

HERB DEINES

CONSULTING GEOLOGIST

108 W. 35th ST.

PH. 785-625-3380

HAYS, KS 67601

COMPANY IDI Inc

WELL Miller #1

FIELD Hyacinth

COUNTY Ellis STATE KANSAS

LOCATION: 1250' FNL & 1200' FEL, NE 1/4

Elevations
KB 2198

DF _____

GL 2188

Logging by:

Log-Tech

SEC 19 TWP 12s RGE 18w

- | | |
|---|----------|
| 1. <u>Dual Induction Log</u> | 4. _____ |
| 2. <u>Dual Compensated Porosity Log</u> | 5. _____ |
| 3. <u>Micro Resistivity Log</u> | 6. _____ |

Contractor Southwind Drlg. Inc. Rig #1

Commenced 5-09-2011 Completed 7-17-2011

RTD 3871' LTD 3869'

Surface Casing 8 5/8" set to 222.65' w/ 150 sxs Common 2% Gel 3% CL

Production Casing 5 1/2" set to 3859' w/ 200 sxs E & Z DV @ 1517' w/ 1200' sxs RH Plug down 11:00 am 7-17-2011

Drilling Time 3100' - RTD Samples 3150' - RTD

Daily Penetration Rate

Date	Depth	Activity	Date	Depth	Activity
7-09-11		34 Spud Set SP			
7-10-11	225'	Finish well on down works			
7-11-11	1400'	Dalg			
7-12-11	2380'	Dalg			
7-13-11	2989'	Dalg			
7-14-11	3505'	Dalg DST #1			
7-15-11	3574'	Dalg DST #2			
7-16-11	3720'	Dalg DST #3 RTD			
7-17-11	3871'	DST #4 Logg. Run 3			

FOLD HERE

Bit Record

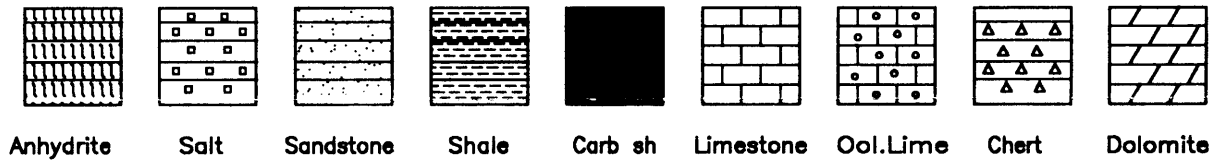
Formation	Sample	Log	Datum	* Formation	Sample	Log	Datum	* Datum
Available Top		1502	+ 696					
Available Base		1537	+ 661					
Top end		3197	- 999					
Med. Area Sample		3429	- 1231					
Toronto		3444	- 1248					
LKC		3474	- 1276					
BKC		3715	- 1517					
Conglomerate Sand		3756	- 1558					
AR Bushle		NR						
RTD	3871							
LTD	3869		- 1671					

REMARKS: Recommendation To Run Production casing based on favorable structure and positive results of DSTs

Herb Deines

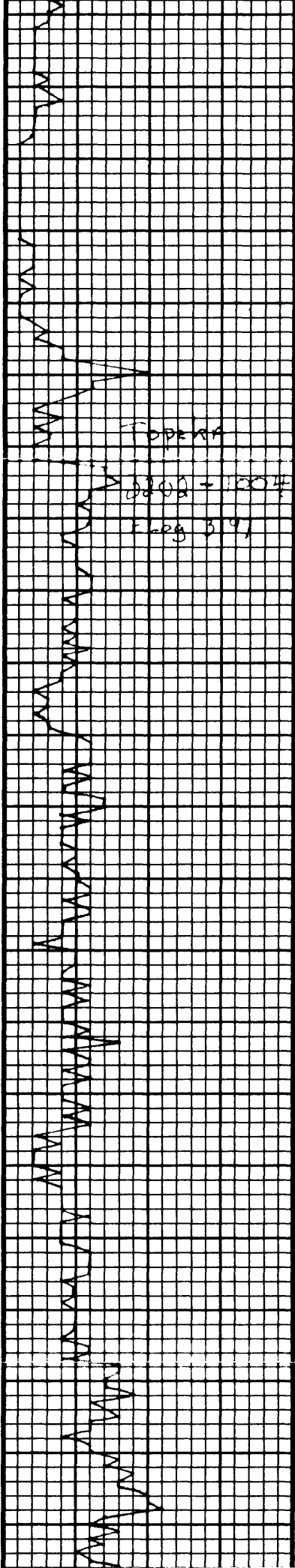
* Structural Position to:

