FORMATION	TOP	SUB-SEA
Anhydrite	2588	(+490)
B/Anhydrite	2614	(+464)
Topeka	3810	(-732)
Heebner	4030	(-965)
Toronto	4056	(-978)
Lansing	4078	(-1000)
"C"	4218	(-1140)
Muncie Crk	4250	(-1172)
"H"	4298	(-1220)
"J"	4330	(-1252)
Stark	4355	(-1277)
"K"	4396	(-1318)
B/Kc	4440	(-1362)
Marmaton	4490	(-1412)
Alt "A"	4524	(-1446)
Alt "B"	4550	(-1472)
Alt "C"	4577	(-1499)
Pawnee	4644	(-1566)
Myrick Sta	4662	(-1584)
Fort Scott	4677	(-1599)
Cherokee	4707	(-1629)
Johnson Zn	4748	(-1670)
Morrow Sh	4777	(-1699)
Mississippian	4812	(-1734)

COMPANY	Russell Oil, Inc.
LEASE	Bowie
WELL NO.	#29-1
LOCATION	1014'FN & 957'FE
SEC.	29
TWP.	11S
RGE.	32W
COUNTY	Logan
STATE	Kansas
ELEVATION	KB 3078
API#	15-109-21,513
FIELD	Wildcat
CONTRACTOR	WW Drilling Rig #18
SPUD DATE	10/14/08
COMP. DATE	10/24/08
TOTAL DEPTH	4812'
CASING RECORD	8 5/8" @ 217' w/ 150 sks
PRODUCTION	Dry & Abandoned
DRILLING TIME	3 Min. Per Foot
DRILLING MUD	Chemical Mud by Chemical Mud Co.
REMARKS	Drill Stem Tests by Trilobite Testing

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Kansas License #229

RUSSELL OIL INCORPORATED
Exploration & Production
1401 17th STREET, SUITE 1000
DENVER, COLORADO 80202
(303) 296-3994

GEOLOGIST'S REPORT

OIL WELL TEST DATA

OPERATOR	Russell Oil, Inc.
LEASE	Bowie
WELL NO.	#29-1
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REMARKS	Drill Stem Tests by Trilobite Testing

ELEVATION	KB 3078
GL	3073
KB - GL	5

LEGEND

Limestone, Oil Line, Dolomite, Sandstone, Shale, Carb Shale, Chert, Anhydrite

DRILLING TIME IN MINUTES PER FOOT

Rate of penetration increases

5' 10' 15' 20'

SAMPLE DESCRIPTIONS

REMARKS

DEPTH

2600

Anhydrite — EL 2588 (+490)

B/Anhydrite — EL 2614 (+464)

3700

LS,crm fn xln v fossil & oid pr;fr interpart poro NSNO

Sh, red & ok gry

LS,crm-tan fn xln v; dense pr; vis poro NSNO

LS, AA

Sh, dk gry & maroon

Sh, dk gry-blk

LS,crm fn xln fossil pr;fr poro barren NSNO

LS,crm fn xln fossil & v oid pr interpart poro barren NSNO

LS, chalrman fn xln dolomitic-NSNO,tan pieces wht chalk

LS, AA; chalky

LS,crm-tan fn xln v; fossil pr interpart poro NSNO sc pieces orange-pink

3800

Topeka — EL 3810 (-732)

