

ORIGINAL

SIDE ONE

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

Operator: License # 5131  
Name: Thunderbird Drilling, Inc.  
Address P.O. Box 780407  
Wichita, KS 67278  
Purchaser: \_\_\_\_\_  
Operator Contact Person: Burke Krueger  
Phone (316) 685-1441

Contractor: Name: Abercrombie Drilling, Inc.  
License: 5422

Wellsite Geologist: \_\_\_\_\_

Designate Type of Completion  
 New Well  Re-Entry  Workover  
 Oil  SWD  Temp. Abd.  
 Gas  Inj  Delayed Comp.  
 Dry  Other (Core, Water Supply, etc.)

If **OWMO**: old well info as follows:  
Operator: N/A

Well Name: \_\_\_\_\_  
Comp. Date \_\_\_\_\_ Old Total Depth \_\_\_\_\_

Drilling Method:  
 Mud Rotary  Air Rotary  Cable  
3-29-91 4-5-91  
Spud Date Date Reached TD Completion Date

API NO. 15- 193-20,550-00-00

County Thomas

60 E 15 Sec. 15 Twp. 10S Rge. 34  East  West

660' Ft. North from Southeast Corner of Section

1490' Ft. West from Southeast Corner of Section  
(NOTE: Locate well in section plat below.)

Lease Name Kraus Well # 1

Field Name Wildcat

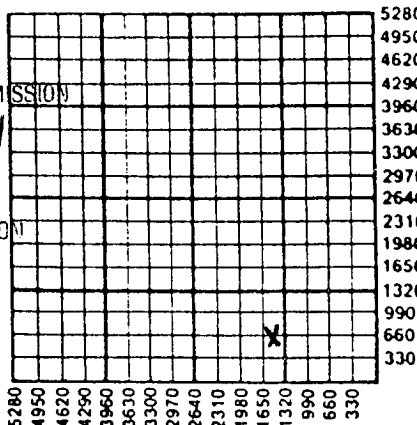
Producing Formation Lansing-KC

Elevation: Ground \_\_\_\_\_ KB \_\_\_\_\_

Total Depth 4910' PBTD \_\_\_\_\_

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04-24-1991  
APR 24 1991

CONSERVATION DIVISION  
Wichita, Kansas



AIR 2 DYO

Amount of Surface Pipe Set and Cemented at 343' Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from \_\_\_\_\_

feet depth to \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**INSTRUCTIONS:** This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form. See rule 82-3-107 for confidentiality in excess of 12 months. One copy of all wireline logs and drillers time log shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells. Any recompletion, workover or conversion of a well requires filing of ACO-2 within 120 days from commencement date of such work.

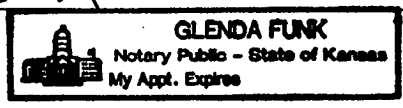
All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Burke Krueger  
Title Vice President Date 4-23-91

Subscribed and sworn to before me this 23rd day of APRIL, 19 91.

Notary Public Glenda Funk

Date Commission Expires 4-16-94



**K.C.C. OFFICE USE ONLY**  
F  Letter of Confidentiality Attached  
C  Wireline Log Received  
C  Drillers Timelog Received  
  
Distribution  
 KCC  SWD/Rep  NGPA  
 KGS  Plug  Other (Specify)

**SIDE TWO**

Operator Name Thunderbird Drilling, Inc. Lease Name Kraus Well # #1  
 Sec. 15 Twp. 10SRge. 34  East  West  
 County Thomas

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

Drill Stem Tests Taken  Yes  No  
 (Attach Additional Sheets.) **SEE ATTACHED**  
 Samples Sent to Geological Survey  Yes  No  
 Cores Taken  Yes  No  
 Electric Log Run  Yes  No  
 (Submit Copy.)

**Formation Description**

Log  Sample

Name \_\_\_\_\_ Top \_\_\_\_\_ Bottom \_\_\_\_\_

**SEE ATTACHED**

**COPY ENCLOSED**

CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12 1/4"	8 5/8"		343.00	60-40pozmix	210	3%cc 2%gel
PERFORATION RECORD				Acid, Fracture, Shot, Cement Squeeze Record			
Shots Per Foot	Specify Footage of Each Interval Perforated			(Amount and Kind of Material Used)		Depth	
TUBING RECORD				Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No			
Size	Set At	Packer At					
Date of First Production	Producing Method <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)						
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity		

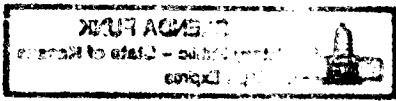
Disposition of Gas:  Vented  Sold  Used on Lease (If vented, submit ACO-18.)

**METHOD OF COMPLETION**

Open Hole  Perforation  Dually Completed  Commingled

Other (Specify) \_\_\_\_\_

Production Interval \_\_\_\_\_



#1 KRAUS 15-93-20550-0000 Elevation: 3216 GR  
 1490' FEL & 660' FSL (in SW/4) 3221 KB  
 Sec. 15-10S-34W, Thomas Co.  
 Abercrombie Tools Todd Aikins III, Geologist

TOPS:	Sample	Log
Anhydrite	2734 + 487	2730 + 491
B/Anhydrite	2762 + 459	2758 + 463
Topeka	3904 - 683	3902 - 681
Heebner	4125 - 904	4124 - 903
LKC	4166 - 945	4162 - 941
Muncie Creek	4305 - 1084	4306 - 1085
Stark Shale	4393 - 1172	4395 - 1174
BKC	4462 - 1241	4462 - 1241
Marmaton	4486 - 1265	4480 - 1259
Pawnee	4590 - 1369	4590 - 1369
Fort Scott	4643 - 1422	4643 - 1422
Cherokee	4675 - 1454	4674 - 1453
Johnson Zone	4720 - 1499	4718 - 1497
Mississippian	4825 - 1604	4825 - 1604
RTD	4910 - 1689 LTD	9910 - 1689

3-29-91 Spud 4:45 P.M. Ran 9 jts. 8 5/8" set @ 343 w/210 s  
 PD 11:00 P.M.

- 3-31 Ø 2449'
- 4-1 Ø 3410'
- 4-2 Ø 4130'
- 4-3 Ø 4585'
- 4-4 Ø 4780'

4-5 RTD 9910' preparing to Log DST  
 #1, 4751-4830' / 30' 30' 30' 30' PAL  
 30' med. 1Fp 4P-4P, 1Fp 52-52#  
 Slip 718-53P#

- 46 Log. D&A
- 25 sx @ 2750'
- 100 sx @ 1725'
- 40 sx @ 325'
- 10 sx @ 90'

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 STATE GEOLOGICAL COMMISSION

APR 24 1991

CONSERVATION DIVISION  
 Wichita, Kansas

Job Completed by Albed @ 9:35 pm 4-5-91

ORIGINAL

ABERCROMBIE DRILLING, INC.

801 UNION CENTER  
WICHITA, KANSAS 67202

KRAUS #1 (Rig #4)  
160' E E/2 SW SE  
Sec. 15-10S-34W  
Thomas Co., KS

OPERATOR: Thunderbird Drilling, Inc.  
CONTRACTOR: Abercrombie Drilling, Inc.  
ELEVATION: GL  
KB

Thunderbird Drilling, Inc.  
P.O. Box 780407  
Wichita, KS 67278  
(316) 685-1441

API #15-193-20,550-00-00

03-29-91 MIRU.

