

FOR KCC USE:

FORM CB-1 12/93

FORM MUST BE TYPED

FORM MUST BE SIGNED

ALL BLANKS MUST BE FILLED IN

EFFECTIVE DATE: 5-2-05

State of Kansas

DISTRICT #

CATHODIC PROTECTION BOREHOLE INTENT

SGA? Yes ☒ No

Must be approved by the K.C.C. sixty (60) days prior to commencing well.

Expected Spud (Starting) Date 5-16-05
month day year

OPERATOR: License # 32119

Name: Northern Natural Gas Co.

Address: 1111 South 103rd St

City/State/Zip: Omaha, NE 68013

Contact Person: Duane Moody

Phone: 402-398-7843

CONTRACTOR: License # 32775

Name: McLeans CP Installation, Inc.

Type Drilling Equipment: ☒ Mud Rotary ☐ Cable
☐ Air Rotary ☐ Other

CONSTRUCTION FEATURES

Length of Cathodic Surface (Non-Metallic) Casing

Planned to be set: 20' ft.

Length of Conductor pipe (if any?): 17 1/2" - 20' - 10" - 100' ft.

Size of the borehole (I.D.): 10" inches

Cathodic surface casing size: 10" inches

Cathodic surface casing centralizers set at depths of: 20..

Cathodic surface casing will terminate at:

... Above surface ... Surface Vault ☒ Below Surface Vault

Pitless casing adaptor will be used: Yes ☒ No ☐ at Depth 108 ft.

Anode installation depths are: 98 88 78 68

Note: Non-Aquifer Completion. Max Total Depth = 120'

Total depth of boring must be a minimum of 20' above the top of groundwater

Boring total depth must be reduced if groundwater is encountered. AFFIDAVIT

The undersigned hereby affirms that the drilling, completion and eventual plugging of this well will comply with K.S.A. 55-101, et. seq. It is agreed that the following minimum requirements will be met:

1. Notify the appropriate district office prior to spudding of and again before plugging well;
2. A copy of the approved notice of intent to drill shall be posted on each drilling rig;
3. The minimum amount of cathodic surface casing as specified below shall be set by grouting to the top.
4. An agreement between the operator and the district office on plugs and placement is necessary prior to plugging;
5. The appropriate district office will be notified before well is either plugged or casing is grouted in;
6. IN ALL CASES, NOTIFY DISTRICT OFFICE PRIOR TO ANY CEMENTING.

I hereby certify that the statements made herein are true and to the best of my knowledge and belief.

Date: 4-20-05 Signature of Operator or Agent: [Signature] Title: Office

FOR KCC USE:

API # 15-

Conductor pipe required NONE feet

Minimum cathodic surface casing required 20 feet

Approved by: RSC 4-27-05

This authorization expires: 10-27-05

(This authorization void if drilling not started within 6 months of effective date.)

Spud date: Agent:

REMEMBER TO:

- File Drill Pit Application (form CDP-1) with Intent to Install;
- File Completion Form CB-2 within 30 days of spud date;
- Notify appropriate district office 48 hours prior to workover or re-entry;
- Submit plugging report (CB-4) within 30 days after plugging is completed.

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202-1286.

Spot (Location) Q/Q/Q

SE-NE-NE Sec 4... Twp. 31S, Rg. 29W East

4006' feet from South North line of Section

75' feet from East West line of Section

(Circle directions from nearest outside corner boundaries)

IS SECTION ☒ REGULAR ☐ IRREGULAR?

(Spot well on the Section Plat on Reverse Side)

County: Meade

Lease Name: Pennington Well #: 3

Facility Name: Pennington Well #3

Ground Surface Elevation: 2736 MSL.

Cathodic Borehole Total Depth 120' ft.

Depth to Bedrock 48' ft.

