

MORNING DRILLING REPORT

For: H&D Exploration, LLC

SOUTHWIND DRILLING, INC.

RIG #6

Well Name: Kaufman "A" #1
 Location: 2310' FNL & 1447' FWL
 Section: 9-15S-12W
 County: Russell
 API: 15-167-23900-00-0

Elevation: GL 1853'
 KB 1861'
 Est. TD: 3500'
 Conductor: N/A

Rig No. 6 (Pusher Wes Pfaff) 620 566-7094
 Rig No. 6 (Doghouse) 620 566-7156
 Southwind Drilling Office 620 564-3800



Surface Casing: Ran 18 joints of new 23#, 8 5/8" casing, Tally @ 747', Set @ 757', used 350 sacks of Common, 3% cc, 2% gel, cement circulated, by Quality (Ticket #7753), plug down @ 4:00 pm on 08.18.13.
 Production Info: Ran 87 joints of new 14#, 5 1/2" casing, Tally @ 3290', Set @ 3298', used 180 sacks of Common, 10% salt, 5% Gilsonte, cemented, by Quality (Ticket #6878), job complete @ 3:30 pm on 08.24.13.

Rotary Total Depth: 3306'
 Log Total Depth: 3300'

7:00 A.M. Depth: 3306'

7:00 A.M. Current Operation: TEAR DOWN

Spud Date & Time:	08/17/13	08/18/13	08/19/13	08/20/13	08/21/13	08/22/13	08/23/13	08/24/13	Total
08/17/2013 @ 9:45 PM	Day 1	Day 2	Day 3	Day 4	Day 5	Day 6	Day 7	Day 8	
Total Depth (7:00am)	0	520	1000	2006	2848	3110	3306	3306	
Daily Progress	520	480	1006	842	262	196	0		3306
Ft. Per Hr.	80.00	71.11	50.30	43.18	34.93	25.29	#DIV/0!	#DIV/0!	48.62
Current Operation (7:00am)	Rig Up	Drilling	Drilling	Drilling	Drilling	TIWB	CFS	LDDP	
Formation	Surface	Surface	Sand	Shale	Shale	Lansing "B"	Lansing	Quartz Sand	
Fuel Used	113.67	210.84	381.51	389.64	363.37	274.36	180.64	89.01	2003.04
Survey (degree & depth)		1 1/4' @ 757'			3/4' @ 3110'		1/2' @ 3306'		
Mud Info									
Mud Cost	\$0.00	\$0.00	\$2,526.75	\$2,940.50	\$1,762.10	\$1,020.55	\$1,060.85	\$507.75	\$9,818.50
Weight (# / Gal)	10.0	8.8	9.9	8.8	9.0	9.3	9.3		
Vis (Funnel)	38	28	28	50	49	50	50		
Water Loss (cc)					9.2	8.8	9.2		
Bit #1									
Bit Make / Type	JZ Tooth ReTip	JZ Tooth ReTip							
Bit Size	12 1/4	12 1/4							
Bit Hours	6.50	2.75							9.25
Bit #2									
Bit Make / Type		JZ HA20Q	JZ HA20Q	JZ HA20Q	JZ HA20Q	JZ HA20Q			
Bit Size		7 7/8	7 7/8	7 7/8	7 7/8	7 7/8			
Bit Hours		4.00	20.00	19.50	7.50	7.75			58.75
Bit Cumulative Hours	6.50	6.75	20.00	19.50	7.50	7.75	0.00	0.00	68.00
Weight on Bit (WOB)	20,000	25,000	32,000	35,000	35,000	35,000			
RPM	100	70	80	80	80	80			
Pump Pressure	550	650	900	900	900	800			
Drilling (Rotating) Hours	6.50	6.75	20.00	19.50	7.50	7.75	0.00	0.00	68.00
Daywork Hrs. (Operator's time)									
Rat Hole (>.75 Hrs)	0.25								0.25
Wait on Cement		8.00							8.00
Trip		1.25			6.50	7.25	9.50		24.50
Circulate		0.50			6.00	6.00	2.50		15.00
Tool					1.25	1.00	1.00		3.25
Testing					2.00	1.50	2.00		5.50
Clean Floor									0.00
Logging							2.00		2.00
LDDP & LDDC							1.00	2.50	3.50
Run Casing / Cement		2.25						5.00	7.25
Nipple Down / Jet Cellar								0.50	0.50
Set Slips								0.50	0.50
Wait on Tester									0.00
Wait on Loggers							4.00		4.00
Wait on Orders							0.50		0.50
Billable Hours	0.25	12.00	0.00	0.00	15.75	15.75	22.50	8.50	74.75
Non-Billable Hours (Southwind's time)									
Rig Up / Rig Down	13.75							6.50	20.25
Wait on Cement (if NC)		2.00							2.00
Downtime - Weather									0.00
Trip Time for Hole in Pipe									0.00
Drill Rat Hole (<.75 hrs)	0.75								0.75
Drill Plug		0.25							0.25
Circulate / Trip (Surface)		1.25							1.25
Rig Repair	0.25		0.50	1.00	0.25		1.25		3.25
Connections	2.50	1.25	2.75	2.00	0.50	0.50			9.50
Jet/Displace		0.25	0.75	1.50					2.50
Surveys		0.25					0.25		0.50
Rig Check									0.00
Wait on Welder									0.00
Trip Time (NB)									0.00
Lost Circulation (< 2 hrs)									0.00
Lay Down Kelly / RH								1.00	1.00
Non-Billable Hrs.	17.25	3.25	4.00	4.50	0.75	0.50	1.50	7.50	41.25
Footage Cost	\$ 7,540.00	\$ 6,960.00	\$ 14,587.00	\$ 12,209.00	\$ 3,799.00	\$ 2,842.00	\$ -	\$ -	\$ 47,937.00
Daywork Cost	\$ 87.50	\$ 4,200.00	\$ -	\$ -	\$ 5,512.50	\$ 5,512.50	\$ 7,875.00	\$ 2,975.00	\$ 26,162.50
Combined Est. Cost*	\$ 7,627.50	\$ 11,160.00	\$ 14,587.00	\$ 12,209.00	\$ 9,311.50	\$ 8,354.50	\$ 7,875.00	\$ 2,975.00	\$ 74,099.50

