Marc A. Downing

Consulting Petroleum Geologist

Geologic Report

Drilling Time and Sample Log

Operator	**Downing-Nelson Oil Co., Inc.**		
Lease	**Fidel Schmeidler B**	No.	**1**
API #	**15-051-26911-0000**		
Field	**Wildcat**		
Location	**2209' FSL & 93' FEL**		
Sec. **21**	Twp. **12s**	Rge. **17w**	
County	**Ellis**	State	**Kansas**

Elevation

KB	**2133**
DF	**2131**
GL	**2125**

Casing Record

Surface

8 5/8" @ 220'

Production

5 1/2" @ 3782'

Electrical Surveys

CNDL, DIL

MEL, Sonic

Formation	Sample tops	Log Tops	Datum	Struct Comp
Top Anhydrite	1338	1336	+797	-9
Base Anhydrite	1376	1373	+760	-7
Topeka	3100	3098	-965	+7
Heebner	3334	3334	-1201	+14
Toronto	3358	3356	-1223	+15
LKC	3381	3379	-1246	+16
BKC	3614	3612	-1479	+22
Simpson Dolomite	3648	3650	-1517	Absent
Arbuckle	3658	3658	-1525	Not Reached
Total Depth	3783	3783	-1650	

Reference Well For Structural Comparison **Beacon Resources - Schmeidler "A" #1**

SE SW NW_____Sec. 22-12s-17w

Drilling Contractor		**Discovery Drilling, Rig #1**	
Commenced	**4-30-18**	Completed	**5-8-18**
Samples Saved From	**3100**	To	**RTD**
Drilling Time Kept From	**3000**	To	**RTD**
Samples Examined From	**3100**	To	**RTD**
Geological Supervision From	**3100**	To	**RTD**

Summary and Recommendations

Due to structural position, DST recovery, and log evaluation, it was decid to set 5 1/2" production casing for completion.

Respectfully Submitted,

Marc A. Downing

ROCK TYPES

- 🟥 Dolprim
- 🟧 Dolsec
- 🟦 Lmst fw7>
- 🟩 shale, grn
- ⬛ shale, gry
- ⬛ Carbon Sh
- 🟥 shale, red

ACCESSORIES

MINERAL
- ▲ Chert, dark

FOSSIL
- ◊ Oolite

STRINGER
- ▬ Shale
- ▬ red shale
- ═ carb shale

OTHER SYMBOLS

OIL SHOWS
- ● Even Stn
- ◕ Spotted Stn 50 - 75 %
- ◑ Spotted Stn 25 - 50 %
- ◔ Spotted Stn 1 - 25 %
- ○ Questionable Stn
- D Dead Oil Stn
- ■ Fluorescence

MISC
- DR Daily Report
- Digital Photo
- Document
- Folder
- Link
- Vertical Log File
- Horizontal Log File
- Core Log File
- Drill Cuttings Rpt

