

Existing

KB=10'

Proposed

**Willard Hein Gas Unit #1**

API: 05-123-07624

Surface Casing/Hole

Casing Size/Depth: 8 5/8, 24#/ft @

Hole Size/Depth: 12 1/4" @

208'

208'

**Cmt to Surf****100'**

100'

Stub Plug Top

Est. Top of Existing Cement

398'

**100 sx**

310'

Crack Coupling

410'

Stub Plug Bottom

Est. Bottom of Existing Cement

857'

717'

TOC ID

875'

Top Perf

Fox Hills Formation Marker

1233'

**905'****350 sx**

1435'

Bottom Perf

Cement Sqz From 2250' to 2000'; Perfs: 2086'

**~44 bbls**

4132'

TOC ID

4290'

Top Perf

Sussex

No perfs

Top

4496'

**4320'****410 sx**

4900'

Bottom Perf

Shannon

No perfs

Base

5136'

**~30 bbls**

6762'

TOC ID

6920'

Top Perf

Niobrara Top

7321'

No perfs

**6950'****130 sx**

7290'

Bottom Perf

Estimated TOC

7308'

**J Sand Perfs****8083' - 8117'****2 sx****8000'**Production Casing/Hole

Casing Size/Depth 4.5" x11.6 / 10.5#/ft @

8209'

Hole Size/Depth

7.875" @

8215'

Existing Cement

New CICR

Existing CIBP

New CIBP

Existing CIBP

New Cement

Drilling Mud