

History of Oil or Gas Well

Operator NORTHWEST EXPLORATION COMPANY Field or County Douglas County
Well Sawyer Rapids #1 , Sec. 3 , T. 23 S. , R. 9 W. , W. B. & M.
A.P.I. No. _____ Name George L. Converse Title Agent
Date 5/21/80 , 19____ (Person submitting report) (Telephone Number)

Signature _____

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or abutting the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

- Date () Denotes Operational Days
- 4/10/80 J & N Drilling Co., Rig #1, moved in & rig-up. Prior to rig-up 16" conductor had been set to 40' from ground level and location was rocked for wet conditions.
 - 4/11/80 Finish rig-up.
 - 4/12/80 (1) "WEGE" logging trailer moved in & the following equipment installed: Agitator gas trap, pump stroke counters to pumps 1 & 2, pit level-horn float type, Bristol reel & recorder, J-W, infrared methane & chromatograph analysers, Healthway recorder. Spudded with Smith DSJ 12 1/2" bit @ 2200hrs, using gel/water mud from 40'-60'. Formation: Sltstn, sndy, dk gry, calcic, hrd w/calcite veinlets. Penetration rate 10'/hr, total ditch gas (DG) 1-3u, blender gas (BG) 0-1u, chrom=100%C1.
 - 4/13/80 (2) Drilled to 2000hrs, build mud volume to 2200hrs, continued drilling to 140'. Formation: Sndstn, lt/md gry, hrd, calcic, vfn-fn, sbang-sbrd, cl-frst, qtz, altered felds, kaol, mica w/min sltstn, brwn, hrd, limey & gry-grn clay. Penetration rate 10'/hr, DG=1-2u, BG=0-1u, chrom=100%C1.
 - 4/14/80 (3) To 0200hrs build mud volume, drill to 157', service rig, P.O.H.-NB#2 Smith F-3 - R.I.H., drill to 218'. Formation: Interbedded Sltstn/SS; Sltstn, shaley, black-dk gry, hrd, thn bedded, mica-ceous. SS, lt-md gry, hrd, md-fn, ang, qtz, mica macro/micro, calcic veinlets, tr chl. Penetration rate 12'/hr, DG=2-3u, BG=0-1u, chrom=100%C1, carbide 100cc, 40u, 45 vis, 56 spm, 3.8 min lag.
 - 4/15/80 (4) To 0400hrs drill, dump sand trap & build mud volume to 0600hrs, drill to 250', service rig, drill to 308', survey (1°00'), drill to 482'. Pump #1, 53 spm, 40/60 RPM, 26k WOB, 500 PP. Formation: SS, lt gry, vfn-md, cl, sbang qtz, feld, squam mica, kaol, chl. Penetration rate 18'/hr, DG=1-2u, BG=0-1u, chrom=100%C1.

(3)