Anhydrite (2734'-2762')

03-30-91 345' drilling. MIRU 9 3/4 hrs, drilling set surface 6 1/4 hrs, WOC 8 hrs. Bit #1 S33S SN 543110, deviation 1/8°-345'. Spud 4:45 p.m. 3-29-91, cut 345'-12 1/4" hole, ran 9 joints of 8 5/8" casing, tally 536.21, set at 343'. Cement with 210 sx 60-40 pozmix 3% cc, 2% gel, did circulate. Plug down 11:00 p.m. 3-29-91, by Allied.

03-31-91 2449' drilling, cut 2104'-24 hrs. Drilling 19 3/4 hrs, trip, pipe strap & sure shot 2 1/2 hrs, lost circulation 1 hr, rig check 3/4 hr. Lost circulation at 1582' (mixed 3 tanks mud, circulation returned). Bit #2 S84 SN 539294, in at 2169', cut 280'-4 1/2 hrs. Bit #2 out at 2169', cut 1824'-15 3/4 hrs, native mud & fresh water. Mud weight 9.2, viscosity 32, deviation 1/2°-2169'.

04-01-91 3410' drilling, cut 961'-24 hrs. Drilling 22 1/2 hrs, rig check & jet 1 1/2 hrs. Bit #2 S84 SN 539294, cut 1241'-27 hrs, native mud & fresh water. Bit weight 35,000#, rot 70, 950# pump, 54 spm.

04-02-91 4110' drilling, cut 700'-24 hrs. Drilling 21 hrs, look for hole in pipe 1 1/2 hrs, rig check & jet 1 1/2 hrs. Bit #2 S84 SN 539294, cut 1941'-48 hrs. Mud weight 9.2, viscosity 54, p/vis 18/9, gels 6/12, water loss 8, pH 10.1, chlorides 4,000, solids 3.3, no sand, t/LCM. Accumulative mud 3688.50-breakdown 2788.50 (mud), 300.00 (frac) 600.00 (trucking). Bit weight 35,000#, rot 70, 1000# pump, 54 spm.

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STATE COMPLETION COMMISSION

APR 24 1991

CONFIDENTIAL  
WICHITA, KANSAS

ORIGINAL

ABERCROMBIE DRILLING, INC.

801 UNION CENTER  
WICHITA, KANSAS 67202

KRAUS #1 (Rig #4)  
160' E E/2 SW SE  
Sec. 15-10S-34W  
Thomas Co., KS

OPERATOR: Thunderbird Drilling, Inc.  
CONTRACTOR: Abercrombie Drilling, Inc.

ELEVATION: GL 3216'  
KB 3221'

Thunderbird Drilling, Inc.  
P.O. Box 780407  
Wichita, KS 67278  
(316) 685-1441

API #15-193-20,550-00-00

Page 2

		<u>SAMPLE TOPS</u>
04-03-91	4585' circulating for samples, cut 475'-24 hrs. Drilling 19½ hrs, daywork 3 ¾ hrs, rigcheck ¾ hr. Bit #2 S84 SN 539294, cut 2416'-67½ hrs. Mud weight 9.4, viscosity 42, p/vis 18/15, gels 14/40, water loss 10.4, pH 10.5, chlorides 4,800, solids 4.7, no sand, no LCM. Daily mud 276.46, accumulative mud 3964.90. Bit weight 35,000#, rot 70, 1000# pump, 54 spm.	Anhydrite 2734' (+487') Base Anhydrite 2762' (+459') Heebner 4125' (-904') Lansing 4166' (-945') Muncie Creek 4305' (-1084') Stark 4393' (-1172') Base Kansas City 4462' (-1241')
04-04-91	4780' circulating for samples, cut 195'-24 hrs. Drilling 17½ hrs, daywork 6 hrs, rig check ½ hr. Bit #2 S84 SN 539294, cut 2611'-86 hrs. Mud weight 9.6, viscosity 49, p/vis 14/8, gels 10/18, water loss 10.4, pH 9, chlorides 3200, solids 7.2, no/sand, no/LCM. Daily mud 991.60, accumulative mud 4956.50. Bit weight 35-38,000#, rot 65-70, 1000# pump, 54 spm.	Marmaton 4486' (-1265') Pawnee 4590' (-1369') Fort Scott 4643' (-1422') Cherokee 4675' (-1454') Johnson Zone 4720' (-1499')
04-05-91	4910' circulating to condition hole for log, cut 130'-24 hrs. Drilling 8 ¾ hrs, daywork 15½ hrs. Bit #3 S85RR SN 528145. Bit #2 out at 4830', cut 2661'-90½ hrs. Mud weight 9.6, viscosity 50, p/vis 14/8, gels 10/18, water loss 10.4, pH 9, chlorides 3200, solids 7.2, no/sand, 2# LCM. Accumulative mud 4956.50, deviation 1°-4830'. Bit weight 38,000#, rot 65-70, 1000# pump, 54 spm. Pipe strap 4830', strap long .93. DST #1 (4751'-4830')	
04-06-91	4910' LTD, 4910' RTD, D&A. 1st plug 2750' w/25 sx; 2nd plug 1725' w/100 sx; 3rd plug at 395' w/40 sx; 4th plug 40' with wiper plug w/10 sx; rathole 10 sx, 60-40 pozmix 6% gel, ¼# Flocel per sx. Complete at 9:35 p.m. 4-5-91, by Allied, state plugger Herb Deines.	

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STATE COMMISSION

APR 24 1991

COMMISSION ON  
WICHITA, KANSAS

15-193-20550-00-00 ORIGINAL

COMPANY Thunderbird Drilling FARM Kraus WELL NO. 1  
 SEC. 15 TWP. 10 RGE. 34 LOC. E 1/2 - SW - SE COUNTY Thomas STATE Kansas  
 CONTRACTOR Abercrombie Drlg. SIZE HOLE \_\_\_\_\_ DRILL PIPE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_ SIZE PUMP LINERS \_\_\_\_\_ LENGTH STROKE \_\_\_\_\_

Pipe Strap @ 2169

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
/	/		
63	10		D.P. 61 60
62	85		60 55
61	83		61 97
62	16		63 24
60	77		62 44
61	34		62 45
61	73		62 39
<hr/>			433.78
<hr/>			434.64
<hr/>			D.P. 62 43
			62 81
			61 66
			62 30
			61 58
			<del>62 51</del>
<hr/>			373.29
<hr/>			433.78
<hr/>			434.64
<hr/>			373.29
<hr/>			312.01
<hr/>			310.86
<hr/>			1864.58
<hr/>			305.36
<hr/>			strap → 2169.94
<hr/>			Board → 2169.34
<hr/>			Board → 2160

DEPTH	TIME O'CLOCK	MIN.	REMARKS
/	/		
			W.T.P.
			62 57
			63 68
			61 37
			62 49
			61 90
<hr/>			312.01
			62 87
			61 96
			62 69
			63 04
			60 30
<hr/>			310.86

ROTARY DRILLING TIME SHEET # 503 Reorder No. 09-281  
 KANSAS BLUE PRINT CO., WICHITA, KAN.

