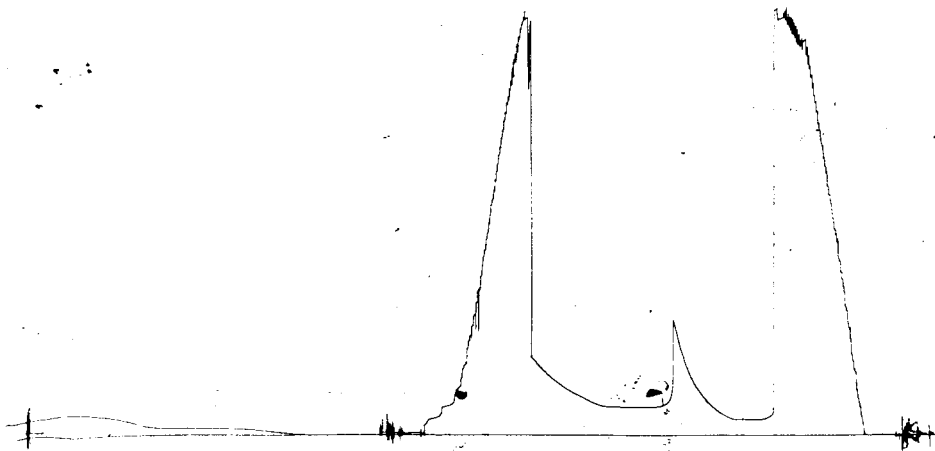


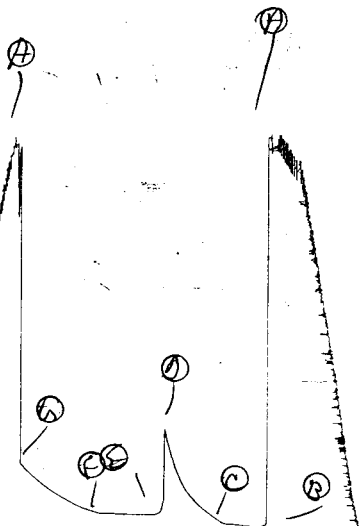
13548
DST 21

7K7 19252
①



13521
DST #1

7K4 19192
I





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET N^o 19293

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

Elevation 2850 Est GL Formation Pawnee + Ft Scott Eff. Pay 9 Ft.

District Garden City Date 5-4-93

Customer Order No. _____

COMPANY NAME Chief Drilling, Inc

ADDRESS 120 S. Market, #300 Wichita KS 67202

LEASE AND WELL NO. Tanpley 132 COUNTY Finney STATE KS Sec. 32 Twp. 22^s Rge. 30^w

Mail Invoice To Same No. Copies Requested Reg

Co. Name Same Address _____ No. Copies Requested Reg

Mail Charts To #1-32 Tanpley Address _____ No. Copies Requested Reg

Formation Test No. 1 Interval Tested From 4550 ft. to 4604 ft. Total Depth 4604 ft.

Packer Depth 4545 ft. Size 6 7/8 in. Packer Depth — ft. Size — in.

Packer Depth 4550 ft. Size 6 7/8 in. Packer Depth — ft. Size — in.

Depth of Selective Zone Set —

Top Recorder Depth (Inside) 4595 ft. Recorder Number 13521 Cap. 4275

Bottom Recorder Depth (Outside) 4598 ft. Recorder Number 13548 Cap. —

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

Drilling Contractor Chief Drilling Rig 2 Drill Collar Length — I. D. — in.

Mud Type Chem Viscosity 45 Weight Pipe Length — I. D. — in.

Weight 9.2 Water Loss 8.8 cc. Drill Pipe Length 4528 I. D. 3.8 in.

Chlorides 3000 P.P.M. Test Tool Length 22 ft. Tool Size 5 1/2 in.

Jars: Make Western Serial Number — Anchor Length 54 ft. Size 5 1/2 in.

Did Well Flow? — Reversed Out — Surface Choke Size 3/4 in. Bottom Choke Size 3/4 in.

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

Blow: IF Fair Building Blow to Bottom Bucket in 20 min. IS No Blow

FF Strong Building Blow to Bottom Bucket in 3 min. FS Weak Gain Blow

Recovered 630 ft. of Gas in Pipe

Recovered 250 ft. of Gassy Mud cut oil 40% Gas 35% oil 25% mud

Recovered — ft. of —

Recovered — ft. of —

Recovered — ft. of —

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

MAY 10 1993

Time On Location 11 30 A.M. Time Pick Up Tool 12:30 P.M. Time Off Location — A.M.

Time Set Packer(s) 200 P.M. Time Started Off Bottom 500 P.M. Maximum Temperature 112"

Initial Hydrostatic Pressure 2306 (A) — P.S.I.

Initial Flow Period 30 Minutes (B) 88 P.S.I. to (C) 99 P.S.I.

Initial Closed In Period 45 Minutes (D) 641 P.S.I.

Final Flow Period 45 Minutes (E) 173 P.S.I. to (F) 154 P.S.I.

Final Closed In Period 60 Minutes (G) 442 P.S.I.

Final Hydrostatic Pressure 2252 (H) — 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: 5-4-82 Test Ticket No. _____
 Recorder No. 1551 Capacity _____ Location _____ Ft.
 Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2291</u>	P.S.I.		M
B First Initial Flow Pressure	<u>75</u>	P.S.I.		Mins. <u>30</u> Mins.
C First Final Flow Pressure	<u>86</u>	P.S.I.		Mins. <u>45</u> Mins.
D Initial Closed-in Pressure	<u>628</u>	P.S.I.		Mins. <u>45</u> Mins.
E Second Initial Flow Pressure	<u>139</u>	P.S.I.		Mins. <u>60</u> Mins.
F Second Final Flow Pressure	<u>143</u>	P.S.I.		
G Final Closed-in Pressure	<u>423</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2250</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 _____ mins. and a		of _____ mins. and a		of _____ mins. and a		of _____ mins. and a	
final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>0</u>	<u>75</u>	<u>0</u>	86 <u>86</u>	<u>0</u>	<u>139</u>	<u>0</u>	<u>143</u>
P 2 <u>1</u>		<u>1</u>	<u>92</u>	<u>1</u>	<u>139</u>	<u>1</u>	<u>145</u>
P 3 <u>2</u>		<u>2</u>	<u>98</u>	<u>2</u>		<u>2</u>	<u>146</u>
P 4 <u>3</u>		<u>3</u>	99 <u>100</u>	<u>3</u>		<u>3</u>	<u>147</u>
P 5 <u>4</u>		<u>4</u>	<u>106</u>	<u>4</u>		<u>4</u>	<u>148</u>
P 6 <u>5</u>		<u>5</u>	<u>111</u>	<u>5</u>		<u>5</u>	<u>149</u>
P 7 <u>6</u>		<u>6</u>	<u>117</u>	<u>6</u>		<u>6</u>	<u>155</u>
P 8 <u>7</u>		<u>7</u>	120 <u>122</u>	<u>7</u>		<u>7</u>	<u>157</u>
P 9 <u>8</u>		<u>8</u>	<u>128</u>	<u>8</u>		<u>8</u>	<u>159</u>
P10 <u>9</u>		<u>9</u>	<u>133</u>	<u>9</u>		<u>9</u>	<u>161</u>
P11 <u>10</u>		<u>10</u>	<u>137</u>	<u>10</u>		<u>10</u>	<u>163</u>
P12 <u>11</u>	<u>75</u>	<u>11</u>	<u>143</u>	<u>11</u>	<u>139</u>	<u>11</u>	<u>165</u>
P13 <u>12</u>	<u>75</u>	<u>12</u>	<u>150</u>	<u>12</u>	<u>140</u>	<u>12</u>	<u>167</u>
P14 <u>13</u>	<u>76</u>	<u>13</u>	<u>157</u>	<u>13</u>	<u>140</u>	<u>13</u>	<u>170</u>
P15 <u>14</u>	<u>77</u>	<u>14</u>	<u>162</u>	<u>14</u>	<u>140</u>	<u>14</u>	<u>175</u>
P16 <u>15</u>	<u>78</u>	<u>15</u>	<u>167</u>	<u>15</u>	<u>140</u>	<u>15</u>	<u>179</u>
P17 <u>16</u>	<u>79</u>	<u>16</u>	<u>175</u>	<u>16</u>	<u>140</u>	<u>16</u>	<u>181</u>
P18 <u>17</u>	<u>80</u>	<u>17</u>	<u>181</u>	<u>17</u>	<u>140</u>	<u>17</u>	<u>185</u>
P19 <u>18</u>	<u>80</u>	<u>18</u>	<u>190</u>	<u>18</u>	<u>140</u>	<u>18</u>	<u>188</u>
P20 <u>19</u>	<u>80</u>	<u>19</u>	<u>195</u>	<u>19</u>	<u>140</u>	<u>19</u>	<u>191</u>
<u>20</u>	<u>81</u>	<u>20</u>	<u>204</u>	<u>20</u>	<u>140</u>	<u>20</u>	<u>194</u>

WESTERN TESTING CO., INC.

