

CARBON ENERGY INTERNATIONAL

COOS COUNTY FOREST 7-1 WELL

DAILY ACTIVITY REPORT

09/14/93 Building location. Location expected to be completed 09/15/93. Pool Rig 971 currently in transit. Final title opinion to be completed by 09/17/93. Expect to spud 09/22/93.

09/15/93 Location completed. Anchors to be installed today. Pool equipment beginning to arrive in yard. Remainder of rig in transit.

09/16/93 Location complete. Waiting on rig. Pool Rig 971 substructure and main rig structure expected to leave Farmington on 09/17/93. Pool Company anticipates rig arrival on 09/22/93. Expect to rig up and spud in by 09/26/93.

09/17/93 Location complete. Expect to spud in by 09/26/93.

09/18/93 Location complete. Waiting for rig and expect to spud in by 09/26/93.

09/19/93 Location complete. Waiting for rig and expect to spud in by 09/26/93.

09/20/93 Location complete. Waiting for rig and expect to spud in by 09/26/93.

09/21/93 Rig to arrive today. Expect to spud in by 09/26/93.

09/22/93 Crews and rig arrived. Will begin rigging up when substructure and derrick arrive on 09/23/93.

09/23/93 Rig and crew on location. substructure arrived - derrick to arrive on September 24, 1993.

09/24/93 9 5/8" casing and 7" casing and tubing arrived in Coos Bay.

09/25/93 Remaining Pool drilling crews arrived.

09/26/93 All remaining equipment expected to arrive 09/27/93. Expect to spud on 09/27/93 pm or 09/28/93 am.

09/27/93 Substructure temporarily detained at Oregon port of entry. Expect to spud when substructure arrives.

09/28/93 Substructure temporarily detained at Oregon port of entry. Expect to spud when substructure arrives.

09/29/93 Substructure in transit - expect arrival on 10/01/93.

09/30/93 Substructure on location - expect to rig up on 10/01/93 am.

10/01/93 Spud in at 5am.

10/02/93 Continued drilling to set surface casing.

10/03/93 Set surface casing and cemented.

10/04/93 Drilling at 500' at a rate of 30' per hour with a survey of 3 degrees.

10/05/93 Trip pipe out and assemble new bottom hole. Drilling at a depth of 802' with a survey of 4 degrees at 6am.

10/06/93 Drilling at a depth of 1147' at 6am with a survey of 4.5 degrees at 1081'.

10/07/93 Tripping pipe to change bottom hole assembly. Drilling at a depth of 1554' at 6am with a survey of 5.5 degrees at 1141; and a survey of 6 degrees at 1530'.

10/08/93 Drilling at a depth of 1935' at 6am with a survey of 6 degrees at 1530'.

10/09/93 Drilling at a depth of 2321' at 6am with a survey of 6.5 degrees at 1839'.

10/10/93 Drilling at a depth of 2563' at 6am with a survey of 7.5 degrees at 2553'.

10/11/93 Drilling at a depth of 2935' at 6am. 372' progress in 24 hours.

Depth	Survey
2553	7.50
2644	6.75
2739	7.00
2895	8.00

10/12/93 Drilling at a depth of 3091' at 6am. Due to tripping for a bit, the 24 hour footage was only 156'.

<u>Depth</u>	<u>Survey</u>
2985	7.00
3048	7.25

10/13/93 Drilling at a depth of 3504' at 6am. The 24 hour footage was 413'.

<u>Depth</u>	<u>Survey</u>
3171	7.50
3453	8.00

10/14/93 From 6:00 am to 10:30 pm drilling to 3804' and TD; circulated for sample until 1:00 am. From 1:00 to 5:30 am - short tripped 35 stds to prepare to run logs. From 5:30 to 5:45 am - reamed 65' to bottom. From 5:45 to 6:30 am began circulating hole to prepare for logging. From 6:30 to 7:00 am - surveyed at 9.75 degrees. 7:00 am to 1:00 pm - TOH (chain out) and began logging at 1:00 pm.

10/20/93 7 to 10 am - 6' to 8' flare; 10am to 2pm - CO to bottom from 2803' to 3930'; 2 to 3 pm - drilling from 3961 to 3977; 3 to 3:45 pm - drilling 3977' to TD 3991'; 3:45 to 6:15 pm - work the hole and pulled 8 DP; 6:15 to 9:45 pm - unload hole to add 1 DP bridge at 3772' to 3792'; 9:45 to 10:15 pm - test hole at 3803', 3' to 6' flare; 11 pm to 1:45 am - CO to 3898' with 1200 cfm/air; 2:15 to 5 am - TOH to unplug bit; 5 to 7 am - TIH with DP.

10/21/93 7 to 11:45 am - CO 3772' to 3993', coal bridges @ 3840' to 3846', 3930' to 3935', 3848' to 3856', 3967' to 3973', and 3986' to 3993'. 11:45 am to 1:15 pm - pull 8 jts dp to 7" casing, 8' to 14' flare. 1:15 to 3:30 pm pressure up on formation to 500# in hole 2 hours. 3:30 to 4 pm - blow well to pit. 4 to 10 pm - TIH with 5 jts dp, CO with 750 cfm/air and 4 bwm, 3722' to 3994' heavy coal returns. 4 to 10 pm - unload hole with air. 11pm to 2:15 am - work tight hole. 2:15 to 7 am - CO with 1200 cfm/air and 3 to 5 bwm, tremendously heavy coal returns.

