

Company BLACKWOOD & NICHOLS Location 1450°N&790°W, Sec. 10, T30N-R7W. FROM 7725' TO 8955'

Well #501 County Rio Arriba DEPTH LOGGED

Field North East Blanco Unit State New Mexico DATE LOGGED 7/1/83 thru 7/1/88

Elevation 6325' DF Drilling Fluid Chem gel. ENGINEERS W.D. STRICKLIN

OIL SHOW

SHALE SANDSTONE LIMESTONE DOLOMITE CHERT SALT COAL ANHY-GYP SILTSTONE TRACE FAIR GOOD CORE NO. DST NO. DEVIATION CG - CONNECTION GAS NB - NEW BIT NR - NO RETURNS CR - CIRCULATE OUT NS - NO SAMPLE TG - TRIP GAS DTG - DOWN TIME GAS

LITHOLOGY

INTERPRETIVE DEPTH PERCENTAGE

CHROMATOGRAPH HYDROCARBONS IN PPM

M-1000 PPM

REMARKS

SS:lt gry,v/fn gr,sli calc, firm,w/dk mafic min,no poro. Coal:blk,orittle,conchoidal fracture,low rank bitu. SS:lt gry,v/fn gr,qtzitic,v/nd,sharp,non calc. SH:dk gry,v/carb,sity,sli calc. Abnt iron debris. Slt:lt gry,firm,hd,tite, sli calc. Abnt L.C.I.

SS:Beach white,fn-med gr,non calc,cons & unconcs,w/rd, clear,w/abnt white bentonite T/Jm:Sh: pale green,non calc, sity in pt,firm,abnt Fe frag

SH:lt green,non calc,firm, abnt retainer debris. SS:lt gry,fgr,sli calc,firm, clean. SH:lt green-pale green,sli calc,sity in pt,firm. Abnt carb shale. Tr/Coal. Tr/dk carb shale. Slt:lt grn-pair grn,sndy in pt,v/sli calc.

SS:lt gry,fgr,p-cons,sli calc,fri,clear,w/some unconcs clear well rnd xisscatt thu mtz. Lith change:Tr/arkose,opaque chrt,& pyrite. Lith change:Slt:lt orn,firm, v/sli calc,sity in pt,w/grn & pale grn aa. SS:lt gry-white,fn-med gr, v/sli calc,firm,clear. SH:grn,lt grn,lt orn,sli calc firm,sity in pt,w/occ cse gr qtz xl scatt thu mtz,tr/gry opaque cnrt. SS:lt gry-white,qtzitic,firm fn-med gr,non calc,w/fe mags in mtz.

SH:lt grn,pale grn,lt brn, firm,sli calc,w/abnt low rank bitu coal-pyritic in pt.

SS:lt gry,fgr,sli calc,fri, clean,cons. SH:lt:lt pale green,firm,sndy in pt,sli calc. Tr/carbonaceous mtl. SS:lt gry,fn-med gr,v/sli calc,fri,clear,w/fe mags.

SH:pale grn,lt grn,lt tan, w/some kelly green,firm,non calc,sity in pt. Slt:lt grn-tan,sli calc,sndy in pt,firm. Tr/carb shale--occ cse gr qtz xl. SS:lt gry,fgr,sli calc,firm clean,w/dk mafic min in mtz. lag after trip-abnt cedar fibers & cavings.

SS:lt gry,fgr,v/sli calc, qtzitic in pt,clear,sharp, Slt:lt grn,lt tan,grn,sndy in pt,firm,sli calc. Lith change:SS:lt red-pale pink,fgr,cons,sli calc,fri, clean. Slt:lt red-lavender, lt grn,sity,sli calc.Slt: lt red-lt grn,sli calc,sndy. SS:lt gry,fn-med gr,sli calc cons,clear,firm,tr/red ss aa SH:lt grn,grn,lavender,sity, v/sli calc,firm. SS:lt gry,fgr,v/sli calc, cons,fri,clear,fair ϕ,w/dk mafic min,some ne-sharp. SH:lt red-lt grn,sndy in pt,calc,firm. SH:lt grn-pale grn,lt red, sity in pt,sli calc,firm. SS:lt gry,lt orn,lt pink, non calc,clear,fri,cons,w/ dk mafic min scatt thu mtz. SS:lt gry,fgr,v/sli calc, clean,fri,cons,w/some firm/ sharp. Slt:lt choc orn,firm,calc,sndy, tr/blk carb mtl,section bcm v/calc. Section v/calc.

SH:lt grn,pale grn,lt red, sity in pt,sli calc,firm. Coal:blk,orittle,conchoidal fracture,low rank bitu. Slt:lt gry-lt orn,w/lt gry mottling,fnxlyn,hd,sharp. SS:blk,dk gry,fnxlyn,hd,tite, w/sucroscopic anhydrite incl. Slt:lt grn,lt red,sli calc, sndy in pt,firm. T/Entrada: 8725'. SS:lt gry-white,fn-med gr, cons,fri,clear,well sorted & rnd,sli calc,fair porosity. Abnt anhydrite & ss scatt thu samples. Slt:lt grn-lt gry,sndy,firm. Abnt LCM in sample. Abnt ss & sucroscopic anhydrite scatt thu samples. SS:lt gry,fn-med gr,cons,fri, clean,well sorted & rnd,sli calc,w/dk mafic min in some. SH:lt grn-gray,sity in pt,sli calc,firm. SS:lt gry-gry,fgr,v/sli calc firm,sharp,low ϕ,ocm sity. SH:lt grn-gry,w/some orange mottled,sli calc,sity in pt. SS:lt gry-tan,fgr,sli calc, clean,fri,fair ϕ. T/Chinle: 8915'. SH:dk brn-lt red,sity thu-out calc,firm,w/tr/gry opaquechrt. Slt:red-lt red,v/calc,sndy thu firm,sharp.

Total Depth: 8954', 7/13/88