STATE OF KANSAS  
 APR 24 1991

15-193-20550-00-00 ORIGINAL

COMPANY \_\_\_\_\_ FARM \_\_\_\_\_ WELL NO. \_\_\_\_\_  
 SEC. TWP. RGE. LOC. COUNTY STATE \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_ SIZE HOLE \_\_\_\_\_ DRILL PIPE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_ SIZE PUMP LINERS \_\_\_\_\_ LENGTH STROKE \_\_\_\_\_

DATE \_\_\_\_\_

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>207</del> 74	10		
	11	1	
	12	1	
	13 1/2	1 1/2	
	13	1/2	
80	14	1	
	15	1	
	16	1	
	17	1	
	18	1	
85	19	1	
	19 1/2	1/2	
	20	1/2	
	21 1/2	1	
	22 1/2	1	
90	23	1/2	
	24	1	
	25	1	
	26	1	
	27	1	
95	28	1	concl
	<del>28</del> 29	1/2	
	30	1/2	
	31	1/2	
	32	1/2	
	33	1/2	
	34	1/2	
	35	1/2	
2700	35	1/2	
	36	1/2	
	37	1/2	
	38	1/2	
	39	1/2	
	40	1/2	
	41	1/2	
	42	1/2	
15	43	1/2	
	44	1/2	
	45	1/2	
20	46	1/2	
	47	1/2	
25	48	1/2	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>20</del> 26	48		
	49	1	concl
	<del>50</del> 51	1/2	
	52	1/2	
	53	1/2	
	54	1/2	
30	55	1/2	
	56	1/2	
	57	1/2	
	58 1/2	1/2	
	59	1 1/2	Top Andy
35	101	2	
	10 1/2	1 1/2	
	11 1/2	2	
	12 1/2	2	
	13 1/2	2	
	14 1/2	2 1/2	
40	15 1/2	2 1/2	
	16 1/2	3	
	17 1/2	2	
	18	2 1/2	
	19 1/2	2 1/2	
	20 1/2	2 1/2	
45	21 1/2	2 1/2	Andy
	22 1/2	2 1/2	
	23 1/2	2 1/2	
	24	2 1/2	
	25 1/2	2 1/2	
	26 1/2	2 1/2	
	27	2 1/2	2734
	28 1/2	2 1/2	2762
	29 1/2	2 1/2	
	30 1/2	2 1/2	
50	31 1/2	2 1/2	
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	44 1/2	2 1/2	
	45 1/2	2 1/2	
55	46 1/2	3	
	47 1/2	3	
	48 1/2	3	
	49 1/2	3	
	50 1/2	3	
	51 1/2	2	concl
	52 1/2	2	
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	57 1/2	2	
60	58 1/2	2 1/2	
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	224 1/2	2 1/2	
	225 1/2	2 1/2	
	226 1/2	2 1/2	
	227 1/2	2 1/2	
	228 1/2	2 1/2	
	229 1/2	2 1/2	
	230 1/2	2 1/2	
	231 1/2	2 1/2	
	232 1/2	2 1/2	
	233 1/2	2 1/2	
	234 1/2	2 1/2	
	235 1/2	2 1/2	
	236 1/2	2 1/2	
	237 1/2	2 1/2	
	238 1/2	2 1/2	
	239 1/2	2 1/2	
	240 1/2	2 1/2	
	241 1/2	2 1/2	
	242 1/2	2 1/2	
	243 1/2	2 1/2	
	244 1/2	2 1/2	
	245 1/2	2 1/2	
	246 1/2	2 1/2	
	247 1/2	2 1/2	
	248 1/2	2 1/2	
	249 1/2	2 1/2	
	250 1/2	2 1/2	
	251 1/2	2 1/2	
	252 1/2	2 1/2	
	253 1/2	2 1/2	
	254 1/2	2 1/2	
	255 1/2	2 1/2	
	256 1/2	2 1/2	
	257 1/2	2 1/2	
	258 1/2	2 1/2	
	259 1/2	2 1/2	
	260 1/2	2 1/2	
	261 1/2	2 1/2	
	262 1/2	2 1/2	
	263 1/2	2 1/2	
	264 1/2	2 1/2	
	265 1/2	2 1/2	
	266 1/2	2 1/2	
	267 1/2	2 1/2	
	268 1/2	2 1/2	
	269 1/2	2 1/2	
	270 1/2	2 1/2	
	271 1/2	2 1/2	
	272 1/2	2 1/2	
	273 1/2	2 1/2	
	274 1/2	2 1/2	
	275 1/2	2 1/2	
	276 1/2	2 1/2	
	277 1/2	2 1/2	
	278 1/2	2 1/2	
	279 1/2	2 1/2	
	280 1/2	2 1/2	
	281 1/2	2 1/2	
	282 1/2	2 1/2	
	283 1/2	2 1/2	
	284 1/2	2 1/2	
	285 1/2	2 1/2	
	286 1/2	2 1/2	
	287 1/2	2 1/2	
	288 1/2	2 1/2	
	289 1/2	2 1/2	
	290 1/2	2 1/2	
	291 1/2	2 1/2	
	292 1/2	2 1/2	
	293 1/2	2 1/2	
	294 1/2	2 1/2	
	295 1/2	2 1/2	
	296 1/2	2 1/2	
	297 1/2	2 1/2	
	298 1/2	2 1/2	
	299 1/2	2 1/2	
	300 1/2	2 1/2	
	301 1/2	2 1/2	
	302 1/2	2 1/2	
	303 1/2	2 1/2	
	304 1/2	2 1/2	
	305 1/2	2 1/2	
	306 1/2	2 1/2	
	307 1/2	2 1/2	
	308 1/2	2 1/2	
	309 1/2	2 1/2	
	310 1/2	2 1/2	
	311 1/2	2 1/2	





15-193-20550-00-00

ORIGINAL

COMPANY \_\_\_\_\_ FARM \_\_\_\_\_ WELL NO. \_\_\_\_\_  
 SEC. TWP. RGE. LOC. COUNTY STATE \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_ SIZE HOLE \_\_\_\_\_ DRILL PIPE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_ SIZE PUMP LINERS \_\_\_\_\_ LENGTH STROKE \_\_\_\_\_

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>3700</del> 01	<del>5:52</del> 53 1/2	1 1/2	
	56	2 1/2	
	58	2	
	59 1/2	1 1/2	
05	60 1/2	2	
	03 1/2	2	
	06	2 1/2	
	08	2	
	10	2	
3710	11 1/2	1 1/2	
	13 1/2	2	
	15 1/2	2	
	16 1/2	1	
	18	1 1/2	
15	20	2	
	22	2	conn
	<del>26</del> 27	1	
	28 1/2	1 1/2	
	30 1/2	2	
3720	32	1 1/2	
	34	2	
	35 1/2	1 1/2	
	37 1/2	2	
	39	1 1/2	
29	40 1/2	1 1/2	
	42	1 1/2	
	43 1/2	1 1/2	
	45 1/2	2	
	47	1 1/2	
3730	49 1/2	2 1/2	
	51	1 1/2	
	53	2	
	55	2	
	56 1/2	1 1/2	
35	58	1 1/2	
	700	2	
	02	2	
	4 1/2	2 1/2	
	6	1 1/2	
3740	7 1/2	1 1/2	
	9	1 1/2	
	10	1	
	12	2	
	14	2	
45	16	2	
	18	2	
	20	2	conn
	<del>25</del> 27	2	
	30	3	
3750	32	2	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>3750</del> 01	<del>32</del> 34	2	
	37	3	
	39	2	
	41	2	
55	42	1	
	43 1/2	1 1/2	
	45	1 1/2	
	47	2	
	49	2	
3760	50 1/2	1 1/2	
	52	1 1/2	
	53	1	
	54 1/2	1 1/2	
	56	1 1/2	
65	57	1	
	58	1	
	59	1	
	800	1	
	01	1	
3770	03	2	
	05	2	
	6 1/2	1 1/2	
	08	1 1/2	
	09	1	
75	11	2	
	13	2	
	15	2	
	16 1/2	1 1/2	
	19	2 1/2	conn
3780	<del>22</del> 23	1	
	24	1	
	26	2	
	27 1/2	1 1/2	
	29	1 1/2	
85	31	2	
	33	2	
	35	2	
	36	1	
	38	2	
3790	39 1/2	1 1/2	
	40 1/2	1	
	42	1 1/2	
	43	1	
	44	1	
95	45 1/2	1 1/2	
	47	1 1/2	
	49	2	
	50 1/2	1 1/2	
	52 1/2	2	
3800	54 1/2	2	

