



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1149738
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ 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.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that 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.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1149738

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems 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 test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

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

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate				
<input type="checkbox"/> Protect Casing				
<input type="checkbox"/> Plug Back TD				
<input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--	---	---

OPERATOR

Company: TDI, INC
 Address: 1310 BISON ROAD
 HAYS, KANSAS 67601

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-628-2593
 Well Name: MUNSCH # B-3
 Location: SW NE SE SW Sec 4-15s-18w
 Pool: IN FIELD
 State: KANSAS

API: 15-051-26,529-00-00
 Field: RUDER NORTHEAST
 Country: USA



TDI, Inc.
 1310 BISON ROAD
 HAYS, KANSAS 67601
 (785) 628-2593

Scale 1:240 Imperial

Well Name: MUNSCH # B-3
 Surface Location: SW NE SE SW Sec 4-15s-18w
 Bottom Location:
 API: 15-051-26,529-00-00
 License Number: 4787
 Spud Date: 5/31/2013 Time: 11:16 AM
 Region: ELLIS COUNTY
 Drilling Completed: 6/5/2013 Time: 4:28 PM
 Surface Coordinates: 725' FSL & 2075' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 2013.00ft
 K.B. Elevation: 2023.00ft
 Logged Interval: 2900.00ft To: 3750.00ft
 Total Depth: 3750.00ft
 Formation: ARBUCKLE
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: Latitude:
 N/S Co-ord: 725' FSL
 E/W Co-ord: 2075' FWL

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 #: 1
 Rig Type: MUD ROTARY

Rig Type: MUD ROTARY
 Spud Date: 5/31/2013
 TD Date: 6/5/2013
 Rig Release: 6/6/2013

Time: 11:16 AM
 Time: 4:28 PM
 Time: 1:00 AM

ELEVATIONS

K.B. Elevation: 2023.00ft Ground Elevation: 2013.00ft
 K.B. to Ground: 10.00ft

NOTES

WELL DRILLED TO 3750' AND LOGGED. ARBUCKLE RAN LOWER THAN EXPECTED AND LKC ZONES NOT WELL DEVELOPED. DECISION MADE TO DEEPEN WELL AND RUN CASING FOR FUTURE SALT WATER DISPOSAL. WELL DEEPENED TO 3914' WHICH ENCOUNTERED 12' OF GRANITE WASH AND 2' OF SOLID GRANITE AT DDTD. VERY LITTLE IF ANY REAGAN SAND WAS NOTED IN THE SAMPLE EXAMINATION.

OPEN HOLE LOGGING BY PIONEER ENERGY SERVICES: DUAL INDUCTION LOG, DUAL COMPENSATED POROSITY LOG
 LOGGED INTERVAL FROM 2900' TO 3750'

NO DRILL STEM TESTS WERE RUN ON THIS WELL

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

MUNSCH # B-3
725' FSL & 2075' FWL, SW/4
Sec. 4-15s-18w
2013' GL 2023' KB

MUNSCH # B-1
NW SE SW
Sec 4-15s-18w
Reference Well




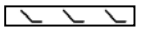











<u>FORMATION</u>	<u>SAMPLE TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1205+ 818	1199+ 824	+ 825
B-Anhydrite	1237+ 786	1233+ 790	+ 786
Topeka	2995- 973	2994- 971	- 973
Heebner Shale	3271-1248	3267-1244	-1241
Toronto	3293-1270	3289-1266	-1265
LKC	3318-1295	3315-1292	-1291
BKC	3548-1525	3543-1520	-1517
Arbuckle	3640-1617	3645-1622	-1577
RTD	3750-1722		
LTD		3748-1720	
Granite Wash	3894-1871		
DDTD	3914-1891		

SUMMARY OF DAILY ACTIVITY

5-31-13 Spud 3:00 PM, set 8 5/8" surface pipe to 223.16' w/ 150 sxs common, 2%gel 3%CC, plug down 8:15 PM, slope 1/2 degree

