

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

O&G Permit #:

531

APPLICATION FOR PERMIT TO DRILL AN OIL OR GAS WELL

API#:
36-009-00349

(To be accompanied by a \$250 permit fee, a surety bond conditioned as provided by law, and evidence of mineral rights ownership or lease.) This application becomes a permit to drill when signed and dated by DOGAMI in box below.

In compliance with rules and regulations pursuant to ORS 520, application is hereby made for permit to drill (a gas well) (an oil well) to be known as: IW 14dH-23-65

NW Natural	Northwest Natural Gas Company	IW 14dH-23-65
(Company or Operator)	(Lease)	(Well No.)

Sec. 23	T. 6N	R. 5W	Surveyed Coordinates (if directional, BHL & SHL):	BHL: 50' North & 1174' East
of the SW corner, sec. 23; T6N; R5W				SHL: 976.5' North & 1256.3' East from the SW corner Sec. 23; T6N; R5W

Wildcat:	(or) Field Name: Calvin Creek-Reichhold Pool	County: Columbia
Elevation of ground above sea level: 905 feet.	All depth measurements are taken from Kelly Bushing which is 16' above ground.	

Lessor (Mineral Owner): Longview Fibre Co.
Address: P. O. Box 667 Longview, WA 98630
Surface Owner: Longview Fibre Co.
Address: P. O. Box 667 Longview, WA 98630
Lessee: Northwest Natural Gas Company
Address: 220 Northwest Second Ave. Portland, OR 97209

We propose to use the following strings of casings and to land or cement them as herein indicated:

Size of hole	Size of Casing	Weight in pounds per foot	Grade/Type	Depth	Amount of Cement
17-1/2"	13-3/8"	54.50#	H-40	400 feet	300 sx
12-1/4"	8 5/8"	32#	J-55	2103 feet	900 sx

Geologic Objectives: Clark and Wilson Sand
Proposed Depth: 2998' MD 1615' TVD

Company/Operator: NW Natural

DOGAMI approved (date) 3/9/00
 PROVIDE 24-hr. NOTICE TO
 WITNESS BOPE TEST.
 by: *[Signature]* DOGAMI

Signature: *Todd A. Thomas*

Position: Storage Development Engineer

Date: 2/14/2000

SEND WELL COMMUNICATION TO:

Name: Todd A. Thomas

Address: 220 Northwest 2nd Ave.
Portland, OR 97209

Phone:(day) 503/226-4211 ext. 4686 (night) 503/848-2947

Note: (1) Issuance of this permit is not a finding of compliance with the Statewide Planning Goals or the acknowledged comprehensive plan. (2) Permit expires one year from date of issue. (3) Land use approval must be obtained from the county or city in which the drilling takes place. (4) Unless specifically exempted, permittee is obligated to comply with all current applicable statutes and rules including those adopted