Mark E. Dobrinski
DRACH #1
NW NW SE, Sec 1-22s-13w
Stafford County, Kansas

Dry Samples from well examined 8/12/86 by Brent B. Reinhardt as per request. Samples are adjusted for lag. Geologic Abbreviations on back page.

TOPEKA 2808 (-926)

2810 LS: Tan, Crm, Sublithographic, Soft, Pin-Point Porosity in part, Sparsely Fossiliferous with Poor Apparent Porosity / No stain, No Show Oil.

2820 LS: Tan, Lt Gry, Subl, Dense, PAØ, Sparse Fos with PAØ / No Stn, NSO

2830 LS: Tan, Crm, Subl, Dse, PAØ, Sparse Fos with PAØ / No Stn, NSO

2840 LS: Tan, Crm, Subl, Dse in part, Sparse Fos / No Stn, NSO

2850 LS: Wh, Crm, Subl, Soft, PAØ, Slight increase in Chalk / No Stn, NSO

2860 Slt Inc in LS: Wh, Tan, Subl, Dse, PAØ, Sparse Fos with PAØ / No Stn, NSO

2870 LS: Tan, Lt Gry, Subl, Dse, PAØ, PPØ in part / No Stn, NSO

2880 Slt Inc in SH: Gry, Blk, Rusty, Earthy / Dec in LS (FA) / No Stn, NSO

2890 Mstly SH: Gry, Blk, Rusty / LS: Crm, Tan, Brn, Subl, Dse, PAØ, Sparse Fos with PAØ / No Stn, NSO

2900 Inc in LS: Lt Gry, Tan, Subl, Dse, PAØ, Chalky in part, Sparse For with PAØ / No Stn, NSO

2910 LS: Tan, Lt Gry, Subl, Dse, PAØ, Sparse Fos with PAØ / Scat Blk SH / No Stn, NSO

2920 Inc in LS: Tan, Crm, Lt Gry, Subl, Dse, PAØ, Sparse Fos with PAØ / No Stn, NSO

2930 Good Inc LS: Tan, Crm, Subl, Dse, PAØ, PPØ in part, Chalky in part / No Stn, NSO

2940 LS: Tan, Crm, Subl, Dse, Soft in part, Chalky in part / No Stn, NSO

2950 LS: Tan, Crm, Subl, Dse, PAØ, Scat Pcs with PPØ, Fos in part with PAØ / No Stn, NSO

2960 LS: Tan, Crm, Subl, Dse, PAØ, Sparse Fos with PAØ, Chalky in part / No Stn, NSO

2970 Scat SH: Blk, Gry, Rusty / LS: Tan, Crm, Subl, Dse, PAØ, Fos in part / Scat Chert, Wh, Fresh, Sharp / No Stn, NSO

2980 Scat SH: Blk, Gry, Rusty / LS: Tan, Gry, Subl, Dse, PAØ, Fos with Poor to Fair Apparent Interfos Ø / Scat Cht: Lt Gry, Frsh, Dse, Sharp / No Stn, NSO

2990 LS: Tan, Crm, Subl, Dse, PAØ, Sparse Fos with PAØ, / Scat SH: (FA) / No Stn, NSO

3000 LS: Tan, Crm, Subl, Dse, PAØ, / Scat Cht: Wh, Gry, Frsh, Dse, PAØ, / Chalky in part / No Stn, NSO

3010 LS: Tan, Crm, Subl, Dse, PAØ, Sparse Fos with PAØ, / Scat Cht: Lt Gry, Frsh, Dse, PAØ, / No Stn, NSO

3015 Inc in LS: Tan, Crm, Subl, Dse, PAØ, / Scat Cht: Lt Gry, Frsh, Dse, PAØ, / Sparse Fos with PAØ / No Stn, NSO

3020 LS: Tan, Gry, Wh, Subl, Dse, PAØ, Sparse Fos with PAØ, Scat PPØ in LS / Scat Cht: Lt Gry, Frsh, Dse, PAØ, / No Stn, NSO

