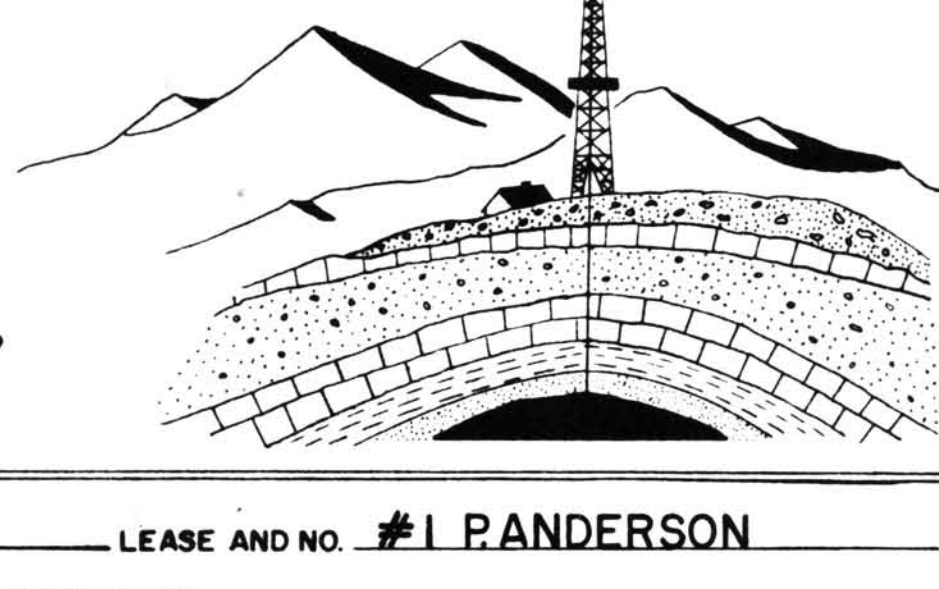


Northwest Geological Service



LOG NO. 243

COMPANY: SIGNAL DRILLING INC. et al LEASE AND NO. #1 PANDERSON
 STATE OR PROVINCE: MONTANA COUNTY: SHERIDAN AREA
 LOCATION: C SW SE SEC. 26 T. 35N R. 58E GRND. ELEV. 2060.9' KB 2070.9'
 TOTAL DEPTH: 11,180' SPUDED: 6-9-63 COMPLETED: 8-9-63
 REMARKS: Photo Enlargement X 10

GEOLOGIC SECTION: MISSISSIPPIAN: Charles, Mission Canyon, Lodgepole DATE: Feb. 1963

GAMMA RAY	Depth Testing	PHOTO LOG	SPERM	LATEROLOG	REMARKS
	6100	++			
	6200	++			
	6300	++			
	6400	++			
	6500	++			Salt.
	6600	++			Salt, intbd anhy & dolo.
	6700	++			Dolo, gran, slty intel anhy.
	6800	++			Ls, argil, intel anhy.
	6900	++			Dolo, gran, slty, sl por, m/anhy.
	7000	++			Ls, slty, argil, fos frgs, tr ools, intel anhy, salt incls.
	7100	++			Anhy, acicular, intel salt, strks ls, argil.
	7200	++			Ls, argil, bytic ools, intel anhy, salt incls.
	7300	++			Ls, argil, sl slty, f/ool, s, intel anhy.
	7400	++			Salt, w/anhy ls & dolo.
	7500	++			Salt, strks ls & dolo.
	7600	++			Salt, strks anhy & dolo.
	7700	++			Salt.
	7800	++			Salt, strks anhy & dolo.
	7900	++			Ls, argil, f/fos frgs, tr ools, sl slty.
	8000	++			Ls, argil, fn fos frgs, slty loc salt incls, tr ools.
	8100	++			Ls, argil, f/ool, slty, tr fos frgs, salt incls.
	8200	++			Anhy, dns, argil, dolote, intel ls.
	8300	++			?Salt, intel anhy, s/dolo.
	8400	++			Anhy, acicular, dns, dolote, m/salt.
	8500	++			Anhy, argil, slty, dolote intel salt.
	8600	++			Dolo, chky, argil, m/anhy & salt.
	8700	++			Anhy, acicular, dns, dolote, intel dolo & salt.
	8800	++			Anhy, acicular, dns, dolote, intel salt & dolo.
	8900	++			Ls, argil, dolote, salt & anhy incls.
	9000	++			Ls, argil, intel salt.
	9100	++			Ls, argil, f/fos crin, anhyte, sl silc, w/salt & anhy incls.
	9200	++			Ls, argil, tr fos frgs, sl dolote, f/anhy & salt incls.
	9300	++			Ls, argil, tr fos frgs, salt incls.
	9400	++			Anhy, argil, dolote, sl sdy, strks dolo & ls.
	9500	++			Ls, c-ctc, dns, anhyte, fn fos frgs.
	9600	++			Ls, argil, anhyte, c-ctc loc, fn fos frgs, strks anhy.
	9700	++			Anhy, dolote, argil, sl sdy grdg to dolo, s/ls, argil.
	9800	++			Anhy, argil, dolote, sdy, strks ls & dolo.
	9900	++			Anhy, argil, dolote, sl slty.
	10000	++			Anhy, argil, dolote, strks ls, argil, fn fos frgs.
	10100	++			Ls, slty, fn fos frgs, anhyte, argil, strks anhy.
	10200	++			Anhy, argil, dolote, sl slty.
	10300	++			Anhy, argil, dolote, sl slty, strks ls.
	10400	++			Ls, argil, fn fos frgs, sl slty, anhyte loc, strks anhy.
	10500	++			Ls, argil, fn fos frgs, calcisphaeres, ostr, anhyte loc, tr p-pt por.
	10600	++			Ls, al, mud, tr ostr, m/xln clc, silc @ bottom.
	10700	++			Ls, mud, fn fos frgs, ostr, spcls, c/c vns.
	10800	++			Ls, mu, sl peld, fn fos frgs, s/xln clc, argil, sl p-pt & chky por.
	10900	++			Ls, fnly fosif, spcls, argil.
	11000	++			Ls, mud, fn fos frgs, ostr, spcls, sl p-pt por.
	11100	++			Ls, mud, fn fos frgs, ostr, gstruc, s/xln clc, sl p-pt por.
	11200	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	11300	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	11400	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	11500	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	11600	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	11700	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	11800	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	11900	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	12000	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	12100	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	12200	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	12300	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	12400	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	12500	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	12600	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	12700	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	12800	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	12900	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	13000	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	13100	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	13200	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	13300	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	13400	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	13500	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	13600	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	13700	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	13800	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	13900	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	14000	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	14100	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	14200	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	14300	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	14400	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	14500	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	14600	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	14700	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	14800	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	14900	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	15000	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	15100	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	15200	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	15300	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	15400	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	15500	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	15600	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	15700	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	15800	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	15900	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	16000	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	16100	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	16200	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	16300	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	16400	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	16500	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	16600	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	16700	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	16800	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	16900	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	17000	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	17100	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	17200	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	17300	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	17400	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	17500	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	17600	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	17700	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	17800	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	17900	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	18000	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	18100	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	18200	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	18300	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	18400	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	18500	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	18600	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	18700	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	18800	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	18900	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	19000	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	19100	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	19200	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	19300	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	19400	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	19500	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	19600	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	19700	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	19800	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	19900	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.
	20000	++			Ls, mud, sl peld, fn fos frgs, calcisphaeres, ostr, s/xln clc, sl p-pt por.