Pressure Data

Date: _____ Test Ticket No. _____

Recorder No. _____ Capacity _____ Location _____ Ft.

Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud _____	P.S.I.	_____	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 _____ mins. and a		of _____ mins. and a		of _____ mins. and a		of _____ mins. and a	
final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 <u>21</u>	<u>81</u>	<u>21</u>	<u>212</u>	<u>21</u>	<u>140</u>	<u>21</u>	<u>199</u>
P 2 <u>22</u>	<u>82</u>	<u>22</u>	<u>220</u>	<u>22</u>	<u>140</u>	<u>22</u>	<u>204</u>
P 3 <u>23</u>	<u>82</u>	<u>23</u>	<u>228</u>	<u>23</u>	<u>141</u>	<u>23</u>	<u>208</u>
P 4 <u>24</u>	<u>83</u>	<u>24</u>	<u>237</u>	<u>24</u>		<u>24</u>	<u>212</u>
P 5 <u>25</u>	<u>83</u>	<u>25</u>	<u>243</u>	<u>25</u>		<u>25</u>	<u>216</u>
P 6 <u>26</u>	<u>84</u>	<u>26</u>	<u>251</u>	<u>26</u>		<u>26</u>	<u>220</u>
P 7 <u>27</u>	<u>84</u>	<u>27</u>	<u>262</u>	<u>27</u>		<u>27</u>	<u>225</u>
P 8 <u>28</u>	<u>85</u>	<u>28</u>	<u>275</u>	<u>28</u>		<u>28</u>	<u>230</u>
P 9 <u>29</u>	<u>85</u>	<u>29</u>	<u>288</u>	<u>29</u>		<u>29</u>	<u>235</u>
P 10 <u>30</u>	<u>86</u>	<u>30</u>	<u>299</u>	<u>30</u>	<u>141</u>	<u>30</u>	<u>239</u>
P 11 _____		<u>31</u>	<u>312</u>	<u>31</u>	<u>142</u>	<u>31</u>	<u>245</u>
P 12 _____		<u>32</u>	<u>327</u>	<u>32</u>	<u>142</u>	<u>32</u>	<u>249</u>
P 13 _____		<u>33</u>	<u>341</u>	<u>33</u>	<u>142</u>	<u>33</u>	<u>254</u>
P 14 _____		<u>34</u>	<u>356</u>	<u>34</u>	<u>142</u>	<u>34</u>	<u>257</u>
P 15 _____		<u>35</u>	<u>378</u>	<u>35</u>	<u>142</u>	<u>35</u>	<u>261</u>
P 16 _____		<u>36</u>	<u>394</u>	<u>36</u>	<u>142</u>	<u>36</u>	<u>265</u>
P 17 _____		<u>37</u>	<u>409</u>	<u>37</u>	<u>142</u>	<u>37</u>	<u>271</u>
P 18 _____		<u>38</u>	<u>427</u>	<u>38</u>	<u>143</u>	<u>38</u>	<u>277</u>
P 19 _____		<u>39</u>	<u>450</u>	<u>39</u>		<u>39</u>	<u>281</u>
P 20 _____		<u>40</u>	<u>476</u>	<u>40</u>		<u>40</u>	<u>287</u>
		<u>41</u>	<u>502</u>	<u>41</u>	<u>143</u>	<u>41</u>	<u>292</u>

WESTERN TESTING CO., INC.

Pressure Data

Date _____ Test Ticket No. _____

Recorder No. _____ Capacity _____ Location _____ Ft. _____

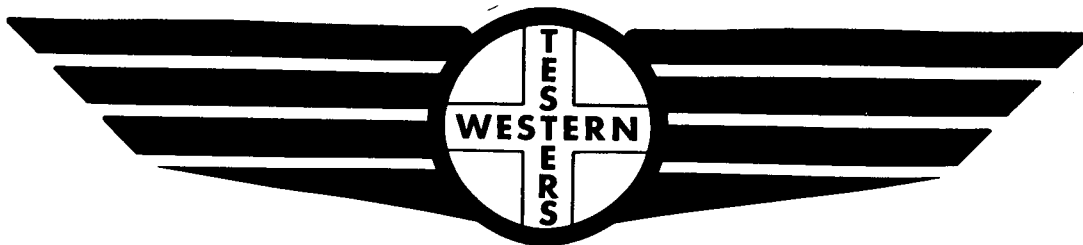
Clock No. _____ Elevation _____ Well Temperature _____ °F

Point	Pressure	Open Tool	Time Given	Time Computed
A Initial Hydrostatic Mud _____ P.S.I.				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 _____ mins. and a		of _____ mins. and a		of _____ mins. and a		of _____ mins. and a	
final inc. of _____ Min.		final inc. of _____ Min.*		final inc. of _____ Min.		final inc. of _____ Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1		42	527	42	143	42	299
P 2		43	539	43	✓	43	304
P 3		44	559	44	✓	44	312
P 4		45	568	45	143	45	319
P 5		46				46	325
P 6		47				47	331
P 7		48				48	336
P 8		49				49	341
P 9		50				50	347
P10		51				51	354
P11		52				52	361
P12		53				53	369
P13		54				54	376
P14		55				55	385
P15		56				56	392
P16		57				57	398
P17		58				58	405
P18		59				59	416
P19		60				60	423
P20		61				61	
		62				62	

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

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

COMPANY _____ CHIEF DRILLING CO., INC. ENGINE & WELL NO. _____ TARPLEY #1-32 SEC. 32 TWP. 22S RGE. 30W TEST NO. 1 DATE 5-4-93

DST REPORT

GENERAL INFORMATION

DATE : 5/4/93
CUSTOMER : CHIEF DRILLING CO., INC.
WELL : #1-32 TEST: 1
ELEVATION: 2850 EST GL
SECTION : 32
RANGE : 30W COUNTY: FINNEY
GAUGE SN#: 13521 RANGE : 4375

TICKET : 19293
LEASE : TARPLEY
GEOLOGIST:
FORMATION: PAWNEE & FT SCOTT
TOWNSHIP : 22S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4550.00 ft TO: 4604.00 ft TVD: 4604.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4595.0 ft 4598.0 ft
TEMPERATURE: 112.0

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 :	4528.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	22.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	54.0 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:	4545.0 ft	SIZE:	6.630 in
PACKER DEPTH:	4550.0 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. : CHIEF RIG 2
MUD TYPE : CHEMICAL
WEIGHT : 9.200 ppg
CHLORIDES : 3000 ppm
JARS-MAKE :
DID WELL FLOW?: NO

VISCOSITY : 45.00 cp
WATER LOSS: 8.800 cc

SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD FAIR BUILDING BLOW TO BOTTOM
OF BUCKET IN 20 MINUTES. FINAL FLOW PERIOD STRONG
BUILDING BLOW TO BOTTOM OF BUCKET IN 3 MINUTES.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
250.0	35.0	40.0	0.0	25.0	GASSY MUD CUT OIL
0.0	0.0	0.0	0.0	0.0	630 FT GAS ABOVE FLUID

RATE INFORMATION

OIL VOLUME:	1.2273	STB		
GAS VOLUME:	7.8758	SCF		
MUD VOLUME:	0.8766	STB		
WATER VOLUME:	0.0000	STB		
TOTAL FLUID :	2.1040	STB		
			TOTAL FLOW TIME:	75.0000 min.
			AVERAGE OIL RATE:	40.3959 STB/D
			AVERAGE WATER RATE:	0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2306.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	88.00	99.00
INITIAL SHUT-IN	45.00		641.00
FINAL FLOW	45.00	143.00	154.00
FINAL SHUT-IN	60.00		442.00

FINAL HYDROSTATIC PRESSURE: 2252.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2291.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	75.00	86.00
INITIAL SHUT-IN	45.00		628.00
FINAL FLOW	45.00	139.00	143.00
FINAL SHUT-IN	60.00		423.00

FINAL HYDROSTATIC PRESSURE: 2252.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 5/4/93	TICKET : 19293
CUSTOMER : CHIEF DRILLING CO., INC.	LEASE : TARPLEY
WELL : #1-32 TEST: 1	GEOLOGIST:
ELEVATION: 2850 EST GL	FORMATION: PAWNEE & FT SCOTT
SECTION : 32	TOWNSHIP : 22S
RANGE : 30W COUNTY: FINNEY	STATE : KS
GAUGE SN#: 13521 RANGE : 4375	CLOCK : 12