3030 LS: Tan, Crm, Subl, Dse, PAO, Sparse Fos with PAØ / Scat Cht: Wh, Frsh, Dse, PAØ / No Stn, NSO

3040 LS: Tan, Brn, Subl, Dse, PAØ, / Chalky in part / Fos in part with PAØ / No Stn, NSO

3050 LS: Tan, Crm, Subl, Dse, PAØ / Scat Cht: Frsh, Dse, PAØ / Scat Fos LS with PPØ / No Stn, NSO

3060 Ø LS: Tan, Brn, Crm, Subl, Dse, PAØ, Fos in part with PPØ and Fair App Interfos Ø / Scat Cht and Chalk / No Stn, NSO

3070 Ø LS: Tan, Lt Brn, Inc in Fos with PPØ, Fair App Interfos Ø / Scat Cht: Wh, Frsh, Weathered in part, Pyrite Inclusions / No Stn, NSO

3080 Slt Inc in SH: Cry, Brn, Rusty / LS: Tan, Crm, Subl, Dse, PAØ / Chty in part with PAØ / No Stn, NSO

3090 Inc in LS: Tan, Crm, Subl, Dse, PAØ, Sparse Fos with PAØ, PPØ in part / Scat Cht: Wh, Frsh, Dse, PAØ / No Stn, NSO

3100 Ø LS: Tan, Lt Brn, Subl, Dse, Fair App Intergranular Ø, PPØ in part, Fos in part with FAØ, / No Stn, NSO

3110 Ø LS: Lt Gry, Cem, Subl-VFG, Fair App Intergran Ø, PPØ, Sparse Fos with PAØ / No Stn, NSO

3120 Ø LS: Tan, Brn, Crm, Subl-VFG, PAØ, PPØ in part, P-FA Fos and Interfos Ø / No Stn, NSO

3130 LS: Tan, Lt Cry, Cem, Subl, Dse, PAØ, Chalky and Chty in part, Sparse Fos with PAØ / No Stn, NSO

3140 Good Inc in LS: Tan, Wh, Crm, Subl, Dse, PAØ, Chalky in part, Sparse Fos with PAØ, PPØ in part / Scat Cht: Wh, Frsh, Dse, PAØ / No Stn, NSO

3150 LS: Tan, Brn, Crm, Subl, Dse, PAØ, Chalky in part, Sparse Fos with PAØ / No Stn, NSO

3160 LS: Tan, Crm, Lt Gry, Subl, Dse, PAØ / Chty: Frsh, Dse, PAØ, Sparse Fos with PAØ / No Stn, NSO

3170 LS: Tan, Crm, Subl, Dse, PAØ, Chalky in part / Scat SH: Gry, Blk, Rusty / No Stn, NSO

HEEBNER 3188 (-1306)

3185 Inc in SH: Blk, Gry, Fissile, Carbonaceous / Scat LS: (AA), Tan, Crm, Subl-VFG, PPØ, No Stn, NSO

3195 Mostly SH: Gry, Blk, Rusty / LS: Tan, Brn, Subl, Dse, PAØ, Chalky, / No Stn, NSO

3205 Inc in LS: Wh, Crm, Tan, Subl, Dse, PAØ, Chalky, Sparse Fos with PAØ, / No Stn, NSO

TORONTO 3211 (-1329)

3215 LS: Lt Gry, Subl, Dse, PAØ, Chalky, Soft / No Stn, NSO

DOUGLAS 3225 (-1343)

3225 Slt Inc in SH: Gry, Brn, Rusty, Earthy / Dec in LS (FA) / No Stn, NSO

3235 Inc in SH: (AA) / No Stn, NSO

3245 SH: Gry, Rusty, Soft / No Stn, NSO

3255 SH: Gry / No Stn, NSO

3265 SH: Gry, Rusty / No Stn, NSO

3275 SH: Gry, Rusty / No Stn, NSO

3285 SH: Gry, Rusty / No Stn, NSO

3295 SH: Gry, Rusty / No Stn, NSO

3305 SH: Gry, Rusty / No Stn, NSO

BROWN LIME 3314 (-1432)

3315 Mostly SH: Gry, Rusty / Slt Inc in LS: Brn, Subl, Dse, PAØ / No Stn, NSO

3330 • Ø Good Inc in LS: Wh, Tan, Crm, Subl-VFG, PPØ in part, Few Pcs with Brn Oil Stn Saturation (PPØ), P-F App Ø, Fair to Good Oil Cut, Apps Tight in part / Fair Show Oil