LEGEND

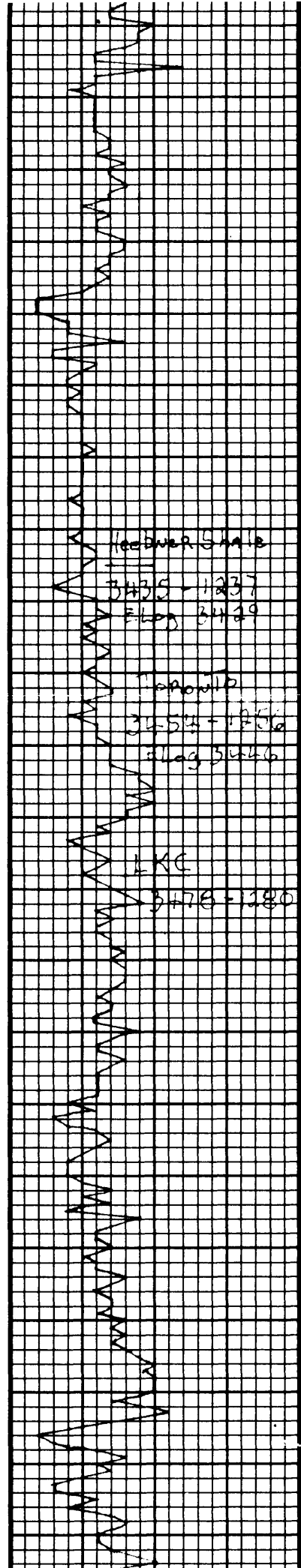


SCALE " = 100'

Drilling time in minutes 1 2 3 4 5 6 7 8 9	DEPTH	Sample Description	Remarks, drill stem tests, etc.
			Mud Program - Gel Chemical Mud-Co
	80		Slope Survey @ 225' 14"
	90		
	1500		
	10		Anhydrite Top 1509 + 489 Elev 1502
	20		
	30		
	40		Anhydrite Base Elev 937
	50		1543 + 455
	60		
	3100		
	10		
	20		lim Lt GRN FmXV - GRANULAR
	30		Sh Lt gray soft + slicky
			lim CRM - hltan FmXV



40	lm cam-ban Fuxin
50	Sh lt gray soft
60	
70	Sh lt-Med gray
80	
90	lm cam-lt ban Fuxin
3200	Sh lt-med gray soft
10	lm cam-lt ban Fuxin
20	lm lt ban gray Fuxin
30	lm wht-cam Fuxin St.uss
40	lm cam-lt ban Fuxin-granular NS
50	Sh gray-bk
60	lm lt ban gray Fu-VFXIN
70	lm cam-lt ban Fuxin
80	lm cam Fuxin-granular
90	lm cam-ban gray Fuxin
3300	lm cam-lt ban granular w chalk St. Foss up
10	Sh blk carb lm cam-ban gray Fuxin-granular
20	Sh gray calcareous
	lm cam-lt ban Fuxin granular
40	lm wht-cam-med ban Fuxin-granular w chalk
50	lm wht-cam Fu-VFXIN chalk in part