PRE FLOW

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

SECOND FLOW

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

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 5/4/93	TICKET : 19293
CUSTOMER : CHIEF DRILLING CO., INC.	LEASE : TARPLEY
WELL : #1-32 TEST: 1	GEOLOGIST:
ELEVATION: 2850 EST GL	FORMATION: PAWNEE & FT SCOTT
SECTION : 32	TOWNSHIP : 22S
RANGE : 30W COUNTY: FINNEY	STATE : KS
GAUGE SN#: 13521 RANGE : 4375	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	75.00	75.00
1.00	75.00	0.00
2.00	75.00	0.00
3.00	75.00	0.00
4.00	75.00	0.00
5.00	75.00	0.00
6.00	75.00	0.00
7.00	75.00	0.00
8.00	75.00	0.00
9.00	75.00	0.00
10.00	75.00	0.00
11.00	75.00	0.00
12.00	75.00	0.00
13.00	76.00	1.00
14.00	77.00	1.00
15.00	78.00	1.00
16.00	79.00	1.00
17.00	79.00	0.00
18.00	80.00	1.00
19.00	80.00	0.00
20.00	81.00	1.00
21.00	81.00	0.00
22.00	82.00	1.00
23.00	82.00	0.00
24.00	83.00	1.00
25.00	83.00	0.00
26.00	84.00	1.00
27.00	84.00	0.00
28.00	85.00	1.00
29.00	85.00	0.00
30.00	86.00	1.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
1.00	92.00	92.00	0.00
2.00	98.00	6.00	0.00
3.00	100.00	2.00	0.00
4.00	106.00	6.00	0.00
5.00	111.00	5.00	0.00
6.00	117.00	6.00	0.00
7.00	122.00	5.00	0.00
8.00	128.00	6.00	0.00
9.00	133.00	5.00	0.00
10.00	137.00	4.00	0.00
11.00	143.00	6.00	0.00
12.00	150.00	7.00	0.00
13.00	157.00	7.00	0.00
14.00	162.00	5.00	0.00
15.00	167.00	5.00	0.00
16.00	175.00	8.00	0.00
17.00	181.00	6.00	0.00
18.00	190.00	9.00	0.00
19.00	195.00	5.00	0.00
20.00	204.00	9.00	0.00
21.00	212.00	8.00	0.00
22.00	220.00	8.00	0.00
23.00	228.00	8.00	0.00
24.00	237.00	9.00	0.00
25.00	243.00	6.00	0.00
26.00	251.00	8.00	0.00
27.00	262.00	11.00	0.00
28.00	275.00	13.00	0.00
29.00	288.00	13.00	0.00
30.00	299.00	11.00	0.00
31.00	312.00	13.00	0.00
32.00	327.00	15.00	0.00
33.00	341.00	14.00	0.00
34.00	356.00	15.00	0.00
35.00	378.00	22.00	0.00
36.00	394.00	16.00	0.00
37.00	409.00	15.00	0.00
38.00	427.00	18.00	0.00
39.00	456.00	29.00	0.00
40.00	476.00	20.00	0.00
41.00	502.00	26.00	0.00
42.00	527.00	25.00	0.00
43.00	539.00	12.00	0.00
44.00	597.00	58.00	0.00
45.00	628.00	31.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	139.00	139.00
1.00	139.00	0.00
2.00	139.00	0.00
3.00	139.00	0.00
4.00	139.00	0.00
5.00	139.00	0.00
6.00	139.00	0.00
7.00	139.00	0.00
8.00	139.00	0.00
9.00	139.00	0.00
10.00	139.00	0.00
11.00	139.00	0.00
12.00	140.00	1.00
13.00	140.00	0.00
14.00	140.00	0.00
15.00	140.00	0.00
16.00	140.00	0.00
17.00	140.00	0.00
18.00	140.00	0.00
19.00	140.00	0.00
20.00	140.00	0.00
21.00	140.00	0.00
22.00	140.00	0.00
23.00	141.00	1.00
24.00	141.00	0.00
25.00	141.00	0.00
26.00	141.00	0.00
27.00	141.00	0.00
28.00	141.00	0.00
29.00	141.00	0.00
30.00	141.00	0.00
31.00	142.00	1.00
32.00	142.00	0.00
33.00	142.00	0.00
34.00	142.00	0.00
35.00	142.00	0.00
36.00	142.00	0.00
37.00	142.00	0.00
38.00	143.00	1.00
39.00	143.00	0.00
40.00	143.00	0.00
41.00	143.00	0.00
42.00	143.00	0.00
43.00	143.00	0.00
44.00	143.00	0.00
45.00	143.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN

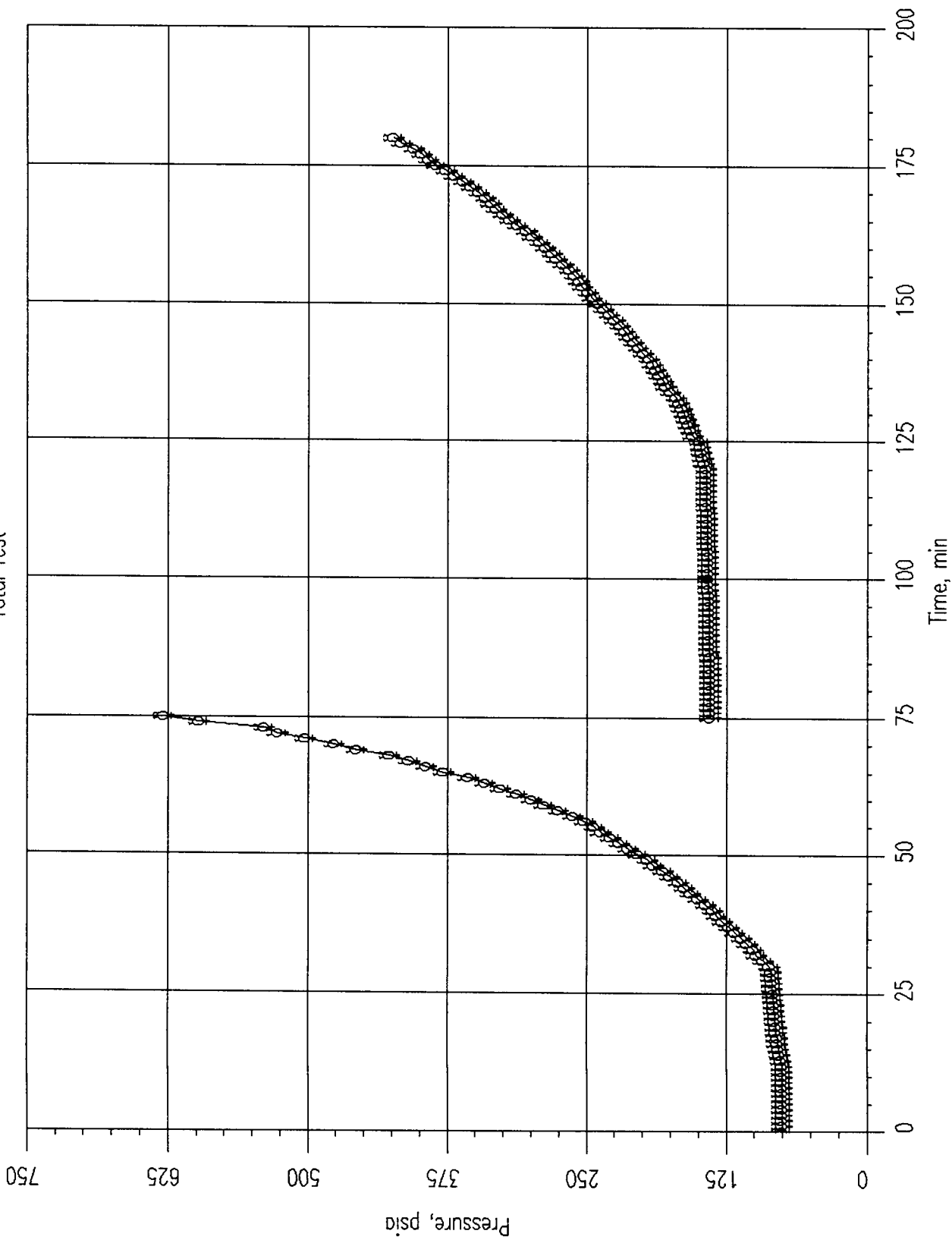
Time (min)	Pressure	Delta P	Horner T
1.00	145.00	145.00	0.00
2.00	146.00	1.00	0.00
3.00	147.00	1.00	0.00
4.00	148.00	1.00	0.00
5.00	149.00	1.00	0.00
6.00	155.00	6.00	0.00
7.00	157.00	2.00	0.00
8.00	159.00	2.00	0.00
9.00	161.00	2.00	0.00
10.00	163.00	2.00	0.00
11.00	165.00	2.00	0.00
12.00	167.00	2.00	0.00
13.00	170.00	3.00	0.00
14.00	175.00	5.00	0.00
15.00	179.00	4.00	0.00
16.00	181.00	2.00	0.00
17.00	185.00	4.00	0.00
18.00	188.00	3.00	0.00
19.00	191.00	3.00	0.00
20.00	194.00	3.00	0.00
21.00	199.00	5.00	0.00
22.00	204.00	5.00	0.00
23.00	208.00	4.00	0.00
24.00	212.00	4.00	0.00
25.00	216.00	4.00	0.00
26.00	220.00	4.00	0.00
27.00	225.00	5.00	0.00
28.00	230.00	5.00	0.00
29.00	235.00	5.00	0.00
30.00	239.00	4.00	0.00
31.00	245.00	6.00	0.00
32.00	249.00	4.00	0.00
33.00	254.00	5.00	0.00
34.00	257.00	3.00	0.00
35.00	261.00	4.00	0.00
36.00	265.00	4.00	0.00
37.00	271.00	6.00	0.00
38.00	277.00	6.00	0.00
39.00	281.00	4.00	0.00
40.00	287.00	6.00	0.00
41.00	292.00	5.00	0.00
42.00	299.00	7.00	0.00
43.00	304.00	5.00	0.00
44.00	312.00	8.00	0.00
45.00	319.00	7.00	0.00
46.00	325.00	6.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