*Please note that this is estimated footage & daywork cost only. Additional charges will apply on invoice (fuel surcharge, water transfer pump, etc)

DST #1 Info - Footage Interval: 3073' - 3109' "Lansing" Recovery: 1100' Water	DST #2 Info - Footage Interval: 3160' - 3250' "Lansing" Recovery: 15' Mud
DST #3 Info - Footage Interval: 3262' - 3306' Recovery: 1700' Slightly Watery Oil	DST #4 Info - Footage Interval: Recovery:

Anhydrite: 781' - 811'

Displaced @ 2568' - 2611'

GENERAL INFORMATION

Client Information:

Company: H+D EXPLORATION

Contact: WYATT URBAN

Phone: Fax: e-mail:

Site Information:

Contact: ALAN HOFFMAN

Phone: Fax: e-mail:

Well Information:

Name: KAUFMAN A1

Operator: H+D OPERATION

Location-Downhole:

Location-Surface: S9/15S/12W

Test Information:

Company: DIAMOND TESTING

Representative: JOHN RIEDL

Supervisor: WYATT URBAN

Test Type: DST #1 CONVENTIONAL Job Number: D1349

Test Unit:

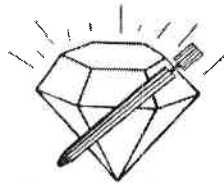
Start Date: 2013/08/22 Start Time: 00:40:00

End Date: 2013/08/22 End Time: 06:30:00

Report Date: 2013/08/22 Prepared By: JOHN RIEDL

Remarks: Qualified By: WYATT URBAN

RECOVERY: 1100' WATER WITH OIL SPECKS IN TOP 100'