- Date
- 4/16/80 (5) Drill to 1000hrs, rig up engines 3 & 4 for operation, continue drilling to 678', take survey (2°00'), condition hole for casing, P.O.H. & measure pipe. Pump #1, 52 spm, 50 RPM, 26k WOB, 500 PP. Formation: Sltstn, shaley, dk gry, hrd, calcic w/calcite veinlets & SS, lt gry, calcic, vfn-fn, cl, sbang, qtz, kaol, micaceous. Penetration rate 15-20'/hr, DG=1-3u, BG=0-1u, chrom=@ 520'-560'=98.5%C1, 1.5%C2 no fluor or odor, all other 100%C1.
 - 4/17/80 (6) P.O.H. to 0130hrs, rig-up power tongs & B. J. cementers to 0600 hrs, run 18 jts of 9 5/8" JK-55, 36wt, ST&C grade casing to 682' (shoe), total 687'. At 0630hrs cemented shoe @ 682' w/ 190 sks class G-65X35 pozmix 6% gel, 1/2 flocele, 2% CaCl2, from 0630hrs-1200hrs wait on cement, takeout & load out cement head from 1200hrs to 1400hrs, T. O. conductor pipe, weld & test L head to 1600hrs. From 1600hrs to 2400hrs nipple up.
 - 4/18/80 (7) To 0400hrs nipple up, repair rotary drive chain to 0600hrs, repair pump to 0800hrs. To 1200hrs test pipe rams, blind rams, choke manifold, kelly and kelly hose to 1000 psi - OK. Hydrill bag & bottom kelly cock - no go. Pick up NB#3 Smith F3 8 3/4", 2 drill collars, R.I.H. to 1800hrs, drill out baffle, cement, shoe & 8 3/4" hole to 760'. Pump #2, 52 spm, 60 RPM, 25k WOB, 500 PP. Formation: sltstn, dk gry, hrd, carb, firm, micaceous w/mudstone, flakey. Penetration rate 25'/hr, DG=2u, BG=0u, chrom=100%C1. Switch mud system to gel/cypan nondispersed.
 - 4/19/80 (8) Drill to 900', survey (3°00'), continue drilling to 1056'. Pump #2, 52 spm, 60 RPM, 25k WOB, 500 PP. Formation: Sltstn, to 935', dk gry, calcic, hrd, w/min SS, lt gry, vfn-md, cl qtz. Penetration rate 25'/hr, DG=2-8u, BG=0-3u, chrom @ 820'-835'=70%C1, 30%C2, no fluor., 850'-865'=43%C1, 11%C2, 15%C3, 17%IC4, 13%NC4, tr yel fluor in mud, no odor, 880'-905'=86%C1, 14%C2, tr fluor in mud & cuttings, brt yel, cuts to faint brt yel, mud=dull yel film w/sparse brt yel bubbles, no odor. All other=100%C1. Formation from 936'-1056': SS, md-lt gry, min grn, sl varig, vfn-md, qtz, calcic. Penetration rate 30'/hr, DG=5u, BG=1u, chrom from 945'-950'=89%C1, 3%C2, 6%C3, 3%NC4, tr IC4; from 951'-975'=97%C1, 3%C2; All other=100%C1. Fluor in mud & cuttings from 945'-970' fair-tr, brt yel, cuts to faint brt yel; Fluor from 1010'-1056' tr A/A. Penetration rate from 1003'-1056' 10'/hr due to decrease to 16k WOB, survey gas @ 1000'=4u.
 - 4/20/80 (9) Drill to 1106', survey (2°15'), drill to 1147', repair mud pump from 1000hrs-1600hrs, drill to 1185'. Pump #1, 52 spm, 60 RPM, 16/25k WOB, 500 PP. Carbide @ 1120', 86u, 38 vis, 11 min lag, 56 spm. Formation: SS, lt gry/grn, fn-vfn, ang sbang, qtz, calcic, frac/calcite, tr garnets & ultramafics, kaol, graded bedding. Penetration rate 12'/hr, DG=2-5u, BG=3u, chrom=100%C1. Tr fluor in cuttings from 1105'-1150', brt yel, cuts to lt brt yel.

