## U.S. Geological Survey

**Geothermal District Office:** Reno  □ Santa Rosa  □ Salt Lake City  □ Eastern  

- **Inspection Results:**  
  - Date Completed: 6/15/79  
  - State: OR  

- **Inspector:** J.A. HUDSON  
  - Prof. Time: 1 days 8 hrs  
  - Tech. Time: 1 days 0 hrs  

- **Field ID:** USFS  
  - Permit No: 11  
  - Well No: 13  
  - Operator: N.W. Corp.  
  - Contractor: AM. DP. DRG.  
  - Rep: G. SKY	es  

- **Rig Type:** TH-180  
  - Range: 2500  
  - Rep: D. MEYER  

### Proposed Depth: 200' 8" LasinG @ 200 W/1004V

**Inspection Checklist for Blowout Prevention Equipment**

<table>
<thead>
<tr>
<th>Item</th>
<th>Tested to</th>
<th>for: Passed</th>
<th>Failed</th>
<th>Closing Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. Rotating Head</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>11. Benjo Box</td>
<td></td>
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<tr>
<td>12. Safety Chain on Rotary Hose</td>
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<tr>
<td>13. Internal BOP</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Accumulator Pressure: Before Operation</td>
<td>PSI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>After Operation</td>
<td>PSI</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| 15. Choke in Manifold: | | | | | |
| 16. Blowout Prevention Equipment: | | | | | |

- failures to conform to specification  
- conforms to specifications  
- with no exception  
- with the following approved exceptions: Not yet installed

**Verbal Permission to Drill to 500' Prior to B.O.P. Installation & Inspection**

**Well Location:** SW 1/4 NW 1/4 Sec. 14, T 35 S, R 28 E, MB, Clackamas County, Oregon
### U.S. GEOLOGICAL SURVEY

Geothermal District Office: [Select Options]  
- Reno  
- Santa Rosa  
- Salt Lake City  
- Eastern  

**INSPECTION RESULTS:**  
- Date Completed: 06/30/79  
- State: OR  
- AGS No:  
- APD No:  
- Dist No:  

**Inspector:** C.D. Morgan  
**Prof. Time:** 4 days 10 hrs  
**Tech. Time:** 4 days 10 hrs  
**Field Unit ID:** USFS  
**Lessees:** Pre-lease  
**Operator:** NW Gas Corp  
**Contractor:** Geo. Shales  
**Big Type:** TH-100  
**Range:** 2500  
**Rep:** John Heck  
**Rep:** Gene Shales  

**Spud Date:** 06/06/79  
**Type Well:** Drilling  
**Temp. Grad:**  
**Observation:**  
**Production:**  
**Injection:**  
**Work-Over:**  

**S U N A**  
- [ ] 1. Annular Preventer  
- [ ] 2. Blind Raps  
- [ ] 3. Pipe Raps  
- [ ] 4. Drill Collar Raps  
- [ ] 5. Kelly Cock  
- [ ] 6. Standpipe Valves  
- [ ] 7. Choke Manifold Valves  
- [ ] 8. Kill Line Valves  
- [ ] 9. Slab Gate  
- [ ] 10. Rotating Head  
- [ ] 11. Banjo Box  
- [ ] 12. Safety Chain on Rotary Hose  
- [ ] 13. Internal BOP  
- [ ] 14. Accumulator Pressure: Before Operation PSI  
- [ ] 15. Choke in Manifold: Variable or Size in Left: Size in Right:  

### Proposed T.D.: 2000' 8' casing at 200'  

#### INSPECTION CHECKLIST FOR BLOWOUT PREVENTION EQUIPMENT

<table>
<thead>
<tr>
<th>Tested to</th>
<th>for: Passed</th>
<th>Failed</th>
<th>Closing Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSI</td>
<td>Mins.</td>
<td>Mins.</td>
<td>Secs.</td>
</tr>
</tbody>
</table>

**Closing Time:****

- [ ] Mins.  
- [ ] Secs.  

**Before Operation:** PSI  
**After Operation:** PSI  

**Choke in Manifold:** [ ] Variable or Size in Left: [ ] Size in Right:  

**Blowout Prevention Equipment:**  
- [ ] Fails to conform to specification  
- [ ] conforms to specifications  
- [ ] with no exception  

[ ] with the following approved exceptions: 8 1/2" X 24" MIP, W/ 2-2" valves installed below slab gate valve. This was previously approved by T.H. Hudson in lieu of the conventional B.O.P. equipment. Installation made with drill bit at 470 foot depth.
INSPECTION CHECKLIST FOR BLOWOUT PREVENTION EQUIPMENT

☐ ☑ 17. Choke Line installation
☐ ☑ 18. Hand Wheel installation and bracing
☐ ☑ 19. BOPE Drills held at specified intervals and results logged
☐ ☑ 20. Mud Monitoring Equipment and Alarms working
☐ ☑ 21. Rams can be locked in closed position from outside substructure
☐ ☑ 22. All outlets equipped with high pressure fittings
☐ ☑ 23. Large capacity relief lines used to hold down surface casing pressure
☐ ☑ 24. Valve operation
☐ ☑ 25. Handles installed and within easy reach
☐ ☑ 26. Blowout Preventors properly braced
☐ ☑ 27. Bolts in all bolt holes
☐ ☑ 28. All bolts have nuts
☐ ☑ 29. All threads filled
☐ ☑ 30. All choke lines and emergency flowline tied into mud gas separator
☐ ☑ 31. Gas separated from the mud safely discharged or flared
☐ ☑ 32. Separate fill-up and kill lines
☐ ☑ 33. Specified procedure for hole filling
☐ ☑ 34. Crew instruction as to procedures during trip if swabbing or lost circulation is detected
☐ ☑ 35. Crew instruction on proper emergency back-up operation of Blowout Prevention system using nitrogen bottles

Problems/Comments:  
Well Location: SW 1/4 NW 1/4, Sec. 14, T.35N., R.8E.  
Clackamas County, Oregon