

The Oregon Department of Geology and Mineral Industries
 STATE OF OREGON
 DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
 800 NE Oregon St # 28 Portland, OR 97232

RECEIVED
 NOV 20 2002
 Mined Land Reclamation

HISTORY OF OIL OR GAS WELL
 (In compliance with rules and regulations pursuant to ORS 520)

(Company or Operator) Northwest Natural Gas Company(Lease) NW Natural Gas Co (Well No.) CC#3

Sec. 10 T 6N, R 5W Surveyed Coordinates - SHL:1561' South & 630' West of the Northeast corner of section 10:T6N-R5W. BHL: 489' South & 151' West of the SHL @2268'MD.

Wildcat: _____ (or) Field Name: Mist Underground Storage County: Columbia

Signature: [Signature]

Date: 11/19/02

Position: Project Manager

Use this form in reporting the daily operations at the well. (Operator may use his own forms, but heading of this form must also be completed and submitted.) Please submit a complete history of the well. Include such information as bit sizes, mud weights, casing sizes and depths set, amount of cement used, drilling depths, fishing, logging, perforating, and plugging procedures, and anything else pertinent to the operation. Do not include lithology.

Date: July 15, 2002

Moved Taylor Rig No.1 and remaining equipment to location to remove bridge plug at 2350 feet and clean out well bore to 2525 feet K.B. Rigged up Shale Shaker/Degasser/Manifold/Water Circ System. Stripped Wellhead to Master Valve. Secured Well and equipment for night.

July 16, 2002

Daily walk around and safety check. Raised and rigged up derrick. Installed spark arresters on rig engines and filled tank with produced water. Rigged in pump and lines to wellhead and checked pressure. Tubing 675 psi, casing 0 psi. Filled tubing with salt water. Pumped into casing annulus and sheared GLV with 1500 psi. Circulate down annulus/up tubing/circ out gas bubble. Removed wellhead and strip on BOPE. Pressure tested BOPE on wellhead against dognut and pup joint. DOGAMI rep at location to witness test. Per his instructions tested Pipe Rams, Annular, Wellhead connection and valve. Released hold down bolts - Pulled hanger loose, unseat packer (24,000 lb. Pull), free string weight 22,000, let packer equalize. Reverse circulate hole to remove gas bubble from below packer. Secured well and shut down for night.

July 17, 2002

Daily walk around and safety check. Fill hole with 4 barrels salt water. Trip out of hole with 2 7/8" tubing. Recover 2 3/8" gas lift valve/packer (Otis MH), 2 3/8" tail pipe, Otis XN nipple, and re-entry guide. Change BOPE and handling equipment back to 2 3/8". Pressure test rams and door seals to 700 psi. Run in hole with 3.75" drill bit and 2 3/8" work string. Tag bridge plug at 2350 feet K.B. Rig in power swivel and pack off head. Drill on cast iron bridge plug and gas lift valve plug. Secure well and equipment and shut down for night. Have drilled about 4" of bridge plug.

July 18, 2002

Daily walk around and safety check. Check wellhead pressure and fill hole with 6 barrels of salt water. Drill on bridge plug at 2350 ft. K.B. Trip out work string and check drill bit - ok. Drill and pound on plug. Came loose at 1230 hr. Rack back swivel. Push and wash plug down hole to 2385 ft. K.B. Trip out bit and check. Change rubber in JU heard service swivel. Drill, wash and pound bit on hole to 2411 ft. K.B. Used full string weight to force bit thru plug. Drilling very hard cement. Shut down for night. Secure well and equipment.

July 19, 2002

Daily walk around and safety check. Check wellhead pressure and fill hole with 6 barrels of salt water. Drill out from 2411 ft. to 2512 ft. K.B. Casing shoe at 2514 ft. K.B. Circulate hole clean at 2512 feet K.B. Rack back swivel and JU had/trip out of the hole. Pick up 4.5" casing scraper and trip in hole to 2510 ft. K.B. Circulate hole clean. Trip out hole with scraper. Lay down work string. Rig down service rig and secure well bore. Shut down for night. PBTD now 2512 ft. K.B.

July 20, 2002

Daily walk around and safety check. Check wellhead pressure and fill hole with 4 barrels of salt water. Rig up rig to run tubing string in hole. Change tubing rams and handling equipment to 2 7/8" in the surface casing string. Make up packer string on 2 7/8" tubing. Trip in hole with same packer string from bottom to top. See attached well schematic.

Set packer/test packer to 500 psi for 10 minutes - ok. Open packer bypass and circulate casing annulus to inhibited fresh clean water. Close bypass, land tubing hanger. Remove BOPE and install wellhead. Rig in swabbing equipment and swab well to atmosphere to clean. Rig down rig and remove unit. Shut down operation. Well now to be used as a monitor well.

Schematics of CC3 well attached.



**MIST STORAGE FIELD
 CC 3 WELL SCHEMATIC AS OF JULY 27 2002**

GROUND ELEVATION 858.20'
 K.B. ELEVATION 868.70'
 TOTAL DEPTH 2514.00' K.B.
 PBTD 2512.00' K.B.

**NOTE: OTIS PACKER SET IN COMPRESSION.
 STRAIGHT PULL RELEASE AUTOMATICALLY GOES INTO RUN POSITION. TO SET / LAST MOVEMENT UP WITH 1/2 TURN RIGHT.**