LANSING 3331 (-1449)

"A" ZONE

3340 • LS: Wh, Crm, Tan, Subl, Dse, Mostly Apps Tight, PPØ in part with Brn Oil Stn in part, Very Few Pcs with OOC, PA OCC Ø, (Tight) (Barren) / Fair Stn in PPØ LS / Show Oil

3350 • Ø LS: Wh, Crm, Mostly Subl, Dse, PAØ, Few Pcs with VF Xln and PPØ with Saturated Brn Oil Stn, F-G App Interxln Ø, / Good Stn, SO

"B" ZONE

3360 • LS: Tan, Crm, Subl, Dse, PAØ, Few Scat Pcs with PPØ and Interxln Ø with Brn Spotty Oil Stn / SO

3372 • Ø LS: Crm, Tan, Subl, Dse, PAØ, Sparse Pcs with Brn Stan and PPØ (AA), Vuggy in Part with Brn Stan in Vugs / SO

3375 • ø LS: Wh, Crm, Subl, Dse, PAØ, Sparse Pcs with PPØ and Xln Ø, Mostly Apps Tight, Lt Brn Stn in PPØ / SO

"D" ZONE

3380 • ø LS: Wh, Crm, Subl, Dse, PAØ, Sparse Pcs with VFXln and PPØ with Brn Spot Stn, Sparse Fos with P-FA Ø, / Spotty Oil Stn, SO

"E" ZONE

3390 • LS: Brn, Gry, Wh, Crm, Mostly Subl, Dse, PAØ, VFXln with PPØ in Part with Brn Spot Stn in Part, Sparse Fos with P-FAØ / SO

"F" ZONE

3400 • ø LS: Tan, Crm, Subl, Dse, PAØ, Inc in Fos with F-G PPØ and Interfos Ø with Brn Stn in Part / SO

3405 • ø LS: Tan, Crm, Subl, Dse, PAØ, Sparse PPØ and Vuggy Ø with Brn Stn, P-F Xln Ø, Sparse Fos with Vuggy with PPØ in Part with Brn Stn / SO

3410 • ø LS: Tan, Crm, Subl, Dse, PAØ, Sparse Pcs Fos with Vugs with FA Xln Ø, Spot Brn Stn in Fos PPØ, / Poor Stn, SO

"G" ZONE

3420 ø Good Inc in Chalk: Wh, Soft, / Mostly LS: Tan, Subl, Dse, PAØ, Apps Tight, Sparse Pcs OOC with P-F OOC Ø with Brn Stn / N Stn, NSO

3430 • ø LS: Wh, Crm, Subl, Dse, PAØ, Chalky in part, Sparse Fos with PAØ, Sparse Pcs OOC with P-F App OOC Ø, Brn Stn in Part / Fair Oil Cut, SO

3445 • ø LS: Wh, Crm, Subl, Dse, PAØ, Scat Pcs Fos with FA Interfos and Sparse OOC Ø, F-G Brn Oil Stn and Saturated Blk Stn on One Pc / Good Oil Fluorescence, Good Stn, Good Oil Cut

3455 Slt Inc in SH: Blk, Gry / LS: Tan, Wh, Crm, Subl, Dse, PAØ, Chalky in part / No Stn, NSO

"H" ZONE

3460 • ø Good Inc OOC LS: Wh, Crm, F-G App Interoolicastic Ø, Mostly Barren, Blk Dead Stn in Part / Fair to Good Oil Cut From Blk Dead Stn in OOC, SO

3465 • ø LS: Wh, Crm, OOC in Part with F-G App OOC Ø, Mostyly Barren, Blk Stn in Part / Chalky in Part / P-F Spot Stn, Fair Show Oil

3470 • LS: Wh, Lt Gry, Subl, Dse, PAØ, Sparse Fos with PAØ, Blk Dead Stn in Part / Poor Stn, PSO

"I" ZONE

3480 • ø Inc in OOC LS: Tan, Crm, F-G App Interxln and OOC Ø, Apps Tight in Part, Spot Dead Blk Stn in Part, Mostly Barren, Chalky in Part / Poor Stn, PSO