10/22/93 7 - 8:45 am CO from 3783 to 3803 with 750 cfm air plus 3 to 5 bwm. 8:45 am - 3 pm CO from 3803 to 3835 with 750 cfm air plus 6 bwm. 3 - 9:45 pm drill new hole from 3835 to 3993. 9:45 - 11 pm CO and clean hole. 11 pm - 4 am CO to bottom with 750 cfm air plus 3 bwm. 4 - 4:30 am TOH to 3756. 4:30 - 5:30 break CO at shoe, unload hole with 750 cfm. 5:30 - 6 am change out stripping rubber. 6 - 7 am CO 3741 to 3772. NOTE - Continuous gas flares while TOH.

10/23/93 7 - 8:30 am CO from 3772 to 3803 with 2400 cfm air. 8:30 am - 4:30 pm CO 3803 to TD, vridges at 3808, 3814, 3818, 3825, 3855, 3930, and 3883. 4:30 - 5 pm TOH 8 jts to shoe. 5 - 9 pm Test Well - RESULTS: @5 pm 180 mcf/d, @ 5:15 pm 217 mcf/d, @5:30 pm 100 mcf/d. open well to flare 6' to 10'. 9 - 9:30 pm pressure up on well - surge well 1000 psi. 9:30 - 11 pm CO from shoe to TD. 11 pm - 7 am CO from 3803 to 3993 with 2400 cfm with mist pump, bridge at 3803, tight spot at 3888 to 3898 and 3946 to 3951. Tag fill at 3984.

10/24/93 7 - 7:30 am CO 2400 cfm w/ mist on bottom. 7:30 to 9 am unload well with 2400 cfm. 9 - 9:30 am TOH lay 9 jts. 9:30 - 10:30 Test: Not enough to gauge. 10:30 am - 3 pm surge well with 2400 cfm, 3 surges at 1250 psi, 3-4 pm break CO bridge at 3768 to 3772. 4 - 11 pm CO 3798 to 3807, 3825 to 3835 with 2400 cfm with mist pump. 11 pm - 3 am CO 3835 to 3993 bridges at 3888 to 3941, fill 3961 to 3976. 3 - 7 am CO 3981 to 3993 with 2400 cfm and mist to unload hole.

10/25/93 7 - 7:45 am CO at 3993. 7:45 - 8:15 am blow well with 2400 cfm. 8:15 - 8:45 am TOH to test. 8:45 - 10 am Test Well - RESULTS: Built 75# on 1/8" orifice, @ 9:15 am 434 mcf/d, @ 9:30 am 110 mcf/d, @ 10 am 65 mcf/d. 10 - 10:30 am TIH tag 3981. 10:30 - 11:15 am blow well with 2400 cfm. 11:15 am - 2 pm TOH to test and lay 9 jts. 2 - 3:30 pm surge well with 2400 cfm to 1250#. 3:30 - 5 pm Test Well - RESULTS: 150 mcf/d, 5 - 5:45 pm rig repairs. 5:45 - 7:30 pm surge well. 7:30 - 8:45 pm Test Well RESULTS: 150 mcf/d. 8:45 - 9:15 break CO tag 3782. 9:15 - 11 pm CO 3782 to 3885. 11 pm - 5 am CO to bottom, produce heavy coal. 5 - 7 am CO on bottom with 2400 cfm to unload hole.

10/26/93 Blow well with 2400 CFM air to prepare for test. Trip 8 jts out of hole. Run natural surge tests to 3 pm: Shut-in test pressures on surges:

First Surge - 49 PSI
Second Surge - 43 PSI
Third Surge - 110 PSI

Trip back into hole and tag fill at 3866' (approx. 127' off TD), clean hole from 3861' - 3898' ("D" & "E" coals) with 1200 CFM air and 2 - 3 BPM water. Clean out from 3898' to 3961' ("F" coal) with 2400 CFM air. Trip out of hole to 3756' and trip back in. Tagged fill at 3792' (approx. 200' off TD). Well continues to cavitate and slough. Attempting to stabilize well bore conditions before installing 4 1/2" liner.

10/27/93 Clean out from 3772' - 3961' (interval from "D" & "E" coals through upper portion of "F" coal - approx. 35' of coal in wellbore). Clean with 6 BPM water. Clean out 3961' - TD (3993') with difficulty - tight. Pull back to casing shoe. Trip in hole with 2400 CFM air and clean to within 30' of TD. Hole stable. Run pitot test: 3 ozs at start to 0 ozs after 1 hour and 30 minutes. Shut-in casing. Build 95 psi after 1 hour and 50 minutes. Blow down pressure; wait on flare to die. Trip back in hole to clean and tag fill. Wash down to 3873', lost returns. Pressure up drill pipe. Trip out to check bit and drill pipe.

Gas Analyses: Taken from samples CCF #12 and CCF #16 currently being analyzed for desorption.

	Sample CCF#16 coal @ 3158-61' %	Sample CCF#12 coal 3788-99 "E" coal %	Sample CCF #12 "E" coal %
Nitrogen	6.44*	2.14	0.65
Methane	93.35	97.65	99.10
CO ₂	0.00	0.03	0.04
Ethane	0.20	0.17	0.20
Propane	0.01	0.01	0.01

* Air contamination likely.