Sh, gry, green, maroon

LS,crm-tan fn xln fossil & oid pr interpart poro NSNO

LS,crm fn xln fossil & oid pr;fr interpart poro NSNO

LS,crm fn xln fossil & oid pr;mtl chaly pr interpart poro NSNO

LS,crm fn xln vf fossil & oid pr interpart poro NSNO & chaly NSNO

Sh, flood gry, green, maroon

LS,crm-tan fn xln fossil & oid pr;fr interpart poro NSNO,tan pieces wht chalk

LS,AA; incr pieces wht chalk

LS,crm fn xln vf fossil pr;fr interpart poro NSNO; sc wht chalk

Sh, gry, green, maroon

LS,crm fn xln fossil; pr visible poro NSNO;chaly & mmy NSNO

LS,crm fn xln pr;fr interpart poro NSNO

LS,crm fn xln pr visible poro barren NSNO

Sh, blk carbonaceous

LS,crm-wht fn xln pr;fr interpart poro NSNO

LS,crm-tan fn xln vf; fossil pr interpart poro NSNO

LS,crm AA

LS,crm fn xln v; fossil & oid pr interpart poro NSNO; barren NSNO

Sh, gry, green, maroon

LS,crm fn xln vf fossil pr interpart poro dense NSNO

LS,crm AA

Sh, blk carbonaceous

3900

LS,crm-tan fn xln fossil pr;fr interpart poro NSNO

LS,crm-tan fn xln vf; fossil pr interpart poro NSNO

LS,crm AA

Sh, gry, green, maroon

LS,crm fn xln v; fossil & oid pr interpart poro NSNO; barren NSNO

Sh, gry, green, maroon

LS,crm fn xln vf fossil pr interpart poro dense NSNO

LS,crm AA

Sh, blk carbonaceous

4000

LS,crm-tan fn xln fossil pr;fr interpart poro NSNO

LS,crm-tan fn xln vf; fossil pr interpart poro NSNO

Sh, gry, green, maroon

LS,crm fn xln dense arnac NSNO; sc pr interpart poro NSNO; sc wht chalk

Sh, blk carbonaceous

Heebner — EL 4030 (-965)

Pipe Strap at 4076' Even 0.00

Toronto — EL 4056 (-978)

Sh, gry, green, maroon

LS,crm-tan-gry fn xln v; fossil pr; interpart poro; NSNO; sc oolitic; dense pr; sc fossil & v oid pr; interpart poro NSNO; sc chert; sc dense arnac NSNO; sc wht chalk; sc mmy ous

Lansing — EL 4078 (-1000)

Sh, dk gry, red, maroon

LS,crm-wht fn xln ool & ooc; barren NSNO

LS,crm fn xln v; fossil pr; vis poro NSNO

LS,crm fn xln tll; fossil pr vis poro NSNO

LS,crm AA

4100

Sh, gry, green, red, maroon

"C" — EL 4218 (-1140)

LS,crm-wht fn xln oolitic; pr interpart poro; barren NSNO

"D"

Sh, gry & green

LS,crm fn xln subooz; pr interpart poro; NSNO; sc fossil & v oid pr; sc wht chalk

Sh, gry & green

LS,crm fn xln v; fossil pr interpart poro; NSNO; sc wht chalk; sc dense arnac NSNO; sc F-FGFO-tan on brk; Tr-pinpoint yellow fluor; gd milky cut

LS,crm-wht AA;abun wht chert

"E"

Sh, blk carbonaceous

"F"

LS,wht-gry fn xln inp vug & oolitic; pr interpart poro (dly pinpoles added frgmn fully solidified oolitic frgmn); sc fossil & v oid; sc wht chalk; sc F-FGFO-yellow fluor; gd milky cut

"G"

LS,crm-wht fn xln fossil & oolitic; pr interpart poro NSNO

LS,crm-wht fn xln v; fossil pr interpart poro NSNO

LS,crm-wht fn xln pr visible poro NSNO

LS,crm-wht AA

Muncie Crk — EL 4250 (-1172)

Sh, blk carbonaceous

"H" — EL 4298 (-1220)

LS,tan-brown fn xln v; fossil pr interpart poro; NSNO; sc oolitic

LS,crm-gry fn xln fossil & v oid pr; interpart poro NSNO; sc dense arnac NSNO; sc F-FGFO-brown on brk; S-FGFO-dies on brk; Tr-pinpoint yellow fluor; gd milky cut

"J" — EL 4330 (-1252)

Sh, blk carbonaceous

LS,wht-crm fn xln oolitic; pr interpart poro; NSNO; sc pieces wht chalk; sc F-FGFO-dk brown on brk; S-FGFO-dk brown on brk; Tr-pinpoint yellow fluor; gd milky cut

Stark — EL 4355 (-1277)

Sh, gry & maroon

LS,crm-tan fn xln v; fossil & oolitic; pr interpart poro; NSNO; sc F-FGFO-brown on brk; S-FGFO-brown on brk; Tr-pinpoint yellow fluor; gd milky cut

"K" — EL 4396 (-1318)