3485 • ø LS: Tan, Crm, Subl, Dse, PAØ, Sparse OOC (AA) with P-F OOC Ø with Blk Dead Stn in Part, Apps Tight, Mostly Barren with NSO / Scat SH / Poor Stn, PSO

3490 • ø Slt Inc in SH: Gry, Brn, Rusty / LS: Tan, Crm, Subl, Dse, PAØ, Scat OOC with P-F App Interxln and OOC Ø, Apps Tight in Part, Spotty Stn in Part of OOC, Mostly Barren / P Stn, PSO

"J" ZONE

3495 • ø Inc in LS: Wh, Subl, Dse, Soft in Part, Chalky in Part, Spotty Brn Stn in Part with PPØ, Fos in Part with Brn Saturated Stn, Fair App Ø, / Scat SH / SO

3500 • ø Good Inc in Chalky LS: Wh, Soft, Sparse Pcs with Brn Stn and PPØ, Fos with PPØ and Saturated Brn Stn with F-G App Ø / SO

3510 Inc in SH: (Cavings?): Gry, Brn, Rusty / Scat Wh LS (AA) / No Stn, NSO

3515 Mostly SH (AA): Gry, Rusty, Brn / No Stn, NSO

"K" ZONE

3525 • ø Inc in OOC LS: Wh, F-G App Interxln and OOC Ø with Good Brn Oil Stn, Barren Pcs in Part, Subl and Dse in Part / Scat SH (AA) / SO

3535 Inc in LS: Wh, Gry, Inc in Subl, Dse, PAØ, Apps Tight, Dec in OOC LS (FA), Sparse Fos with PAØ / No Stn, NSO

3545 Slt Inc in SH: Gry, Rusty, Blk / Scat LS (AA): Wh, Lt Gry, Subl, Dse, PAØ, Apps Tight / No Stn, NSO

3555 Slt Inc in LS: Wh, Crm, Subl, Dse, Soft in part, Chalky, Sparse Fos in part with PAØ , / Scat SH (FA) / No Stn, NSO

BKC 3562 (-1680)

3565 LS: Wh, Crm, Subl, Dse, PAØ, Sparse Fos with PAØ / Scat SH: Gry, Rusty / No Stn, NSO

MARMATON? 3570 (-1688)

3575 • ø LS: Lt Gry, Tan, Crm, Subl-VFG with Spotty Brn Stn, Fos with PPØ and Vuggy Ø, F-G App Interfos Ø, OOL in part with PAØ, / Brn Stn in LS, PSO

3580 • ø Slt Inc in SH: Gry, Rusty / LS: Lt Gry, Crm, Subl, Dse, PAØ / Sparse Fos with Vugs and OOC with Brn Spotty Stn, FAØ, PPØ in Part / Fair Show Oil

VIOLA 3590 (-1708)

3590 SH: (AA): Blk, Gry, Rusty / LS: Wh, Crm, Tan, Subl, Dse, PAØ, Sparse Fos with PAØ, No Stn, NSO

3595 • Inc in Cht: Sh, Tan, Pink, Frsh, Dse, Frac Ø in Part, Sparse Pcs with Saturated Brn Stn, Blk Gilsonitic Stn in Part / LS in part with Brn Stn, Tight / Good Oil Cut, SO

3605 • CHT: Wh, Crm, Grsh, Sharp, Frac Ø in part, Blocky, Weathered in Part with Brn Saturated Stn, Apps Tight / Spot Stn, SO

3615 • CHT: Wh, Inc in Brn Sat Stn, Mostly Frsh, Dse, Sharp, Weathered in Part with Brn Stn with PPØ in Part. Mostly Apps Tight / SO

3625 • ø CHT: Wh, Frsh, Dse, Scat Pcs with Brn Sat Stn, PPØ in Part, Weathered in Part, Mostly Apps Tight / Good Stn, SO

3635 • CHT: Wh, Lt Brn with Sat Stn, Mostly Frsh, Dse, Sharp, Blocky, Sparse Pcs with PPØ, Weathered / Good Stn, SO

SIMPSON SHALE 3642 (-1760)