10/28/93 6 am to 12 pm TOH for plugged bit. 12 to 2:15 pm CO with 6 BPM water from 3741' to 3803'. No formation returns. 2:15 to 3 pm Pull 2 jts blew hole dry, 2400 CFM air and 20 B/H mist. 3 pm to 6 am 3800' to 3908' CO with air and mist. Heavy returns on drilling mud. Currently CO at 3908'.

10/29/93 Clean out hole from 3866 to 3930' with 2400 cubic feet per minute air and 20 Bbl per hour mist. Bridges at 3867-3870', 3880', 3893', 3898-3908' (all sand). Clean out from 3908 to 3930'; lost hole; pull out of hole to 7" casing at 3709'. Lost 1 compressor (#2). Flow well while waiting on repairs with continuous 6-12' flare. Trip back into hole and tag fill at 3804'. Clean from 3804-3835' with 1200 cfm air, 20 bph water and soap mist. Continue to clean from 3835-3930'. Observe small (1') flare while cleaning with 1200 cfm air-mist. Currently working in 3930-3961'. Heavy sand and coal returns.

10/30/93 Clean out hole from 3930 to 3993' with 1200 cfm air and 20 Bbl per hour soap mist. Blow well from 3993' with 1200 cfm as above. Prepare to pull up into casing to simulate run for liner and evaluate wellbore stability. Run Pitot Test 108 mcf/d - died to 0 after 10 minutes. Trip back into hole to check for bridges/fill. First bridge at 3813' just below "D" & "E" coal zones.

11/01/93 815 am - 3 pm Lay down drilling pipe. 3 pm - 3:45 pm Change pipe rims. 3:45 - 6:30 pm Pick up 2 3/8" tubing. 6:30 - 7:15 Circulate the hole. 7:15 - 8:45 pm TOH for logs. 8:45 - 11 pm Rig up loggers, run corallation logs. 11 pm - 6 am Waiting on perforation guns to arrive.

11/02/93 TOH after setting liner. Lay down drill pipe, drill collars, and swivel pick up 2 3/8" tubing and TIH. Tag bottom with no fill. Fill well with 1000' water. TOH tubing. Rig up Schlumberger for perforating 4 1/2" casing. Run collar finder log with neutron-density. 6 - 7 am Waiting on perforation gun. 7 - 9:30 Ran 16' perforation gun with 3 3/8" collar locator. Gun blocked at 3812'. 9:30 - 3 pm Went in hole to circulate with 2 7/8" tubing with 3 3/8" outside diameter tubing collar attached to bottom of tubing. No bridges found. 3 - 5 pm Ran 16' perforating gun on second attempt, still blocked at 3812'. 5 pm - 6 am Ordered flexible strip perforating gun and waited for arrival. Flexible perforating gun arrived at 6:30 am on 11/03/93. Currently loading gun.

11/03/93 6:00 to 6:30 am waited on gun. 6:30 to 7:00 am rig up to Schlumberger. 7:00 am to 5:15 pm loaded guns and perforated from 3762' to 3796' and 3956' to 3974' at 6 shots per foot. 5:15 to 6:15 pm TIH with 2 3/8" tubing. 6:15 to 10:00 pm unloaded hole and blew well dry to 3841'. 10:00 to 10:15 pm Test: No returns. 10:15 to 10:30 pm landed tubing at 3841' (ground level). 10:30 pm to 6:00 am rig down to move.

11/04/93 6 am to 2:30 pm rigging down and moving pool drilling rig. 2:30 to 4 pm rigging up MI air compressors. Ran echometer - fluid level at 3000'. 4 to 5 pm start circulating with air. 5 to 6 pm shut in for pressure build up:

5:00	0 psi casing pressure
5:15	5 psi casing pressure
5:30	5 psi casing pressure
5:45	5 psi casing pressure

6 pm released pressure through 2" line - no gas shows, no returns. 6:05 to 7 pm circulate with air. 6:45 to 7 pm ran echometer - fluid level at 3850'. 7 to 7:30 pm build pressure to 505psi. 7:30 to 7:45 pm shut in to measure bleed off. No bleed off. 7:45 to 8 pm released pressure. 2 - 3 Bbls water - no gas shows. 8 to 8:30 pm circulate air - no returns. 8:30 to 9:20 pm build pressure to 1200 psi. 9:20 to 9:45 pm release pressure - no returns. 9:45 to 10 pm circulate air. 5 - 10 Bbls water - no shows. Shut down for evening.

11/05/93 9 am 26 psi casing pressure. 10:50 begin cir air with MI compressors. 11 am returns - 5 Bbls water per hour. 11 to 11:30 am heavy to moderate mist with some coal fines. 11:30 am to 1 pm moderate to light mist. 1 to 2 pm cut air - slight blow, no gas. 2 to 5:30 pm blow well with 1200 cfm. 2.5 Bbls fluid in 10 minutes followed by heavy mist. NOTE: slight show of gas. 1' flare for apx 5 seconds. 5:30 to 6 pm moderate mist.

11/06/93 6 pm to 3 am moderate mist. 3 to 6 am light mist. 6 to 7 am 1.5' flare. 8 to 10:15 am intermittent flare to 3'. 10:15 am begin cir air. Blow gas for apx 2 minutes before air concentration extinguished flare. 10:25 am returns - no water, clear air. 10:30 am begin slight mist. 10:35 am moderate mist. 10:35 am to 6 pm blow well with 1200 cfm air with light to moderate mist.

