



**PERMIT RENEWAL APPLICATION
CLASS I NONHAZARDOUS WASTE INJECTION WELL
WDW NO. 1**

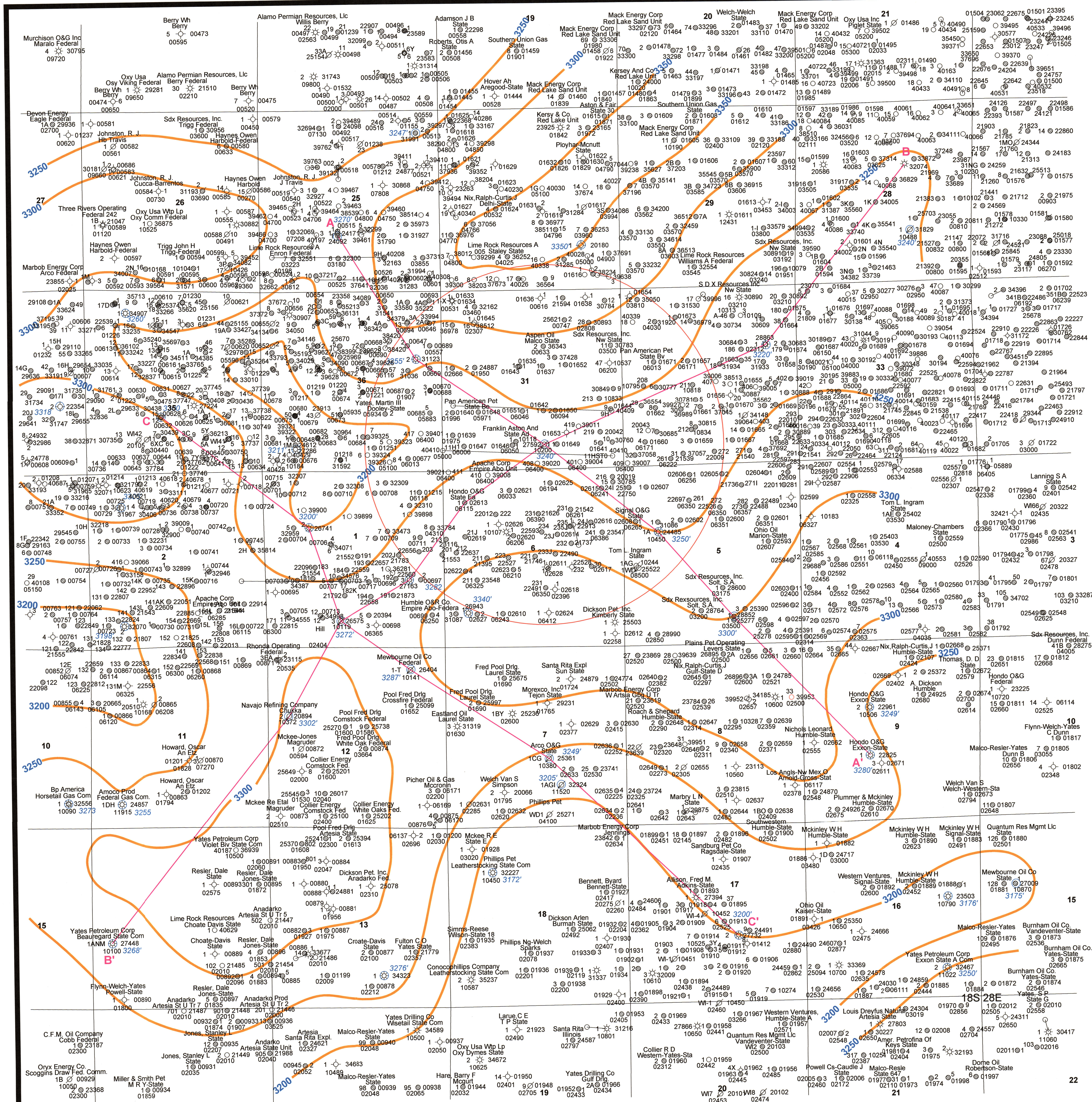
Volume 1 of 3

**NAVAJO REFINING COMPANY, L.L.C.
ARTESIA, NEW MEXICO
SUBSURFACE PROJECT NO. 60D6894**

**DRAWINGS
4 OF 5**

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MARCH 2013

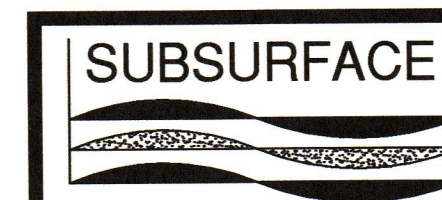


LEGEND

- PERMITTED WELL
- ⊙ DRY HOLE
- ⊘ PLUGGED AND ABANDONED WELL
- ☀ GAS WELL
- OIL WELL
- ★ OIL & GAS WELL
- ⊙/ ABANDONED GAS WELL
- / ABANDONED OIL WELL
- ★/ ABANDONED OIL & GAS WELL
- ⊙/ INJECTION WELL
- / PLUGGED & ABANDONED INJECTION WELL
- SALTWATER DISPOSAL WELL
- ⊙ PLUGGED SALTWATER DISPOSAL WELL

 1-MILE AREA OF REVIEW
 LINE OF GEOLOGIC CROSS-SECTION
 3300 ISOPACH CONTOUR OF THE UPPER CONFINING ZONE

The diagram illustrates the relationship between well identification and the thickness of the upper confining zone. It shows a well identified by 'Well Number' (1-T) and 'API Number' (26404). The 'Thickness of the Upper Confining Zone (ft)' is indicated as 10141, with a note that this value is derived from the API number (3287'). The 'Total Depth of Well' is also shown.