6-01-13 348', drilling
 6-02-13 1889', drilling
 6-03-13 2690', drilling, displace 2648'-2679'
 6-04-13 3370', drilling, RTD 3750' @ 10:12PM, short trip, TOWB
 6-05-13 3750', logs, decision to deepen well, DDTD 3914' @ 4:28PM, LDDP,
 run 5 1/2" production casing, cement bottom stage 150 sxs EA2
 6-06-13 3914', finish cementing top stage production casing, plug down
 12:45 AM

ROCK TYPES

 Clystgy	 Dolprim	 shale, gry	 Dol Lime
 Clystcol	 Lmst fw<7	 Carbon Sh	 Lscongl
 Congl	 Lmst fw>7	 shale, red	 Igne
 Chtcongl	 shale, grn	 Shcol	

ACCESSORIES

MINERAL

- ▲ Chert, dark
- ∩ Glauconite
- P Pyrite
- * Sandy
- Varicolored chert
- △ Chert White

FOSSIL

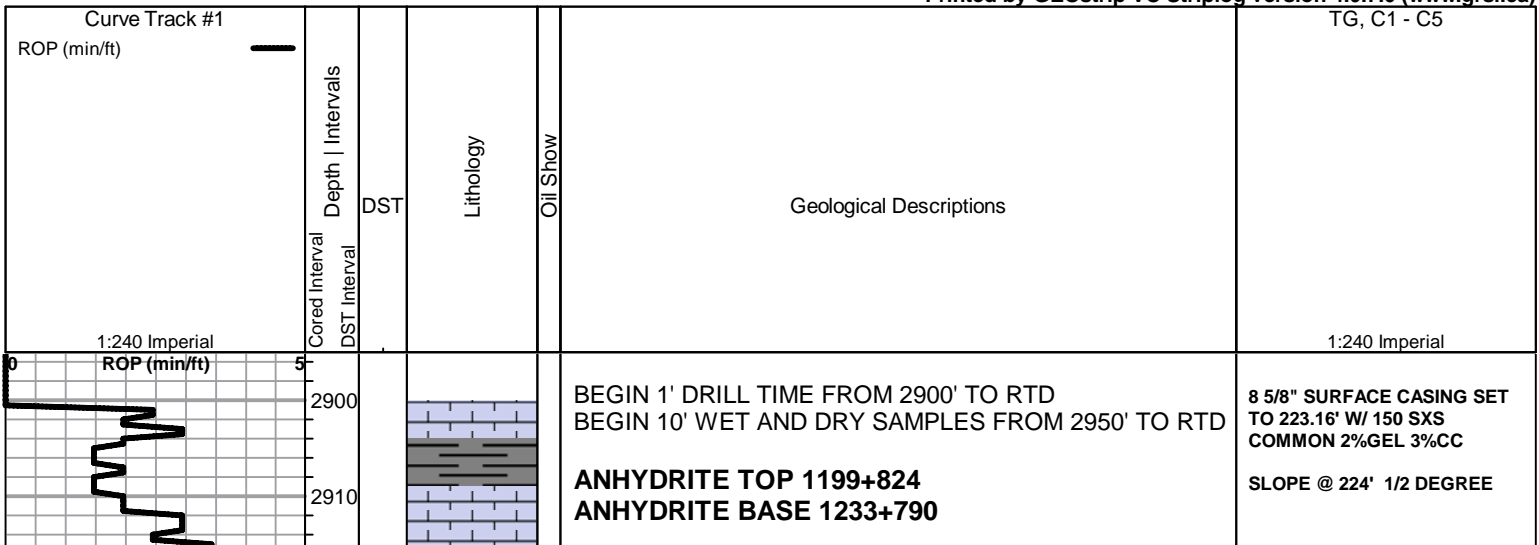
- F Fossils < 20%
- ⊕ Oolite
- ⊕ Oomoldic