11/07/93 6 to 6:30 pm cut air, release MI. 6:30 to present gas flare with natural flow 1 to 4 foot flare.

11/08/93 Continued to flow naturally with a 1 to 4 foot flare with surges from 8 to 10 feet.

11/09/93 Continued to flow naturally with a 1 to 4 foot flare with surges from 8 to 10 feet.

11/10/93 Continued to flow naturally with a 1 to 4 foot flare with surges from 8 to 10 feet. 11 am to 3 pm several echometer attempts were made. Echometer battery defective, however apx fluid level is at 3000'. Battert to be replaced and additional echometer run to occur on 11/11/93.

11/11/93 Battery delayed - echometer test to be run the morning of 11/12/93.

11/12/93 SICP at 140 lb.

11/13/93 SICP at 180 lb at 8 am and at 195lb at 2 pm. Open casing and blw for 15 minutes and shut in casing at 5:45 pm.

11/14/93 SICP at 50 lb at 8:30 am and 60 lb at 1:30 pm. Run echometer.

11/15/93 Orifice Test:

1/8" plate
Tubing pressure at 7 lbs through tests
Casing pressure: 14 lbs

11 lbs
9 lbs
7 lbs
6 lbs

11/16/93 Shut in casing pressure at 2 and tubing at 0.

11/17/93 Shut in casing pressure at 2 lbs and tubing pressure at 0.

11/19/93 Pumping unit arrived on location.

12/07/93 Casing pressure 250 lbs, tubing pressure 200 lbs. Move in Taylor rig. Blow well down. Rig-up Taylor. Order Menasha water truck. Open well head. Attempt to circulate well. No returns. Ordered additional water. Borrow 5 jts 2 3/8" tubing from WNS Menasha 32-1. Run in tubing to TD. No fill. No returns. Gas flare 3 - 4 feet during pumping in attempt to ge eturns. Total 15,000 gallons (apx 360 Bbls) pumped into well (actually on siphon). Wellbore capacity 151 Bbls. Pull 1 jt of 2 3/8" tubing and land at 3972'. Attempt to circulate - no returns. Shut down at 5 pm.

12/08/93 Attempt pressure readings, well on vacuum. Begin running rods and pump. 11 am rig down due to high winds. Rig up boom truck. Resume running rods. 130 rods. Stroke well at 3 pm. Taylor boom truck attempt to lift pumping unit. Too heavy. Arrang for Pool pole truck tomorrow 8 am. Stroke well 100 times with no water to surfae. No gas. Sut down at 5 pm.

12/09/93 Rig up pumping unit efore move. Pool truck on location at 9 am. Set pumping unit on location pad at 10:30 am. Space rods and level unit. Cut cable to length. Commence pumping at 4:20 pm, 12 strokes per minute, 72" stroke. Water to surface at 5 pm. Water rate to 5 gal/min (7 Bbls per hour). Check unit at 10 pm. Water rate at 5 gal/min. No gas.

12/10/93 Unit down due to rain and wind. 9:40 am resume pumping. Estimated approximately 50 Bbls produced to date. Pmpin at 11 SPM. Water rate at 4 gal/min (6 Bbls per hour). No gas.

12/11/92 Pumping water rate at 5 Bbls per hour. No gas. Estimate 140 bls to 10 am. Additional 40 Bbls to 5 pm. No gas.

12/12/93 Pumping water rate at 5 Bbls per hour. Gas to surface 3 to 5 foot flare. Water clear to slightly cloudy. Pump rate 8 SPM. Total water production to date is 307 Bbls.

12/13/93 Pumping water rate at .8 Bbls per hour. Gas to surface 3 to 5 foot flare. Water is cloudy to gray. Pumping rate at 8 SPM. Total water production to date is 327 Bbls. Echometer testing run.

12/14/93 Shut unit down at 7:15 am. Pump quit on the upstroke due to being out of alignment and unlevel. Arrang for Pool Company truck to level and align unit. Resumed pumping at 2 pm with 8 spans per minute and 3.5 Bbls per hour. Gas to surface is 3 to 5 foot flare. Water is rat to dark gray. Total water production to date is 351 Bbls.

12/15/93 Pumping water at a rate of .24 Bbls per hour. Gas to surface is 3 to 5 foot flare. Water is cloudy to gray. Pumping rate is 8 SPM. Total water production to date is 356 Bbls. Echometer run twice a day.

12/16/93 Pumping water at a rate of .16 Bbls per hour. Gas to surface is 3 to 5 foot flare. Water is cloudy to gray. Pumping rate is 8 SPM. Total water production to date is 361 Bbls. Echometer run twice a day.

12/17/93 Pumping water at a rate of .26 Bbls per hour. Gas to surface is 3 to 5 foot flare. Water is cloudy to gray. Pumping rate is 8 SPM. Total water production to date is 367 Bbls. Echometer run twice a day.

12/18/93 Pumping water at a rate of .40 Bbbls per hour. Orifice test at 7 psi and 7.7 mcf per day. Water is cloudy to gray. Pumping rate is 8 SPM. Total water production to date is 377 Bbbls. Ran echometers.

12/19/93 Pumping water at a rate of .40 Bbbls per hour. Orifice test at 7 psi and 7.7 mcf per day. Water is cloudy to gray. Pumping rate is 8 strokes per minute. Total water production to date is 385 Bbbls. Ran echometer. Pump down due to down hole problems at 1:10 pm.

12/20/93 Unit down due to downhole problem. Orifice test at 7 am shows 6 psi and 7.06 mcf per day. Water production to date is 385 Bbbls. Echometer tests run. Waiting on Taylor Drilling.

12/21/93 Unit down due to downhole problem. Orifice test at 7 am shows 6 psi and 7.06 mcf per day. Water production to date is 385 Bbbls. Echometer tests run. Waiting on parts to repair pumping unit.

12/22/93 Unit down due to downhole problem. Orifice test at 7 am shows 6 psi and 7.06 mcf per day. Water production to date is 385 Bbbls. Echometer tests run. Waiting on parts to repair pumping unit.

12/23/93 Unit down due to downhole problem. Orifice test at 7 am shows 5 psi and 6.39 mcf per day. Water production to date is 385 Bbbls. Echometer tests run. Waiting on parts to repair pumping unit.

12/27/93 Taylor Drilling arrived on location at 12:30 pm. Rig up and pull rods at 2:30 pm. Pulled 6 rods. Couplings om and parted on 6th rod. Pulled 7 jts of tubing to retrieve rods. Finish pulling rods and pump. Pump worn. No coal fines. Small amount of oil-like substance atop pump. A total of 10 rods and couplings on top and 3 rods and couplings on bottom worn through and unuseable. SDON.

12/28/93 RU to pull 2 3/8" tubing. Lay down 1 jt of tubing with pack-off. Strap out of hole 3906.86' of 2 3/8" tubing. Bottom 420' shows water stain. Inspect BHA. Note 3" of iron filings on top of pump. 38" of wet coal fines and 11' of dried packed coal fines. TIH with tubing. RU to run rods and pump. NU wellhead. PU pump and TIH with rods. Fit rod guides on bottom 5 jts (2 each). SDON. Start spray irrigation from CCF 7-1 pit.

12/29/93 Continue to TIH with rods. Install 2 rod guides per rod on top 13 rods. Land tubing at 3939.73 (119 jts). NU wellhead. Resume pumping at 11:45 am at 8 SPM. Water to surface at 3:12 pm. Water rusty and black at first then cloudy gray. Produced 4.88 Bbbls in first hour. Approximately .45 Bbbls in second hour. Run echometer. Orifice tester at 4 psi. SDON.

12/30/93 Check orifice pressure at 5 psi and 6.39 mcf per day. Ran echometer test. Pumping rate at 8SPM. Water production at 900 GPD (21.4 Bbbls). Water is cloudy with some coal fines.

12/31/93 Pumping rate is 0 SPM. Orifice pressure at 5 psi and 6.39 mcf per day. Ran echometer test. Shut well in at 11:30 am - no returns. 3:30 pm start pump at 8 SPM with no returns. 4:30 pm set unit in and build pressure on casing side. Total water production to date is 415 Bbbls.

01/01/94 Pressure on casing at 17 pounds. Ran echometer test. 7:55 am start unit at 8 SPM with no returns. 9:00 am shut unit down. 4:00 pm casing pressure at 25 pounds. Ran echometer test. Start pump at 8 SPM with no returns. 5 pm shut unit down.

01/02/94 Pressure on casing at 33 pounds. Ran echometer test. 7:55 am start unit at 8 SPM with no returns. 9:00 am shut unit down. 4:00 pm casing pressure at 36 pounds. Ran echometer test. Start pump at 8 SPM with no returns. 5 pm shut unit down.

01/03/94 Pressure on casing at 43 pounds. Ran echometer test. 8:00 am start unit at 8 SPM with no returns. 9:00 am shut unit down. 4:00 pm casing pressure at 54.5 pounds. Ran echometer test. Start pump at 8 SPM with no returns. 5 pm shut unit down.

01/04/94 Pressure on casing at 53 pounds. Ran echometer test. 7:50 am start unit at 8 SPM with no returns. 8:50 am shut unit down. 3:00 pm casing pressure at 46 pounds. Ran echometer test. 3:30 pm start pump at 8 SPM with no returns. 4:30 pm shut unit down.

01/05/94 Pressure on casing at 62 pounds. Ran echometer test. 8:20 am start unit at 8 SPM with no returns. 9:20 am shut unit down. 3:30 pm casing pressure at 65 pounds. Ran echometer test. 4 pm open well and fed orifice tester.

01/06/94 Pumping unit shut down. Orifice test at 10.5 psi. Ran echometer test. 3:45 pm orifice test at 6 psi and 7.06 mcf per day.

01/07/94 Pressure on casing at 6 psi and 7.06 mcf per day. Ran echometer test. 4 pm casing pressure at 4 psi.

01/08/94 Pressure on casing at 4 psi and 5.4 mcf per day. Ran echometer test. 7:20 am start unit at 8 SPM with no returns. 8:20 am shut unit down. 4 pm pressure on casing at 4 psi.

01/09/94 Pressure on casing at 4 psi and 5.64 mcf per day. Ran echometer test. 4:00 pm pressure on casing at 3 psi.