ROTARY DRILLING TIME SHEET # 503 Reorder No. 09-281  
 KANSAS BLUE PRINT CO., WICHITA, KAN.

15-193-20550-00-00 ORIGINAL

COMPANY \_\_\_\_\_ FARM \_\_\_\_\_ WELL NO. \_\_\_\_\_  
 SEC. TWP. RGE. LOC. COUNTY STATE \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_ SIZE HOLE \_\_\_\_\_ DRILL PIPE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_ SIZE PUMP LINERS \_\_\_\_\_ LENGTH STROKE \_\_\_\_\_

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>3800</del>	<del>54 1/2</del>	<del>1 1/2</del>	
1	56	1 1/2	
	57	1	
	58	1	
	59 1/2	1 1/2	
5	901	1 1/2	
	03	2	
	04	1	
	06	2	
	7	1	
10	10 1/2	2	
	14	2	
	16	2	
	19	3	
	22	3	
15	24 1/2	2 1/2	
	27	2 1/2	
	29	2	
	31	2	
	33	2	
20	35	2	
	37	2	
	39	2	
	41	2	
	43	2	
25	45	2	
	46	1	
	47	1	
	49 1/2	2 1/2	
	51 1/2	2	
30	54	2 1/2	
	56	2	
	58	2	
	59	1	
	1000	1	
35	1 1/2	1 1/2	
	3	1 1/2	
	5	2	
	7	2	
	8	2	
40	10 1/2	2 1/2	
	13	2 1/2	CORN
	14 1/2	1	
	19	2	
	21 1/2	2 1/2	
45	23	1 1/2	
	25	2	
	27	2	
	29	2	
	31	2	
50	32 1/2	1 1/2	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>3800</del>	<del>32 1/2</del>	<del>1 1/2</del>	
1	34	1 1/2	
	36	2	
	37	1 1/2	
	39	1 1/2	
5	41	2	
	42	1 1/2	
10	43 1/2	1 1/2	
	45	1 1/2	
	47	2	
	48	1	
	50	2	
15	51	1	
	53	2	
	55	2	
	57	2	
	11:00	3	
20	02	2	
	04	2	
	06	2	
	08	2	CORN: 3823
	11:00	2	
25	27	2	
	28 1/2	1 1/2	
	30	1 1/2	
	32	2	
	34	2	
30	36	2	
	39	3	
	41	2	
	43	2	
	45	2	
35	46 1/2	1 1/2	
	47 1/2	1 1/2	
	49	1 1/2	
	50	1	
	51 1/2	1 1/2	
40	52	1 1/2	
	54	2	
	55	1	
	56	1	
	57	1	
45	59	2	
	12:01	2	
	03	2	
	05	2	
	07	2	
50	09	2	

ROTARY DRILLING TIME SHEET # 503  
 KANSAS BLUE PRINT CO., WICHITA, KAN.  
 Reorder No. 09-281

15-193-20550-00-00  
ORIGINAL

COMPANY \_\_\_\_\_ FARM \_\_\_\_\_ WELL NO. \_\_\_\_\_  
 SEC. TWP. RGE. LOC. COUNTY STATE \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_ SIZE HOLE \_\_\_\_\_ DRILL PIPE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_ SIZE PUMP LINERS \_\_\_\_\_ LENGTH STROKE \_\_\_\_\_

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>3900</del>	<del>12:00</del>		
01	11	2	
	13	2	
	15	2	
	16 1/2	1 1/2	CONN: 3904
	<del>17 1/2</del>	1/2	
	24	1/2	
	25	1	
	26 1/2	1 1/2	
	29	2 1/2	
3910	30 1/2	1 1/2	
	32 1/2	2	
	34 1/2	2	
	36 1/2	2	
	38 1/2	2	
	40 1/2	2	
	42	1 1/2	
	44	2	
	45	1	
	46 1/2	1 1/2	
3920	48	1 1/2	
	49	1	
	49 1/2	1 1/2	
	51	1 1/2	
	52	1	
	53	1	
	54	1	
	54 1/2	1 1/2	
	55	1 1/2	
	56	1	
3930	58	2	
	59 1/2	1 1/2	
	1:01	1 1/2	
	03	2	
	05	2	
	06 1/2	1 1/2	
	07 1/2	1	CONN: 3936
	14	1	
	15 1/2	1 1/2	
	17	1 1/2	
3940	18	1	
	19 1/2	1 1/2	
	20 1/2	1	
	22 1/2	2	
	23	1 1/2	
	25	2	
	27 1/2	2 1/2	
	29	1 1/2	
	30 1/2	1 1/2	
	32	1 1/2	
3950	34	2	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>3950</del>	<del>11:34</del>		
01	35 1/2	1 1/2	
	37	1 1/2	
	39	2	
	41	2	
	43	2	
	44 1/2	1 1/2	
	46 1/2	2	
	48	1 1/2	
	50 1/2	1 1/2	
3960	53	2 1/2	
	54 1/2	1 1/2	
	56	1 1/2	
	58	2	
	2:00	2	
	03	3	
	05	2	
	07	2	CONN: 3967
	<del>2 1/2</del>	2 1/2	
	18	2 1/2	
3970	19 1/2	1 1/2	
	21	1 1/2	
	22	1	
	24	2	
	25	1	
	26	1	
	27	1	
	28	1	
	30	2	
	31 1/2	1 1/2	
3980	32 1/2	1	
	34	1 1/2	
	35	1	
	36	1	
	37	1	
	38	1	
	39	1	
	40	1	
	42	2	
	44	2	
3990	45 1/2	1 1/2	
	47	1 1/2	
	48 1/2	1 1/2	
	50	1 1/2	
	52	2	
	53	1	
	54	1	
	54 1/2	1 1/2	
	55	2	CONN: 3998
	<del>0 1/2</del>	1 1/2	
4000	02	1 1/2	

ROTARY DRILLING TIME SHEET # 503  
 KANSAS BLUE PRINT CO., WICHITA, KAN.  
 Reorder No. 09-281

COMPANY \_\_\_\_\_ FARM \_\_\_\_\_ WELL NO. \_\_\_\_\_  
 SEC. TWP. RGE. LOC. COUNTY STATE \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_ SIZE HOLE \_\_\_\_\_ DRILL PIPE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_ SIZE PUMP LINERS \_\_\_\_\_ LENGTH STROKE \_\_\_\_\_