3645 • Dec in CHT (AA) / Slt Inc in SH: Blk, Brn, Gry / Scat Few Pcs SS: Lt Brn, Medium to Coarse Grain, Subangular, Fair Sort, Fair App Intergran Ø, Blk Gils Stn in Part, Apps Well Cemented, Tight, / Spot Stn in SS, SO

3655 • ø Mostly SH and CHT (FA) / SS: M-C Grain, Subrnd, Well Sort, F-G Cementing, P-F Intergranular Ø, Apps Tight, / Saturated Lt Brn Stn, Poor Oil Cut, PSO

3670 Mostly SH and CHT (AA) / SS: Tan, Transparent, M-C Grain, Well Rnd, Fair Sort, P-F App Intergran Ø, Well Cemented, Barren / Scat Pyrite / No Stn, NSO

3680 Mostly SH and CHT (AA) / SS: Transparent, Tan (AA), Subrnd, Poor Sort, P-F App Intergran Ø, Well Cemented, Apps Tight / No Stn, NSO

3685 SH and CHT (AA) / Dec in SS (FA) / No Stn, NSO

ARBUCKLE 3690 (-1880)

3690 Mostly SH and CHT (FA) / Slt Inc in SS: Wh, Tan, Med Grain, Well Sort and Cemented, Subang, P-FAØ, Tight, Barren / No Stn, NSO

3695 • Inc in DOLO: Tan, Subl to VFXln, Dse, PAØ, Tight / Mostly SH and CHT (FA) / Lt Brn Sat Stn, Good Oil Cut, GSO

3700 • ø Inc in DOLO: Tan, Inc in Rhombic Xls with F-G App Ø, Good PPØ, Vuggy, / Good Sat Brn Stn, GSO

3702 • ø DOLO: Tan, Rhombic Xln with F-G App Xln Ø, Vuggy in Part, Tight in Part, Scat PPØ in Part, / Good Stn, Fair Oil Fluorescence, SO

3705 • ø DOLO: Tan with Sat Brn Stn, Slt Inc OOC DOLO with VFXln OOC, Apps Tight, Good Vuggy and PPØ in Part, / F-G Oil Fluorescence, Good Stn, SO

3710 • ø DOLO: (AA): Tan, Crm, Rhombic with FAØ, PPØ in Part, / Good Stn in Part, SO

3715 • ø DOLO: Brn, Rhombic Xls with GAØ, VFXln in Part with F-GAØ, PPØ, / Good Sat Stn, SO

3720 • ø DOLO: Brn, Rhombic in Part, VF-F Xln in Part with GAØ, Tight In Part, PPØ in Part Good Stn, SO

3725 • ø DOLO: Tan, Rhombic Xln with F-G App Ø, PPØ, Vuggy in Part with GAØ / Good Stn, SO

3730 •Ø DOLO: Tan, Brn, Rhombic Xln with P-F App Ø, Tight in Part, VFXln with FAØ, Vuggy in Part, / Good Sat Stn, SO

3732 •Ø DOLO: Tan, Lt Gry, VF-FXln with P-F App Ø, Rhombic Wln in Part, Apps Tight in Part / Good Stn, SO

RTD 3732 (-1850)

COMMENTS:

As you can tell by the preceeding pages there were shows of oil noted in practically all of the Lansing/Kansas City zones. Shows were also noted in the Marmaton (?), Viola, Simpson Sand, and the Arbuckle. A show of oil was also noted in the Lime Zone immediately above the Lansing Top and beneath the Brown Lime Top.

It is suggested that the electric log be further evaluated in determining if any of these noted oil shows justify further perforations for commercial quantities of oil by an electric log engineer. Some of the better shows (or what I thought were good shows) are more or less condemned on the electric log by showing "wet".