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- Date
- 4/21/80 (10) Drill to 1214', survey (2°15'), P.O.H., laydown bottom DC, change out hydrill rubber w/ H & H tools, nipple up B.O.P., change out upper & lower kelly cock to 2200hrs. Pressure test to 500 psi for 15min - OK. Make up B.H.A., R.I.H., repair flow line & elevators, ream from 682'-1154', "tight hole". NB#4 Smith F5. Pump #1, 52spm, 60 RPM, 25k WOB, 500 PP. Formation: SS, lt gry, grn, calcic, vfn-fn, sbang, qtz. Penetration rate 8'/hr, DG=2u, BG=0u, TG=7u, chrom=100%C1.
 - 4/22/80 (11) Ream from 1154'-1214', drill to 1292', circulate for possible DST from 1275'-1295', to tight, drill ahead to 1440'. Pump #1, 52 spm, 60 RPM, 25k WOB, 800 PP. Formation: Interbedded shale, SS, sltstn; Shale, dk gry, firm micro carb, micaceous; Sltstn, dk gry, sndy, micaceous & SS, gry, vfn-fn, ang-sbang, qtz, feld, mica, volc frags. Penetration rate; SS=15'-20'/hr, sltstn & shale=30'-45'/hr, DG=2-4u, BG=1-2u, chrom from 1275'-1295'=22%C1, 14%C2, 19%C3, 29%IC4, 16%NC4 tr fluor in cuttings, brt yel, cuts to lt brt yel, chrom all other=100%C1.
 - 4/23/80 (12) Drill to 1447', survey (1°30'), drill to 1634', survey (1°30'), drill to 1683'. Pump #1, 52spm, 60 RPM, 28k WOB, 800 PP. Formation: Interbedded SS & Sltstn; SS, lt gry, vfn-fn, cl, sbang qtz, min feld, mica; Sltstn, dk gry, hrd, calcic w/min vfn, qtz. Penetration rate 12'-15'/hr, DG=2-5u, BG=1u, chrom=100%C1, carb @ 1600', 84u, 38 vis, 19 min lag, 65 spm.
 - 4/24/80 (13) Drill to 1787', survey (1°30'), P.O.H. @ 1030hrs, NB#5 Smith F3, R.I.H. to 1500hrs, drill to 1887'. Pump #1, 54spm, 60 RPM, 28k WOB, 1300 PP. Formation: SS, lt gry-grn, hrd, calcic, chl, vfn-fn, ang-sbang, qtz, feld, micaceous. Penetration rate 10'-15'/hr, DG=2-7u, BG=1-3u, TG=2u, tr fluor in TG, chrom @ TG=82%C1, 18%C2, all other 100%C1.
 - 4/25/80 (14) Drill to 2068', survey (1°30'), drill to 2093', Pump #1, 54 spm, 60 RPM, 28k WOB, 1300 PP. Formation: Interbedded SS & Sltstn; SS, lt-md, gry, vfn-fn, sl calcic, micaceous, hrd, cl & wht qtz, kaol, w/ Sltstn, gry, friable, firm-hrd, micaceous, shaley. Penetration rate; SS=10'/hr, sltstn 15'-20'/hr, DG=2-3u, BG=1-4u, chrom=100%C1, carb @ 2000', 130u, 38 vis, 18 min lag, 52 spm.
 - 4/26/80 (15) Drill to 2148', service rig from 0800hrs-0830hrs, test pipe rams, safety meeting, drill to 2282'. Pump #1 & 2, 54 spm, 60 RPM, 28k WOB, 1300 PP. Formation: SS, lt-md, gry, hrd, calcic, vfn-fn, ang-sbang, qtz, bi, feld, musc, chl, kaol w/min sltstn, thinly bedded, hrd, dk gry, fri, lamin micaceous. Penetration rate 10'-15'/hr, DG=1-2u, BG=1u, chrom=100%C1, carb @ 2200', 126u, 38vis, 21 min lag, 52 spm.