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4000</del>	<del>3:00</del>		
01	03	1	
	03 1/2	1/2	
	04	1/2	
	05	1	
	06	1	
	06 1/2	1/2	
	07 1/2	1	
	08 1/2	1	
	09 1/2	1	
4010	10 1/2	1	
	12	1 1/2	
	13	1	
	14	1	
	15	1	
	16	1	
	18	2	
	20 1/2	2 1/2	
	23	2 1/2	
	25	2	
4020	26	1	
	27 1/2	1 1/2	
	29	1 1/2	
	30 1/2	1 1/2	
	32	1 1/2	
	33 1/2	1 1/2	
	34 1/2	1	
	35 1/2	1	
	36 1/2	1	
	37 1/2	1	
4030	39	1 1/2	CONN: 4030
	39 1/2	1	
	46	1	
	47 1/2	1 1/2	
	49	1 1/2	
	50	1	
	52	2	
	53 1/2	1 1/2	
	56	2 1/2	
	58 1/2	2 1/2	
4040	10 1/2	3	
	0 4 1/2	3 1/2	
	07 1/2	3	
	09 1/2	2	
	12	2 3/4	
	14	2	
	16	2	
	18	2	
	19	1	
	21	1	
4050	23	2	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4050</del>	<del>4:00</del>		
01	02	2	
	27 1/2	2 1/2	
	30	2 1/2	
	32 1/2	2 1/2	
	35	2 1/2	
	38	3	
	40 1/2	2 1/2	
	43	2 1/2	
	46	3	
4060	48	2	
	50	2	CONN: 4061
	<del>51 1/2</del>	1 1/2	
	51 1/2	1 1/2	
	02	1	
	03 1/2	1 1/2	
	05 1/2	2	
	07 1/2	2	
	09 1/2	2	
	11 1/2	2	
4070	14	2 1/2	
	16 1/2	2 1/2	
	19	2 1/2	
	22	3	
	24 1/2	2 1/2	
	27 1/2	3	
	30 1/2	3	
	33 1/2	3	
	35	1 1/2	
	37 1/2	2 1/2	
4080	40	2 1/2	
	43	3	
	45	2	
	47 1/2	2 1/2	
	49	1 1/2	
	50 1/2	1 1/2	
	51 1/2	1	
	53	1 1/2	
	54	1	
	55	1	
4090	56	1	
	57	1	CONN: 4091
	<del>6:00</del>	2	
	11	5	
	14 1/2	3 1/2	
	18	3 1/2	
	20	2	
	21	1	
	23	2	
	26	3	
4100	30	4	

# ORIGINAL

COMPANY Thunderbird Drlg FARM Kraus WELL NO. 1  
 SEC. TWP. RGE. LOC. COUNTY Thomas STATE Ks  
 CONTRACTOR Abercrombie Drlg SIZE HOLE 7 7/8 DRILL PIPE 4 1/2 x H  
 REMARKS: SIZE PUMP LINERS 6 LENGTH STROKE 15

15-193-20550-00-00

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4100</del>	<del>16:30</del>	<del>3</del>	
<del>01</del>	<del>33</del>	<del>3</del>	
	35	2	
	37	2	
	39	2	
	41 1/2	2 1/2	
	43	1 1/2	
	45	2	
	46	1	
	47	1	
4110	48 1/2	1 1/2	
	49 1/2	1	
	51	1 1/2	
	53	2	
	54	1	
	56	2	
	57 1/2	1 1/2	
	59	1 1/2	
	700	1	
	1	1	
4120	2	1	
	3	1	conn. - Sen Rig
	<del>7 13 1/2</del>	<del>1</del>	
	16 1/2	2	
	19	2 1/2	
	22	3	
	23 1/2	1 1/2	
	25	1 1/2	
	27	2	
	29	2	
4130	32	3	
	35	3	
	38 1/2	3 1/2	
	41	2 1/2	
	44 1/2	3 1/2	
	48	3 1/2	
	51 1/2	3 1/2	
	54 1/2	3	
	57	2 1/2	
	800	3	
4140	3	3	
	6	3	
	9	3	
	12	3	
	15	3	
	18	3	
	21	3	
	24	3	
	27	3	
	30	3	
4150	32	2	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4150</del>	<del>43 1/2</del>	<del>1 1/2</del>	
<del>01</del>	<del>33 1/2</del>	<del>1 1/2</del>	
	35	1 1/2	conn Jet #1
	<del>44 1/2</del>	<del>1 1/2</del>	
	48	2 1/2	
	51	3	
	53	2	
	56	3	
	59	3	
	90 2 1/2	3 1/2	
4160	6	3 1/2	
	9	3	
	13	4	
	15 1/2	2 1/2	
	18	2 1/2	
	20	2	
	22	2	
	23	1	
	24 1/2	1 1/2	
	26 1/2	2	
4170	29 1/2	3	
	32	2 1/2	
	33	1	
	34 1/2	1 1/2	
	36	1 1/2	
	37	1	
	38 1/2	1 1/2	
	40	1 1/2	
	41 1/2	1 1/2	
	43	1 1/2	
4180	44	1	
	45 1/2	1 1/2	
	48	2 1/2	
	50 1/2	2 1/2	conn
	53 1/2	2	
	1000	3	
	3	3	
	6	3	
	9	3	
	12	3	
4190	15	3	
	18	3	
	21	3	
	24	3	
	27	3	
	30	3	
	32 1/2	2 1/2	
	35	2 1/2	
	37 1/2	2 1/2	
	40	2 1/2	
4200	41 1/2	1 1/2	

# ORIGINAL

COMPANY Thunderbird Dnlg FARM Kraus WELL NO. 1  
 SEC. TWP. RGE. LOC. COUNTY Thomas STATE Ks  
 CONTRACTOR Abercrombie Dnlg SIZE HOLE 7 7/8 DRILL PIPE 4 1/2 x H  
 REMARKS: SIZE PUMP LINERS 6 LENGTH STROKE 15

