

OPERATOR

Company: MILLER-BECKER ENTERPRISES, LLC
 Address: 100 S. MAIN STREET
 RUSSELL, KANSAS 67665

Contact Geologist: DRU MILLER/RYAN BECKER
 Contact Phone Nbr:

Well Name: BIRZER # 1-21
 Location: SW NE SW NE, SEC.21-T15S-R15W
 API: 15-167-24,049-00-00
 Pool: WILDCAT
 State: KANSAS

Field: UNNAMED
 Country: USA

Scale 1:240 Imperial

Well Name: BIRZER # 1-21
 Surface Location: SW NE SW NE, SEC.21-T15S-R15W
 Bottom Location:
 API: 15-167-24,049-00-00
 License Number: 34589
 Spud Date: 11/14/2016 Time: 8:15 PM
 Region: RUSSELL COUNTY
 Drilling Completed: 11/18/2016 Time: 10:28 PM
 Surface Coordinates: 1920' FNL & 1890' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 1890.00ft
 K.B. Elevation: 1898.00ft
 Logged Interval: 2400.00ft To: 3488.00ft
 Total Depth: 3488.00ft
 Formation: LANSING-KANSAS CITY
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -98.9919706
 Latitude: 38.7346917
 N/S Co-ord: 1920' FNL
 E/W Co-ord: 1890' FEL

LOGGED BY

Company: SOLUTIONS CONSULTING, INC.
 Address: 108 W 35TH
 HAYS, KS 67601

Phone Nbr: (785) 639-1337
 Logged By: GEOLOGIST

Name: HERB DEINES

CONTRACTOR

Contractor: SOUTHWIND DRILLING, INC.
 Rig #: 3
 Rig Type: MUD ROTARY
 Spud Date: 11/14/2016 Time: 8:15 PM
 TD Date: 11/18/2016 Time: 10:28 PM
 Rig Release: 11/19/2016 Time: 1:30 PM

ELEVATIONS

K.B. Elevation: 1898.00ft Ground Elevation: 1890.00ft
 K.B. to Ground: 8.00ft

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL BASED ON LOW STRUCTURE, LACK OF SHOWS AND LOG

ANALYSIS.

OPEN HOLE LOGS BY TUCKER WIRELINE SERVICES: DUAL INDUCTION LOG, DENSITY/NEUTRON POROSITY LOG, MICRO LOG AND SONIC LOG.

NO DRILL STEM TESTS WERE RAN ON THIS WELL.

BIRZER # 1-21	STEINERT # 3	DUMLER # 1-28
SW NE SW NE	NE SW NE SW	E2 NE NW NE
SEC.21-15S-15W	SEC.21-15-15W	SEC.28-15-15W
1890'GL 1898'KB	KB 1865'	KB 1934'

<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	950 + 948	+ 943	+ 958
B-Anhydrite	983 + 915	+ 915	+ 926
Topeka	2857- 959	- 955	- 952
Heebner Sh.	3083-1185	-1181	-1179
Toronto	3101-1203	-1197	-1196
LKC	3141-1243	-1239	-1237
BKC	3365-1467	-1466	-1464
Arbuckle	3406-1508	-1511	-1490
RTD	3488-1590	-1574	-1591

SUMMARY OF DAILY ACTIVITY

11-14-16 Spud 8:15 PM, drilling

11-15-16 587', set 8 5/8" surface casing to 924' w/375sxs 70/30 Pos 2%Gel
3%CC, plug down 5:00PM, WOC 12 Hrs, slope survey 1 ¼ degree











11-16-16 965', drilling

11-17-16 2355', drilling, displaced 2661-2685'

11-18-16 3125', CFS 3120', short trip, CFS 3175', CFS 3229' RTD 3488'
@10:28PM, CCH, short trip