Date	Description
4/27/80 (16)	Drill to 2408', survey (1°00'), drill to 2482'. Pump #1, 54 spm, 60 RPM, 28k WOB, 1500 PP. Attached flowmeter to pitcher nipple. Formation: Interbedded SS & sltstn; SS, wht-lt gry/grn, fn, ang friable, hrd, cl-wht, qtz, feld, bi, musc, kaol, tr gneissic rk frags. Sltstn, dk gry, firm, blk, sl calcic, mica-ceous, tr lign. Penetration rate 9-10'/hr, DG=2-3u, BG=1u, chrom=100%Cl, carb @ 2430', 96u, 39 vis, 24 min lag, 48 spm.
4/28/80 (17)	Drill to 2544', service rig from 0800hrs-0830hrs, drill to 2697'. Pump #1, 54 spm, 60/80 RPM, 28k WOB, 1600 PP. Formation: SS, lt-md gry, fn-md, sbang-ang, wht-cl qtz, feld, bi min musc, kaol, chl, calcite stls, tr gypsum, cht, w/min sltstn, lt-md, gry, hrd, thinly lamin, mica, calcic. Penetration rate 10-15'/hr, DG=2-6u, BG=2u, chrom @ 2508'-2511'=86%Cl, 14%Cl, tr fluor in cuttings, brt yel, cuts to weak yel; chrom @ 2531'-2536'=86%Cl, 14%Cl, no fluor; chrom @ 2612'-2617'=82%Cl, 18%Cl, tr fluor A/A; chrom @ 2630'-2635'=91%Cl, 9%Cl & 75%Cl, 25%Cl, tr fluor in cuttings, dull yel, cuts to wk yel; chrom @ 2660'-2690'=81%Cl, 14%Cl, 5%Cl, tr C4, no fluor, all other 100%Cl.
4/29/80 (18)	Drill to 2746', survey-no take, P.O.H. @ 0500hrs, NB#6 HTC J44, R.I.H. to 1045hrs, drill to 2845'. Pump #1, 54 spm, 60/80 RPM, 28k WOB, 1600 PP. Formation: SS, lt gry-md grn, varig, vfn-fn, ang-sbang, fri-fm, calcic w/calcite xls, qtz, feld, volc frags, chl & min sltstn, md-dk gry, firm, blk, thn bedded. Penetration rate 6-15'/hr, DG=2-5u, BG=0-1u, chrom @ 2769'-2774'= 86%Cl, 14%Cl; all other 100%Cl, no fluor. TG=nil, carb @ 2775', 130u, 39 vis, 27 min lag, 45 spm.
4/30/80 (19)	Drill to 0200hrs, repair rig, air comp & pump to 0500hrs, drill to 2905', survey (1°00'), drill to 3003'. Pump #1, 52 spm, 60 RPM, 28k WOB, 1500 PP. Formation: SS, vfn-md, cl-wht, sbang-ang, qtz mica, kaol, varig volc, w/sltstn, dk gry, calcic, hrd, micaceous. Penetration rate 6-30'/hr, DG=2-10u, BG=2-6u, chrom=100%Cl. Carb @ 2960', 152u, 37 vis, 29 min lag, 51 spm.
5/1/80 (20)	Drill to 0800hrs, service rig to 0830hrs, drill to 3171'. Pump #2, 52 spm, 70 RPM, 28k WOB, 1500 PP. Formation: SS, vfn-md md, cl-wht, sbang-ang, qtz, mica, kaol, varig volc, tr pyr, epidote. Penetration rate 5-30'/hr, DG=2-7u, BG=2u, chrom @ 3003'-3006'=73%Cl, 10%Cl, 13%Cl, 3%Cl, 3%Cl, tr fluor in cuttings, lt grn-yel, weak slow yel cut; chrom @ 3020'-3023' & chrom @ 3030'-3035' A/A, all other 100%Cl.
5/2/80 (21)	Drill to 3221', service rig from 0800hrs-0830hrs, drill to 3310'. Pump #1, 52 spm, 70/80 RPM, 28k WOB, 1500 PP. Formation: SS, lt gry/grn, fn, sbang, cl-wht, qtz, feld, mica, chl, calcite w/min sltstn, dk gry, hrd, sl calc. Penetration rate 5-15'/hr, 3198'-3208'=30-45'/hr, DG=2-10u, BG=1-2u, chrom=100%Cl, carb @ 3245', 156u, 37 vis, 49 min lag, 40 spm.

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Date	Description
5/3/80 (22)	Drill to 3370', survey (1°00'), P.O.H., NB#7 Smith F3, R.I.H., slip drg line, service rig to 1600hrs, drill to 3437'. Pump # 2, 52 spm, 70 RPM, 28k WOB, 1500 PP. Formation: SS, vfn-md, sbang, cl qtz, calcite, chl, micromica, garnets, varig volc w/sltstn, dk gry, hrd. Penetration rate 5-20'/hr, DG=1-3u, BG=0-1u, chrom @ 3380'-3395'=35%Cl, 21%Cl, 30%Cl, 14%Cl, tr fluor in cuttings, lt grn/yel, cuts to strong brt blue (probable pipe dope & diesel cont.). All other chrom=100%Cl. TG=nil.
5/4/80 (23)	Drill to 3499', service rig from 0830-0900hrs, drill to 3587', survey (0°30'), drill to 3618'. Pump #1, 54 spm, 70 RPM, 28k WOB, 1500 PP. Formation: SS, lt-md gry/grn, fn-md, sbang, cl qtz, varig volc, feld, mica, kaol, chl, calcite xls, w/min sltstn, dk gry, hrd. Penetration rate 6-10'/hr, DG=2-5u, BG=0-2u, chrom @ 3455'-3464'=31%Cl, 1%Cl, 13%Cl, 20%Cl, 34%Cl, tr fluor in cuttings from 3510'-3550', dull-brt yel, cuts weak-strong faint yel. Chrom @ all other=100%Cl. Carb @ 3570', 63u, 40 vis, 55 min lag, 51 spm.
5/5/80 (24)	Drill to 3684', service rig from 0800-0830hrs, drill to 3793'. Pump #1, 52 spm, 70 RPM, 28k WOB, 1500 PP. Formation: SS, lt gry/grn, calcic, hrd, vfn-md, ang-sbang, cl qtz, mica, min varig volc, w/sltstn, dk gry, calcic, hrd. Penetration rate 5-10'/hr, DG=2-5u, BG=0-1u, chrom=100%Cl, tr fluor from 3700'-3710', brt yel, cuts to faint yel. Change mud companys from Baroid to Northern Mud-Jim Jones, engineer.
5/6/80 (25)	Drill to 3855', service rig from 0800-0830hrs, drill to 3930', survey (1°30'), drill to 3958'. Pump #1, 52 spm, 70 RPM, 28k WOB, 1500 PP. Formation: SS, lt gry, calcic, hrd, vfn-md, sbang-sbrd, cl qtz, feld, min mica, tr garnet, chl, w/sltstn, dk gry/brwn, hrd, calcic. Penetration rate 5-10'/hr, DG=1-3u, BG=0-1u, chrom=100%Cl.
5/7/80 (26)	Drill to 4043', service rig from 0800-0830hrs, drill to 4083'. Pump #1, 52 spm, 70 RPM, 28k WOB, 1500PP. Formation: SS, lt gry, hrd, calcic, sl varig, vfn-fn, sbang, qtz, feld, min mica, chl w/sltstn, dk brwn/blk, hrd carb. Penetration rate 8'/hr, DG=2-3u, BG=1u, chrom=100%Cl, carb @ 4020', 120u, 37 vis, 59 min lag, 40 spm.
5/8/80 (27)	Drill to 4246'. Pump #2, 52 spm, 70/80 RPM, 28k WOB, 1500 PP. Formation: SS, lt-md, gry, hrd, calcic, vfn-md, ang-sbang, wht-cl qtz, felds, varig volc, min mica, chl, kaol w/sltstn, dk gry/blk, carb lamm, hrd. Penetration rate 6-10'/hr, DG=2-5u, BG=1u, chrom=100%Cl.
5/9/80 (28)	Drill to 4305', survey (1°00'), P.O.H., NB#8 Smith F2, R.I.H., Rig shut down @ 1100hrs, strike. One DC in hole, hole full fo mud, no hole problems. Pump #2, 52 spm, 70 RPM, 28k WOB, 1500 PP. Formation: SS, lt-md gry, sl grn, vfn-fn, sbang, sl calcic, qtz, chl, kaol, mica. Penetration rate 3-15'/hr, DG=1-3u, BG=1u, chrom=100%Cl.

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Date	Description
5/10/80 (28)	Rig shut down due to strike. Work on pumps.
5/11/80 (29)	Repair rig to 1130hrs, R.I.H. to 1430hrs, ream to 1700hrs (tight hole from 4278-4305), drill to 4324'. Pump #1, 52 spm, 70/80 RPM, 28k WOB, 1500 PP. Formation: SS, lt-md gry, vfn-fn, ang-sbang, p srt, qtz, feld, sl calcic, chl clay. Penetration rate 4-9'/hr, DG=1-2u, BG=0u, chrom=100%Cl, TG=2u.
5/12/80 (30)	Drill to 4417'. Pump #1, 52 spm, 60/70 RPM, 28k WOB, 1500 PP. Formation: SS, lt-md gry, vfn-fn, ang-sbang, qtz, feld, varig volc, micaceous laminae, vhr torque, .5-.75 cm ang chips. Penetration rate 4-8'/hr, DG=1-2u, BG=0u, chrom=100%Cl.
5/13/80 (31)	Drill to 4444', service rig from 0830-0900hrs, drill to 4532'. Pump #2, 52 spm, 60/70 RPM, 28k WOB, 1500 PP. Formation: SS, lt-md gry, vhrd, sl calcic, vfn-fn, sbang, cl qtz, varig volc, mica, kaol, w/sltstn, dk gry-blk, hrd, md porosity. Penetration rate 3-10'/hr, DG=2-4u, BG=1u, chrom=100%Cl, carb @ 4465', 41u, 38vis, 61 min lag, 38 spm.
5/14/80 (32)	Drill to 4565', service rig from 0800-0830hrs, drill to 4688'. Pump #2, 52spm, 60/80 RPM, 28k WOB, 1500 PP. Formation: SS, md-lt gry/grn, sl varig volc, cl-wht, qtz, feld, bi chl, kaol, sl calcic, zeolite (stilbite?) w/sltstn-shale, dk gry-blk, hrd. Penetration rate 5-15'/hr, DG=2-3u, BG=1u, chrom=100%Cl, CG @ 4555'=2u, NO3=195ppm.
5/15/80 (33)	Drill to 4730', survey (0°30'), service rig, drill to 4838'. Pump #2, 52 spm, 70/80 RPM, 28k WOB, 1500 PP. Formation: SS, lt gry/grn, v hrd, fn, sbang-ang, pr-md srt, varig volc, cl-wht qtz, feld, bi, chl, kaol, calcic, w/sltstn, dk gry, hrd, sl iron stain. Penetration rate 6-14'/hr, DG=2-4u, BG=1u, chrom=100%Cl, tr fluor in cuttings @ 4760'-4780', dull yel, cuts to dull yel/blue, prob cont w/ diesel. carb @ 4830', 36u, 39 vis, 66 min lag, 45 spm, NO3=195 ppm.
5/16/80 (34)	Drill to 4883', P.O.H., service rig, NB# 9 Smith F3, R.I.H., drill to 4898'. Pump #2, 52 spm, 60/70 RPM, 28k WOB, 1500 PP. Formation: SS, lt-md gry, vfn-fn, ang-sbang, fm-hrd, p srt, md por, calcic, qtz, feld, lithic carb flks, clay wht-grn, oxidize to red, ferric-ferrous. Penetration rate 2-8'/hr, DG=1-3u, BG=0-1u, TG=2u, chrom=100%Cl, NO3 205 ppm.