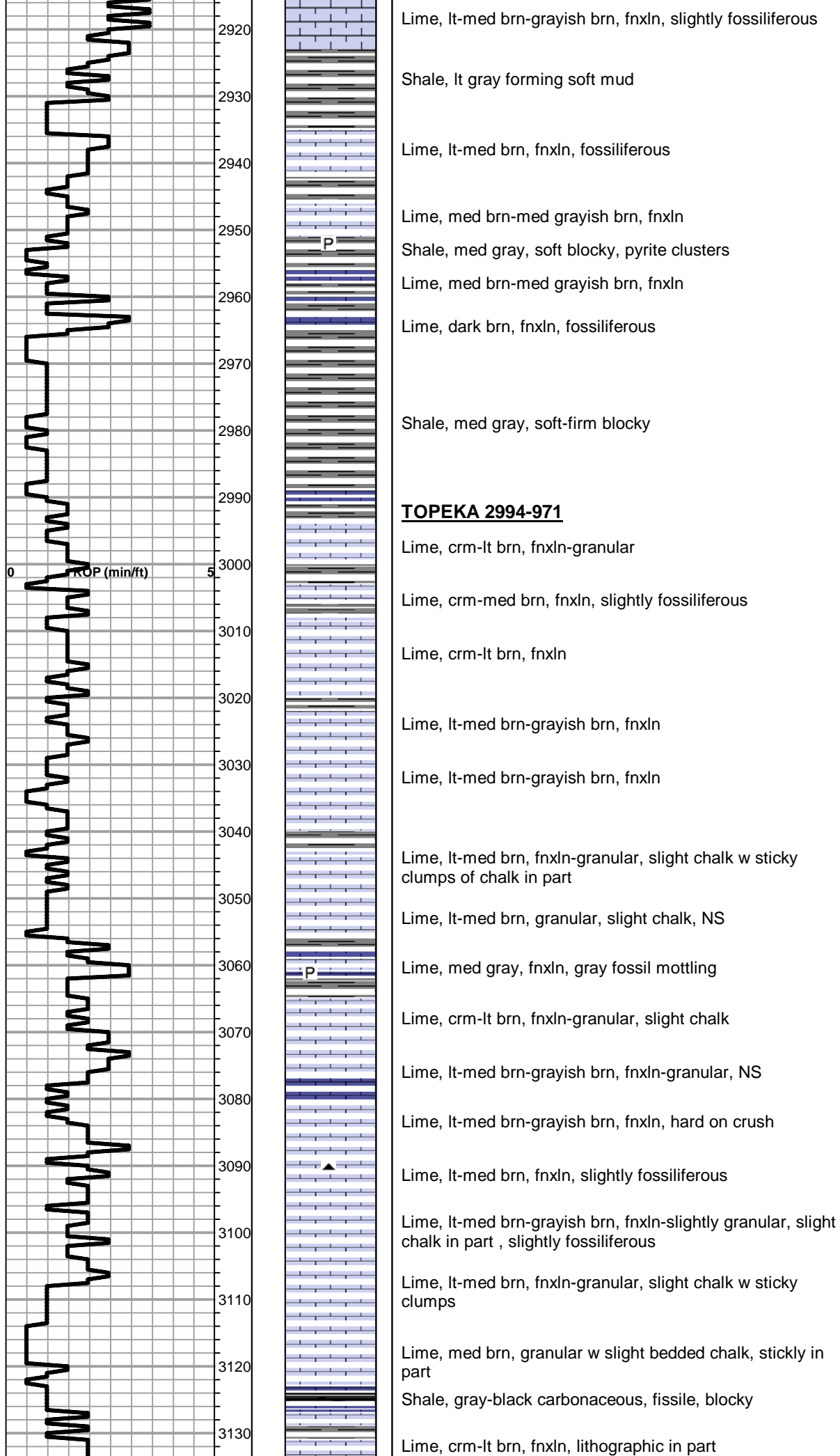
OTHER SYMBOLS

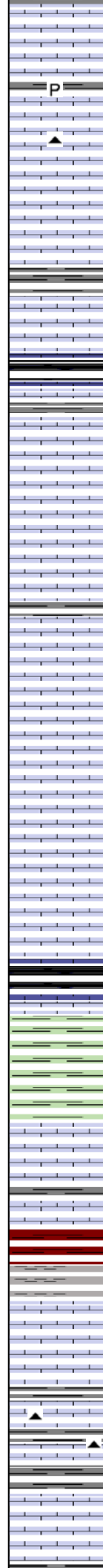
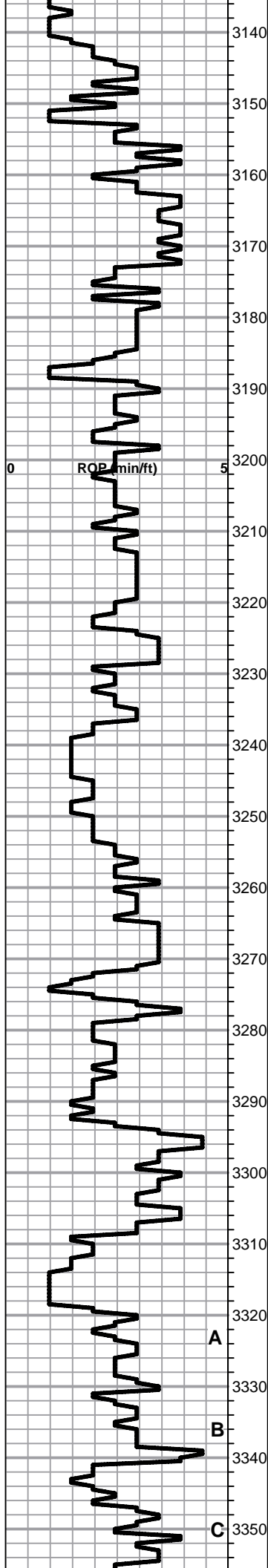
DST

- DST Int
- DST alt
- Core

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)







Lime, crm-lt brn, fnxln

Lime, lt-med brn, mostly fnxln, slight chalk

Lime, lt-med brn, fnxln

Lime, lt-med brn, fnxln

Shale, lt gray-lime green, forming soft mud

Lime, lt-med brn, fnxln, slightly fossiliferous

Shale, black carbonaceous, fissile, blocky

Lime, med-dark brn, fnxln, slightly fossiliferous

Lime, lt-med brn, fnxln, slightly fossiliferous

Lime, lt-med brn-grayish brn, fnxln, slightly granular in part

Lime, crm-lt brn, fnxln-slightly granular, slight chalk in part

Lime, lt-med brn, fnxln

Lime, crm-lt brn, fnxln-slightly granular in part

Lime, crm-lt brn, fnxln-granular

Lime, crm-lt brn, fnxln

Lime, lt-med brn, fnxln

HEEBNER SHALE SPL 3271-1248

Shale, black carbonaceous, fissile, blocky

Lime, med brn, fn-vfxln, hard on crush

Shale, lime green, soft forming sticky clumps

TORONTO SPL 3293-1270

Lime, white-crm, fn-vfxln, thin bedded chalk, NS

Lime, crm-lt brn, fn-micro xln

Lime, lt-med brn, fn-micro xln

Shale, lt red, firm blocky with lt red wash with depth

LKC SPL 3318-1295

Lime, crm-lt brn, fn-micro xln

Lime, med brn-med grayish brn, fnxln, appears reworked in part near shale boundaries