01/10/94 Orifice pressure at 4.5 psi and 6.01 mcf per day. Ran echometer test. At 4:00 pm, orifice pressure at 4 psi.

01/11/94 Orifice pressure at 4.0 psi and 5.64 mcf per day. Ran echometer test. At 4 pm orifice pressure at 3 psi.

01/12/94 Orifice pressure at 4.0 psi and 5.64 mcf per day. At 8:30 am started pumping unit at 8 SPM. At 9:30 am shut unit down with no returns. At 4 pm orifice pressure at 2.5 psi.

01/13/94 At 7:00 am, orifice pressure at 4 psi and 5.64 mcf per day. Ran echometer test. At 4:00 pm orifice pressure at 2.5 psi.

01/14/94 At 7:00 am, orifice pressure at 4 psi and 5.64 mcf per day. Ran echometer tests. At 4:00 pm, orifice pressure at 2.5 psi.

01/15/94 At 6:30 am, orifice pressure at 4.5 psi and 6.01 mcf per day. Ran echometer tests. At 4:00 pm, orifice pressure at 3 psi.

01/16/94 At 7:00 am, orifice pressure at 4.5 psi and 6.01 mcf per day. Ran echometer tests. At 4:00 pm orifice pressure at 2 psi. Started pumping unit at 8 SPM. At 5:00 pm, shut down with no returns.

01/17/94 At 7:30 am, orifice pressure at 4.5 psi and 6.01 mcf per day. Ran echometer tests. At 4:00 pm orifice pressure at 1 psi.

01/18/94 At 7:30 am, orifice pressure at 4.5 psi and 6.01 mcf per day. At 4:00 pm, orifice pressure at 1.5 psi.

01/19/94 At 7:00 am, orifice pressure at 4.5 psi and 6.01 mcf per day. Ran echometer tests. At 4:00 pm orifice pressure at 1.5 psi.

01/20/94 At 7:30 am, orifice pressure at 4.5 psi and 6.01 mcf per day. Ran echometer tests. At 4:00 pm orifice pressure at 1 psi.

01/21/94 At 6:00 am, orifice pressure at 3.5 psi and 5.6 mcf per day. Ran echometer tests. Started pumping unit at 8 SPM at 3:00 pm. At 4:00 pm shut unit down with no returns, orifice pressure at 2.5 psi.

01/22/94 At 6:00 am orifice pressure at 3 psi and 4.84 mcf per day. Ran echometer tests. At 4:00 pm orifice pressure at 2.5 psi.

01/23/94 At 6:00 am orifice pressure at 3 psi and 4.84 mcf per day. Ran echometer tests. At 4:00 pm orifice pressure at 2.75 psi.

01/24/94 At 7:30 am, orifice pressure at 3.5 psi and 5.26 mcf per day. Ran echometer tests. At 4:00 pm, orifice pressure at 2.5 psi.

01/25/94 At 7:30 am, orifice pressure at 3.5 psi and 5.26 mcf per day. Ran echometer tests. At 4:00 pm, orifice pressure at 1 psi.

01/26/94 At 7:30 am, orifice pressure at 4 psi and 5.64 mcf per day. Ran echometer tests. At 4:00 pm, orifice pressure at 3 psi.

01/27/94 At 7:30 am, orifice pressure at 4.5 psi and 6.01 mcf per day. Ran echometer tests. At 4:00 pm, orifice pressure at 3.5 psi.

02/04/94 At 6:00 am nipple up BOP. Change over & rig up to pull 2 3/8" tbg. At 7:30 am pull 10 strands of 2 3/8" tbg. At 8:00 am clean out fresh H₂O tank. At 12:00 pm pull remaining 2 3/8" tbg (total 60 strands). At 1:30 pm nipple up HCR valves and blooie line. At 4:00 pm trip in hole with 2 3/8" tbg open ended to ± 2885'. At 6:00 pm pick up and rig up power swivel and break circulation with air. At 8:00 pm trip in hole to 3940'. At 8:30 pm pick up power swivel and clean out 2' of fill to PBTD with 1250 cfm air. Ran 5 Bbl H₂O sweep; no returns, ran 15 Bbls H₂O sweep; small trickle of H₂O to surface. Ran five 2 Bbl thick soap flushes. Returns consisted of thick soap, parts and pieces of perforating guns and very little formation/coal. Last two flushes were "clean". At 12:00 pm TOOH (

02/07/94 6:00 to 8:30 am CO 3963' to TD with 2400 CFM air and 1/4 Bbl per minute foam. 8:30 to 9:30 am Blow on bottom with air and foam - 2400 CFM air and 1/4 Bbl per minute foam. PU 3950' air only. 9:30 to 10:45 am Shut off air monitor for gas to surface - No gas. 10:45 to 11:15 am Run in hole tag for fill at 10'. PU into 7' casing. 11:15 am to 2:00 pm 1 air compressor down. Pressure up to 1200 pounds. 2:00 to 3:00 pm Surge well to pit. Well blew 25 minutes and returns were minor and out of formation with faint sulfer smell - no flare. 3:00 to 8:45 pm Ran in hole tag at 3783'. CO 3783' to TD with 2400 CFM air and 1/8 Bbl per minute foam. 8:45 to 9:30 pm Blow with air and foam until clean. 9:30 to 10:00 pm CO to 3995' with air only. 10:00 to 11:00 pm Shut air off - monitor blooie line for gas - 12 to 18 inch lazy blue flare. 11:00 to 11:30 pm Run in hold tag for fill - 8 feet full. Pull into 7" casing. 11:30 pm to 12:45 am Close rams pressure up on formation to 1200 pounds. 12:45 to 1:15 am Surge well to pit. Well blew down 25 minutes and returned moderate and at times heavy coal up to 1 to 1.5 inches in chunks with sulfer smell. 1:15 to 4:00 am Run in hole, tag at 3788'. CO 3788 to 3867 feet with 2400 CFM air and 1/16 Bbl per minute foam. 4:00 to 6:00 am Work tite pipe back to 3836'. Cir at 850 to 900 psi. Making water and some gas - approx H₂O recovery 10 Bbls intermittent flare up to 10 to 12 feet with air running.