60 1m LT med BAN - gray - shaly
Foss in part
Sh. Lk Carb

70 1m LT gray FNXN pyritic Sli Foss
Sh gray calcareous

80 1m LT med BAN - BAN
Foss in part

90 1m LT BAN mostly FNXN

3400 1m BAN Dolomitic w/interbedded
Slat - Slat STN w/ LT beds

10 1m LT BAN granular w/char in part

20 1m LT BAN - LT gray
Foss in part

30 1m LT med BAN FNXN - granular
Sh. Lk Carb

40 1m med BAN UFXN head
Sh. Lk green

50 1m BAN UFXN
Foss in part

60 1m BAN UFXN
Foss in part
zone appears very thin & poorly developed

70 1m BAN UFXN Sli Foss
Sh gray med. BAN

80 1m BAN UFXN
Sli Foss in part

90 1m BAN UFXN
Sli Foss + streaks in part

3500 Sh gray pyritic

10 1m LT BAN FNXN - conchoidal in part
LT shaly w/ LT gray also
Repeats poorly developed interbedded
w/ sh. Lk Carb

20 1m LT BAN UFXN - granular
Slat in part + Slat Foss Fragments

30 Sh med. BAN

40 1m LT BAN UFXN w/ Foss Fragments
and sh. Lk material in interbedded
beds w/ sh. Lk Carb

50 1m LT BAN UFXN
Sh gray - Lk
Sh gray FNXN

60 1m LT BAN Foss Fragments
w/ sh. Lk Carb

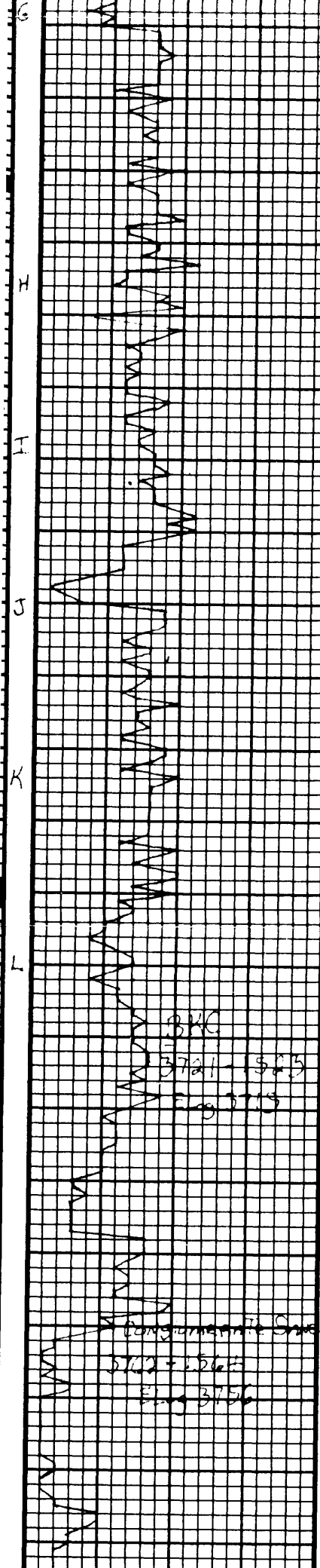
70 1m LT BAN Foss - FNXN
Slat - Slat STN w/ LT beds

Slope Survey 3524' 1 1/2°
Pipe Strap short to Bogad 2.04

DST #1 3464' - 3524'
30-45-60-60
Rec: 78' OCM - 1%G, 11%O, 88%M
63' 50CMW - 3%G, 2%O
54%W, 41%M
BHT: 110°
Rw .184 @ 94.8°
CL: 28,000 ppm
ISIP: 384*
FSIP: 372*

FP: 34-54, 58-79
1st Open: wk - built to 3 1/4"
No blow back
2nd Open: wk - built to 5 3/4"
No blow back