15-193 - 20550-00-00

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4200</del>	<del>10 41 1/2</del>	<del>1 1/2</del>	
	44	1	
	45	1	
	46 1/2	1 1/2	
5	47 1/2	1	
	48 1/2	1	
	49 1/2	1	
	50 1/2	1	
	52	1 1/2	
4210	54	2	
	55 1/2	1 1/2	
	57 1/2	2	
	1 00	2 1/2	CONN
	<del>3 1/2</del>	2	
15	7 1/2	2	
	8 1/2	1	
	9 1/2	1	
	11	1 1/2	
	12 1/2	1 1/2	
4220	14 1/2	2	
	16 1/2	2	
	18 1/2	2	
	21	2 1/2	
	23 1/2	2 1/2	vis wt
25	26	2 1/2	42 9.2
	27	1	
	28	1	
		1/2	
	29	1/2	
4230	30	1	
	31	1	
	32	1	
	33	1	
	34	1	
35	35	1	
		1/2	
	36	1/2	
	37	1	
	38	1	
4240	39 1/2	1 1/2	
	42	2 1/2	
	45	3	
	47	2	
	49	2	
45	51	2	CONN
	<del>53 1/2</del>	2	
	59	2	
	1 20	2	
	3	2	
4250	4 1/2	1 1/2	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4250</del>	<del>12 04 1/2</del>	<del>1 1/2</del>	
	6 1/2	1 1/2	
	7 1/2	1	
	10	2 1/2	
55	13	3	
	16	3	
	18	2	
	20	2	
	21	1	
4260	23	2	
	25	2	
	26 1/2	1 1/2	vis wt
	29	2 1/2	41 9.2
	30 1/2	1 1/2	
65	32	1 1/2	
	34	2	
	37	3	
	40	3	
	42 1/2	2 1/2	
4270	45	2 1/2	
	47	2	
	49	2	
	50 1/2	1 1/2	
	52	1 1/2	
75	53	1	
	54	1	conn-set hole
	<del>10 1/2</del>	1	
	3	1	
	4	1	
4280	5	1	
	6	1	
	7	1	
	8	1	
	9	1	
85	10	1	
	11 1/2	1 1/2	
	13	1 1/2	
	14	1	
	15 1/2	1 1/2	
4290	17	1 1/2	
	18 1/2	1 1/2	
	20	1 1/2	
	22	2	
	24	2	
95	25 1/2	1 1/2	
	28	2 1/2	
	30	2	
	33	3	
	35 1/2	2 1/2	
4300	38 1/2	3	

ROTARY DRILLING TIME SHEET # 503  
 KANSAS BLUE PRINT CO., WICHITA, KAN.  
 Recorder No. 09-281

ORIGINAL

COMPANY Thunderbird Dng FARM Kraus WELL NO. 1  
 SEC. TWP. RGE. LOC. COUNTY Thomas STATE KS  
 CONTRACTOR Abencrombie Dng SIZE HOLE 7 7/8 DRILL PIPE 4 1/2 x 11  
 REMARKS: SIZE PUMP LINERS 6 LENGTH STROKE 15

15-193-20550-00-00

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4300</del>	<del>138 1/2</del>	<del>2 1/2</del>	
	41	2 1/2	
	43 1/2	2 1/2	
	45	1 1/2	
	47	2	
5	49	2	
	52	3	
	54	2	CONN
	<del>58</del>	<del>2</del>	
	2	2	
4310	4	2	
	6	2	
	8	2	
	10 1/2	2 1/2	
	13	2 1/2	
15	16	3	
	20	4	
	23	3	
	27	4	
	31	4	
4320	34 1/2	3 1/2	
	38	3 1/2	
	41	3	
	44	3	
	47	3	
25	50 1/2	3 1/2	
	53	2 1/2	
	54 1/2	1 1/2	
	56	1 1/2	
	57 1/2	1 1/2	
4330	300	2 1/2	
	02	2	
	04 1/2	2 1/2	
	07	2 1/2	
	09 1/2	2 1/2	
35	12	2 1/2	
	15 1/2	3 1/2	
	18	2 1/2	
	21	3	
	<del>20</del>	<del>2</del>	
4340	35	3	
	37	2	
	39	2	
	41 1/2	2 1/2	
	44	2 1/2	
45	46	2	
	48 1/2	2 1/2	
	51	2 1/2	
	53	2	
	56	3	
4350	59	3	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4350</del>	<del>59</del>	<del>2</del>	
	401	2	
	3	2	
	05	2	
	08	3	
55	10	2	
	13	3	
	14 1/2	1 1/2	
	17	2 1/2	
	19	2	
4360	21 1/2	2 1/2	
	23 1/2	2	
	25	1 1/2	
	26 1/2	1 1/2	
	28	1 1/2	
65	30	2	
	31 1/2	1 1/2	
	34	2 1/2	
	37	3	
	40 1/2	3 1/2	CONN
4370	<del>49</del>	<del>3</del>	CFS 30.60
	58	3 1/2	
	05	3 1/2	
	08 1/2	3 1/2	
	12	3 1/2	
75	15	3	
	17 1/2	2 1/2	
	19 1/2	2	
	21	1 1/2	
	1/2	1/2	
4380	22	1/2	
	23 1/2	1 1/2	
	25	1 1/2	
	26	1	
	1/2	1/2	
85	27	1/2	
	28	1	
	29	1	
	31	2	
	33	2	
4390	34 1/2	1 1/2	
	36	1 1/2	
	37 1/2	1 1/2	
	39	1 1/2	
	40	1	
95	41 1/2	1 1/2	
	43 1/2	2	
	46	2 1/2	
	47 1/2	1 1/2	
	49	1 1/2	CONN
4400	<del>53</del>	<del>1</del>	

ROTARY DRILLING TIME SHEET # 503 Reorder No. 09-281  
 KANSAS BLUE PRINT CO., WICHITA, KAN.

15-193-20550

# ORIGINAL

COMPANY Thunderbird Drilling FARM 1/2 acres WELL NO. 1  
 SEC. TWP. RGE. LOC. COUNTY Th STATE KS  
 CONTRACTOR ASER. Drilling SIZE HOLE 7 7/8 DRILL PIPE 4 1/2 x 1 1/4  
 REMARKS: SIZE PUMP LINERS 6 LENGTH STROKE 15

15-193-20550-00-00

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4400</del>	<del>53</del>	<del>2</del>	
	55	2	
	58	3	
	700	2	
	2	2	
5	4	2	
	6	2	
	8 1/2	2 1/2	
	10	1 1/2	
	12	2	
4410	15	3	
	18	3	
	20	2	
	22 1/2	2 1/2	
	25	2 1/2	
15	27	2	
	29 1/2	2 1/2	
	31 1/2	2	
	33 1/2	2	
	36	2 1/2	
4420	38	2	CFS 30-60
	<del>8:45</del>	2	
	50	3	
	53	3	
	55 1/2	2 1/2	
25	58 1/2	3	
	901	2 1/2	
	4	3	
	7	3	
	10	3	CONN
30	14 1/6	2	
	18	2	
	19 1/2	1 1/2	
	22	2 1/2	
	24	2	
35	28	4	
	31	3	52 vis.
	34 1/2	3 1/2	9.3 wt.
	38	3 1/2	
	46	2	
40	42	2	
	44	2	
	46	2	
	48	2	
	50	2	
45	52	2	
	53 1/2	1 1/2	
	55	1 1/2	
	57	2	
	59	2	
50	1001	2	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4400</del>	<del>1001</del>	<del>2</del>	
	5	2	
	5 1/2	2 1/2	
	8	2 1/2	
	10 1/2	2 1/2	
55	13	2 1/2	
	16	3	
	18	2	
	21	3	
	23 1/2	2 1/2	
60	26	2 1/2	CONN
	<del>29</del>	2	
	33	2	
	35 1/2	2 1/2	
	38	2 1/2	
65	40	2	
	42	2	
	45	3	
	47	2	CFS 30-60
	<del>1:55</del>	2	
70	03 1/2	2 1/2	
	06	2 1/2	
	09	3	
	13	4	
	16 1/2	3 1/2	
75	19	2 1/2	
	21 1/2	2 1/2	
	24	2 1/2	
	26	2	
	28	2	
80	30 1/2	2 1/2	
	33	2 1/2	
	36	3	
	39	3	
	42	3	
85	45	3	
	48	3	
	50	2	
	53	3	
	56	3	
90	59	3	
	1:01 1/2	2 1/2	
	04 1/2	3	CONN: 4492
	<del>1:19</del>	2 1/2	
	24	2 1/2	
95	27	3	Vis-48
	30	3	WT.-9.3
	33	3	
	36	3	
	39	3	
4500	42	3	

