



STATE OF OREGON
DEPARTMENT OF GEOLOGY AND MINERAL INDUSTRIES
800 NE Oregon St # 28 Portland, OR 97232

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.) IW23ach-3-65

Sec. 3, Township 6N, Range 5 W Surveyed Coordinates – 2346.8' N 86 26' 22" W 1593.8 N 03 33' 38" E from the Southeast 1/4 of section 3.

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

Signature: [Handwritten Signature]

Date: 2/27/08

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 litho logy.

May 12, 2007 - Conduct safety meeting. 0800 hr. rig on company time. Rig in Pason. Work on Pason and wellsite shacks. Spud well with 8.75" bit. Drill to 617' of K.B. Note: Ground 1033.3 ft – K.B. 1047.3 ft. Trip out to pick up hole opener. Change out swabs on one (1) pump on trip. Open hole to 17.5" to 196 ft. K.B. Mud weight = 8.7, Viscosity = 53.

May 13, 2007 - Conduct safety meeting. Daily walk around, safety and perimeter check. Open 8.75" surface hole to 17.50" to 580' K.B. Circulate and clean hole. Trip out to run casing. Rig in tongs and run 13 3/8" total string length 567'. Casing landed at 563 feet K.B. Rig in Taylor cementers thru rig pump and cement casing with 525 sacks class A type III cement. Cement contained 3% gel BYOC. 121 barrels slurry at 14.6 lb/gal. Had 25 barrels clean cement to surface. Bumped plug with 1000 psi, held good for 10 minutes. Float held, cement remained at surface. Plug down - wait on cement. Mud weight = 8.7, Viscosity = 53.

May 14, 2007 - Conduct safety meeting, daily walk around, safety and perimeter check. WOC. Clean cellar and prepare to nipple up. Cut off conductor and casing. Surface cement sample set hard. Finish with bowl and test bowl to 1000 psi. Nipple up BOPE. Mud weight = 8.7, Viscosity = 53.

May 15, 2007 - Conduct safety meeting, daily walk around, safety and perimeter check. Finish nipple up, rig to test BOPS. Function test BOP and accumulator. Test BOPE to 250 psi low test and 1000 psi high test. All components held good, no leaks to repair. Run in hole with 12.25" bit and drill out cement. Plugs float and shoe. Circulate hole clean and trip out. Trip in with 8.75" bit and drill to 970 ft. K.B to kick off point. Condition mud and circulate. Finish stripping out all low gravity solids. Mud weight = 8.6, Viscosity = 40.

May 16, 2007 - Conduct safety meeting, daily walk around, safety and perimeter check. Trip out of hole to pick up directional tools. Trip in hold with directional tools. Drill ahead 8.75" hole to 1901' K.B. Building final angle to 90 degrees plus. Mud weight = 8.8, Viscosity = 41.

May 17, 2007 - Conduct safety meeting, daily walk around safety and perimeter check. Rig service. Drill ahead directional - sliding 20 ft. per single - angle now 89 degrees. Repair No. 2 pump. Drill ahead directional to 3042' Sliding 20 ft. per single - angle now 90

degrees. Mud weight = 9.3, Viscosity = 46.

May 18, 2007 - Conduct safety meeting, daily walk around safety and perimeter check. Trip out of hole to repair no. 2 pump. Dress no. 1 pump with 6.5" liners and heads. Trip back in hole and drill ahead to 3390' KB. Drilling directional hole - angle now 91.5 degrees. Drilling with only one pump. Mud weight = 9.1, Viscosity = 41.

May 19, 2007 - Conduct safety meeting, daily walk around safety and perimeter check. Drill to TD 3519' K.B. measured depth. Angle 92.3 degrees. Total vertical depth 2601'. Repair O ring in top drive. Circulate and clean hole. Trip out and lay down directional tools, release directional drillers. Trip in hole to shoe - slip string, slip and cut drill line. Trip in hole to bottom, circulate and condition mud to log. Mud weight = 9.2, Viscosity = 41.

May 20, 2007 - Conduct safety meeting, daily walk around safety and perimeter check. Circulate and wait on Halliburton open hole loggers. Mud weight = 9.2, Viscosity = 41.