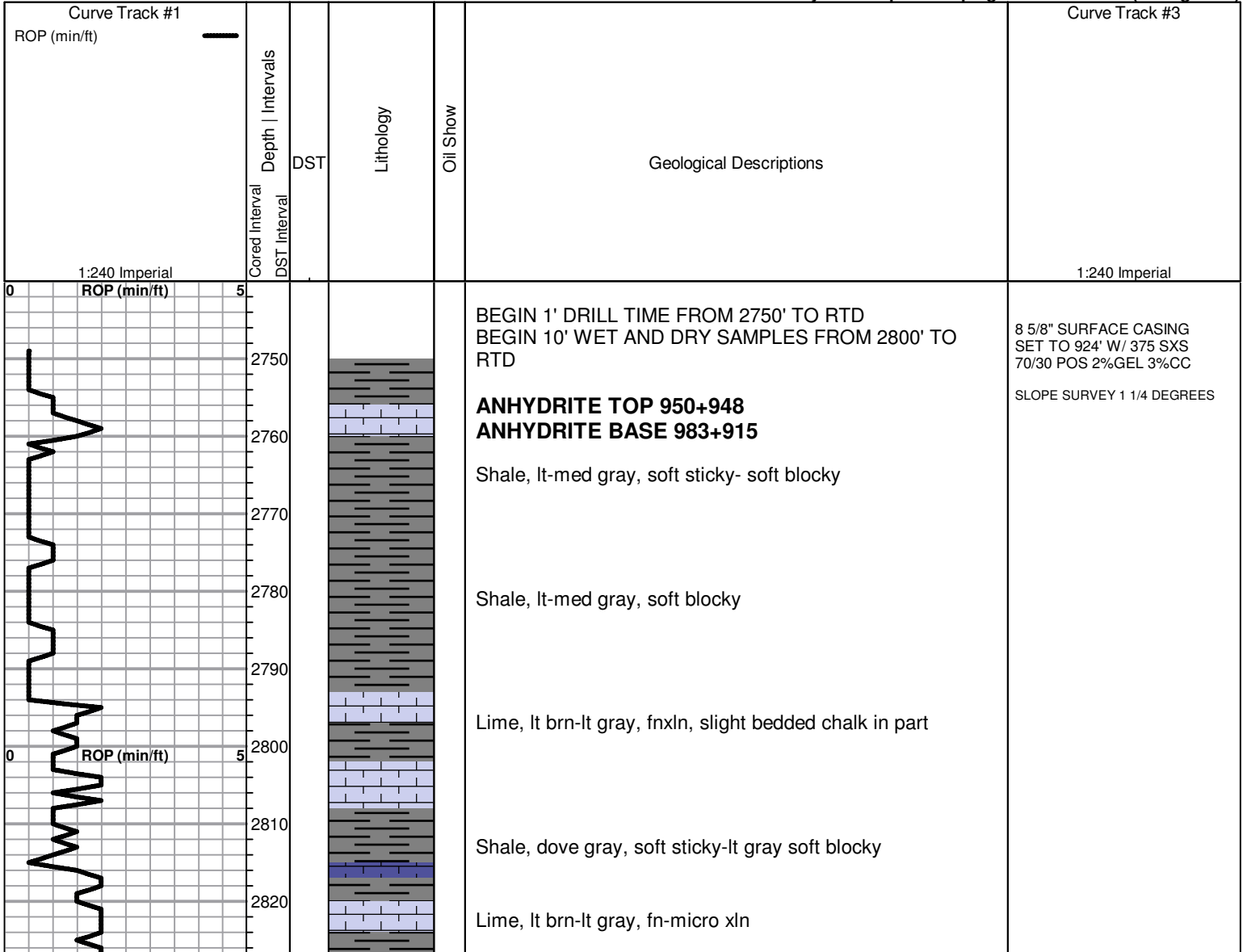
11-19-16 3488', TOWB, logs, P&A

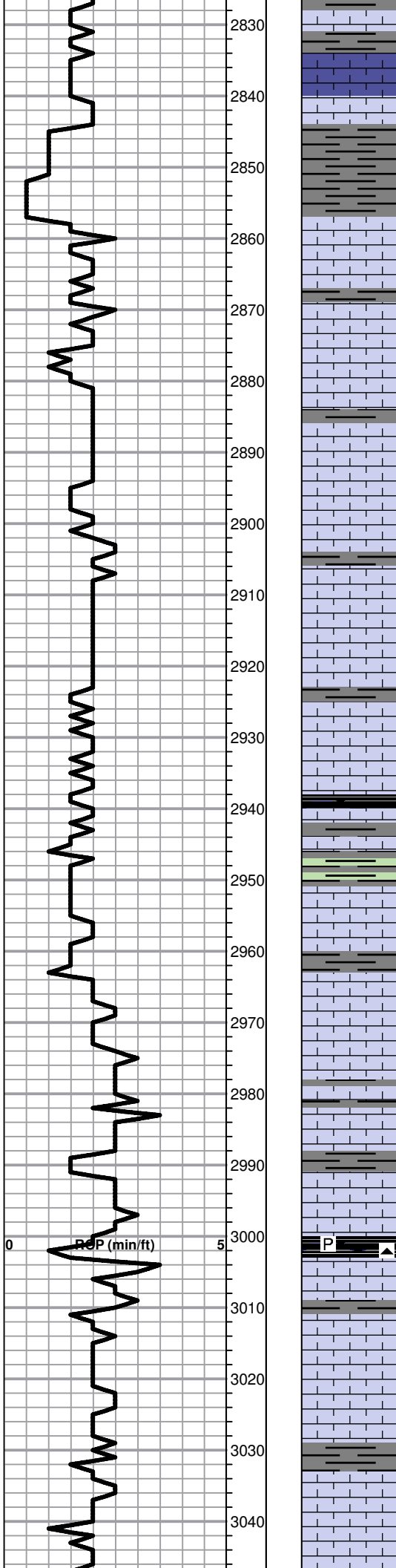
ROCK TYPES

 Clystgy	 Lmst fw<7	 shale, gry	 CgISandy
 Chtcongl	 Lmst fw7>	 Carbon Sh	
 Dolprim	 shale, grn	 shale, red	

ACCESSORIES

MINERAL	FOSSIL
▲ Chert, dark	⊕ Oolite
P Pyrite	
△ Chert White	





Lime, lt brn-lt gray, fn-micro xln

Lime, lt brn-lt gray, fn-vfxln, slightly fossiliferous, crinoids segments

Shale, lt gray, soft sticky clumping

TOPEKA 2857-959

Lime, crm-lt brn, fn-micro xln

Lime, lt brn-lt gray, fn-vfxln

Lime, lt brn-lt gray, fn-vfxln

Lime, lt brn-lt gray, fn-micro xln

Lime, lt brn-lt gray, fn-micro xln

Lime, lt-med brn, fn-vfxln

Lime, lt brn, fn-vfxln, scattered fossils-well cemented