ROTARY DRILLING TIME SHEET # 603  
 KANSAS BLUE PRINT CO., WICHITA, KAN.  
 Recorder No. 09-281



15-193-20550-00-00

ANNUAL

COMPANY \_\_\_\_\_ FARM \_\_\_\_\_ WELL NO. \_\_\_\_\_  
 SEC. TWP. RGE. LOC. COUNTY STATE \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_ SIZE HOLE \_\_\_\_\_ DRILL PIPE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_ SIZE PUMP LINERS \_\_\_\_\_ LENGTH STROKE \_\_\_\_\_

DATE	DEPTH	TIME O'CLOCK	MIN.	REMARKS
	4500	1:42		
	01	45	3	
		48	3	
		51	3	
		54	3	
		56 1/2	2 1/2	
		2:00	3 1/2	
		04	4	
		08	4	
		12 1/2	4 1/2	
	4510	16	3 1/2	
		20	4	
		25	5	
		29	4	
		33 1/2	4 1/2	
		38	4 1/2	
		42	4	
		47	5	
		50 1/2	3 1/2	
		54	3 1/2	
	4520	58	4	
		3:02 1/2	4 1/2	
		06 1/2	4	
		10	3 1/2	CONN: 4523
		3:12 1/2	3 1/2	
		23	2 1/2	
		25 1/2	2 1/2	VIS-47
		27	1 1/2	W.T.-9.4
		30	3	
		33 1/2	3 1/2	
	4530	36 1/2	3	
		40	3 1/2	
		43	3	
		45	2	
		48	3	
		51	3	
		53 1/2	2 1/2	
		56	2 1/2	
		59	3	
		4:03	4	
	4540	05	2	
		08	3	
		12	4	
		15	3	
		18	3	
		22	4	
		26	4	
		28	2	
		31	3	
		34	3	
	4550	36	2	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
4550	4:36		
01	39	3	
	41 1/2	2 1/2	
	44	2 1/2	
	46 1/2	2 1/2	CONN: 4554
	4:54 1/2	2 1/2	
	58	3 1/2	
	5:02	4	
	05	3	
	09	4	
4560	13	4	
	16	3	
	19	3	
	21	2	
	24	3	
	27	3	
	31	4	
	34 1/2	3 1/2	
	38	3 1/2	
	42	4	
4570	45	3	wake up geol.
	49	4	
	52 1/2	3 1/2	
	56	3 1/2	
	6:00	4	
	04	4	
	09	5	
	13 1/2	4 1/2	
	16 1/2	3	
	18	1 1/2	
4580	21	3	
	25	4	
	29	4	
	33	4	
	36	3	
	39	3	CFS 30-60
	8:02 1/2	4	
	10	4	
	13	3	
	16	3	
4590	20	4	
	22 1/2	2 1/2	
	25	2 1/2	
	27	2	
	30	3	
	32 1/2	2 1/2	
	35	2 1/2	
	38 1/2	3 1/2	
	41 1/2	3	
	45	3 1/2	
4600	48 1/2	3 1/2	

ROTARY DRILLING TIME SHEET # 503 Reorder No. 09-251  
 KANSAS BLUE PRINT CO., WICHITA, KAN.

ORIGINAL

15-193 - 20550-00-09

COMPANY Thunderbird Dnlg FARM Kraus WELL NO. 1  
 SEC. TWP. RGE. LOC. COUNTY Thomas STATE Ks  
 CONTRACTOR Abercrombie Dnlg SIZE HOLE 7 7/8 DRILL PIPE 4 1/2 X H  
 REMARKS: SIZE PUMP LINERS 6 LENGTH STROKE 15

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4600</del>	<del>8 48</del>	<del>3 1/2</del>	
01	52	3 1/2	
	56	4	
	59	3	
	9 02	3	
5	6	4	
	9	3	
	12	3	
	15	3	
	19	4	
4610	22	3	
	25	3	
	28	3	
	31	3	
	35	4	
15	39	4	
	41 1/2	2 1/2	001111
45	48	2 1/2	
	50 1/2	2 1/2	
	54	3 1/2	
4620	57 1/2	3 1/2	
	1 00 1	3 1/2	
	4 1/2	3 1/2	
	8 1/2	4	
	12	3 1/2	
25	15	3	
	18	3	
	20 1/2	2 1/2	
	23 1/2	3	
	26 1/2	3	
4630	29 1/2	3	
	33	3 1/2	
	36	3	
	39	3	
	43 1/2	4 1/2	
35	47 1/2	4	
	52	4 1/2	
	57	5	
	1 10 2	5	vis wt
	4	2	46 9.5
4640	6	2	CFS 30-60
	15 18	3	
	22 1/2	4 1/2	
	27	4 1/2	
	31	4	
45	35	4	
	40 1/2	5 1/2	
	45 1/2	5	0000
	50 33	3	
	57	4	
4650	10 1	4	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>4650</del>	<del>10 6</del>	<del>5</del>	
	10 1/2	4 1/2	
	14	3 1/2	
	18 1/2	4 1/2	
55	22 1/2	4	
	26	3 1/2	
	32	6	
	37 1/2	5 1/2	
	43	5 1/2	
4660	48	5	
	52	4	
	56	4	
	20 1/2	5 1/2	
	7	5 1/2	
65	14	7	
	20	6	
	26 1/2	6 1/2	
	32	5 1/2	
	37 1/2	5 1/2	
4670	43	5 1/2	
	48 1/2	5 1/2	
	54	5 1/2	
	58 1/2	4 1/2	
	3 05	5 1/2	
75	12	7	
	15 1/2	3 1/2	
	18 1/2	3	
	25	6 1/2	conn
	39 33	3	
4680	39 1/2	6 1/2	
	46 1/2	7	
	53 1/2	7	
	4 00	6 1/2	
	07	7	
85	13	6	
	18 1/2	5 1/2	
	24	5 1/2	
	30	6	
	36	6	
4690	43	7	
	50 1/2	7 1/2	
	56	5 1/2	
	50 2	6	
	7 1/2	5 1/2	
95	13	5 1/2	
	19	6	
	24 1/2	5 1/2	
	31	6 1/2	
	36	5	
4700	43 1/2	7 1/2	CFS 30-60

ROTARY DRILLING TIME SHEET # 503 Reorder No. 09-281  
 KANSAS BLUE PRINT CO., WICHITA, KAN.