DIAMOND TESTING
 P.O. Box 157
HOISINGTON, KANSAS 67544
 (800) 542-7313
DRILL-STEM TEST TICKET
 FILE: STC/Kaufmana1dst1

TIME ON: 00:40 8/22/13

TIME OFF: 06:30 8/22/13

Company H+D EXPLORATION Lease & Well No. KAUFMAN A1
 Contractor SOUTHWIND DRLG RIG 6 Charge to H+D EXPLORATION
 Elevation 1861 K.B Formation LANS A+F Effective Pay _____ Ft. Ticket No. D1349
 Date 8/22/13 Sec. 9 Twp. 15 S Range 12 W County RUSSELL State KANSAS
 Test Approved By WYATT URBAN Diamond Representative JOHN RIEDL

Formation Test No. 1 Interval Tested from 3073 ft. to 3109 ft. Total Depth 3109 ft.
 Packer Depth 3068 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.
 Packer Depth 3073 ft. Size 6 3/4 in. Packer depth _____ ft. Size 6 3/4 in.

Depth of Selective Zone Set

Top Recorder Depth (Inside) 3076 ft. Recorder Number 30046 Cap. 6000 P.S.I.
 Bottom Recorder Depth (Outside) 3106 ft. Recorder Number 11073 Cap. 4000 P.S.I.
 Below Straddle Recorder Depth _____ ft. Recorder Number _____ Cap. _____ P.S.I.
 Mud Type CHEMICAL Viscosity 47 Drill Collar Length 0 ft. I.D. 2 1/4 in.
 Weight 8.9 Water Loss 9.2 cc. Weight Pipe Length 0 ft. I.D. 2 7/8 in.
 Chlorides 2,700 p.p.m. Drill Pipe Length 3053 ft. I.D. 3 1/2 in.
 Jars: Make STERLING Serial Number NOT REQUESTED Test Tool Length 20 ft. Tool Size 3 1/2-IF in.
 Did Well Flow? NO Reversed Out NO Anchor Length 36 ft. Size 4 1/2-FH in.
 Main Hole Size 7 7/8 Tool Joint Size 4 1/2 XH in. Surface Choke Size 1 in. Bottom Choke Size 5/8 in.

Blow: 1st Open: STRONG (B.OB 3 1/2 MINUTES) NO BB
 2nd Open: STRONG (B.O.B 5 MINUTES) NO BB

Recovered 1100 ft. of WATER WITH OIL SPECKS IN TOP 100'
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____
 Recovered _____ ft. of _____