Lime, crm, fnxln, bedded chalk firmly compacted

Shale, black carbonaceous, blocky
Lime, lt brn, fn-micro xln

Shale, lime green-med gray, soft sticky to soft blocky

Lime, lt brn, fnxln, hard on crush

Lime, crm-lt brn, fn-micro xln

Lime, crm-lt brn, fn-micro xln, scattered fusulinids

Lime, lt brn-med gray, shaley with minor clastics

Lime, lt brn-lt grayish brn, fn-micro xln

0 ROP (min/ft) 5

P ▲

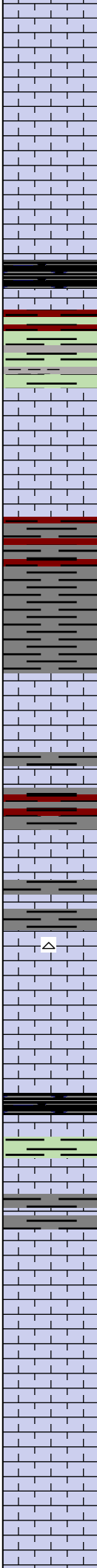
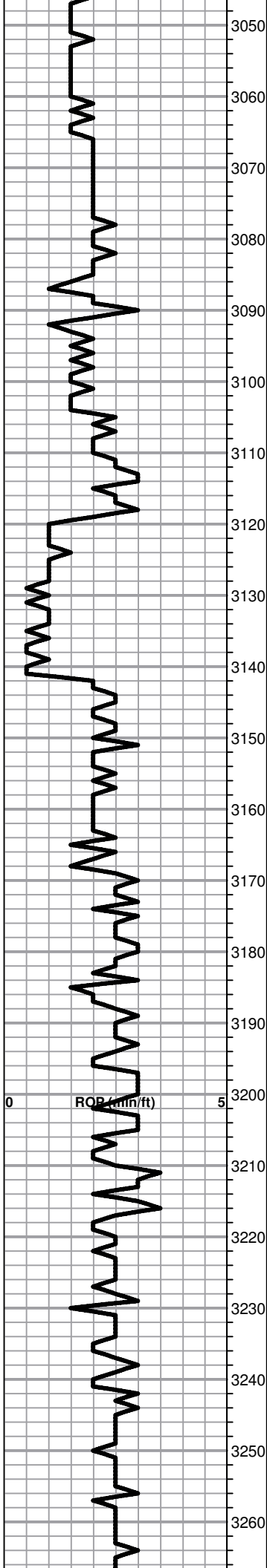
Shale, black carbonaceous, fissile, blocky, pyritic, cherty
Lime, med brn, micro xln

Lime, lt-med brn, fnxln, bedded chalk, NS

Lime, lt brn-lt grayish brn, fn-micro xln, slightly fossiliferous but well cemented