Sh, gry & maroon

LS,crm-tan fn xln v; fossil & oolitic; pr interpart poro; NSNO; sc F-FGFO-brown on brk; S-FGFO-brown on brk; Tr-pinpoint yellow fluor; gd milky cut

LS,crm-wht fn xln pr visible poro NSNO

Sh, blk carbonaceous

"L"

LS,crm-wht fn xln pr; fossil pr interpart poro; NSNO; sc pieces wht chalk

B/Kc — EL 4440 (-1362)

Sh, gry & green; silty

LS,crm-tan fn xln fossil pr interpart poro; NSNO

Sh, gry, green, maroon; silty

LS,crm-gry fn xln vf; fossil pr interpart poro; NSNO

LS, AA w/chert fr gry, maroon, sh; sc wht chalk; tr. red pieces; fr. sd grains

Marmaton — EL 4490 (-1412)

LS,crm-wht fn xln vf; fossil pr interpart poro; NSNO

LS, AA

Sh, dk gry, m. gry & maroon

Sh, gry & maroon

LS,crm-tan fn xln pr interpart poro NSNO

LS,crm-tan fn xln vf; fossil pr vis poro; NSNO; sc wht chalk

Sh, gry & green

LS,crm fn xln vf; fossil pr visible poro dense NSNO

Alt "A" — EL 4524 (-1446)

Sh, blk carbonaceous; red, gry

LS,gry fn xln vf; fossil; pr vugular poro; barren NSNO

LS,crm-gry fn xln vf; fossil; pr visible poro; NSNO

Alt "B" — EL 4550 (-1472)

Sh, blk carbonaceous

LS,tan-gry fn xln; pr; fr interpart poro; NSNO; abun wht & brun-gry angular chert

LS,crm fn xln pr interpart poro; NSNO sc pieces wht chert

Alt "C" — EL 4577 (-1499)

LS,crm AA

Sh, blk carbonaceous

4600

LS,tan-brown fn xln fossil; pr; fr interpart poro; NSNO

LS,tan-brown fn xln fossil & oolitic; pr interpart poro; dense NSNO

Sh, blk carbonaceous

Pawnee — EL 4644 (-1566)

LS,crm-tan fn xln v; fossil pr interpart poro; NSNO; abun wht & brun-gry angular chert

LS,crm fn xln pr interpart poro; NSNO sc pieces wht chert

LS,crm AA

Sh, blk carbonaceous

Myrick Sta — EL 4662 (-1584)

LS,tan-brown fn xln fossil; pr; fr interpart poro; NSNO

LS,tan-brown fn xln fossil & oolitic; pr interpart poro; dense NSNO

Sh, blk carbonaceous

Fort Scott — EL 4677 (-1599)

LS,crm-tan-brown fn xln vf; fossil pr vis poro; dense NSNO

Sh, blk carbonaceous

LS,crm fn xln vf; fossil pr visible poro; dense NSNO

LS,tan fn xln AA

Cherokee — EL 4707 (-1629)

Sh, blk carbonaceous

LS,crm fn xln pr vis poro; NSNO

Sh, lt gry, dk gry, green

LS,tan-gry fn xln vf; fossil pr interpart poro NSNO

Johnson Zn — EL 4748 (-1670)

Sh, blk carbonaceous

LS,crm-tan-brown fn xln fossil v oolitic; pr interpart poro; NSNO; sc F-gd (not poro in secondary xln growth); sc wht chalk; sc F-FGFO-brown on brk; S-FGFO-brown on brk; Tr-pinpoint yellow fluor; gd milky cut

Morrow Sh — EL 4777 (-1699)

Sh, brown, green, mottled yellow, maroon w/ fan & yellow chert

LS,wht-tan fn xln v; fossil pr; sc oolitic; dense arnac NSNO; sc F-FGFO-tan on brk; S-FGFO-tan on brk; Tr-pinpoint yellow fluor; gd milky cut

Mississippian — EL 4812 (-1734)

LS,crm fn xln vdy pr interpart poro; NSNO; abun wht & brun-gry angular chert; sc F-gd; SS; mable barren

