State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

David Martin Cabinet Secretary

Tony Delfin Deputy Cabinet Secretary David R. Catanach, Division Director Oil Conservation Division



Administrative Order IPI-504 May 23, 2016 Administrative Application Reference No. pMAM1612758668

Ms. Denise Pinkerton Chevron U.S.A. Inc. 15 Smith Road Midland, TX 79705

RE: <u>Injection Pressure Increase</u>

Central Vacuum Unit Tertiary Recovery Project Vacuum Grayburg San Andres Pool (62180)

Dear Sir or Madame:

Reference is made to your request on behalf of Chevron U.S.A. Inc. (OGRID 4323) received on May 5, 2016, to increase the maximum allowed surface tubing pressure on the following well(s):

Well No.	API Number	ULSTR	Permitting Order and Last Order Specifying Pressure Limit	Existing Pressure Limit, Psi	Existing Tubing OD, In.
CVU #029	30-025-25794	L-30-17S-35E	Case 11650 Ex 12 12/19/96 and IPI-501	2300	2-3/8
CVU #155	30-025-27965	I-25-17S-34E	PMX-121	875	2-3/8
CVU #115	30-025-25800	J-6-18S-35E	R-5530 and Case 11650 Ex 12 12/19/96	1295	2-3/8
CVU #241	30-025-35213	B-36-17S-34E	PMX-211 and IPI-155	1500	2-3/8

It is our understanding that the requested pressure increase is needed in order to increase the rate of injection and this pressure increase will not result in the fracturing of the formation and confining strata.

Based on the results of the submitted step rate injection test(s), the following shall be the new pressure limit(s) while equipped with **injection** tubing:

Well No.	Step Rate Test Date	New Pressure Limit	While Injecting	Injection Interval, Feet	Pressure Gradient (in psi/ft)
CVU #029	4/29/16	1900	water	4460 to 4752	0.43
CVU #155	4/20/16	1980	water	4403 to 4721	0.45
CVU#115	4/27/16	2000	water	4560 to 4705	0.44
CVU #241	4/22/16	2200	water	4203 to 4539	0.52

This approval is based on the provision that the tubing size, packer setting depth and completion interval for the well(s) does not change. Any future requested pressure increase will require resubmission of additional data and/or a new step-rate test. The Division Director retains the right to require at any time wireline verification of completion and packer setting depths in the well(s). This approval is subject to your being in compliance with all other Division rules, including but not limited to Division Rule 19.15.5.9 NMAC.

The Division Director may rescind any injection permit if it becomes apparent that the injected fluid is not being confined to the permitted disposal interval or is endangering any fresh water aquifer.

Sincerely,

DAVID R. CATANACH

Director

DRC/wvjj

cc: Oil Conservation Division – Hobbs District Office

State Land Office - Oil, Gas, and Minerals Division

Well Files, PMX-211, PMX-121, Case 6008, Case 11650