02/08/94 6:00 am Work stuck pipe at 3836', attempt to circ down. Partial returns. Pressure both dp and annulus to 1200 psi. Work pipe, attempt to rotate. Surge annulus and dp while working and rotating pipe - no movement. Show of gas and water up dp. 4:00 pm Work stuck pipe at 3836' with 1200 psi on dp and 0 psi on annulus. Gas to surface. Work pipe from 0 to string weight and attempt to rotate. 10:00 pm Pressure dp to 1200 psi with air. Pump water down dp at 6.5 Bbls per minute and 2000 psi. Increase in 5000 # increments from string weight (64000 #) up to 150000 # while attempting to rotate. Set all weight down. Attempt to rotate. Attempt to rotate all different weights - no movement. Pumped 220 Bbls water and began to get pencil size stream of water out of blooie line. 11:30 pm Pressure dp and annulus to 1200 psi with air. Attempt to work pipe over string weight while attempting to rotate and surge annulus. 1:30 am Began flowing water from blooie line. Stopped working pipe to prevent blocking flow through bridge. Flow was pencil size at first then increased to 1 to 1.5 Bbls per minute. Pressure on dp continually leaking off. Repressure dp to 1200 psi. Continue pressuring dp and annulus and surging - no movement. Will attempt to back off later today.

02/09/94 6:00 am Well stopped flowing H₂O. Began pressuring up on DP to 1200 psi and annulus to 1200 psi. Surge annulus, work pipe from 0 to string weight (64,000 #) while attempting to rotate - no movement. 1:15 pm Block off both sides, well began to flow 1/4 to 1/2 BPM H₂O, air, and gas up DP. Rig up Dia-Log to run free point. Found pipe stuck at 3489' and free at 3475'. Next free tool jt at 3457'. Ran in hole and shot string shot across tool jt at 3457' - did not get back off. Ran bigger shot in across tool jt and backed off pressure. 4:15 pm Rig down Dia-Log. Rig up to TOH. 4:45 pm TOH with 3 1/2" DP. Had to break out with rotary tong and chain out. 8:15 pm Measure and caliper fishing tools. Prepare to PU fishing tools. 10:00 pm PU screw in sub, bumper sub, jars, 5 - 4 3.4" DC and booster. 11:00 pm TIH with fishing tools. Check/tighten each tool joint. 1:00 am Screw into fish and start driving down on fish - no movement. 3:00 am Warm up jars then begin to jar at 50,000 # over string weight - no movement. 4:30 am Drive down with fish 1st half hour then next half hour jar and alternate back and forth each half hour - no movement.

02/10/94 6:00 am Alternate every half hour between driving down and jarring on fish - very slight movement (3 to 4 inches). 1:00 pm Rig on stand by. WO WP. 3:30 pm Back out of fish. TOH break down fishing assembly. 7:00 pm Unload WP and tools. 8:15 pm Strap and calliper WP. PU same. Make up jars, drill collars and booster. 11:00 pm TIH. Break circ half way in hole. 12:45 am to present PU power swivel - break circ and wash over with 2400 cfm air and 1/4 to 1/8 BPM foam. Wash from ± 3467' to 3488'.

02/11/94 6:00 am Wash over fish 3488' to 3491' with 2400 cfm air and 1/8 BPM foam. 6:00 pm TOH and stand back wash pipe. 9:00 pm PU fishing assemble and TIH. 12:30 am Screw into fish, jarring with 40,000# over string weight - no movement.

02/12/94 6:00 am Jarring at fish with 40,000# over string weight - no movement. 9:30 am Screw out of fish and TOH. 11:30 am PU new mill shoe and wash pipe, run bumper sub, jars, drill collars and booster on 3 1/2" dp. 3:30 pm PU power swivel break circ and work to bottom. 4:15 pm Work on power swivel. 7:00 pm Wash over fish 3490' to 3493' with 2400 cfm air, 1/4 to 1/8 BPM foam and 3 to 4 Bbls water. Sweep each 1/2 hour. 3:15 am TOH and lay down wash pipe.