DST
- ■ DST Int
- ■ DST alt
- ■ Core
- ǁ tail pipe

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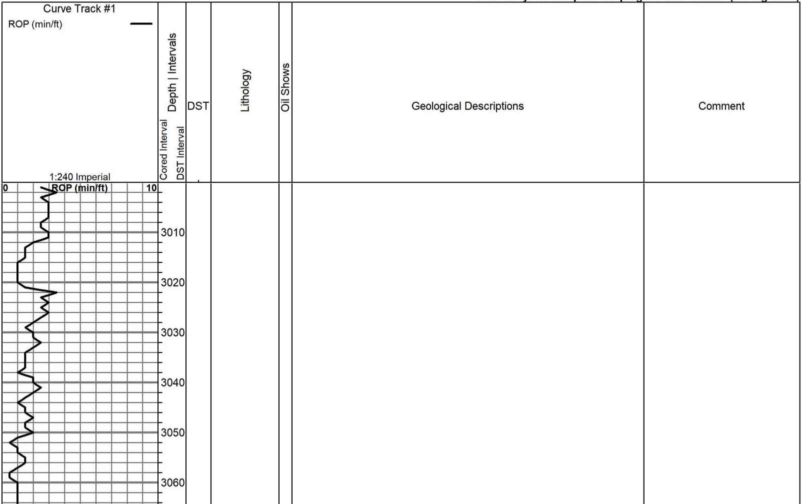
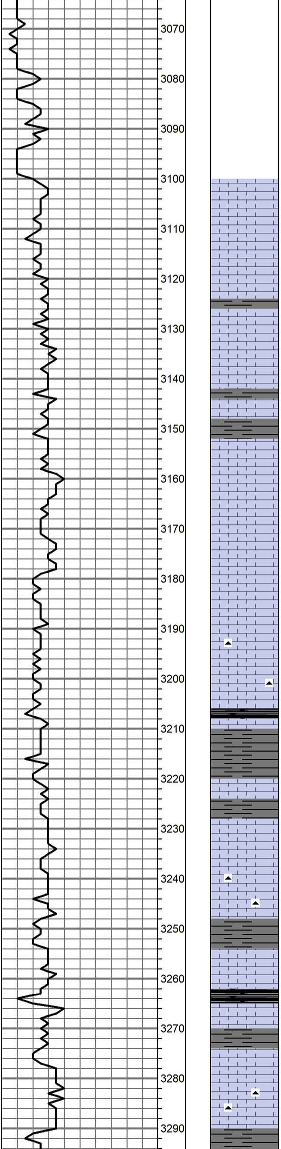




Topeka 3100 (-967)

LS: tan-brn, fn-md xln, dns. Scat foss, all totally barren w/ no od.

LS: ala

Sh: gry

LS: wht-crm, md xln, few suc rx. Sub xln in prt, mostly pr por and dns. All NS

Sh: drk gry

Sh: gry

LS: tan-brn, some wht. Fn-md xln, pr por and dns.

LS: much ala, scat sub xln rx, mostly dns. All NS w/ no od.

LS: wht-crm, md xln, scat foss, mtld in prt. Fr amt dns rx, sub xln-chlky in prt. All NS.

LS: ala w/ scat black shp cht.

Sh: Black Carb

Sh: lt gry

Sh: gry

LS: wht, vfn xln, v dns, no vis por. Trng chlky in prt, all NS, no od.

LS: ala, scat lt gry shp cht.

Sh: gry

LS: tan-wht, md xln, dns

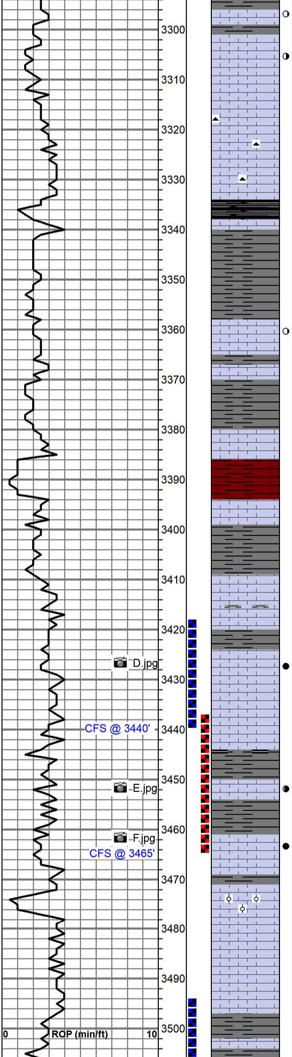
Sh: Black Carb

Sh: gry

LS: wht, fn-md xln, scat foss. Sub xln w/ scat pr vug por, all NS.

LS: trng v dns and no vis por. Scat brn foss cht.

Sh: gry



LS: wht-tan, foss. Mostly dns w/ NS, 1-2 rx w/ pr stn in pr vug por, no od.

LS: wht, md xln, foss. Many sub xln-chlky rx, scat fr-gd vug por. 2-3 rx w/ fr sat stn and hvy SFO, v fnt-no od.

