDS - DIED BACK TO 5"

DST REPORT (CONTINUED)

COMMENTS (CONTINUED)

Comment

IN BUCKET IN 45 MINUTES.

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
170.0	0.0	15.0	68.0	17.0	GASSY MUD CUT WATER
125.0	0.0	28.0	72.0	0.0	HEAVY GAS CUT WATER
2410.0	0.0	3.0	97.0	0.0	SL. GAS CUT SALTWATER
0.0	0.0	0.0	0.0	0.0	CHLORIDES 68000 PPM

RATE INFORMATION

OIL VOLUME:	0.0000 STB	TOTAL FLOW TIME:	75.0000 min.
GAS VOLUME:	10.4591 SCF	AVERAGE OIL RATE:	0.0000 STB/D
MUD VOLUME:	0.4054 STB	AVERAGE WATER RATE:	692.7089 STB/D
WATER VOLUME:	35.6732 STB		
TOTAL FLUID :	36.0786 STB		

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1746.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	355.00	1182.00
INITIAL SHUT-IN	45.00		1278.00
FINAL FLOW	45.00	1244.00	1278.00
FINAL SHUT-IN	60.00		1278.00

FINAL HYDROSTATIC PRESSURE: 1711.00

DST REPORT (CONTINUED)

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 1759.00

<u>Description</u>	<u>Duration</u>	<u>p1</u>	<u>p End</u>
INITIAL FLOW	30.00	364.00	1185.00
INITIAL SHUT-IN	45.00		1281.00
FINAL FLOW	45.00	1251.00	1291.00
FINAL SHUT-IN	54.00		1293.00

FINAL HYDROSTATIC PRESSURE: 1709.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 4/27/93	TICKET : 18998
CUSTOMER : WHITE & ELLIS DRLG.	LEASE : KNOWLES TRUST
WELL : #1-17 TEST: 3	GEOLOGIST: THOMAS FUNK
ELEVATION: 1668 K.B.	FORMATION: MISSISSIPPI
SECTION : 17	TOWNSHIP : 23S
RANGE : 8W COUNTY: RENO	STATE : KS
GAUGE SN#: 3849 RANGE : 4200	CLOCK : 12

INITIAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	364.00	364.00
5.00	682.00	318.00
10.00	823.00	141.00
15.00	969.00	146.00
20.00	1065.00	96.00
25.00	1143.00	78.00
30.00	1185.00	42.00

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1255.00	1255.00	0.00
6.00	1264.00	9.00	0.00
9.00	1269.00	5.00	0.00
12.00	1272.00	3.00	0.00
15.00	1274.00	2.00	0.00
18.00	1276.00	2.00	0.00
21.00	1278.00	2.00	0.00
24.00	1279.00	1.00	0.00
27.00	1280.00	1.00	0.00
30.00	1281.00	1.00	0.00
33.00	1281.00	0.00	0.00
36.00	1281.00	0.00	0.00
39.00	1281.00	0.00	0.00
42.00	1281.00	0.00	0.00
45.00	1281.00	0.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
0.00	1251.00	1251.00
5.00	1262.00	11.00
10.00	1278.00	16.00
15.00	1284.00	6.00
20.00	1286.00	2.00
25.00	1287.00	1.00
30.00	1288.00	1.00
35.00	1289.00	1.00
40.00	1290.00	1.00
45.00	1291.00	1.00

FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	1291.00	1291.00	0.00
6.00	1291.00	0.00	0.00
9.00	1291.00	0.00	0.00
12.00	1291.00	0.00	0.00
15.00	1291.00	0.00	0.00
18.00	1291.00	0.00	0.00
21.00	1291.00	0.00	0.00
24.00	1291.00	0.00	0.00
27.00	1292.00	1.00	0.00
30.00	1293.00	1.00	0.00
33.00	1293.00	0.00	0.00
36.00	1293.00	0.00	0.00
39.00	1293.00	0.00	0.00
42.00	1293.00	0.00	0.00
45.00	1293.00	0.00	0.00
48.00	1293.00	0.00	0.00
51.00	1293.00	0.00	0.00
54.00	1293.00	0.00	0.00