<u>Time</u> <u>(min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
47.00	331.00	6.00	0.00
48.00	336.00	5.00	0.00
49.00	341.00	5.00	0.00
50.00	347.00	6.00	0.00
51.00	354.00	7.00	0.00
52.00	361.00	7.00	0.00
53.00	369.00	8.00	0.00
54.00	376.00	7.00	0.00
55.00	385.00	9.00	0.00
56.00	392.00	7.00	0.00
57.00	398.00	6.00	0.00
58.00	405.00	7.00	0.00
59.00	416.00	11.00	0.00
60.00	423.00	7.00	0.00

Profile Plot Total Test



13521.
DST #2

DKT 19294.

7

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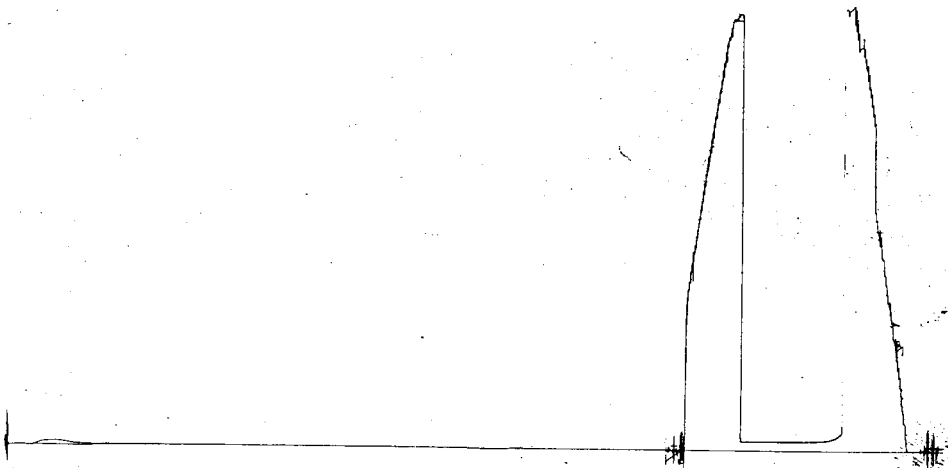
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13548
DST #2

JK+ 19594

0





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET

Nº 19294

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 2850 Est. GL Formation Miss. Eff. Pay I

District Garden City Date 5-5-93 Customer Order No. _____
COMPANY NAME Chief Drilling, Inc Co Inc
ADDRESS 120 S. Market, #300 Wichita KS 67202
LEASE AND WELL NO. Tarpley 1-32 COUNTY Finney STATE KS Sec. 32 Twp. 22 Rge. 30
Mail Invoice To Same No. Copies Requested Reg
Co. Name #1-32 Tarpley Address _____
Mail Charts To Same No. Copies Requested Reg
Address _____

Formation Test No. 2 Interval Tested From 4710 ft. to 4750 ft. Total Depth 4750 ft.
Packer Depth 4705 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
Packer Depth 4710 ft. Size 6 5/8 in. Packer Depth - ft. Size - in.
Depth of Selective Zone Set _____
Top Recorder Depth (Inside) 4742 ft. Recorder Number 13521 Cap. 4375
Bottom Recorder Depth (Outside) 4745 ft. Recorder Number 13548 Cap. 4075
Below Straddle Recorder Depth - ft. Recorder Number - Cap. -
Drilling Contractor Chief Dr Drill Collar Length - I. D. - in.
Mud Type Chem Viscosity 45 Weight Pipe Length - I. D. - in.
Weight 9.2 Water Loss 9.6 cc. Drill Pipe Length 4683 I. D. 3.8 in.
Chlorides 3000 P.P.M. Test Tool Length 27 ft. Tool Size 5 1/2 in.
Jars: Make Western Serial Number - Anchor Length 40 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 9 1/2 x 11 in.

Blow: IF weak Surface Blow dying in 10 min. IS No Blow
FF No Blow FS No Blow

Recovered 5 ft. of Mud w/ Less than 1% oil trace

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

MAY 10 1993

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

Time On Location 115 A.M. Time Pick Up Tool 200 A.M. Time Off Location _____ A.M.
Time Set Packer(s) 300 P.M. Time Started Off Bottom 500 P.M. Maximum Temperature _____
Initial Hydrostatic Pressure _____ (A) 2382 P.S.I.
Initial Flow Period _____ Minutes 30 (B) 55 P.S.I. to (C) 55 P.S.I.
Initial Closed In Period _____ Minutes 30 (D) 55 P.S.I.
Final Flow Period _____ Minutes 30 (E) 55 P.S.I. to (F) 55 P.S.I.
Final Closed In Period _____ Minutes 30 (G) 55 P.S.I.
Final Hydrostatic Pressure _____ (H) 2360 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 5-5-52

Test Ticket No. 19594

Recorder No. 12524

Capacity _____

Location _____

Clock No. _____ Elevation _____

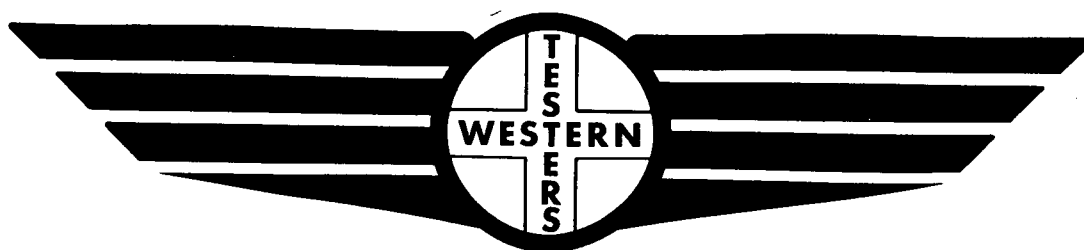
Well Temperature _____

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2526</u>	P.S.I.	Open Tool	M
B First Initial Flow Pressure	<u>59</u>	P.S.I.	First Flow Pressure	Mins. <u>30</u> M
C First Final Flow Pressure	<u>59</u>	P.S.I.	Initial Closed-in Pressure	Mins. <u>30</u> M
D Initial Closed-in Pressure	<u>59</u>	P.S.I.	Second Flow Pressure	Mins. <u>30</u> M
E Second Initial Flow Pressure	<u>59</u>	P.S.I.	Final Closed-in Pressure	Mins. <u>32</u> M
F Second Final Flow Pressure	<u>59</u>	P.S.I.		
G Final Closed-in Pressure	<u>59</u>	P.S.I.		
H Final Hydrostatic Mud	<u>2528</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 <u>0</u>	<u>59</u>	<u>0</u>	<u>59</u>	<u>0</u>	<u>59</u>	<u>0</u>	<u>59</u>
P 2 <u>5</u>		<u>3</u>		<u>5</u>		<u>3</u>	
P 3 <u>10</u>		<u>6</u>		<u>10</u>		<u>6</u>	
P 4 <u>15</u>		<u>9</u>		<u>15</u>	<u>59</u>	<u>9</u>	
P 5 <u>20</u>		<u>12</u>		<u>20</u>		<u>12</u>	
P 6 <u>25</u>		<u>15</u>	<u>59</u>	<u>25</u>		<u>15</u>	
P 7 <u>30</u>	<u>59</u>	<u>18</u>		<u>30</u>	<u>59</u>	<u>18</u>	
P 8 <u>35</u>		<u>21</u>		<u>35</u>		<u>21</u>	
P 9 <u>40</u>		<u>24</u>		<u>40</u>		<u>24</u>	
P10 <u>45</u>		<u>27</u>		<u>45</u>		<u>27</u>	
P11 <u>50</u>		<u>30</u>	<u>59</u>	<u>50</u>		<u>30</u>	
P12 <u>55</u>		<u>33</u>		<u>55</u>		<u>33</u>	<u>59</u>
P13 <u>60</u>		<u>36</u>		<u>60</u>		<u>36</u>	
P14 <u>65</u>		<u>39</u>		<u>65</u>		<u>39</u>	
P15 <u>70</u>		<u>42</u>		<u>70</u>		<u>42</u>	
P16 <u>75</u>		<u>45</u>		<u>75</u>		<u>45</u>	
P17 <u>80</u>		<u>48</u>		<u>80</u>		<u>48</u>	
P18 <u>85</u>		<u>51</u>		<u>85</u>		<u>51</u>	
P19 <u>90</u>		<u>54</u>		<u>90</u>		<u>54</u>	
P20 <u>95</u>		<u>57</u>		<u>95</u>		<u>57</u>	
<u>100</u>		<u>60</u>		<u>100</u>		<u>60</u>	