Remarks: TAL FLUID RECOVERY: 1100' IN DRILL PIPE
TOOL SAMPLE GRINDOUT: 100% WATER

	Price Job
	Other Charges
	Insurance
	Total

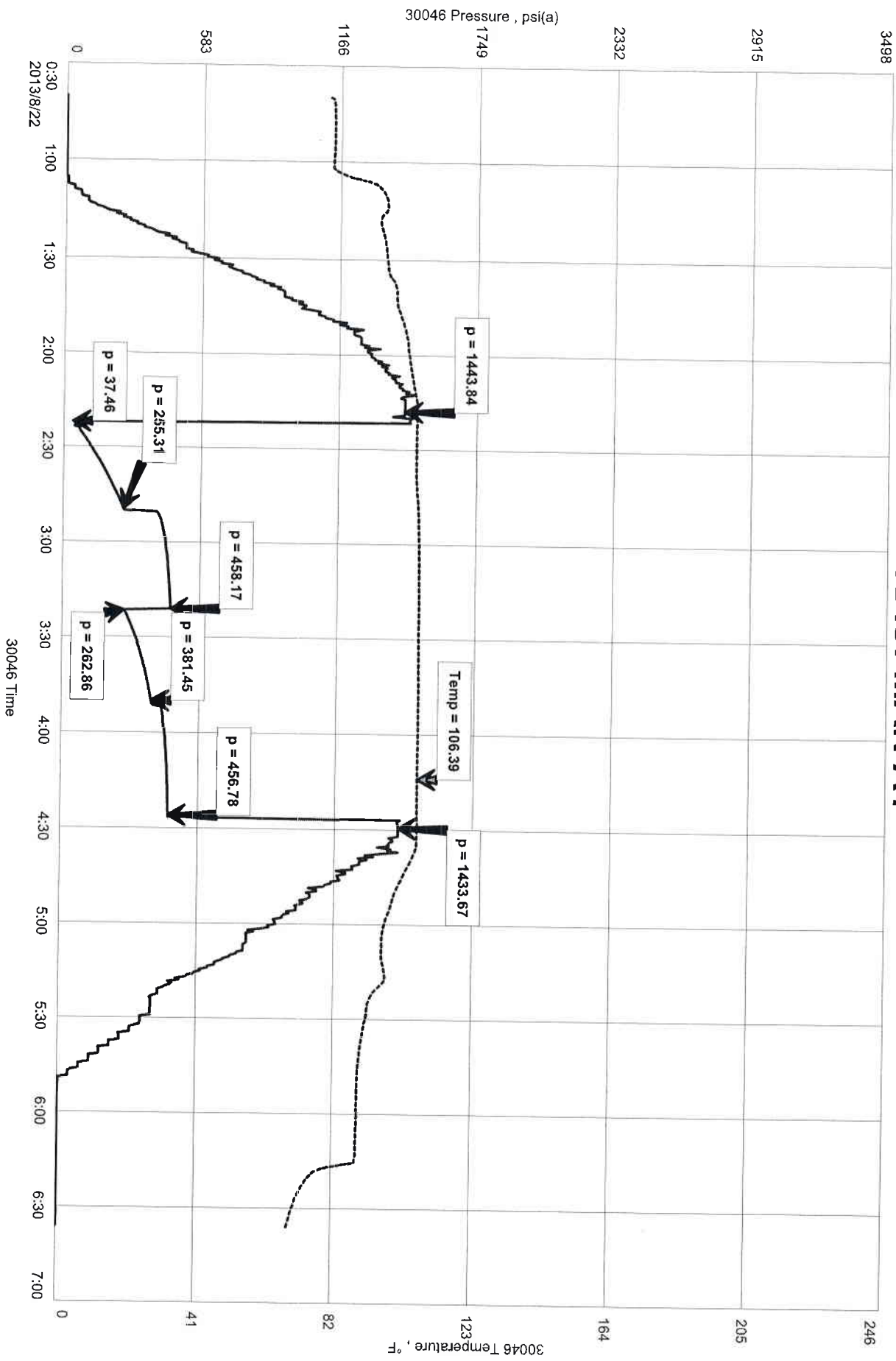
Time Set Packer(s) 2:20 A.M A.M. Time Started Off Bottom 4:20 A.M A.M. Maximum Temperature 106
P.M. P.M.
 Initial Hydrostatic Pressure..... (A) 1443 P.S.I.
 Initial Flow Period..... Minutes 30 (B) 37 P.S.I. to (C) 255 P.S.I.
 Initial Closed In Period..... Minutes 30 (D) 458 P.S.I.
 Final Flow Period..... Minutes 30 (E) 263 P.S.I. to (F) 381 P.S.I.
 Final Closed In Period..... Minutes 30 (G) 457 P.S.I.
 Final Hydrostatic Pressure..... (H) 1433 P.S.I.

Diamond Testing 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, or its statement or opinion concerning the result of any test. Tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

H+D EXPLORATION
 Start Test Date: 2013/08/22
 Final Test Date: 2013/08/22

KAUFMAN A1

KAUFMAN A1
 Formation: LKC F+G
 Job Number: D1349



Office: **James C. Musgrove**
 Petroleum Geologist
 (620) 588-4250 212 Main St. • P.O. Box 215 • Clarita, KS 67688 Home: (620) 587-3444

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY: **H & D Exploration, LLC**

LEASE: **Kaufman A1**

FIELD: _____

LOCATION: **W2-SW-SE-NW 6 230' FNL 1447' FUL**

SEC: **9** TWP: **15** RGE: **12**

COUNTY: **RUSSELL** STATE: **Kansas**

CONTRACTOR: **Southwind Drilling (Rig #6)**

START: **8/17/13** COMP: **8/23/13**

RTD: **3306** LOG: **3300**

MUD JO: **2500** TYPE MUD: **Chemical**

SAMPLES SAVED FROM: **2600**

DRILLING TIME KEPT FROM: **2600**

SAMPLES EXAMINED FROM: **2600**

GEOLOGICAL SUPERVISION FROM: **2600**

GEOLOGIST ON WELL: **Wyatt Urban**

ELEVATIONS

KB: **1861**

DF: _____

GI: **1853**

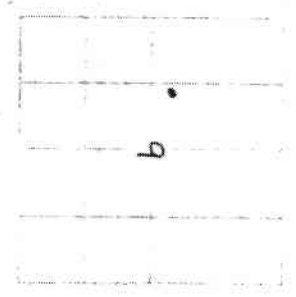
Measurements Are All From: **KB**

CASING: **8 1/2" @ 757'**

PRODUCTIVE: **5 1/2" @ 3300'**

ELECTRICAL SURVIVAL: **Pioneer Energy Services; Radiation Guard Log**

FORMATION TOPS	LOG	SAMPLES
Anhydrite	780	+1081
Base Anhydrite	808	+1053
Topoka	2643	-782
Heebner	2912	-1051
Toronto	2927	-1066
Douglas	2943	-1082
Brown Lime	2997	-1136
Lansing	3011	-1150
Base Kansas Ch	3272	-1411
Basal Sand	3298	-1437
RTD	3306	-1445
LTD	3300	-1439



REMARKS

5 1/2" production casing was set & cemented on the Kaufman #1. Respectfully submitted; Wyatt Urban Petroleum Geologist

LEGEND

- Anhydrite
- Salt
- Sandstone
- Shale
- Dark sh
- Limestone
- Dol. Lime
- Chert
- Dolomite

DRILLING TIME
 (Logarithmic Scale)