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Date	Description
5/17/80 (35)	Drill to 4956', service rig from 0800-0830hrs, drill to 5076'. Pump #2, 52 spm, 60/70 RPM, 28k WOB, 1500 PP. Formation: SS, md-lt gry, hrd, calcic, chl, vfn-md, sbang, qtz, feld, kaol, mica, min varig volc, tr garnets w/sltstn, md gry, hrd, Penetration rate 6-13'/hr, DG=2-6u, BG=1-2u, chrom=100%Cl, carb @ 4980', 75u, 37 vis, 68 min lag, 40 spm, NO3=202 ppm.
5/18/80 (36)	Drill to 5121', service rig to 0800-0830hrs, drill to 5197', repair compound chain 2100-2400hrs. Pump #2, 52 spm, 60/80 RPM, 28k WOB, 1500 PP. Formation: SS, md gry, hrd, vfn-md, pr srt, md por, cl-wht qtz, kaol, mica, min feld, varig volc w/sltstn, dk gry, hrd. .5-1.5 cm chips. Penetration rate 6-8'/hr, DG=2-4u, BG=1u, chrom=100%Cl, NO3=195ppm.
5/19/80 (37)	Repair rig to 0230hrs, drill to 0600hrs, work on pumps to 0800hrs, suck mud from sump to pits, drill to 5260', P.O.H. from 2000-2400hrs. Pump #2, 52 spm, 60/70 RPM, 28k WOB, 1500 PP. Formation: SS, hrd, md gry, vfn-md, tr crs, sbang-sbrd, pr srt/md por, calcic, chl, cl qtz, tr varig volc, kaol, mica-ceous, w/sltstn, shaley dk gry-blk, hrd. Penetration rate 5-20'/hr, DG=1-6u, BG=1-2u, chrom=100%Cl, NO3=195ppm.
5/20/80 (38)	P.O.H. to 0800, left DC2, bit sub. & bit in hole, service rig & slip drill line to 0900hrs, wait on fishing tools to 2130 hrs, make up fish tools to 2230 hrs, R.I.H.
5/21/80 (38)	Fish to 0200hrs, chain out of hole to 0800hrs, break out fishing tools, service rig, ck BOE, ck bit, magna flux collars, R.I.H.
5/22/80 (39)	R.I.H. to 0300hrs, drill to 5267', P.O.H. from 0930-1430hrs, left 2 1/2 sds pipe, 5 DC's, bit sub & bit in hole, fill hole w/mud, wait for fishing tools. Pump #2, 52 spm, 70/80 RPM, 28k WOB, 1500PP. Formation: SS, md-lt gry, hrd, vfn-md, qtz, mica, kaol, lign. Penetration rate 3-6'/hr, DG=4-5u, BG=1u, chrom=100%Cl, NO3=30ppm, TG=15u, NB#10 Smith F-3.
5/23/80	Make up fishing tool, R.I.H., get fish, P.O.H.
5/24/80 (40)	P.O.H., lay down drill pipe, collars, change bit NB#11 Smith F3, R.I.H., drill to 5267', work on pumps.
5/25/80	Work on pumps, pull to shoe, lay down 12 jts thin pipe, work on pumps.
5/26/80 (41)	Work on pumps to 0200hrs, R.I.H., drill to 5288', work on pumps, drill to 5383'. Pump #1, 52 spm, 60/70 RPM, 28k WOB, 1500 PP. Formation: SS, md-lt gry, vfn-md, calcic, chl, sbrd-sbang, cl qtz, feld, chert, varig volc, garnets, lign stringers, kaol, mica, w/sltstn dk gry-buff, fracture filled zeolites. Penetration rate 4-20'/hr, DG=1-8u, BG=0-1u, TG=18u, chrom=100%Cl, Carb @ 5320' 25u, 39 vis, 70 min lag, 52 spm, NO3=75ppm.

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Date	Description
5/27/80 (42)	Drill to 5435', service rig from 0800-0830hrs, drill to 5526'. Pump #1&2, 52 spm, 60/70 RPM, 35/40k WOB, 1500 PP. Formation: SS, md-lt gry/grn, hrd, vfn-fn, sl calcic, chl, cl qtz, feld, mica & micaceous lamina, kaol, min varig volc, w/sltstn-shale, buff-dk gry/blk, hrd, micro fossils (prob shell frags), micaceous. Torque from 5455'-5477' prob from fractures. Penetration rate 3-20'/hr, DG=1-4u, BG=0-1u, chrom=100%Cl, Tr fluor @ 5450-5460' in cuttings, md yel, cuts to dull yel. NO3=115ppm, S=320.
5/28/80 (43)	Drill to 5562', twist off @ 0600hrs, P.O.H., W.O. fish tool, service rig, @ 2030hrs load out & make up fish tool, R.I.H.
5/29/80	R.I.H., tag fish @ 5443', circ & cond mud, P.O.H., run Schlumberger Logs: DIL, Sonic, Dipmeter, from surface casing to total depth, CNL-FDC-GR- caliper from surface to total depth, side wall samples from casing to total depth at selected depths.
5/30/80	Run Schlumberger logs, lay down collars, CEMENT PLUG @ 732'.
5/31/80	TAG PLUG @ 0300-0400hrs, TEAR OUT RIG.

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WESTERN GEO-ENGINEERS

GEOLOGISTS

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