



New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

Joanna Prukop  
Cabinet Secretary

Mark Fesmire  
Division Director  
Oil Conservation Division



June 17, 2009

Scott M. Ingram  
Chevron USA, Inc.  
15 Smith Road  
Midland, TX 79705

**Re: Administrative Order SWD-1051**

New Mexico "O" State NCT-1 Well No. 40 (API No. 30-025-38140)  
1885 FSL, 1978 FEL, Sec 36, T17S, R34E, NMPM, Lea County  
Disposal into the Devonian, permitted depths: Approx. 12200 to 13200 OH

You have submitted a request on behalf of Chevron, for relief from a requirement to run an injection survey in the open-hole interval.

The Division agrees with your reasons as outlined in your letter.

Chevron is hereby released from the requirement in SWD-1051 to run an injection profile log.

All other provisions of SWD-1051 and in Division Rules governing salt water disposal remain in full force and effect.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark E. Fesmire", is written over a horizontal line.

MARK E. FESMIRE, P.E.  
Director

Cc: Oil Conservation Division – Hobbs  
SWD-1051





Scott Ingram  
Sr. Staff Geologist/Project Manager

Chevron USA, Inc.  
15 Smith Road,  
Midland, Texas 79705  
Tel 432 687-7212  
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smin@chevron.com

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Date May 28<sup>th</sup>, 2009

New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico, 87505

Attention: Mr. Will Jones

**Re: Administrative Order SWD -1051**

Dear Mr. Jones,

Per our discussion earlier today, I recently reviewed our files associated with Chevron's New Mexico "O" State NCT-1 #40 well (API 30-025-38140), which was drilled and completed as an SWD well in the Vacuum field. My review included the administrative order SWD -1051 approving its injection of produced waters into the Devonian formation. During that review I determined there are two requirements of that order we have not complied with as of yet, which are: 1) we provide the date of commencement of injection and the estimated initial reservoir pressure and 2) we run an injection profile and supply you a copy.

In response to the first requirement, we commenced injection on May 30<sup>th</sup>, 2007 and based on a static fluid level prior to initial disposal of 1938', a mid-formation depth of 12,600' and an average fluid weight of 9.0 ppg, I calculate an estimated initial reservoir pressure of 4990 psi.

In response to the second requirement, we have not yet run an injection profile on this well. The Vacuum Operations Technical Team engineers and earth scientists have discussed the merits and risk of this proposed operation and respectfully request a waiver of this requirement. Our reasons are:

- We are concerned about risking the wellbore, even slightly, by the proposed operation. Sticking a profile tool or losing a wireline string down hole would put this five million dollar wellbore at risk and this is our only significant disposal well in the field; losing it would require us to shut in a significant portion of our Vacuum operation.
- There is extremely little likelihood of injection waters escaping to other formations. The disposal interval is open hole from 12,135' to 13,300' with the injection packer set at 12,056' with no indications of any packer problems to date. The 7" production string was cemented in 2 stages, [1<sup>st</sup> stage -1030 sx (did not circ to surface) 2<sup>nd</sup> stage - 1050 sx

(circ to surface)]. Additionally, the well also has an intermediate string set at 5840' (cement circ to surface) and a surface string set at 1495' (cement circ to surface). The deepest productive reservoir in the area is the Atoka which is not present in the subject well but its stratigraphic interval occurs above 11,000'. The next deepest productive reservoir in the area is the Wolfcamp which occurs at 10,400' in the subject well, almost 2000' uphole from the injection interval.

- There is also extremely little likelihood of injection waters escaping to other formations since the disposal operation takes place at such a low injection pressure. We monitor total daily disposal volume and instantaneous rates and injection pressure; our maximum recorded wellhead injection pressure was 133 psi at an instantaneous rate of 12,615 BWPD. Our average actual daily disposal volume is far lower, on the order of 7,000 BWPD, so we feel confident we are not in jeopardy of breaking down any exposed strata and therefore allowing injection waters to escape to other formations.

In summary, we request a waiver to the requirement of running an injection profile in the subject well for the reasons state above. Please contact me at 432-687-7212 if you have any questions or need additional information regarding this request.

Sincerely,



Scott M. Ingram