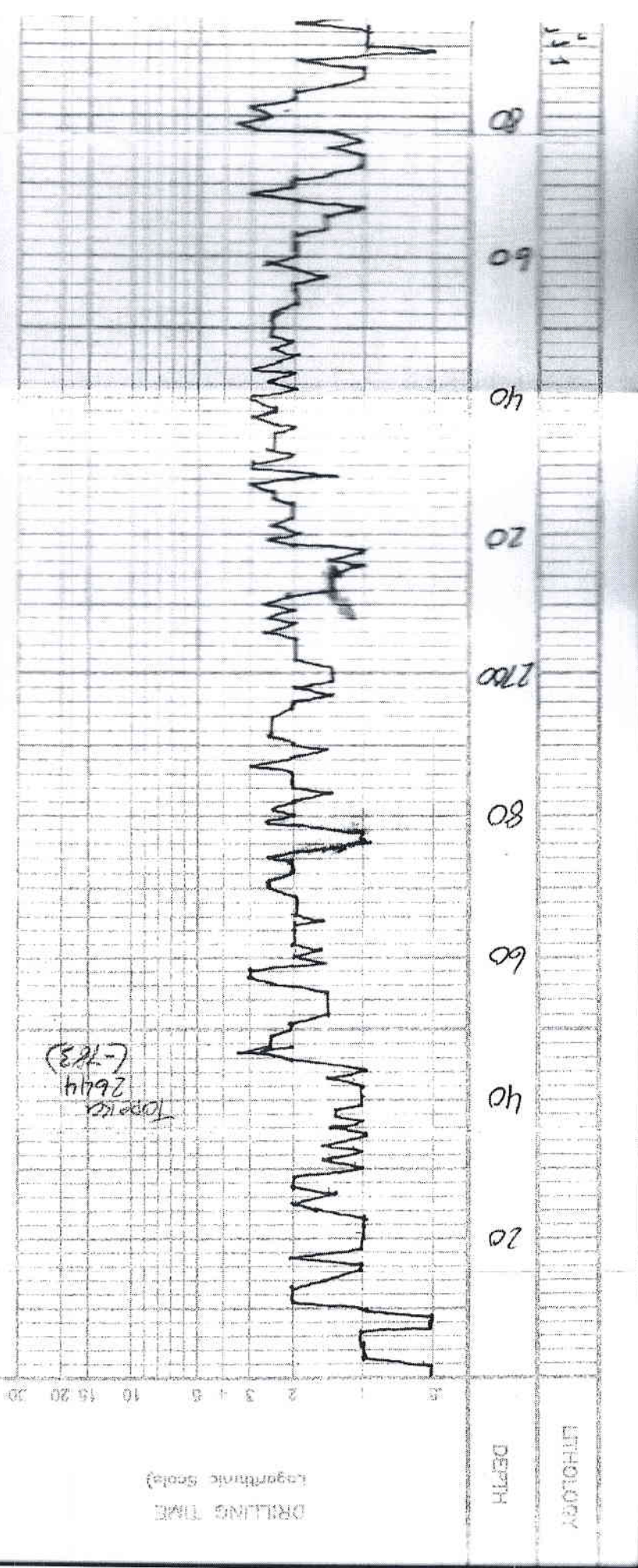
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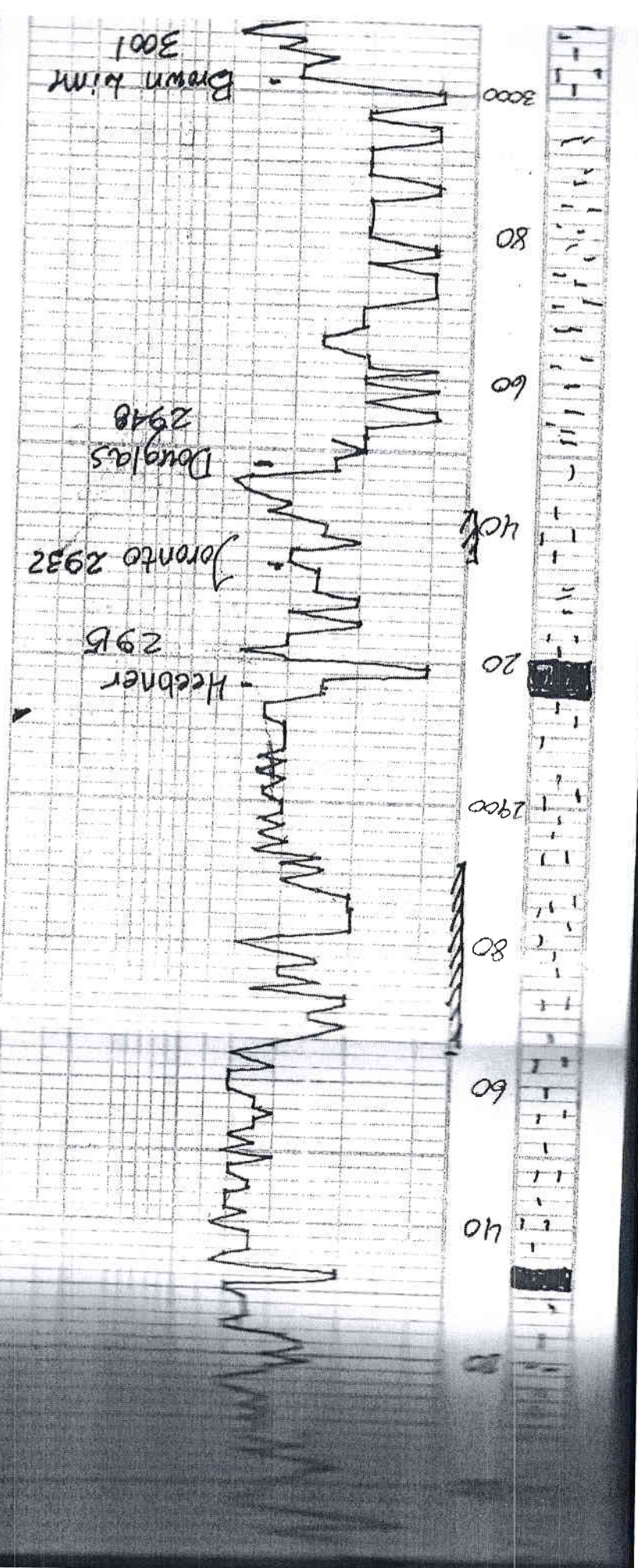
5052