ORIGINAL

15-193-20550-00-00

COMPANY Thunderbird Drlg. FARM Kraus WELL NO. 1  
 SEC. TWP. RGE. LOC. COUNTY Thomas STATE Ks.  
 CONTRACTOR Abercrambie Drlg. SIZE HOLE 7 7/8" DRILL PIPE 4 1/2" X H  
 REMARKS: SIZE PUMP LINERS 6" LENGTH STROKE 15"

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>1700</del> 1	<del>1:52</del> 5:24	<del>6 1/2</del>	
	2:04	6 1/2	
	11	7	
	19	8	
5'	27	8	
	35	8	
	43	8	
	50	8	
	58	8	conn
10	<del>1:03</del> 1:03	2	
	9	6	
	15	6	
	21	6	
	28	7	
15'	36	8	
	44	8	
	52	8	
	58	6	
	9:04	6	
20	11	7	
	15	4	
	22	7	
	27	5	
	32	5	
25'	38	6	
	43 1/2	5 1/2	
	48 1/2	5	
	53 1/2	5	
	59	5 1/2	
30	10:06	7	
	13	7	
	17 1/2	4 1/2	
	23 1/2	6	
	30	6 1/2	
35	36 1/2	6 1/2	
	43 1/2	7	
	50	6 1/2	
	55	5	
	11:01	6	
40	06 1/2	5 1/2	
	12	5 1/2	conn: 4741
	<del>11:30</del> 37	7	
	45	8	
	53	8	
45'	12:01 1/2	8 1/2	
	10 1/2	9	
	20	9 1/2	
	28	8	
	37	9	
50	45	8	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
<del>1750</del> 5'	<del>12:15</del> 5:24	<del>7 1/2</del>	
	10:15	9	
	09	7 1/2	
	19	10	
35	28 1/2	9 1/2	CFS 30-60
	<del>2:51</del> 3:00	9	
	10	10	
	18	8	
	24	6	
40	30 1/2	6 1/2	
	39	8 1/2	
	46 1/2	7 1/2	
	54	7 1/2	
	4:01	7	
45'	06	5	
	13	7	
	23	10	
	33	10	
	41	8	
70	45 1/2	4 1/2	
	52	6 1/2	
	5:00	8	conn 4772
	<del>5:05</del> 5:12	7	
	22	10	
75'	23	1	
	25	2	
	27 1/2	2 1/2	
	34	6 1/2	
	3 1/2	2	
80	41 1/2	5 1/2	CFS 30-60
	<del>49:10</del> 55	5 1/2	
	7:02	7	
	5	3	
	11 1/2	6 1/2	
85'	19	7 1/2	
	29 1/2	10 1/2	
	38	8 1/2	
	44 1/2	6 1/2	
	51 1/2	7	
90	58	6 1/2	
	59	1	
	8:01 1/2	2 1/2	
	5 1/2	4	vis wt
	10	4 1/2	49 9.5
95'	12 1/2	2 1/2	
	14 1/2	2	
	17	2 1/2	
	18 1/2	1 1/2	
	21	2 1/2	
4850	26	5	CFS 30-60

ROTARY DRILLING TIME SHEET # 503 Reorder No. 09-281  
 KANSAS BLUE PRINT CO., WICHITA, KAN.

COMPANY \_\_\_\_\_ FARM \_\_\_\_\_ WELL NO. \_\_\_\_\_  
 SEC. TWP. RGE. LOC. COUNTY STATE \_\_\_\_\_  
 CONTRACTOR \_\_\_\_\_ SIZE HOLE \_\_\_\_\_ DRILL PIPE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_ SIZE PUMP LINERS \_\_\_\_\_ LENGTH STROKE \_\_\_\_\_

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
62	31		6209
61	50		6360
61	82		6037
61	86		6355
62	70		6221
62	80		<del>311.82</del>
59	63		
<hr/>			
434	62		6227
			6144
62	26		6405
61	96		6301
62	69		
61	27		<del>230.81</del>
60	30		
62	67		
62	35		
<hr/>			
433	49		
63	49		Kelly 40.00
62	78		Singd 29.47
62	29		D.C. 293.57
61	57		
62	60		
62	11		
61	62		
<hr/>			
436	46		
60	80		
62	52		
63	10		
61	38		
61	55		
60	77		
61	64		
<hr/>			
431	80		
61	95		
61	61		
62	06		
64	00		
62	41		
61	05		
62	04		
<hr/>			
435	12		

DEPTH	TIME O'CLOCK	MIN.	REMARKS
61	77		
62	23		
60	68		
61	64		
62	36		
62	22		
62	56		
<hr/>			
433	46		
62	87		
63	38		
62	30		
62	52		
60	79		
60	80		
62	24		
<hr/>			
434	90		
61	59		
59	82		
62	17		
62	80		
61	92		
63	50		
61	49		
<hr/>			
433	29		
62	70		
62	95		
62	55		
61	54		
62	44		
61	19		
63	55		
<hr/>			
436	92		
4833	73		
4832	80		
4833	93		

ROTARY DRILLING TIME SHEET # 503 Reorder No. 09-281  
 KANSAS BLUE PRINT CO., WICHITA, KAN.

*Strap Board*  
*Strepsons*

15-193-20550-00-00

COMPANY Thunderbird Drlg FARM Kraus WELL NO. 1  
 SEC. TWP. RGE. LOC. COUNTY Thomas STATE KS  
 CONTRACTOR Abercrombie Drlg SIZE HOLE 7 7/8 DRILL PIPE 4 1/2 x 14  
 REMARKS: SIZE PUMP LINERS 6 LENGTH STROKE 15

DATE

DEPTH	TIME O'CLOCK	MIN.	REMARKS
4800	01 41 1/2	3 1/2	
	48	3	
	53 1/2	5 1/2	CONN:
	57 1/2	4	
5	4	2 1/2	
	9	5	
	14	5	
	19 1/2	5 1/2	
	24 1/2	5	
4810	29	4 1/2	
	36 1/2	7 1/2	
	48	11 1/2	
	58 1/2	10 1/2	
	110 1/2	6	
15	12	7 1/2	
	16	4	
	17	1	R
	20	3	SR
	29	9	vis wt
4820	38	9	50 9.7
	45	7	
	54	9	
	12:00	6	
	7	7	
25	14	7	
	16	2	
	18	2	
	24	6	
	30 1/2	6 1/2	
4830	38	7 1/2	CFS. 28-60
	21 1/2	4	
	23	3	CONN: 4832
	21 3/4	4 1/2	
	37	2 1/2	
35	40	3	
	43	3	
	46 1/2	3 1/2	
	50	3 1/2	
	53	3	
4840	56	3	
	59	3	
	3:01 1/2	2 1/2	
	05	3 1/2	
	07	2	
45	10	3	
	13	3	
	16	3	
	19	3	
	22	3	
4850	25	3	

DEPTH	TIME O'CLOCK	MIN.	REMARKS
4850	01 27	2	
	29	2	
	32	3	
	35 1/2	3 1/2	
55	37 1/2	2	
	39	1 1/2	
	42	3	
	45	3	
	49	4	
4860	52	3	
	55 1/2	3 1/2	
	59	3 1/2	
	4:01 1/2	2 1/2	CONN: 4863
	4:08	3	
65	14	3	
	17 1/2	3 1/2	
	20 1/2	3	
	23	2 1/2	
	26	3	
4870	29	3	
	32 1/2	3 1/2	
	36	3 1/2	
	39	3	
	41 1/2	2 1/2	
75	44	2 1/2	
	46 1/2	2 1/2	
	50	3 1/2	
	53	3	
	56	3	
4880	59	3	
	5:02	3	
	04 1/2	2 1/2	
	07 1/2	3	
	11	3 1/2	
85	14	3	
	18	4	
	21	3	
	24	3	
	27 1/2	3 1/2	
4890	31	3 1/2	
	34	3	
	37	3	
	40	3	
	44	1	CONN: 4894
95	54 1/2	3	
	51	2	
	53 1/2	2 1/2	
	57 1/2	4	
	6:01	3 1/2	
4900	03 1/2	2 1/2	

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