02/13/94 6:00 am Lay down wash pipe. 7:00 am TIH with screw in sub, bumper sub, jars, drill collar and booster on 3 1/2" dp. 9:30 am PU power swivel and screw into fish. 10:15 am Jar on fish at 40,000# over string weight. 12:30 pm Rig on stand by. Wait on water. 3:00 pm Wait on water. 4:00 pm Bump air, soap and water down dp and pressure up to 3000 psi with rig pump. let pressure bleed down to 2400 to 2200 psi then surge dp. Attempt to unplug dp 5 times - unsuccessful. 5:45 pm Rig up Dia-Log attempt to spud plug out of dp - unsuccessful. Run in with collar locator and locate collars. Run core barrel - attempt to recover core/plug in dp - no recovery. Run in with perf charges. 1st trip - misfire. 2nd trip - could not get through bumper sub. Lost by-wire and perf charges. Run sinker and spud. Tag perf charges in bumper sub. 12:30 am Back out of fish. Chain out of hole. Found perf charges and by wire in bumper sub. 3:30 am PU new jars and TIH with fishing assemble and 3 1/2" dp.

02/14/94 6:00 am TIH with fishing assembly on 3 1/2" dp. 7:00 am Pull power swivel and circ at top of fish, screw into fish and back power swivel off. 8:00 am RU Dia-Log and perf 4-180° phased 3/8" diameter holes 3429' to 3431' (wireline depth) just above the pin on the top drill collar. 8:30 am screw power swivel on to dp and circ 1.4 BPM and 2500 psi. 10:30 am Jar on fish at up to 100,000# over string weight. Jarred string in two. 12:30 pm Circ hole clean, rig down Dia-Log and rig up to lay down dp. 1:45 pm TOH laying down dp, fishing tools, drill collars and ± 56' of fish. Top of fish tally: 3519' Wireline: 3513' Left 6' of dp ten 4 3/4" drill collars, bit sub with float and 6 1/4" bit (HTC, ATJ-33 Ser #FBOWD) in hole. Total length remaining in hole 313.23'. 6:00 pm Rig up and land tubing. Ran 98 jts of 2 3/8", 4.7# J-55 tubing in hole (3214.58'), set at 3232.56'. Open ended. 11:30 pm Nipple down BOP and nipple up upper tree. 1:30 am Rig down. Released rig at 3:30 am. Final report until operations resume.

02/22/94 MIRU Graham rig, well dead. NDWH. NUBOP. Establish circ with water. PU tbg and tag fish. Top of fish at 3492.57'. Attempt to co with water. Make no hole. PU and reverse circ bottoms up. Water clean. Tally out of hole with tubing.

02/23/94 TIH with 6 1/4" bit and scraper. Tight at 3471'. Attempt to wash to PBTD with H₂O. Making no progress. Drop standing valve and PT tbg to 2000#. Pull wet string. Run GR-CCI/CBL from 3350' to 1900'. Good bond across entire interval. TIH with 7" drillable CIBP on TBL to 3200'. SDON.

02/24/94 Set CIBP at 3224'. PT csg to 2000#. Spot 350 gals 7 1/2% DI Hcl at 3962'. TOH.

Perforate coals with 4" csg gun, 4 spf, 90° phasing. .5" holes from the top down as follows: 2911 - 14', 2926 - 33', 2939 - 42', 2959 - 62'. Displace down csg with 10 Bbl fresh H₂O. SWION.

02/25/94 SICP = 300#. Bleed off H₂O pressure. TIH with 7" spit tool with 2' spacing. Breakdown coals with 420 gals 7 1/2% Hcl as follows:

<u>Zone</u>	<u>BD Pressure</u>
2959-62'	823#
2939-42'	1166#
2926-34'	375# - communication
2911-14'	890#

POH with spit tool. Inject down csg at 1/4 BPM at 1000#. Pump 5 BPM at 1520#. SD. ISIP = 1520#. Frac gradient = .95. TIH with testing BHA. Set pkr at 2883'. Load tbg and open MFG valve. Conduct slug test. Release testing BHA and POH. SDON.

02/26/94 TIH with tbg and pump landing collar on BTM. Land tbg at 3001' with landing collar on BTM. NDBOP and NUWH. RU to swab. Swab to rig pit. Fluid level down to 2750' SDON.

02/27/94 SITP = vacuum. SICP = 5#. Blow down csg. GIH with swab. FI at 2900'. Make one run, recover little fluid. Wait one hour GIH with swab. Recover little fluid to 2975'. Swab dry. RDSU.

02/28/94 Moving out Graham service unit. move out pumping unit to 32-1 location. Move out frac tank. Move out remaining fuel.

03/01/94 No reports until activity resumes.

03/02/94 Csg pressure 12 psi, tbg pressure 0 psi

06/07/94 Rig up from 7:00 to 10:00 am. 10:30 to 11:30 am pick up tubing to 3206'. 11:30 am to 1:00 pm circulate and try to wash deeper - no success. 1:00 to 5:00 pm wait on DOGAMI took plug back depth and pull tubing out of hole to check depth. Secure well.

06/08/94 7:00 to 8:00 am RIH to 3204'. 8:00 to 9:00 am set plug from 3204' to 2400' with 150sx type A with 2% CuCL. CIP at 9:00 am. 9:00 am to 12:30 pm pull 15 stds and woc. 12:30 to 1:30 feel for plug - tag at 2740' - witnessed by DOGAMI. 1:30 to 3:30 pm mix fluid to leave in hole 45 vis and 9.5 wt. 3:30 to 5:00 pm lay down tubing and secure wellhead.

06/09/94 7:00 am to 4:00 pm rig down and move out. cut off well head. Move misc equipment from CCF to Menasha #32-1. Load out. Set 15' top plug and cut off casing and weld cap on casing 4' below ground level.