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

DST REPORT

GENERAL INFORMATION

DATE	: 5/5/93	TICKET	: 19294
CUSTOMER	: CHIEF DRILLING CO., INC.	LEASE	: TARPLEY
WELL	: #1-32	TEST:	2
ELEVATION	: 2850 EST GL	GEOLOGIST:	
SECTION	: 32	FORMATION:	MISSISSIPPI
RANGE	: 30W	TOWNSHIP	: 22S
GAUGE SN#	: 13521	STATE	: KS
		CLOCK	: 12
	COUNTY: FINNEY		
	RANGE : 4375		

WELL INFORMATION

PERFORATION INTERVAL FROM:	4710.00 ft	TO:	4750.00 ft	TVD:	4750.0 ft
DEPTH OF SELECTIVE ZONE:				TEST TYPE:	OIL
DEPTH OF RECORDERS:	4742.0 ft		4745.0 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 :	4683.0 ft	I.D.:		3.800 in	
TEST TOOL LENGTH :	27.0 ft	TOOL SIZE :		5.500 in	
ANCHOR LENGTH :	40.0 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:	4705.0 ft	SIZE:		6.630 in	
PACKER DEPTH:	4710.0 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. :	CHIEF RIG 2	VISCOSITY :	45.00 cp
MUD TYPE :	CHEMICAL	WATER LOSS:	9.600 cc
WEIGHT :	9.200 ppg		
CHLORIDES :	3000 ppm	SERIAL NUMBER:	
JARS-MAKE :		REVERSED OUT?:	NO
DID WELL FLOW?:	NO		

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK SURFACE BLOW - DIED IN
10 MINUTES. FINAL FLOW PERIOD NO BLOW.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
5.0	0.0	0.0	0.0	100.0	MUD W/LESS THAN 1% OIL

RATE INFORMATION

OIL VOLUME:	0.0000	STB		
GAS VOLUME:	0.0000	SCF		
MUD VOLUME:	0.0701	STB		
WATER VOLUME:	0.0000	STB		
TOTAL FLUID :	0.0701	STB		
			TOTAL FLOW TIME:	60.0000 min.
			AVERAGE OIL RATE:	0.0000 STB/D
			AVERAGE WATER RATE:	0.0000 STB/D

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2382.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	55.00	55.00
INITIAL SHUT-IN	30.00		55.00
FINAL FLOW	30.00	55.00	55.00
FINAL SHUT-IN	30.00		55.00

FINAL HYDROSTATIC PRESSURE: 2360.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2376.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	59.00	59.00
INITIAL SHUT-IN	30.00		59.00
FINAL FLOW	30.00	59.00	59.00
FINAL SHUT-IN	33.00		59.00

FINAL HYDROSTATIC PRESSURE: 2338.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE : 5/5/93	TICKET : 19294
CUSTOMER : CHIEF DRILLING CO., INC.	LEASE : TARPLEY
WELL : #1-32 TEST: 2	GEOLOGIST:
ELEVATION: 2850 EST GL	FORMATION: MISSISSIPPI
SECTION : 32	TOWNSHIP : 22S
RANGE : 30W COUNTY: FINNEY	STATE : KS
GAUGE SN#: 13521 RANGE : 4375	CLOCK : 12

PRE FLOW

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

SECOND FLOW

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

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>
5.00	59.00	0.00
10.00	59.00	0.00
15.00	59.00	0.00
20.00	59.00	0.00
25.00	59.00	0.00
30.00	59.00	0.00

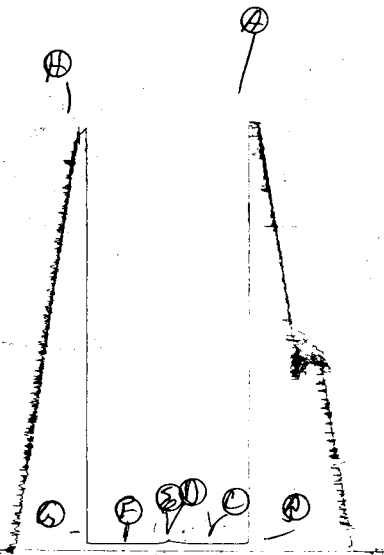
FINAL SHUT IN

<u>Time (min)</u>	<u>Pressure</u>	<u>Delta P</u>	<u>Horner T</u>
3.00	59.00	59.00	0.00
6.00	59.00	0.00	0.00
9.00	59.00	0.00	0.00
12.00	59.00	0.00	0.00
15.00	59.00	0.00	0.00
18.00	59.00	0.00	0.00
21.00	59.00	0.00	0.00
24.00	59.00	0.00	0.00
27.00	59.00	0.00	0.00
30.00	59.00	0.00	0.00
33.00	59.00	0.00	0.00

13521
DST#3

K+ 19295

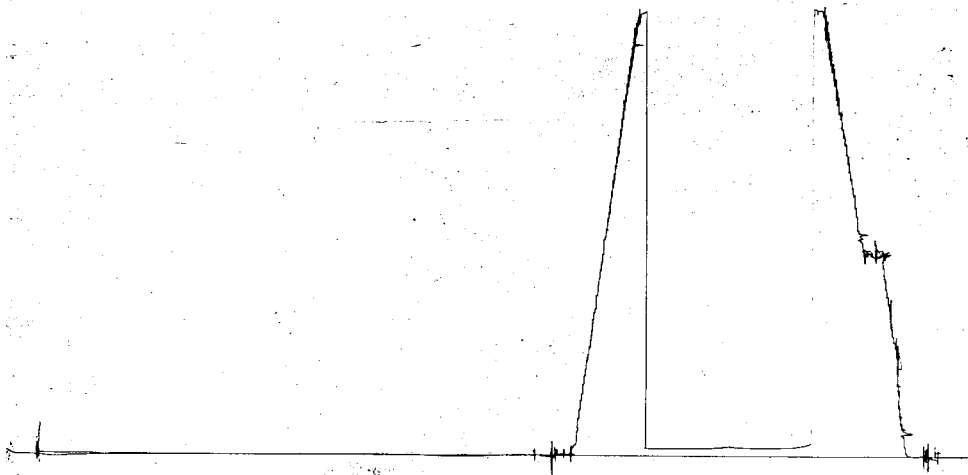
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13548
DST 4.3

K+ 19295

0





WESTERN TESTING CO., INC.

FORMATION TESTING

TICKET

No 19295

P. O. BOX 1599 PHONE (316) 262-5861

WICHITA, KANSAS 67201

Elevation 2850 Cst GL Formation St Louis Eff. Pay. _____ Ft.District Garden City Date 5-6-93 Customer Order No. _____COMPANY NAME Chief Drilling, IncADDRESS 120 S. Market #300 Wichita KS 67202LEASE AND WELL NO. Tarpley 1-32 COUNTY Finney STATE KS Sec. 32 Twp. 22 Rge. 30Mail Invoice To _____ Co. Name _____ Address _____ No. Copies Requested RegMail Charts To #1-52 TARPLEY Same Address _____ No. Copies Requested RegFormation Test No. 3 Interval Tested From 4790 ft. to 4815 ft. Total Depth 4815 ft.Packer Depth 4785 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.Packer Depth 4790 ft. Size 6 5/8 in. Packer Depth _____ ft. Size _____ in.