Lime, crm-tan-med brn, fn-micro xln, slightly fossiliferous

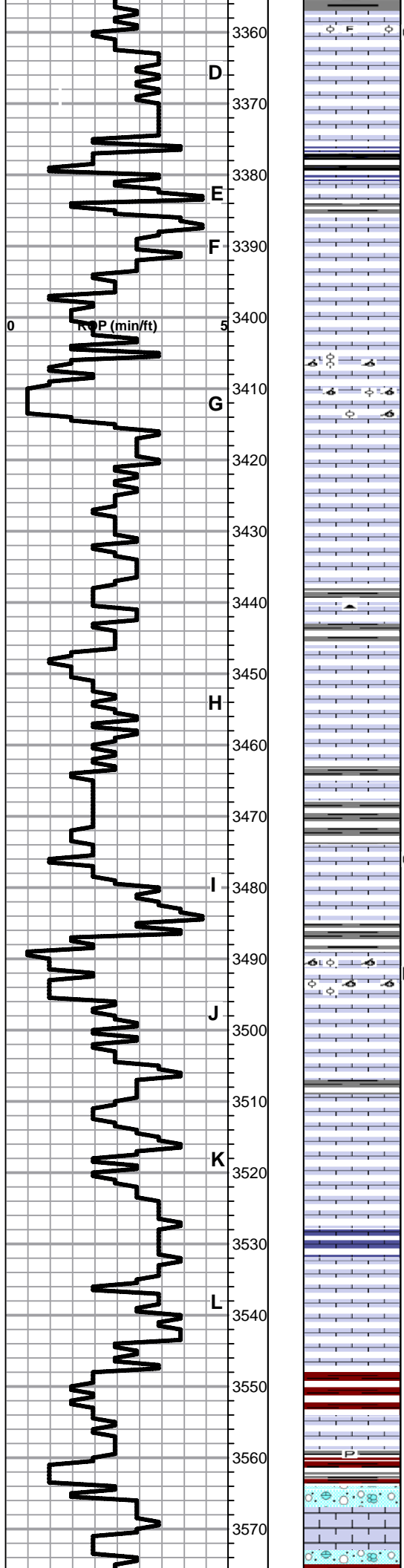
Shale, lt-med gray, soft blocky

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

A

B

C



3360 ○ Lime, crm-tan, fnxln, thin bed of oolitic/fossil fragment material, trace of spotty stain, NFO, No Odor

3370 Lime, crm-tan, fn-micro xln, slight chalk, slightly fossiliferous

3380 Shale, gray-black carbonaceous
Lime, brnsh gray, fnxln, hard on crush, slightly fossiliferous

3390 Lime, crm-tan, fnxln-granular, lt white chalk wash, NS

3400 Lime, white-tan, fnxln-granular, white chalk wash, NS

3410 Lime, lt brn, fnxln grading into oolitic/oomoldic section, NS

3420 Lime, lt brn, fn-micro xln, slight bedded chalk, NS

3430 Lime, lt brn-tan, fn-micro xln, bedded chalk

3440 Lime, lt brn-lt gray, fn-vfxln

3450 Lime, crm, fn-micro xln, bedded chalk

3460 Lime, crm-lt brn, fn-vfxln, bedded chalk, NS

3470 Lime, crm-tan, fnxln, bedded chalk, NS

3480 ○ Lime, tan-lt brn, fnxln, bedded chalk, few chips specks of spotty stain, NFO, No Odor

3490 D Lime, lt-med brn, fnxln grading into oolitic/oomoldic, NS, NFO, No Odor

3500 Lime, tan-lt gray, fnxln, chalk in part, few chips with dead oil stain

3510 Lime, crm-tan, fnxln, bedded chalk, NS

3520 Lime, crm-lt brn, fnxln, bedded chalk

3530 Shale, lt grayish green, soft blockyy
Lime, crm-lt brn, fnxln, slight chalk in part

3540 Lime, white-crm, fn-micro xln, slight chalk

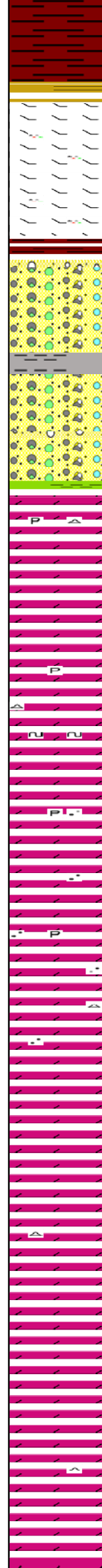
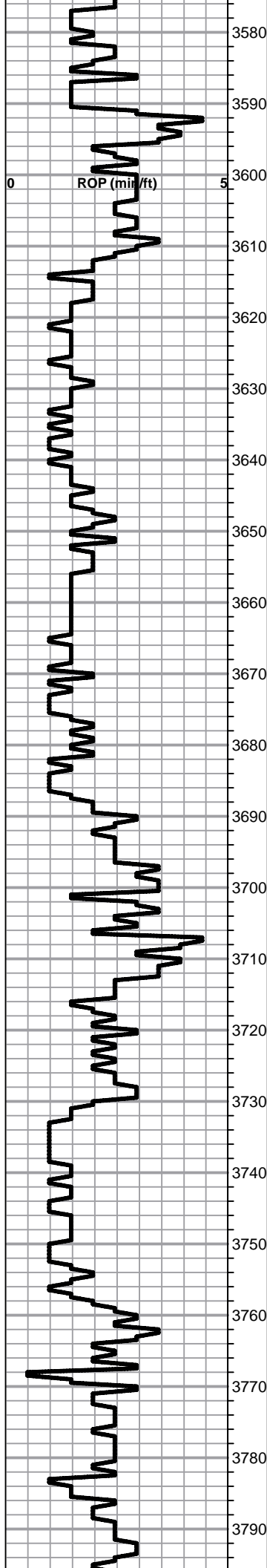
BKC SPL 3548-1525

3550 Shale, red, firm blockyy

3560 Lime, crm, fnxln, hard on crush

3560 P Shale, reds, brns, gray, pyritic

3570 Lime, clastic mix, fnxln



Shale, red, firm blocky grading into vari colored shales

MARMATON SPL 3590-1567

Lime, crm-tan, fnxln, hard on crush, dolomitic, orange chert, scattered specks of heavy dark oil,

Lime, crm-tan, fnxln, dolomitic

Shale, red wash, vari colored cherts

Vari colored cherts

Clay, white, sticky clumps

Chert, vari color with vari color shales

ARBUCKLE ELOG 3645-1622

Dolomite, ivory, fn-med xln, very Lt Odor, few specks of free oil, traces of gilsonite in med-cxln