Lime, crm-lt brn, fn-micro xln with some gray fnxln lime in part

Lime, crm-lt brn, fn-micro xln, bedded chalk in part, NS



Lime, crm-lt brn, fn-micro xln, bedded chalk in part, NS

Lime, crm-lt brn, fn-micro xln

lime, crm-lt brn, fn-micro xln

HEEBNER SHALE 3083-1185

Shale, black carbonaceous, fissile, blocky

Lime, lt brn, micro xln

Shale, red-lime green-dove gray, soft sticky

TORONTO 3101-1203

Lime, crm, fnxln, bedded chalk, NS

Lime, crm-tan-lt brn, fn-vfxln

Shale, red-gray, soft blocky

Shale, med gray, soft blocky

LKC 3141-1243

Lime, crm-lt brn, fn-micro xln, NS

Lime, crm-lt brn, fn-micro xln, thin cemented fossil beds

Lime, crm, fn-vfxln, NS, No Odor, No visible porosity

Lime, white-crm, mostly fn-micro xln, NS

Lime, white-crm, fn-micro xln

Lime, white-crm, fn-vfxln

Shale, black carbonaceous, blocky

Lime, lt gray, micro xln

Lime, white-crm, mostly fnxln with few chips fine oolitic with spotty staining, NFO, No Odor, poorly developed

Lime, white, fn-vfxln, firm bedded chalk, NS

Lime, white-crm, fnxln with few oomoldic chips, barren, NS

Lime, white-crm, fn-micro xln

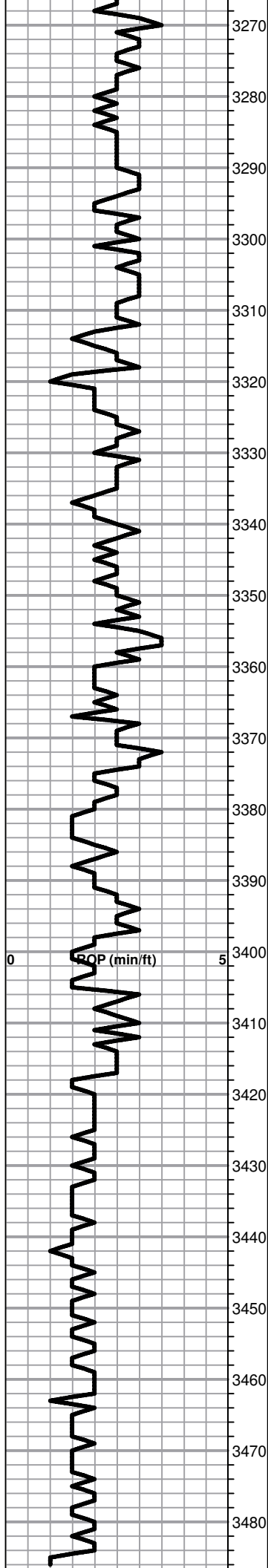
Lime, crm, fn-micro xln

Lime, crm-lt brn, fn-micro xln

CFS 3120', SHORT TRIP

CFS 3175'

CFS 3229'



Shale, black carbonaceous, blocky

Lime, white-crm, fn-vfxln, chalky with sticky clumps in part , NS

Lime, white-crm, mostly fn-micro xln with 1 chip chip of oolitic with spotted stain, NFO, No Odor, poorly developed

Lime, crm, fn-micro xln

Lime, white-crm, fn-vfxln, NS

Lime, crm-lt brn, fn-vfxln

Shale, med-dark gray, carbonaceous in part, blocky

Lime, crm-tan, fn-vfxln, bedded chalk, NS

Lime, crm-tan, fnxln, chalk

Shale, gray-black carbonaceous,
Lime, crm-tan, fnxln

BKC 3365-1467

Shale, red, lt red wash, soft to firm blocky
Lime, crm-tan, fnxln

Shale, red-brn, soft blocky with fine cherty rubble

Shale, vari colored reds and browns, soft-firm blocky with lt red wash

Shale, vari colored, firm blocky

ARBUCKLE 3406-1508

Dolomite, lt brn, fnxln-fine granular, sucrosic, NS

Dolomite, white-crm, fnxln-granular, sucrosic in part, NS

Dolomite, white-crm, fnxln-granular

Dolomite, ivory-crm, fnxln-granular, few chips of oolitic chert

Dolomite, ivory-crm, fnxln-granular

Dolomite, ivory-crm, fnxln-granular, sucrosic

Dolomite, ivory-crm, fnxln-granular, less sucrosic

RTD 3488-1590 LTD 3488-1590

1st plug @3386' w/50 sxs
2nd plug @975' w/50 sxs
3rd plug @ 400' w/80 sxs
4th plug @ 40' w/ 10 sxs
Rathole 2/ 30 sxs

Ordered 220 sxs 60/40 poz 4%
Gel, 1/4# flocele per sx.

3490