WATER INFORMATION:

Aquifer Penetration: ☒ None ☐ Single ☐ Multiple

Depth to bottom of fresh water: 140' / 148'

Depth to bottom of usable water: 48'

Water well within one-quarter mile: ☒ yes ☐ no

Public water supply well within one mile: ☒ yes ☐ no

Water Source for Drilling Operations:

... well ... farm pond ... stream ☒ other

Water Well Location:

DWR Permit #:

Standard Dimension Ratio (SDR) is = 26

(cathodic surface OD csg. in inches / MWT in inches = SDR)

Annular space between borehole and casing will be grouted

with: ☐ Concrete ☐ Bentonite Cement

☒ Neat cement ☐ Bentonite clay

Anode vent pipe will be set at: 3 ft. above surface

Anode conductor (backfill) material TYPE: SC2

Depth to BASE of Backfill installation material: 120'

Depth to TOP of Backfill installation material: 25'

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CONSERVATION DIVISION
WICHITA, KS

IN ALL CASES PLOT THE INTENDED WELL ON THE PLAT BELOW

Show the relationship to other wells or facilities proposed to be serviced by the intended cathodic borehole. Please show all the wells, existing cathodic boreholes, pipelines or facilities within 1/2 mile of the proposed borehole.

API NO. 15- _____
OPERATOR Northern Natural Gas.
LEASE Pennington
WELL NUMBER #3
FACILITY NAME Pennington Well #3

LOCATION OF WELL: COUNTY Meade
4006' feet from south/north line of section
75' feet from east/west line of section
SECTION 4 TWP 31S RG 29W

SPOT: QTR/QTR/QTR/QTR OF ACREAGE
- SE - NE - NE

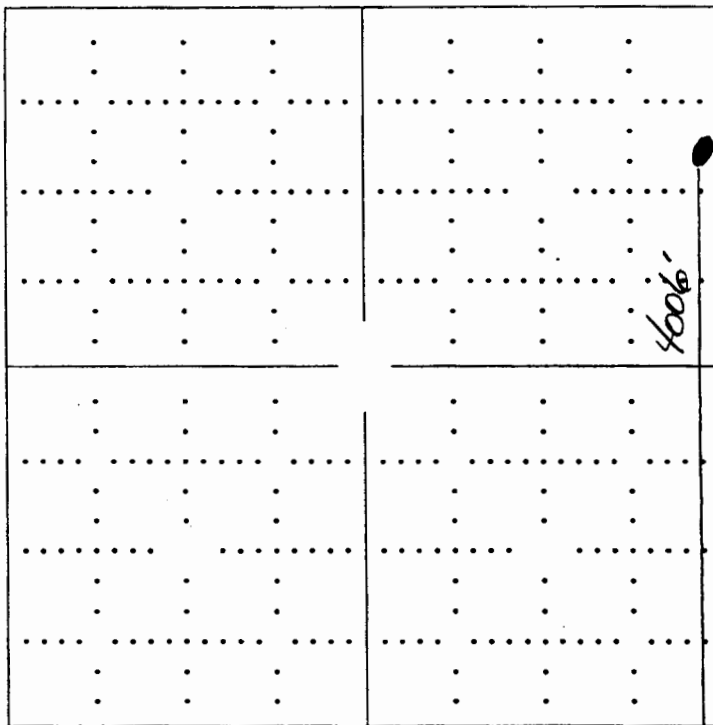
IS SECTION X REGULAR or _____ IRREGULAR
IF SECTION IS IRREGULAR, LOCATE WELL FROM NEAREST
CORNER BOUNDARY.

Section corner used: _____ NE _____ NW _____ SE _____ SW

PLAT

(Show location of intended cathodic borehole.)

(Show footage from nearest lease, unit or outside section boundary line.)

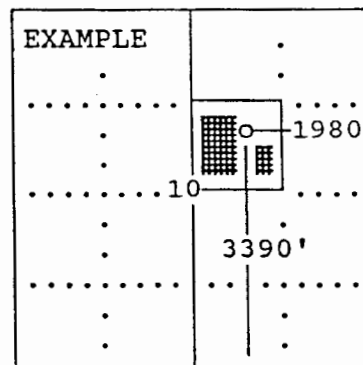


75'
Section 4

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CONSERVATION DIVISION
WICHITA KS



SEWARD CO.

In plotting the proposed location of the well, you must show:

- 1) The manner in which you are using the depicted plat by identifying section lines, i.e. 1 section, 1 section with 8 surrounding sections, 4 sections, etc.;
- 2) the distance of the proposed drilling location from the section's south/north and east/west; and
- 3) the distance to the nearest lease, unit or outside section boundary line.