Dolomite, ivory, fn-med xln, interxln porosity with fine sucrosic in part

Dolomite, ivory-crm, med-cxln, interxln porosity, pyritic in part

Dolomite, ivory, fn-cxln, scattered specks of glauconite

Dolomite, ivory-crm, fn-cxln, scattered xln pyrite

Dolomite, ivory-crm, fnxln with quartz grain inclusions

Dolomite, crm-tan, fnxln with quartz grain inclusions

Dolomite, tan-lt salmon, fnxln-sucrosic in part

Dolomite, crm-tan, fn-cxln, quartz grains forming clusters and fused chips

Dolomite, crm-tan, md-cxln, sucrosic in part

Dolomite, crm-tan, md-cxln, sucrosic in part

RTD 3750-1727 LTD 3750-1727

Dolomite, ivory-crm, fnxln-granular

Dolomite, ivory-crm, fnxln

Dolomite, ivory-crm, fnxln-granular in part

Dolomite, ivory-crm, fnxln-granular in part

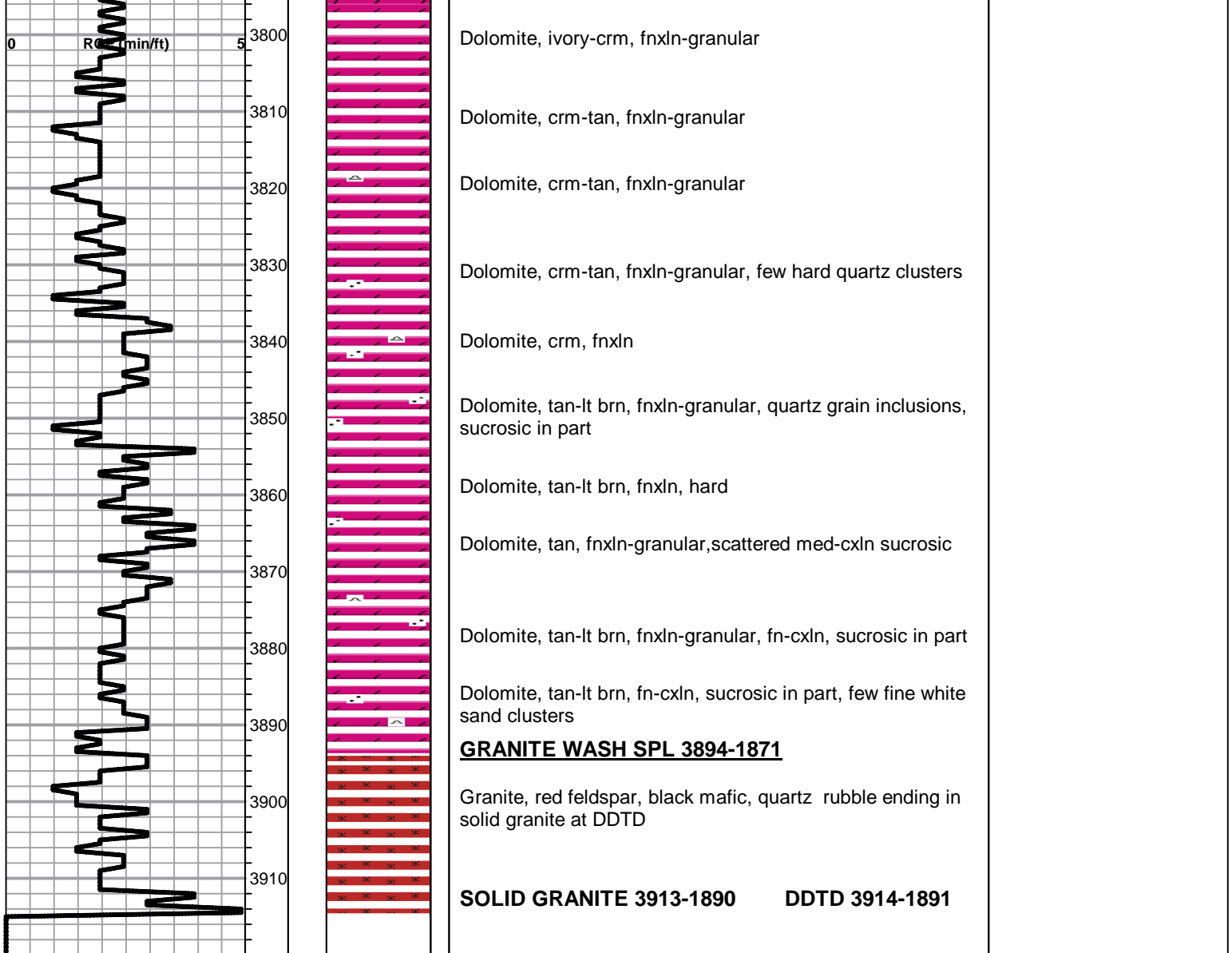
TOP OF ARBUCKLE
ENCOUNTERED AT OIL/WATER
CONTACT

RAN 14# 5 1/2" PRODUCTION
CASING SET TO 3710' W/ 150
SX EA2, DV @ 1172' W/ 350
SXS SMD

WELL DRILLED TO 3750' AND
LOGGED. DEEPENED FOR
SALT WATER DISPOSAL
AFTER LOGS

SLOPE @3750' 1 DEGREE

RAN OLD BIT WITH 145 HRS
TO DEEPEN WELL



QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

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

No. 6943

Date	S-31-13	Sec.	4	Twp.	15	Range	18	County	ELLIS	State	KS	On Location		Finish	8.15 PM	
Lease	Munsch B			Well No.	3			Owner	Minto							
Contractor	Southward A							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.								
Type Job	Surface							Charge To	TDI							
Hole Size	12 1/4			T.D.	225			Street								
Csg.	8 3/8			Depth	223			City	State							
Tbg. Size				Depth				The above was done to satisfaction and supervision of owner agent or contractor.								
Tool				Depth				Cement Amount Ordered	150 3/100 2/10 gel							
Cement Left in Csg.	15 FT			Shoe Joint	15 FT											
Meas Line				Displace	13 BBL											
EQUIPMENT								Common	150							
Pumptrk	5	No.	Cementer	Mitt				Poz. Mix								
			Helper													
Bulktrk	8	No.	Driver	Brett				Gel.	3							
			Driver													
Bulktrk	pu	No.	Driver	Chad				Calcium	5							
			Driver													