Depth of Selective Zone Set _____

Top Recorder Depth (Inside) 4810 ft. Recorder Number 13521 Cap. 4375Bottom Recorder Depth (Outside) 4813 ft. Recorder Number 13548 Cap. 4075

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

Drilling Contractor Chief Reg #2 Drill Collar Length _____ I. D. _____ in.Mud Type Chem. Viscosity 45 Weight Pipe Length _____ I. D. _____ in.Weight 9.2 Water Loss 9.6 cc. Drill Pipe Length 4763 I. D. _____ in.Chlorides 3000 P.P.M. Test Tool Length 27 ft. Tool Size 5 1/2 in.Jars: Make Western Serial Number _____ Anchor Length 25 ft. Size 5 1/2 in.Did Well Flow? _____ 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 11/2 in.Blow: IF Weak Surface Blow dying in 22 min. IS No BlowEF Weak Surface Blow throughout FS No BlowRecovered 10' ft. of SOLM

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

Recovered _____ ft. of _____

MAY 10 1993

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

Time On Location 4:30 A.M. Time Pick Up Tool 4:45 A.M. Time Off Location 9:45 A.M.Time Set Packer(s) 6:15 A.M. Time Started Off Bottom 8:15 A.M. Maximum Temperature 120Initial Hydrostatic Pressure _____ (A) 2415 P.S.I.Initial Flow Period _____ Minutes 30 (B) 55 P.S.I. to (C) 55 P.S.I.Initial Closed In Period _____ Minutes 30 (D) 66 P.S.I.Final Flow Period _____ Minutes 30 (E) 55 P.S.I. to (F) 55 P.S.I.Final Closed In Period _____ Minutes 30 (G) 55 P.S.I.Final Hydrostatic Pressure _____ (H) 2393 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 of Customer or his authorized representativeWestern Representative Joe Savage

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

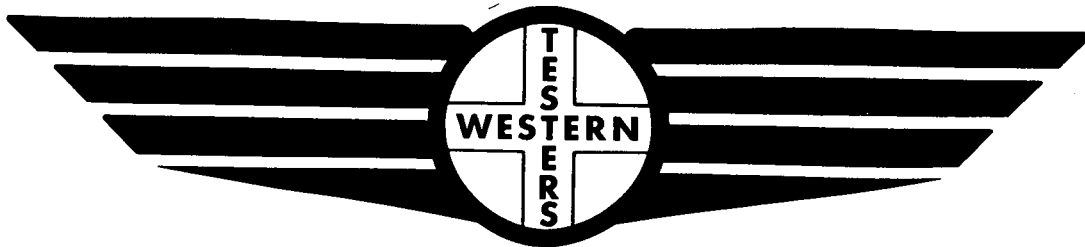
Date 5-6-94 Test Ticket No. 1925
 Recorder No. 12501 Capacity _____ Location _____
 Clock No. _____ Elevation _____ Well Temperature _____

Point	Pressure		Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2457</u> P.S.I.	Open Tool		M
B First Initial Flow Pressure	<u>50</u> P.S.I.	First Flow Pressure	Mins <u>30</u>	Mi
C First Final Flow Pressure	<u>50</u> P.S.I.	Initial Closed-in Pressure	Mins <u>30</u>	Mi
D Initial Closed-in Pressure	<u>68</u> P.S.I.	Second Flow Pressure	Mins <u>30</u>	Mi
E Second Initial Flow Pressure	<u>51</u> P.S.I.	Final Closed-in Pressure	Mins <u>30</u>	Mi
F Second Final Flow Pressure	<u>51</u> P.S.I.			
G Final Closed-in Pressure	<u>51</u> P.S.I.			
H Final Hydrostatic Mud	<u>2590</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>50</u>	0	<u>50</u>	0	<u>51</u>	0	<u>51</u>
P 2 5		3		5		3	
P 3 10		6		10		6	
P 4 15		9		15		9	
P 5 20		12		20		12	
P 6 25		15	<u>50</u>	25		15	
P 7 30	<u>50</u>	18	<u>51</u>	30	<u>51</u>	18	
P 8 35		21 <u>54</u>	50	35		21	
P 9 40		24	<u>57</u>	40		24	
P10 45		27	<u>59</u>	45		27	
P11 50		30	<u>68</u>	50		30	<u>51</u>
P12 55		33		55		33	
P13 60		36		60		36	
P14 65		39		65		39	
P15 70		42		70		42	
P16 75		45		75		45	
P17 80		48		80		48	
P18 85		51		85		51	
P19 90		54		90		54	
P20 95		57		95		57	
100		60		100		60	

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

DST REPORT

GENERAL INFORMATION

DATE : 5/6/93
CUSTOMER : CHIEF DRILLING CO., INC.
WELL : #1-32 TEST: 3
ELEVATION: 2850 EST GL
SECTION : 32
RANGE : 30W COUNTY: FINNEY
GAUGE SN#: 13521 RANGE : 4375

TICKET : 19295
LEASE : TARPLEY
GEOLOGIST: ?
FORMATION: ST LOUIS
TOWNSHIP : 22S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4790.00 ft TO: 4815.00 ft TVD: 4815.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4810.0 ft 4813.0 ft
TEMPERATURE: 120.0

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 :	4763.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	27.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	25.0 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:	4785.0 ft	SIZE:	6.630 in
PACKER DEPTH:	4790.0 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. : CHIEF RIG 2
MUD TYPE : CHEMICAL
WEIGHT : 9.200 ppg
CHLORIDES : 3000 ppm
JARS-MAKE :
DID WELL FLOW?: NO

VISCOSITY : 45.00 cp
WATER LOSS: 9.600 cc

SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD WEAK SURFACE BLOW - DIED IN
22 MINUTES. FINAL FLOW PERIOD WEAK SURFACE BLOW
THROUGHOUT.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
10.0	1.0	0.0	0.0	99.0	SLIGHTLY OIL CUT MUD

RATE INFORMATION

OIL VOLUME:	0.0014	STB	TOTAL FLOW TIME:	60.0000	min.
GAS VOLUME:	0.0000	SCF	AVERAGE OIL RATE:	3.3663	STB/D
MUD VOLUME:	0.1389	STB	AVERAGE WATER RATE:	0.0000	STB/D
WATER VOLUME:	0.0000	STB			
TOTAL FLUID :	0.1403	STB			

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2415.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	55.00	55.00
INITIAL SHUT-IN	30.00		66.00
FINAL FLOW	30.00	55.00	55.00
FINAL SHUT-IN	30.00		55.00

FINAL HYDROSTATIC PRESSURE: 2393.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2437.00

Description	Duration	p1	p End
INITIAL FLOW	30.00	50.00	50.00
INITIAL SHUT-IN	30.00		68.00
FINAL FLOW	30.00	51.00	51.00
FINAL SHUT-IN	30.00		51.00

FINAL HYDROSTATIC PRESSURE: 2390.00

GAS FLOW REPORT

GENERAL INFORMATION

DATE	: 5/6/93	TICKET	: 19295
CUSTOMER	: CHIEF DRILLING CO., INC.	LEASE	: TARPLEY
WELL	: #1-32	TEST:	3
ELEVATION:	2850 EST GL	GEOLOGIST:	?
SECTION	: 32	FORMATION:	ST LOUIS
RANGE	: 30W	TOWNSHIP	: 22S
GAUGE SN#:	13521	STATE	: KS
		CLOCK	: 12
	COUNTY:		FINNEY
	RANGE :		4375

PRE FLOW

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

SECOND FLOW

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

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL FLOW (CONTINUED)

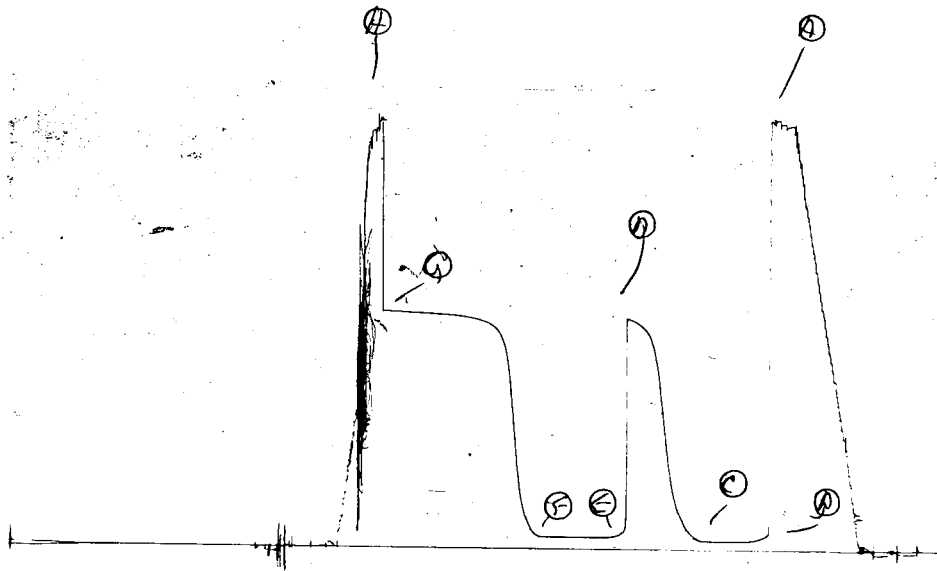
Time (min)	Pressure	Delta P
5.00	51.00	0.00
10.00	51.00	0.00
15.00	51.00	0.00
20.00	51.00	0.00
25.00	51.00	0.00
30.00	51.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	51.00	51.00	0.00
6.00	51.00	0.00	0.00
9.00	51.00	0.00	0.00
12.00	51.00	0.00	0.00
15.00	51.00	0.00	0.00
18.00	51.00	0.00	0.00
21.00	51.00	0.00	0.00
24.00	51.00	0.00	0.00
27.00	51.00	0.00	0.00
30.00	51.00	0.00	0.00

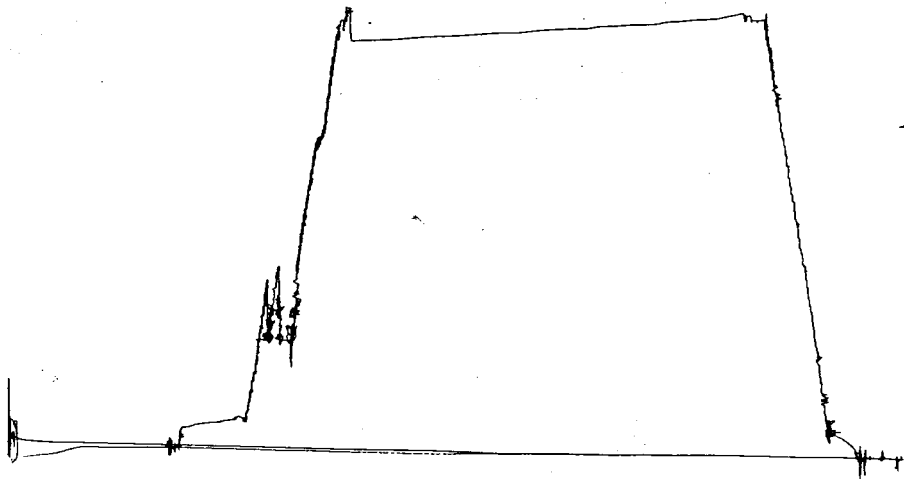
13521
DST#4

2KT 19296.
I



1566
DST #4.

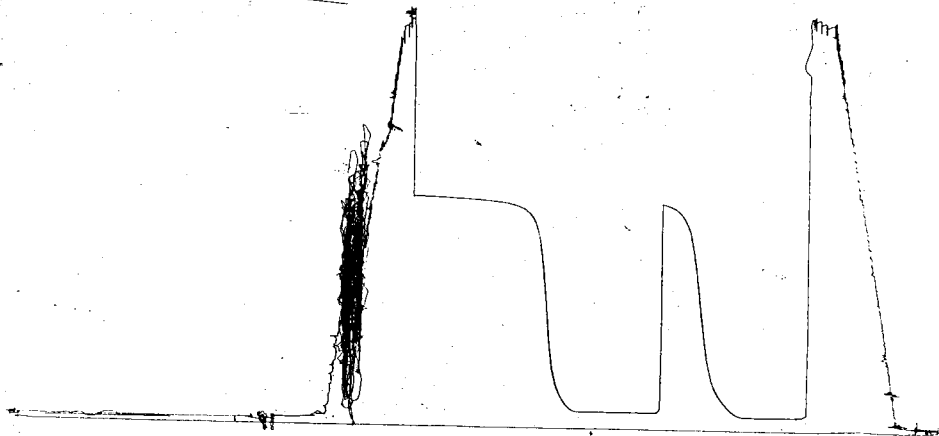
JKT 19296
Below Saddle



13548
DST 24

K4 19296

0





WESTERN TESTING CO., INC.
FORMATION TESTING

TICKET No 19296

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

Elevation 2850 Est GL Formation ft Scott Eff. Pay Ft.

District Garden City Date 5-6-93 Customer Order No.

COMPANY NAME Chief Drilling Inc

ADDRESS 120 S. Market #300 Wichita KS 67202

LEASE AND WELL NO. Tarpley COUNTY Finnery STATE KS Sec. 32 Twp. 22 Rge. 30

Mail Invoice To James No. Copies Requested Reg

Mail Charts To James No. Copies Requested Reg

Formation Test No. 4 Interval Tested From 4568 ft. to 4591 ft. Total Depth 4860 ft.

Packer Depth 4563 ft. Size 6 5/8 in. Packer Depth 4591 ft. Size 6 5/8 in.

Packer Depth 4568 ft. Size 6 5/8 in. Packer Depth ft. Size in.

Depth of Selective Zone Set 13521

Top Recorder Depth (Inside) 4584 ft. Recorder Number 13521 Cap. 4375

Bottom Recorder Depth (Outside) 4587 ft. Recorder Number 13548 Cap. 4075

Below Straddle Recorder Depth 4860 ft. Recorder Number 1566 Cap. 4300

Drilling Contractor Chief Rig 2 Drill Collar Length I. D. in.

Mud Type Chemical Viscosity 45 Weight Pipe Length I. D. in.

Weight 9.2 Water Loss 10.4 cc. Drill Pipe Length 4541 I. D. in.

Chlorides 6000 P.P.M. Test Tool Length 27 ft. Tool Size 5 1/2 in.

Jars: Make Western Serial Number Anchor Length 23 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 in

Blow: IF Fair Building Blow to Bottom Bucket in 20 min. IS 7/8 Blow

FF Strong Blow to Bottom Bucket 1 min FS 7/8 Blow

Recovered 90 ft. of GIP

Recovered ft. of

Recovered 50 ft. of Clean Gassy oil

Recovered 45 ft. of Mud Cut oil

Recovered ft. of

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

MAY 10 1993

Time On Location 830 A.M. Time Pick Up Tool 930 A.M. Time Off Location A.M.

Time Set Packer(s) 1100 A.M. Time Started Off Bottom 345 P.M. Maximum Temperature 126

Initial Hydrostatic Pressure (A) 2338 P.S.I.

Initial Flow Period Minutes 45 (B) 88 P.S.I. to (C) 88 P.S.I.

Initial Closed In Period Minutes 60 (D) 13/3 P.S.I.

Final Flow Period Minutes 60 (E) 99 P.S.I. to (F) 99 P.S.I.

Final Closed In Period Minutes 120 (G) 13/3 P.S.I.

Final Hydrostatic Pressure (H) 2328 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 Joe Jungl
Signature of Customer or his authorized representative

Western Representative Joe Jungl

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 5-6-92

Test Ticket No. 19256

Recorder No. 12521

Capacity _____

Location _____

Clock No. _____ Elevation _____

Well Temperature _____

Point	Pressure	Time Given	Time Computed
A Initial Hydrostatic Mud	<u>2445</u> P.S.I.		M
B First Initial Flow Pressure	<u>68</u> P.S.I.	Mins. <u>45</u>	Mi
C First Final Flow Pressure	<u>68</u> P.S.I.	Mins. <u>60</u>	Mi
D Initial Closed-in Pressure	<u>1329</u> P.S.I.	Mins. <u>60</u>	Mi
E Second Initial Flow Pressure	<u>85</u> P.S.I.	Mins. <u>15</u>	Mi
F Second Final Flow Pressure	<u>85</u> P.S.I.		
G Final Closed-in Pressure	<u>1361</u> P.S.I.		
H Final Hydrostatic Mud	<u>2430</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>68</u>	0	<u>68</u>	0	<u>85</u>	0	<u>85</u>
P 2 5		3	<u>74</u>	5		3	<u>85</u>
P 3 10		6	<u>85</u>	10		6	<u>94</u>
P 4 15		9	<u>102</u>	15		9	<u>124</u>
P 5 20		12	<u>127</u>	20		12	<u>162</u>
P 6 25		15	<u>164</u>	25		15	<u>216</u>
P 7 30		18	<u>209</u>	30		18	<u>234</u>
P 8 35		21	<u>274</u>	35		21	<u>522</u>
P 9 40		24	<u>357</u>	40		24	<u>752</u>
P10 45	<u>68</u>	27	<u>487</u>	45		27	<u>946</u>
P11 50		30	<u>655</u>	50		30	<u>1107</u>
P12 55		33	<u>801</u>	55		33	<u>1192</u>
P13 60		36	<u>1013</u>	60	<u>85</u>	36	<u>1442</u>
P14 65		39	<u>1142</u>	65		39	<u>1220</u>
P15 70		42	<u>1417</u>	70		42	<u>1489</u>
P16 75		45	<u>1563</u>	75		45	<u>1502</u>
P17 80		48	<u>1587</u>	80		48	<u>1514</u>
P18 85		51	<u>1306</u>	85		51	<u>1518</u>
P19 90		54	<u>1319</u>	90		54	<u>1526</u>
P20 95		57	<u>1332</u>	95		57	<u>1532</u>
100		60	<u>1329</u>	100		60	<u>1536</u>

WESTERN TESTING CO., INC.

Pressure Data

Date _____

Test Ticket No. 19296

Recorder No. _____ Capacity _____ Location _____ Ft.