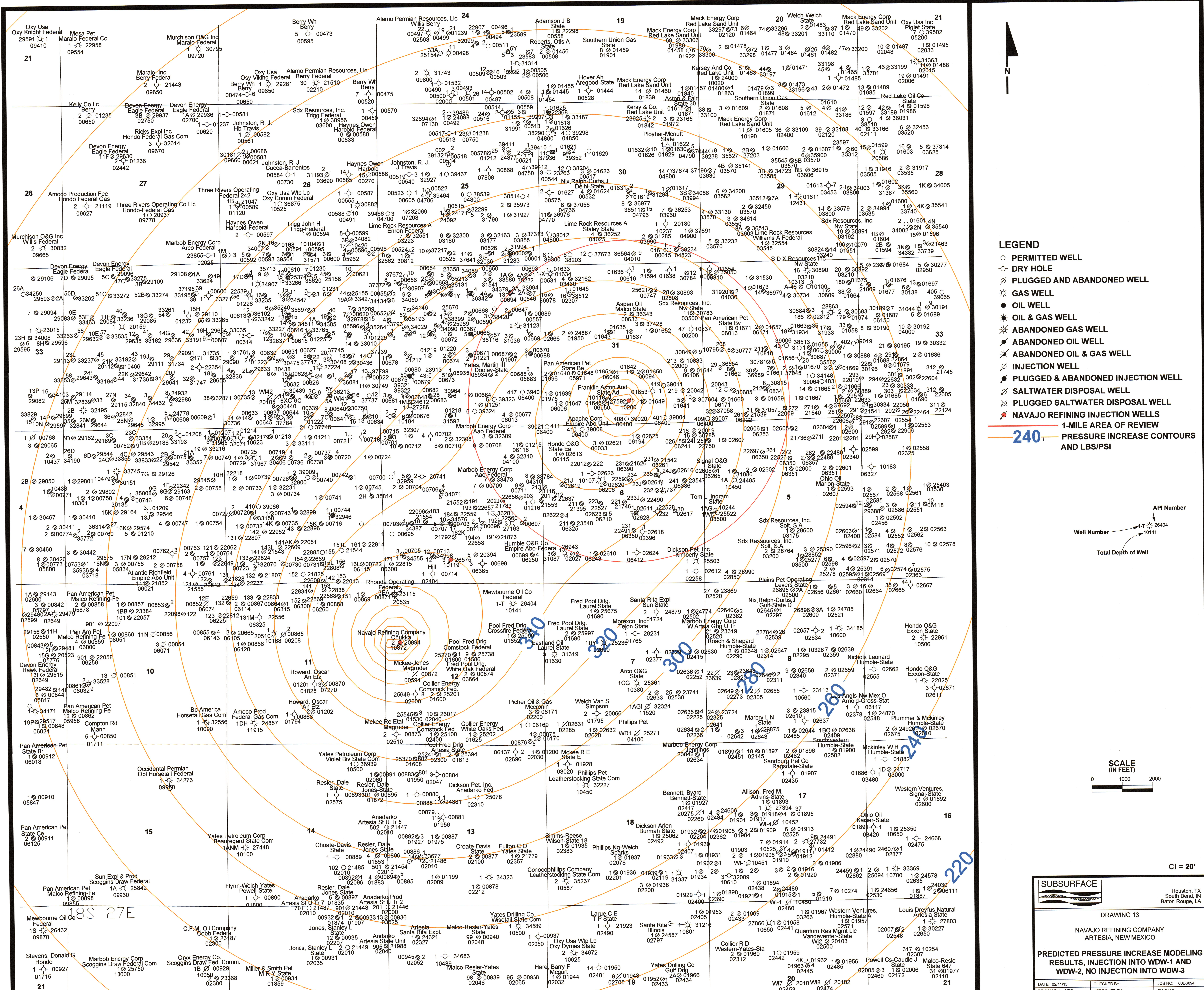
 $CI = 50\%$ 

DRAWING 1

NAVAJO REFINING COMPANY
ARTESIA, NEW MEXICO

ISOPACH MAP OF UPPER CONFINING ZONE

DATE: 01/11/13	CHECKED BY:	JOB NO: 60D6894
DRAWN BY: WDD	APPROVED BY:	DWG NO:



LEGEND

- PERMITTED WELL
- ⊙ DRY HOLE
- ⊙ PLUGGED AND ABANDONED WELL
- ⊙ GAS WELL
- OIL WELL
- ⊙ OIL & GAS WELL
- ⊙ ABANDONED GAS WELL
- ⊙ ABANDONED OIL WELL
- ⊙ ABANDONED OIL & GAS WELL
- ⊙ INJECTION WELL
- ⊙ PLUGGED & ABANDONED INJECTION WELL
- ⊙ SALTWATER DISPOSAL WELL
- ⊙ PLUGGED SALTWATER DISPOSAL WELL
- ⊙ NAVAJO REFINING INJECTION WELLS

240 1-MILE AREA OF REVIEW
PRESSURE INCREASE CONTOURS
AND LBS/PSI

API Number
Well Number
Total Depth of Well

SCALE
(IN FEET)
0 1000 2000

CI = 20'

SUBSURFACE

DRAWING 13

NAVAJO REFINING COMPANY
ARTESIA, NEW MEXICO

PREDICTED PRESSURE INCREASE MODELING RESULTS, INJECTION INTO WDW-1 AND WDW-2, NO INJECTION INTO WDW-3

DATE: 02/11/13 CHECKED BY: JOB NO: 606894
DRAWN BY: WOD APPROVED BY: DWG NO: