State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

Ken McQueen Cabinet Secretary

Matthias Sayer Deputy Cabinet Secretary David R. Catanach, Division Director Oil Conservation Division



Administrative Order IPI-511 April 17, 2017 Administrative Application Reference No. pWVJ1710066855

Ms. Cindy Herrera Chevron U.S.A. Inc. 15 Smith Road Midland, TX 79705

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

Vacuum Grayburg San Andres 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 March 2, 2017, to increase the maximum allowed surface tubing pressure on the following well(s):

Well No.	API Number	ULSTR	Order Allowing Injection	Existing Pressure Limit, Psi	Existing Tubing OD, In.
VGSAU #17	30-025-24316	1-2-18S-34E	Case 4852 R-4442	1500	2-3/8
VGSAU #132	30-025-36683	1-2-18S-34E	WFX-801	1510	2-7/8
VGSAU #134	30-025-36681	K-1-18S-34E	WFX-802	1550	2-3/8

It is our understanding that the requested pressure increase is needed 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)
VGSAU #17	7/8/16	2000	water	4260 to 4837	0.47
VGSAU #132	2/7/17	2000	water	4370 to 4572	0.46
VGSAU #134	2/23/17	2000	water	4260 to 4837	0.47

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 File(s), Case 13961, WFX-801, WFX-802