LS,wht fn xln fossil vdy marmy; NSNO;interpart poro barren NSNO

LS,crm fn xln fossil pr interpart poro; NSNO; marble; barren NSNO

LS,crm-wht fn xln vf; fossil pr interpart poro NSNO

LS,wht fn xln vf; fossil pr visible poro; lgy matrix NSNO

LS,cry fn xln vf; fossil pr interpart poro NSNO; abun wht & brun-gry angular chert; sc wht chalk

LS,crm-tan fn xln vf; fossil pr visible poro NSNO

DST #1
1st Opn Blow 1/4"
No Blowback
2nd Opn: BOB 7"
No Blowback

Rec:
342' MCM
(20%M, 70%M)
372' MCW
(90%W, 10%M)
1020' Total Fluid

IFP: 632-910/15"
ISIP: 1274/30"
FFP: 968-1062/15"
FSIP: 1274/45"
Chlor: 75,000 ppm

DST #2
1st Opn: BOB 5"
Blowback BOB 7"
2nd Opn: BOB 3"
Blowback BOB 9"

Rec:
1020' GIP
398' GO- Gray 35
(20%O, 80%G)
248' MGOC
(10%G, 90%O, 10%M)
124' GOCM
(40%O, 10%G, 50%M)
810' Total Fluid

IFP: 42-152#/30"
ISIP: 1224#/45"
FFP: 163-320#/30"
FSIP: 1224#/45"

DST #3
1st Opn: BOB 4"
Blowback BOB 15"
2nd Opn: BOB 10"
Blowback Bldg 5"

Rec:
1020' GIP
484' GO - Gray 38
(20%O, 80%G)
1024' GOCM
(40%O, 10%G, 50%M)
496' GOCW
(90%O, 10%W, 50%M)
2000' Total Fluid

IFP: 41-199#/30"
ISIP: 1016#/45"
FFP: 295-523#/30"
FSIP: 997#/45"

DST #4
1st Opn: BOB 15"
Blowback Bldg 1/4"
2nd Opn: BOB 10"
Blowback Bldg 1/4"

Rec:
437' GIP
62' GO - Gray 35
(10%O, 90%G)
124' GOCM
(40%O, 10%G, 40%M)
186' Total Fluid

IFP: 19-68#/30"
ISIP: 1128#/45"
FFP: 68-93#/30"
FSIP: 1128#/45"

DST #5
1st Opn: BOB 1"
Stc Blowback Bldg 1/4"
2nd Opn: BOB 5"
Stc Blowback Bldg 1/4"

Rec:
437' GIP
62' GO - Gray 35
(10%O, 90%G)
124' GOCM
(40%O, 10%G, 40%M)
186' Total Fluid

IFP: 19-68#/30"
ISIP: 1128#/45"
FFP: 68-93#/30"
FSIP: 1128#/45"

DST #6
1st Opn: BOB 15"
Stc Blowback Bldg 1/4"
2nd Opn: BOB 10"
Stc Blowback Bldg 1"

Rec:
124' MGOC
(20%O, 50%G, 20%M)
124' MGOC
(20%O, 50%G, 20%M)
248' Total Fluid

IFP: 18-71#/45"
ISIP: 1248#/45"
FFP: 92-186#/45"
FSIP: 1284#/45"

DST #7
1st Opn: BOB 5"
Blowback BOB 18"
2nd Opn: BOB 5"
Blowback BOB 30"

Rec:
962' GIP
906' GO - Gray 27
(20%O, 80%G)
1054' GOCM
(20%O, 10%G, 70%M)
1959' Total Fluid

IFP: 103-342#/30"
ISIP: 922#/45"
FFP: 547-944#/30"
FSIP: 940#/45"

DST #8
1st Opn: BOB 18"
Blowback BOB 18"
2nd Opn: BOB 5"
Blowback BOB 30"

Rec:
962' GIP
906' GO - Gray 27
(20%O, 80%G)
1054' GOCM
(20%O, 10%G, 70%M)
1959' Total Fluid

IFP: 103-342#/30"
ISIP: 922#/45"
FFP: 547-944#/30"
FSIP: 940#/45"

DRILLING TIME IN MINUTES PER FOOT

Rate of penetration increases

5' 10' 15' 20'

SAMPLE DESCRIPTIONS

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DENVER, COLORADO