JOB SERVICES & REMARKS								Hulls								
Remarks:								Salt								
Rat Hole	Munsch 5 1/2"							Flowseal								
Mouse Hole								Kol-Seal								
Centralizers								Mud CLR 48								
Baskets								CFL-117 or CD110 CAF 38								
D/V or Port Collar								Sand								
	Cement did							Handling	150							
	Circulate							Mileage								
								FLOAT EQUIPMENT								
								Guide Shoe								
								Centralizer								
								Baskets								
								AFU Inserts								
								Float Shoe								
								Latch Down								
								Pumptrk Charge	Surface							
								Mileage	7							
								Tax								
								Discount								
								Total Charge								
X Signature	Derek [Signature]															

JOB LOG

SWIFT Services, Inc.

DATE 6-5-13 PAGE NO. 1

CUSTOMER TDI WELL NO. #3 LEASE Munsch "B" JOB TYPE 2-stage TICKET NO. 24286

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2100							on loc w/ FE
								RTD 3910'
								5 1/2" x 14" x 3710' x 42'
								Cent 1, 5, 9, 8, 10, 91, 60
								Bank 4, 13, 61, 78
								DV 61 @ 1172'
	2110							Start FE
	2230					1000		Break Circ + Set Pk + Shoe
	2330	5	0			200		Start 500 gal Mud flush
		5	12/6			200		Start KCL flush
		5	20/0			200		Start 150 sks EA-2 Cement
	2345		36					End Cement
								Wash Pk
								Drop LD Plug
	2350	6	0			150		Start Displacement
	0000	5	61			200		Catch cement KCL in last 20 bbl
	0005		89.5			900 / 1500		Land Plug
								Drop Opening Plug
	0010	2.15	7/4					Plug RH/MA 38/15 sks SMD
	0020					1100		Open DV
	0021	5	0			150		Start SMD Cement 165 sks
	0038		86					End Cement
								Drop Closing Plug
	0042	5	0			150		Start Displacement
	0045	4	12			250		Circ Cement
	0050		28.5			450 / 1500		Land Plug
								Release Pressure
								Float Held
								circ 30 sks to pit
								Thank you
								Nick, David E, & Doug

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

September 05, 2013

Tom Denning
TDI, Inc.
1310 BISON RD
HAYS, KS 67601-9696

Re: ACO1
API 15-051-26529-00-00
Munsch B 3
SW/4 Sec.04-15S-18W
Ellis County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Tom Denning