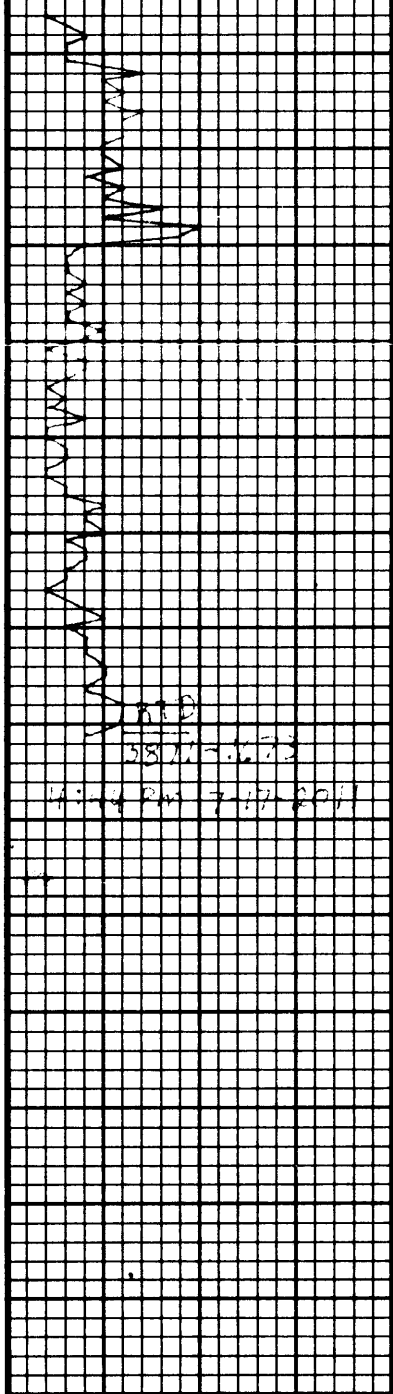
DST #2 3524' - 3574'
30-45-60-60
Rec: 62' mw w/ scum oil
62' 50CMW - 5%O
10%W, 85%M
20' Free Oil
GRAVITY 27
Rw .15 @ 101°
CL: 34,000 ppm
ISIP: 829*
FSIP: 798*
FP: 34-56, 60-90
1st Open: wk - built to 4"



3600
 10
 20
 30
 40
 50
 60
 70
 80
 90
 3700
 10
 20
 30
 40
 50
 60
 70
 80
 90

Lm CAM EN VFXN Chalk impant
 Sh. Bk. Sand
 Sh. GASS
 Lm CAM TAN calcitic & Foss
 V. Fodda w/ STAIN
 also calcitic / Foss
 Lm CAM TAN - off wht
 EN-VFXN - Chalk impant
 Sh. GASS - BK
 Lm CAM Mostly - BK
 Sand calcitic w/ STAIN
 Al. odor a Fossil
 Lm CAM TAN
 mostly calcitic impant
 Few v. in STAIN w/ sand
 calcitic impant
 11 gal oil on tank in 2 sec
 Lm CAM TAN EN-VFXN
 Sh. GASS - BK
 Lm CAM TAN EN-VFXN
 Lm CAM Mostly - BK w/ calcitic
 few sand in STAIN
 Lm CAM TAN EN-VFXN w/ sand
 Sh. Bk. Sand
 Lm CAM EN-VFXN w/ Sand in part. MS
 Sh. L. Best wash Red. URN.
 Sh. L. Mergay
 Sh. Red. URN. SAND
 Lm CAM w/ mix of fossils
 Sand & Fossils w/ calcitic
 Sh. L. Best wash Red. URN.
 Sh. L. Best wash Red. URN.
 mix of Sand & fossils
 no shales or clay noted
 Sh. + fossils varicolored
 No bed. noted

No flow back
 No flow back
 DST #3 3600' - 3720'
 30-45-30-60
 Rec: 62' Gsy Oil - 10%G, 90%O
 62' Gsy Oil - 40%G, 60%O
 62' Gsy mdy Oil - 20%G, 10%O
 70% m
 31' GMCO - 35%G, 60%O
 5% m
 GIP - 1054
 BHT: 111°
 GRAVITY: 33
 ISIP: 934*
 FSIP: 930*
 FP: 69-104, 128-140
 1st Open: Strong BOB 6 min
 1/2" blow back
 2nd Open: Strong BOB 8 min
 7" blow back
 DST #4 3756' - 3785'
 30-30-30-45
 Rec: 62' GMCO - 15%G, 75%O
 10% m
 124' GHOCM - 40%G, 50%O
 10% m
 155' Gsy Oil - 5%G, 95%O
 BHT: 115°
 GRAVITY: 18
 ISIP: 1031*