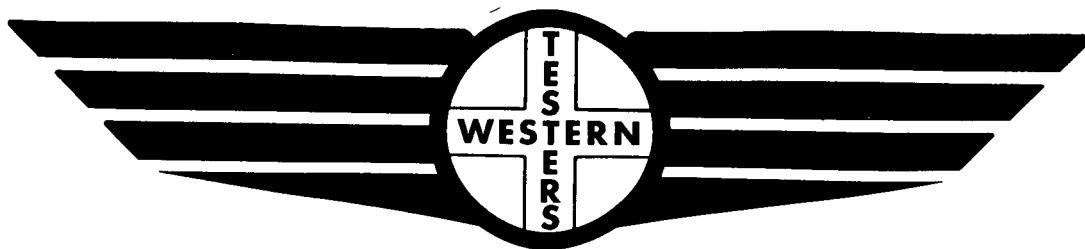
Clock No. _____ Elevation _____ Well Temperature _____ °F

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 _____ mins. and a		of _____ mins. and a		of _____ mins. and a		of _____ mins. and a	
final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.		final inc. of _____ Min.	
Point Mins.	Press.	Point Minutes	Press.	Point Minutes	Press.	Point Minutes	Press.
P 1 105		63		105		63	1338
P 2 110		66		110		66	1340
P 3 115		69		115		69	1342
P 4 120		72		120		72	1344
P 5 125		75		125		75	1346
P 6 130		78		130		78	1348
P 7 135		81		135		81	1349
P 8 140		84		140		84	1350
P 9 145		87		145		87	1351
P10 150		90		150		90	1352
P11 155		93		155		93	1353
P12 160		96		160		96	1354
P13 165		99		165		99	1355
P14 170		102		170		102	1356
P15 175		105		175		105	1357
P16 180		108		180		108	1358
P17 185		111		185		111	1359
P18 190		114		190		114	1360
P19 195		117		195		117	1361
P20 200		120		200		120	1361

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

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

DST REPORT

GENERAL INFORMATION

DATE : 5/6/93
CUSTOMER : CHIEF DRILLING CO., INC.
WELL : #1-32 TEST: 4
ELEVATION: 2850 EST GL
SECTION : 32
RANGE : 30W COUNTY: FINNEY
GAUGE SN#: 13521 RANGE : 4375

TICKET : 19296
LEASE : TARPLEY
GEOLOGIST: ?
FORMATION: FT SCOTT
TOWNSHIP : 22S
STATE : KS
CLOCK : 12

WELL INFORMATION

PERFORATION INTERVAL FROM: 4568.00 ft TO: 4591.00 ft TVD: 4860.0 ft
DEPTH OF SELECTIVE ZONE: TEST TYPE: OIL
DEPTH OF RECORDERS: 4584.0 ft 4587.0 ft
TEMPERATURE: 126.0

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 :	4541.0 ft	I.D.:	3.800 in
TEST TOOL LENGTH :	27.0 ft	TOOL SIZE :	5.500 in
ANCHOR LENGTH :	23.0 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:	4563.0 ft	SIZE:	6.630 in
PACKER DEPTH:	4568.0 ft	SIZE:	6.630 in
PACKER DEPTH:	4591.0 ft	SIZE:	6.630 in
PACKER DEPTH:	0.0 ft	SIZE:	0.000 in

MUD INFORMATION

DRILLING CON. : CHIEF RIG 2
MUD TYPE : CHEMICAL
WEIGHT : 9.200 ppg
CHLORIDES : 6000 ppm
JARS-MAKE :
DID WELL FLOW?: NO

VISCOSITY : 45.00 cp
WATER LOSS: 10.400 cc

SERIAL NUMBER:
REVERSED OUT?: NO

COMMENTS

Comment

INITIAL FLOW PERIOD FAIR BUILDING BLOW TO BOTTOM
OF BUCKET IN 20 MINUTES. FINAL FLOW PERIOD STRONG
BLOW TO BOTTOM OF BUCKET IN 1 MINUTE.

DST REPORT (CONTINUED)

FLUID RECOVERY

Feet of Fluid	% Oil	% Gas	% Water	% Mud	Comments
50.0	100.0	0.0	0.0	0.0	CLEAN GASSY OIL
45.0	55.0	0.0	0.0	45.0	MUD CUT OIL
0.0	0.0	0.0	0.0	0.0	90 FT GAS ABOVE FLUID

RATE INFORMATION

OIL VOLUME:	1.0485 STB	
GAS VOLUME:	0.0000 SCF	TOTAL FLOW TIME: 105.0000 min.
MUD VOLUME:	0.2840 STB	AVERAGE OIL RATE: 18.2743 STB/D
WATER VOLUME:	0.0000 STB	AVERAGE WATER RATE: 0.0000 STB/D
TOTAL FLUID :	1.3325 STB	

FIELD TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2338.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	88.00	88.00
INITIAL SHUT-IN	60.00		1313.00
FINAL FLOW	60.00	99.00	99.00
FINAL SHUT-IN	120.00		2338.00

FINAL HYDROSTATIC PRESSURE: 2328.00

OFFICE TIME & PRESSURE INFORMATION

INITIAL HYDROSTATIC PRESSURE: 2445.00

Description	Duration	p1	p End
INITIAL FLOW	45.00	68.00	68.00
INITIAL SHUT-IN	60.00		1339.00
FINAL FLOW	60.00	83.00	83.00
FINAL SHUT-IN	123.00		1361.00

FINAL HYDROSTATIC PRESSURE: 2430.00

PRESSURE TRANSIENT REPORT

GENERAL INFORMATION

DATE : 5/6/93	TICKET : 19296
CUSTOMER : CHIEF DRILLING CO., INC.	LEASE : TARPLEY
WELL : #1-32 TEST: 4	GEOLOGIST: ?
ELEVATION: 2850 EST GL	FORMATION: FT SCOTT
SECTION : 32	TOWNSHIP : 22S
RANGE : 30W COUNTY: FINNEY	STATE : KS
GAUGE SN#: 13521 RANGE : 4375	CLOCK : 12

INITIAL FLOW

Time (min)	Pressure	Delta P
0.00	68.00	68.00
5.00	68.00	0.00
10.00	68.00	0.00
15.00	68.00	0.00
20.00	68.00	0.00
25.00	68.00	0.00
30.00	68.00	0.00
35.00	68.00	0.00
40.00	68.00	0.00
45.00	68.00	0.00

INITIAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	74.00	74.00	0.00
6.00	83.00	9.00	0.00
9.00	103.00	20.00	0.00
12.00	127.00	24.00	0.00
15.00	164.00	37.00	0.00
18.00	209.00	45.00	0.00
21.00	274.00	65.00	0.00
24.00	357.00	83.00	0.00
27.00	487.00	130.00	0.00
30.00	655.00	168.00	0.00
33.00	801.00	146.00	0.00
36.00	1013.00	212.00	0.00
39.00	1143.00	130.00	0.00
42.00	1217.00	74.00	0.00
45.00	1263.00	46.00	0.00
48.00	1287.00	24.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

INITIAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
51.00	1306.00	19.00	0.00
54.00	1319.00	13.00	0.00
57.00	1333.00	14.00	0.00
60.00	1339.00	6.00	0.00

FINAL FLOW

Time (min)	Pressure	Delta P
0.00	83.00	83.00
5.00	83.00	0.00
10.00	83.00	0.00
15.00	83.00	0.00
20.00	83.00	0.00
25.00	83.00	0.00
30.00	83.00	0.00
35.00	83.00	0.00
40.00	83.00	0.00
45.00	83.00	0.00
50.00	83.00	0.00
55.00	83.00	0.00
60.00	83.00	0.00

FINAL SHUT IN

Time (min)	Pressure	Delta P	Horner T
3.00	85.00	85.00	0.00
6.00	94.00	9.00	0.00
9.00	124.00	30.00	0.00
12.00	163.00	39.00	0.00
15.00	216.00	53.00	0.00
18.00	334.00	118.00	0.00
21.00	523.00	189.00	0.00
24.00	753.00	230.00	0.00
27.00	946.00	193.00	0.00
30.00	1107.00	161.00	0.00
33.00	1193.00	86.00	0.00
36.00	1243.00	50.00	0.00
39.00	1270.00	27.00	0.00

PRESSURE TRANSIENT REPORT (CONTINUED)

FINAL SHUT IN (CONTINUED)

Time (min)	Pressure	Delta P	Horner T
42.00	1289.00	19.00	0.00
45.00	1303.00	14.00	0.00
48.00	1314.00	11.00	0.00
51.00	1318.00	4.00	0.00
54.00	1326.00	8.00	0.00
57.00	1332.00	6.00	0.00
60.00	1336.00	4.00	0.00
63.00	1338.00	2.00	0.00
66.00	1340.00	2.00	0.00
69.00	1342.00	2.00	0.00
72.00	1344.00	2.00	0.00
75.00	1346.00	2.00	0.00
78.00	1348.00	2.00	0.00
81.00	1349.00	1.00	0.00
84.00	1350.00	1.00	0.00
87.00	1351.00	1.00	0.00
90.00	1352.00	1.00	0.00
93.00	1353.00	1.00	0.00
96.00	1354.00	1.00	0.00
99.00	1355.00	1.00	0.00
102.00	1356.00	1.00	0.00
105.00	1357.00	1.00	0.00
108.00	1358.00	1.00	0.00
111.00	1359.00	1.00	0.00
114.00	1360.00	1.00	0.00
117.00	1361.00	1.00	0.00
120.00	1361.00	0.00	0.00
123.00	1361.00	0.00	0.00