Shows that I liked irrespective of the log calculations were the:

~~Brown Lime (3324-3326)? Had Good PPØ, Good Sat Stn, Good Oil [redacted] DOP~~
LKC "D" Zone (3378-3380) Had Xln & PPØ with Oil Stain
LKC "F" Zone (3400-3402) Had Good PPØ and Fos Ø with Vuggy Ø and Oil Stn
LKC "G" Zone (3442-3446) Had Good Ø and OOC Ø with Good Stn and Oil Cut
LKC "J" Zone (3494-3498) Had Good Fos Ø and PPØ with Good Oil Stn
LKC "K" Zone (3518-3522) Had Good OOC and Xln Ø with Good Oil Stn
Marmaton (3572-3575) Had Good Fos PPØ and Vuggy Ø with Brn Oil Stn
Viola (3598-3617) Had Weathered and PPØ with Good Sat Stn and Good Cut
Arbuckle (3706-3716) Had Good Rhombic Xls with GAØ & PPØ and Good Oil Stn

The Dry Samples are ready for you to pick them up.

Respectfully yours,

Brent B. Reinhardt

Brent B. Reinhardt
Geologist

cc: Joe E. Brougher
John Jarmer (Welex)

GEOLOGIC ABBREVIATIONS / EXPLANATIONS

LITHOLOGY:

CALC = CALCITE
CHALK = CHALKY
DOLO = DOLOMITE
GRAN = GRANITE
GRAN WSH = GRANITE WASH
GYP = GYPSUM
LS = LIMESTONE
PYR = PYRITE
QTZ = QUARTZ
SH = SHALE
SS = SANDSTONE
△ = CHERT

COLORS:

BLK = BLACK
BRN = BROWN
CRM = CREAM
FROSTY = FROSTY
GRN = GREEN
GRY = GRAY
ORG = ORANGE
PINK = PINK
RUSTY = RUSTY
TAN = TAN
TURQ = TURQUOISE
WH = WHITE
YEL = YELLOW
DK = DARK
LT = LIGHT

MISCELLANEOUS:

SCAT = SCATTERED
SLT = SLIGHT
SPARSE = SPARSELY
POS = POSSIBLY
INCLU = INCLUSIONS
MSTLY = MOSTLY
P = POOR
F = FAIR
G = GOOD
BARREN = BARREN
APPS = APPEARS
Ø = POROSITY
PAØ = POOR APPARENT POROSITY
PPØ = PIN POINT POROSITY
IN PT = IN PART
AA = AS ABOVE
FM = FROM
FA = FROM ABOVE
/ = BREAK BETWEEN DESCRIPTIONS
W = WITH
> = INCREASE
< = DECREASE

TEXTURES:

DSE = DENSE
FIS = FISSILE
FOS = FOSSILIFEROUS
FRSH = FRESH (SHARP EDGES)
GILS = GILSONITIC
GUMMY = GUMMY
MICAC = MICACEOUS
OOC = OOLICASTIC
OOL = OOLITIC
SOFT = SOFT
TIGHT = TIGHT
TRIPOL = TRIPOLITIC
WEATH = WEATHERED
VUG = VUGGY
CALC CMT = CALCAREOUS CEMENTED
SIL CMT = SILICEOUS CEMENTED

GRAIN CHARACTERISTICS:

XLN = CRYSTALLINE
GRN = GRAIN
INTERG = INTERGRANULAR
SILTY = SILTY
MICROG = MICROGRANULAR
VF = VERY FINE
F = FINE
C = COARSE
SUBL = SUBLITHOGRAPHIC
P SORT = POOR SORTING
F SORT = FAIR SORTING
W SORT = WELL SORTED
ANG = ANGULAR
SUBANG = SUBANGULAR
RND = ROUNDED
SUBRND = SUBROUNDED
RHOMBIC = RHOMBIC CRYSTALS
M = MEDIUM

SHOWS:

NO, FO, GO = NO ODOR, FAIR ODOR, ETC.
NOF, FOF, GOF, SPOT OF = NO OIL FLOURESCENCE, ETC.
NSTN, FSTN GSTN, GSAT STN = NO STAIN, ETC.
NSFO, FSFO, GSFO = NO SHOW OF FREE OIL, ETC.
NSO = NO SHOW OF OIL
NSO & G = NO SHOW OF OIL OR GAS
BLEED G BUB = BLEEDING GAS BUBBLES
GSY = GASSY
TFO = TRACE OF FREE OIL
LT GRV = LIGHT GRAVITY
SAT STN = SATURATED STAIN
• = SHOW OF OIL
✳ = SHOW OF GAS
✳ = SHOW OF OIL AND GAS
▯ = RECOMMENDED PERFORATIONS