2072 001

DEPTH	LITHOLOGY	DRILLING TIME (logarithmic scale)	SAMPLE DESCRIPTIONS	REMARKS
0			Sh. blk/bk, silty	
10			L.S. Tan, Exl, few foss, clay	
20			L.S. Tan, Exl, Foss, Dns	
30			Poor. scant ϕ , M/S.	
40			Sh. gy/bk, silty	
50			L.S. Whit. (cm), Exl, Foss, clay	
60			L.S. Tan, Exl, few Foss, Dns	
70			Dns M/S.	
80			L.S. gy/ton, Foss, clay	
90			Sh. blk/bk, silty	



L.S. TAN, BRN, FCL, ΔY Poor vis φ, NIS, N/O
 SH. A/R, TIC, GR, END.
 SH. GR, RED, GREEN, SILTY
 NISO, NO OOR
 L.S. CRN, CHIKY, SPRTY STN
 SH. GR, RED, GREEN, SILTY
 SPRTY TIC, STN, N/O
 L.S. V. CHIKY, FEW FOS, LT.
 DNS, Poor vis φ, N/O
 L.S. TAN, Lt. BRN, FEW FOS
 BIK Carb. SH.
 STN, NISO
 Poor SCAT φ, Lt. SPRTY
 L.S. TAN, FCL, FEW FOS,
 KR 1261
 Poor SCAT φ, NISO, N/O OOR
 L.S. CHIKY, TAN, FEW FOS
 L.S. TAN, FCL, ΔY Poor vis φ
 L.S. TAN, MTL, SL, SANDY, Poor
 SCAT φ, TIC, BRN SPRTY STN.
 L.S. CRN, TAN, FCL, CHIKY
 TIC, Lt. BRN STN, NISO, NO OOR



3001

Wansing
3016

20

40

60

80

3100

20

40

60

80

L.S. Tan, Crm, Fxl, Chiky
Φ. N/S. N/A

L.S. Crm, Wht, Fxl, Chiky
• Few Foss. Poor Scott Φ, Lt. Sfo.
Lt. Golden brn str. No odor.

L.S. Tan, Crm, Fxl, Chiky in
parts, Poor Scott Φ, Lt. Sfo.
Sptty. trc. of free oil, No odor.

L.S. Tan, brn, Fxl in pts, Dol.
• Sh. Chiky, Fair com. Φ,
Lt. trc. free oil, odor???

L.S. Tan, Fxl, Poor Scott Φ, Lt.
trc. SFO, No odor.

L.S. Crm, Tan, Fxl, Sl. Chiky
Poor vis Φ, Lt. brn str. NSFO.

L.S. Crm, ^{Tan} com, Fxl, Dns, Poor
Scott Φ, trc. Lt. brn str. Chiky

Sh. Gry, blk, mar, Silty

L.S., Crm, Wht, Dol, Chiky, Good
com Φ, Sfo, good odor.

L.S. Crm, gry, Dol in pts, Fr.
com Φ, NSFO, No odor.

L.S. Tan, Fxl, Poor vis Φ,
trc. Wht Δ, N/S.