LS: wht-tan, md xln, foss. Mostly pr por and dns w/ NS, no od. Scat black and gry foss cht.

Heebner 3334 (-1201)

Sh: Black Carb

Sh: gry w/ scat brn

Toronto 3358 (-1225)

LS: wht, fn-md xln. Pr por and dns. 1 rock w/ hvy stn and SFO in fr vug por, no od.

Sh: gry

LKC 3381 (-1248)

LS: wht, md xln. Pr por and dns, all NS.

Sh: red-brn, arg in prt.

LS: wht, ala, dns w/ pr por.

Sh: gry

LS: wht, fn-md xln, foss in prt. Mostly pr por and dns, 2-3 rx w/ pr stn in pr vug por, rare SFO, hvy. No od. Rest totally barren.

Sh: gry

LS: wht-tan, md xln, v foss w/ scat ool. Fr-gd int foss and vug por, gd brn sat tn w/ gd SFO, no od.

LS: trng dns w/ pr por, NS.

Sh: drk gry w some blk

LS: wht-tan, md xln. Foss w/ scat ool, dolomitic in prt. Fr vug por, sltly tight, w/ fr sat stn, fr SFO, lt-fr od.

Sh: gry

LS: wht-tan, md xln. Foss w/ scat ool, 3-4 rx w/ fr-gd vug por, rest sltly tight. Fr-gd sat stn w/ gd SFO, fr-gd od.

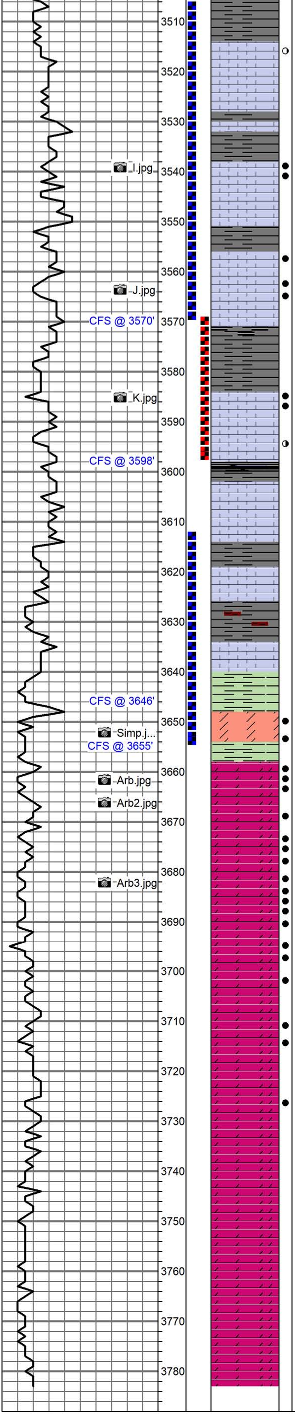
LS: wht, ool. Gd ooc por, totally barren w/ no od.

LS: wht, fn-md xln, scat tight ool rx. Pr por and v dns, all NS, no od.

Sh: gry-drk gry

Vis: 51 Wt: 8.9
DST #1
3418-3440
30-30-30-30
I.F. - 3/4"
F.F. - Surf
IFP: 24-27
FFP: 29-32
SIP: 795-711
HP: 1693-1654
Rec:
25' MW
BHT: 100 Chlor: 47K

DST #2
3437-3465
45-45-45-45
I.F. - BOB 20 min / 1/4" SIB
F.F. - BOB 19 min / 3/4" SIB
IFP: 30-83
FFP: 97-130
SIP: 752-746
HP: 1701-1649
Rec:
250' GIP
280' GWCMO (5% w, 25%g, 45% o)
BHT: 102 G = 35 Chlor: NA



Sh: gry

LS: wht-tan, fn-md xln. Moslty sub xln w/ NS, 1-2 rx w/ pr stn and spttd SFO in pr vug por. Fnt od. Trng dns w/ no vis por and totally barren.

