

**PERMIT EXTENSION**

RECEIVED  
KANSAS CORPORATION COMMISSION

Permit No. 1-16-04  
Request received

AUG 06 2003

FORM CB-1 12/93

FORM MUST BE TYPED

**FOR KCC USE:**

EFFECTIVE DATE: 9-27-03  
DISTRICT # 3  
SGA?  Yes  No

State of Kansas  
CATHODIC PROTECTION BOREHOLE INTENT  
Must be approved by the K.C.C. sixty (60) days prior to commencing well.

CONSERVATION DIVISION FORM MUST BE SIGNED  
ALL BLANKS MUST BE FILLED IN

Expected Spud (Starting) Date .....  
month day year  
OPERATOR: License # 33075  
Name: CMS Pan Gas Storage Co. LLC  
dba Southwest Gas Storage  
Address: P.O. Box 4967  
City/State/Zip: Houston, TX 77210-4967  
Contact Person: David M. McQuilling  
Phone: 713-989-7493

Spot (Location) 9/0/0  
NE SE NW Sec 7 Twp 20 S Rg 13  
1460 feet from South / North line of Section  
2685 feet from East / West line of Section  
(Circle directions from nearest outside corner boundarys)  
IS SECTION X REGULAR \_\_\_\_\_ IRREGULAR?  
(Spot well on the Section Plat on Reverse Side)  
County: Lyon

CONTRACTOR: License #: 32525  
Name: C. P. Drilling  
Type Drilling Equipment:  Mud Rotary \_\_\_\_\_ Cable  
\_\_\_\_\_ Air Rotary \_\_\_\_\_ Other

Lease Name: Whitaker Well #: No. 1  
Facility Name: Olpe 10.0 Ground Bed No. 1  
Ground Surface Elevation: 1080 MSL  
X Cathodic Borehole Total Depth 300 ft.  
Depth to Bedrock Unknown Exceeds 400 ft.

**WATER INFORMATION:**

Aquifer Penetrations: \_\_\_\_\_ None  Single \_\_\_\_\_ Multiple  
Depth to bottom of fresh water: 30 ~ 50  
Depth to bottom of usable water: NA  
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: \_\_\_\_\_ Latitude: 38328415  
\_\_\_\_\_ Longitude: -96.015043  
DWR Permit #: \_\_\_\_\_  
Standard Dimension Ratio (SDR) is = 18.128  
(cathodic surface OD csg. in inches / MWT in inches = SDR)

**CONSTRUCTION FEATURES**  
Length of Cathodic Surface (Non-Metallic) Casing  
Planned to be set: 70 ft.  
Length of Conductor pipe (if any?): N/A ft.  
Size of the borehole (I.D.): 17 inches  
Cathodic surface casing size: 10 inches  
Cathodic surface casing centralizers set at depths of: 5;  
30; 60; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_

Annular space between borehole and casing will be grouted  
with: \_\_\_\_\_ Concrete \_\_\_\_\_ Bentonite Cement  
 Neat cement \_\_\_\_\_ Bentonite clay  
Anode vent pipe will be set at: 6 ft. above surface  
Anode conductor (backfill) material TYPE: Loresco SC-3  
Depth to BASE of Backfill installation material: 300  
Depth to TOP of Backfill installation material: 150

Cathodic surface casing will terminate at:  
 Above surface \_\_\_\_\_ Surface Vault \_\_\_\_\_ Below Surface Vault  
Pitless casing adaptor will be used: \_\_\_\_\_ Yes  No at Depth \_\_\_\_\_ ft.  
Anode installation depths are: 225; 239; 253; 267;  
281; 295; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_ ; \_\_\_\_\_

**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: 8-04-03 Signature of Operator or Agent: [Signature] Title: Sr. Engineer

X MAXIMUM CATHODIC BOREHOLE DEPTH = 300'

FOR KCC USE:	API # 15- <u>711-20432-0000</u> <u>A143</u>
Conductor pipe required	<u>NONE</u> feet
Minimum cathodic surface casing required	<u>70</u> feet
Approved by:	<u>RSP 9.22.03</u>
This authorization expires:	<u>3.22.04 / 9.22.04</u>
(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 207B, Wichita, Kansas 67202-1286.

7. 20 13E

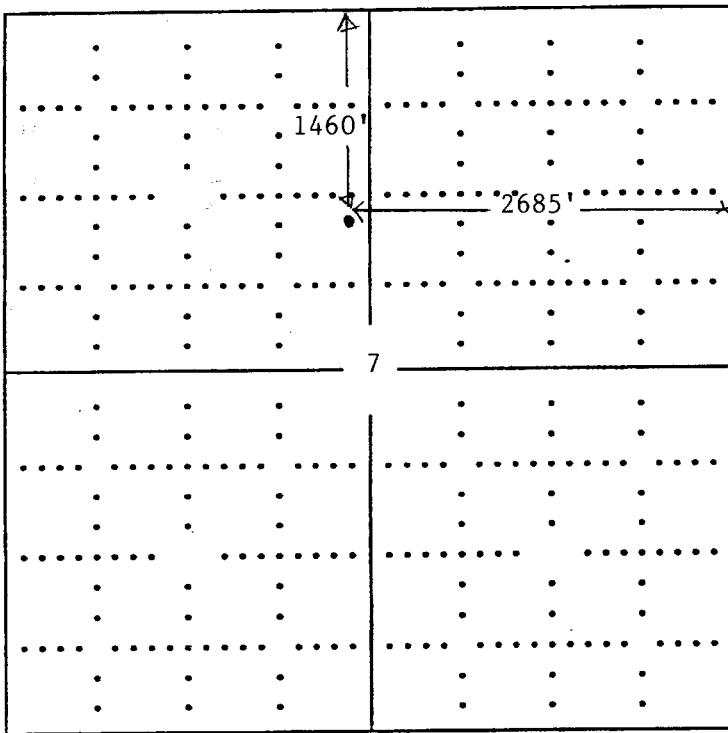
**IN ALL CASES PLOT THE INTENDED WELL ON THE PLAT BELOW**

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.

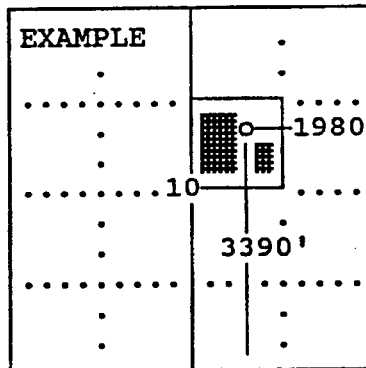
API NO. 15- \_\_\_\_\_  
 OPERATOR CMS Pan Gas Storage Co., LLC dba Southwest Gas Storage  
 LEASE \_\_\_\_\_ LOCATION OF WELL: COUNTY Lyon  
 WELL NUMBER Olpe 10.0 Groundbed No. 1 1460 feet from south/north line of section  
 FACILITY NAME Olpe 10.0 2685 feet from east/west line of section  
 SECTION 7 TWP 20 South RG 13 East

SPOT: QTR/QTR/QTR/QTR OF ACREAGE IS SECTION X REGULAR or \_\_\_\_\_ IRREGULAR  
N $\frac{1}{2}$  - SE $\frac{1}{4}$  - NW $\frac{1}{4}$  - Section 7 **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.)



RECEIVED  
 KANSAS CORPORATION COMMISSION  
 AUG 06 2003  
 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.