May 21, 2007 - Conduct safety meeting, daily walk around safety and perimeter check. Trip out of hole to log. Halliburton on location, rig up wireline tools. Free Fall. Logging tools in hole to 80 degrees angle, 3080' KB measured depth. Logs run, HRID, BSCD, EMIT, SDCTSS, DSCT and NGRT. Run push logs from 3080' to 3308'. Finish push logs. Trip out to lay down logging tools. Mud weight = 9.2, Viscosity = 41.

May 22, 2007 - Conduct safety meeting, daily walk around safety and perimeter check. Trip out to lay down push logging tools, rig down and release loggers. Make up hole opener and trip in hole to 563' K.B. Open hole to 12.50". Mud weight = 9., Viscosity = 59.

May 23, 2007 - Conduct safety meeting, daily walk around safety and perimeter check. Open hole to 12.25" to 1898' K.B. Ream to 1898' stop and circulate. Start pump repairs. Mud weight = 9., Viscosity = 59.

May 24, 2007 - Conduct safety meeting, daily walk around safety and perimeter check. Opening hole to 12.25". Now have both pumps on line. Make several wiper trips and ream sticky sections. Ream to 2890'. Circulate and condition hole. Ream to 2095'. Circulate and condition hole. Mud weight = 9.1, Viscosity = 53.

May 25, 2007 - Conduct safety meeting daily walk around safety and perimeter check. Condition hole and circulate at 2905' K.B. Trip to casing shoe (wiper trip). Ream back to bottom from 563' to 2719'. Mud weight = 9.3, Viscosity = 60.

May 26, 2007 - Conduct safety meeting, daily walk around safety and perimeter check. Ream out hole to 12.25" to 2905' second time. Circulate and clean. Trip out to run casing. Rig up to and start running 9 5/8" casing. Had to circulate casing through several tight sections. Casing at 2400'. Mud weight = 9.3, Viscosity = 60.

May 27, 2007 - Conduct safety meeting daily walk around, safety and perimeter check. Wash casing to bottom 2898'. Circulate casing on bottom at 6 barrels per minute for 3.35 hrs. Rig in Halliburton and cement casing as per program. Cement in place at 1900 hr. Bumped plug with 2500 psi - all ok. Note: Did not get cement to surface. Got 10 barrels flush water back. Cement top should be at or near surface. Rig out Halliburton. Lift BOPE set casing slips. Cut off casing. Install B section nipple up BOPE and rig up to pressure test casing. Mud weight = 9.3, Viscosity = 60.

May 28, 2007 - Conduct safety meeting, daily walk around, safety and perimeter check. Pressure test BOPE. Test all ring connection and rams. All OK. Make 8.75" drill string and trip in hole. Circulate out mud. Strip all drilling fluid and two loads stored fluid back to clear water. Drill out 9 5/8" casing tools and shoe. Stop and strip all drilling fluid back to clear water. Prepare fluid to clean out sand section. Mud weight = 9.3, Viscosity = 60.

May 29, 2007 - Conduct safety meeting daily walk around, safety and perimeter check. Finish cleaning drilling fluid. Run in hole to 3519' and circulate sand section clean. Used very high pump rate to obtain turbulent flow. Washed production section. Trip back into casing. Circulate at casing shoe (2898') and clean all fluid again to clear water. Trip out. Rig in casing tongs. Make up 18 joint 6 5/8" excluder screen.

May 30, 2007 - Conduct safety meeting, daily walk around, safety and perimeter check. Pick up 2 7/8" string and install in liner. Pick up hanging tools. Trip in hole and position liner at 3508'. Circulate and flush hole with clean fluid. Set liner packer and blow ball seat. Test annulus to 1000 psi - held good. Spot 25 barrels of breaker in side of 6 5/8" liner. Trip out and lay down liner tools. Repair cat walk skate. Run in hole with 7" tubing string with annulus dump valve on top of seal assembly. String in. Space out. Test annulus - all OK. Pick up 15" and circulate in 88 barrels inhibited water to backside. Land tubing. Lock hanger. Test backside - all OK. Install

BPV. Pump into well bore 20 barrels water.

May 31, 2007 - Conduct safety meeting. Daily walk around, safety and perimeter check. Nipple down BOPE. Nipple up wellhead. Well had turned around. Rig released.