3800
10
20
40
50
60
70
80
90
3900

SS + shales med. grains, fair to
poor in sort. S.F. 100%

SS + shales w. increasing % of shales

SS + shales w. large % variation sort

SS large grain, clean, well sorted
grains by sand staining in top
of back diam. lens

SS + shales w. increasing % of shales

No red wash noted

SS + shales

SS + shales

No red wash noted

SS + shales

FSIF: 1005
FP: 33-98, 105-156
1st Open: Fair blow - BOB 15 min.
wk surface blow on blow back
2nd Open: Fair - BOB 18 1/2 min
Blow back - Surface blow

RED
58715-1673
Hole No 7-17-2011

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 4975

Cell 785-324-1041

Date	7-9-11	Sec.	19	Twp.	12	Range	18	County	Ellis	State	Ks	On Location		Finish	7:30 PM
Lease	Miller		Well No.	#1		Location Hays, Ks - W to Burdette Rd, 2 1/4 W									
Contractor	Southwind #1					Owner ^{3/5}									
Type Job	Surface					To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.									
Hole Size	12 1/4"		T.D.	225'		Charge To TDI Inc.									
Csg.	8 5/8"		Depth	222'		Street									
Tbg. Size			Depth			City									
Tool			Depth			State									
Cement Left in Csg.	15'		Shoe Joint	15'		The above was done to satisfaction and supervision of owner agent or contractor.									
Meas Line			Displace	13 BLS		Cement Amount Ordered 1855 5x Common 3 1/2 CC, 2 1/2 Gd									

EQUIPMENT

Pumptrk	1	No.	Cementer	Helper	Cisco	Common	150
Bulktrk	14	No.	Driver	Driver	Matt	Poz. Mix	
Bulktrk	p.u.	No.	Driver	Driver	Rick	Gel.	3

JOB SERVICES & REMARKS

Remarks:	Cement did Circulate.	Calcium	5
Rat Hole		Hulls	
Mouse Hole		Salt	
Centralizers		Flowseal	
Baskets		Kol-Seal	
D/V or Port Collar		Mud CLR 48	
		CFL-117 or CD110 CAF 38	
		Sand	
		Handling	150
		Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	

Pumptrk Charge Surface
Mileage 11

X Signature *Frank Rame*

Tax
Discount
Total Charge

JOB LOG

SWIFT Services, Inc.

DATE 7-17-11 PAGE NO. 9

CUSTOMER TDI WELL NO. #1 LEASE Miller JOB TYPE 2-stage TICKET NO. 19726

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1815							OK loc w/FE
								RTD 3871' LTD 3869' 5 1/2" x 14# x 3867' x 4.3' Cent. 4, 3, 5, 7, 9, 11, 55, 71 Bosh 4, 12, 92, 72 DV 92@ 1517'
	1910							Start F.E.
	2045							Break Circ.
	2120	4.5	0				150	Start Pref 500gal Mudflush 20 bbl KCL flush
	2127	5.5	32/0				200	Start Cement 200sks EA-2
	2136		48					End Cement wash P&L Drop L.D. Plug
	2140	6	0				200	Start displacement wt. mud
	2150	6	60				200	
	2152	5	70				250	catch Cement (start KCL flush)
	2200		93				600/1500	Land Plug Release pressure / Float Hold
	2205							Drop Opening Plug
	2210	2.5	7					Plug RH 25sks SMD
	2220						1100	Open D.V.
	2225	5.5	0				100	Start Cement 175sks SMD
	2245		110					End Cement Drop Closing Plug
	2248	5	0				100	Start Displacement
	2253	4	23				150	Catch Cement
	2253		24				150	Circulate Cement
	2257		37				300/1500	Land Plug Release Pressure DV Closed
Circ. 35sks topit Mark Hester								
Thank you Nick, Josh P & Joe								