Sh: drk gry-blk

Sh: gry

LS: tan-wht, md xln, dolomitic in prt w/ scat-fr amt foss. Gd int foss and int xln por, few sml vugs, w/ gd brn sat stn and gd SFO, lt-fr od.

LS: gry

LS: tan-brn, v foss, frag in prt. Gd vug and int foss por, gd-vgd brn sat w/ gd SFO, some wht fn-md xln w/ v lt brn stn and SFO in fr vug por. All strong od. Scat-fr amt barren sub xln rx.

Sh: drk gry-blk

Sh: gry

LS: wht-lt tan, md-crs xln, totally foss. Fr-gd int foss por w/ scat lrg vugs, scat tight rx. Gd lt brn sat stn w/ gd SFO, fr od. Break @ 3592-94 has few rx ala, poss carry. Fr amt sub xln-chlky rx w/ NS.

Sh: Black Carb

LS: wht, fn xln. Mostly dns w/ pr por, scat sub xln rx. All NS.

BKC 3614 (-1481)

Sh: gry

LS: wht-tan, fn xln, pr por.

Sh: gry w/ some brn-red

Scat brn-red sh. Scat tourq shale, increasing amt in 3655' smpl.

Simpson Dolomite 3648 (-1515)

Dolo: tan, md-crs rhom xln. Scat fr vug por, sltly tight. Gd sat stn w/ gd SFO, lt-fr od. Scat sndy dolo w/ gd sat and SFO. Fr amt-much tourq sh. Fr od.

Arbuckle 3658 (-1525)

Dolo: tan, md-crs rhom xln, trng suc xln w/ sm rhombs. 1-2 rx w/ gd ooc por, rest gd vug and int xln por. Vgd sat, vgd SFO, gd od. Free oil on cup.

Dolo: trng fn suc xln w/ scat sml rhombs. Vgd int xln por, scat gd vugs. Vgd - total sat, vgd SFO, strong od. Free oil on cup.

Dolo: tan, some wht, mostly fn suc xln. Scat gd ooc por w/ gd SFO in por, sltly hvy. Still some rx ala, v gd sat, vgd SFO. Some trng tight w/ less show. Scat wht cht.

Dolo: some fn suc xln, scat sml-md rhombs. Fr int xln por w/ fr-gd sat and SFO. Fr amt trng wht, pr por and dns w/ rare show. Fr-gd od.

Dolo: wht, fn suc xln. Much pr por and barren. Scat fr SFO in gd int xln por, fr od.

Dolo: wht, fn suc xln. Fr amt dns rx ala, fr amt fr-gd int xln por w/ NS. Still carrying scat rx w/ SFO, lt od.

Dolo: wht, trng md-crs rhom xln. Fr-gd int xln por, mostly barren. Scat gilsonite, few rx w/ SFO. Scat chlky rx, no od.

Dolo: wht, chlky w/ NS. Trng crs rhom xln w/ less por and tight. Rare stn and hvy SFO, mostly barren. no od.

RTD: 3783 (-1650)

DST #3
3494-3570
45-45-45-45
I.F. - BOB 25 min / Surf SIB
F.F. - BOB 22 min / 3/4" SIB
IFP: 16-70
FFP: 73-120
SIP: 884-865
HP: 1769-1748
Rec:
315' GIP
120' GMO (20% g, 60% o)
120' GMO (30% g, 35% o)
BHT: 100 G = 33

DST #4
3569-3598
30-30-30-30
I.F. - 1 1/2"
F.F. - Surf
IFP: 1021
HP: 1774-1725
Rec:
5' mud w/ oil specks
BHT: 98
**Tool slid 3-4 ft, tool plugged

DST #5
3612-3655
30-30-30-30
I.F. - slid 8'; Surge died; Flush, dead
F.F. - Dead; Flush, dead
IFP: 32-35
FFP: 37-40
SIP: 129-124
HP: 1849-1802
Rec:
45' mud
BHT: 100