Sh. blk, gry, Silty

L.S. Gry, Fxl, Δy, Poor Scott
Φ, N/S. N/A

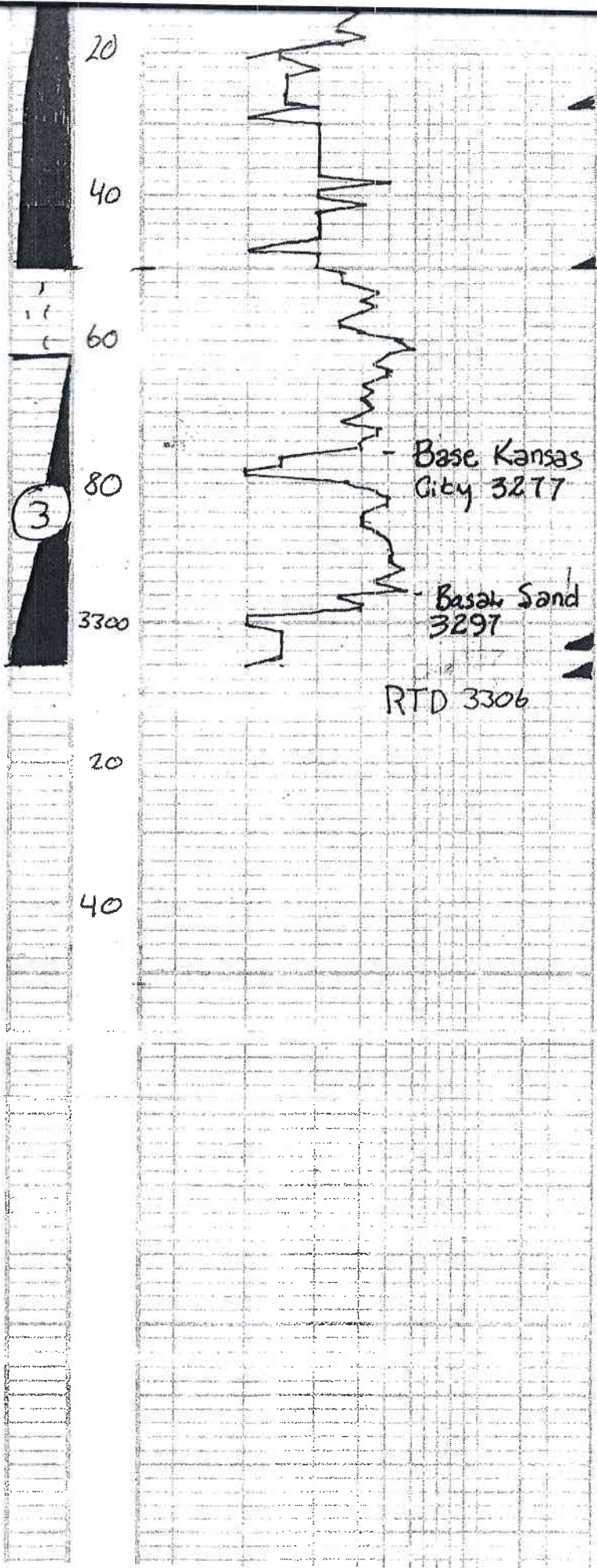
L.S. Crm, Dol, Sl. Dol in pts
Poor Scott Φ, Lt. Sfo, No odor.

L.S. Crm, Fxl, Dol in pts, Lt. Sfo
Chiky, Poor Scott Φ, Lt. Sfo
Δ

L.S. Crm, Fxl, Dol in pts, Lt. Sfo
Chiky, Poor Scott Φ, Lt. Sfo
Δ

DST #1 3073-
30-30-30
Blow; BOB 3.5
Recovery
1100' Water w/sh
SPOTS.
Pressures:
ISIP 458 psi
FSIP 457"
IFP 37-255"
FFP 263-381"
HSH 1443-1472"

DST #2 3160
30-30-5-10
Blow; BOB 2.0
Recovery
15' Drilling
Pressures:
ISIP 60
IFP 373
FFP 19-20
HSH 1570-1572"



L.S. Tan, brn, Fxl, Few Foss
 • Poor scatt ϕ , SFO, Ft. odor
 Lt. brn str.

L.S. Crm, gry, Fxl, Dns, Δy
 Poor scatt ϕ , N/S-

L.S. Crm, Tan, Fxl, Few Foss,
 Poor scatt ϕ , N/S.

L.S. Crm, tan, Fxl, Dns
 Poor scatt ϕ , N/S.

L.S. brn, Fxl, Dns, Δy Poor
 Vis ϕ , N/S.

L.S. Crm, tan, Fxl, ool, Dns
 Poor vis ϕ , N/S, N/O
 Sh. Red, gry, greench.

L.S. A/K, F trc Org. Δ ool. Δ .

• QTz - sd. Cir. sub rounded,
 SFO, good odor. Lt. golden brn
 stain.

aa

DST #3 3262
 30' 30' 30' 30'
 BLOW; BOB 4m
 Recovery
 1200' SL6C10
 52 Gas, 60% Oil,
 Water
 100' Water
 Pressures
 ISIP-1082 psi
 FSIP 1077 "
 IFP 37.292 "
 FFP 303-479 "
 HSH 1582-1521

RTD 3306