New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

John H. Bemis Cabinet Secretary-Designate

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Daniel Sanchez Acting Division Director Oil Conservation Division



Administrative Order IPI-394 March 18, 2011

Quantum Resources Management, LLC 1401 McKinney St., Suite 2400 Houston, Texas 77010

Attention: Mr. David Catanach (Agent)

RE: Injection Pressure Increase Request

R-2494, R-2495, WFX-180, WFX-206, WFX-853, and WFX-324 Jalmat; Tansill-Yates-Seven Rivers Oil Pool (33820) Lea County, New Mexico

Reference is made to your request on behalf of Quantum Resources Management, LLC (OGRID 243874) received by the Division February 22, 2011, to increase the surface injection pressure limit on a unit-wide basis for all injection wells within its Cone Jalmat Yates Pool Waterflood Project located within the Jalmat; Tansill-Yates-Seven Rivers Oil Pool (33820) located in portions of Sections 25, 26, 34, 35 and 36, township 17 South, Range 28 East, and Sections 2 & 3, Township 18 South, Range 28 East, NMPM, Lea County, New Mexico.

The unitized interval of this Unit is defined in Division Order No R-2494. The original Division Order R-2495 permitted injection wells in the Cone Jalmat Yates Pool Unit ("CJYPU") but failed to list the maximum allowed pressure..

Administrative Orders WFX-853 granted a wellhead maximum pressure limit of 0.2 psi per foot of depth to the uppermost injection perforations..

It is our understanding the wells are in need additional surface injection pressure to balance injection and withdrawal rates in order to optimize waterflood operations.

The basis for granting these pressure increases are the nine step rate tests run by Quantum in 2010 and 2011.

Administrative Application IPI-394 Quantum Resources Management, LLC March 18, 2011 Page 2 of 4

Quantum Resources Management, LLC is hereby authorized to utilize the equivalent of 0.30 psi per foot or **1,100** psi as the maximum surface injection pressure on the wells shown below, provided the tubing, size, type and perforation depths do not change. The packers shall be located within 100 feet of the top of the injection interval in the following-described wells for purposes of secondary recovery:

Well Name	Well #	API	Unit	Sec	Tsp	Rge	PSI
CJYPU	102	30-025-08647-00-00	С	24	22S	35E	1100
CJYPU	103	30-025-08604-00-00	K	13	22S	35E	1100
CJYPU	105	30-025-08606-00-00	L	13	22S	35E	1100
CJYPU	106	30-025-08607-00-00	M	13	22S	35E	1100
CJYPU	107	30-025-08648-00-00	D	24	22S	35E	1100
CJYPU	108	30-025-08608-00-00	0	13	22S	35E	1100
CJYPU	110	30-025-08649-00-00	F	24	22S	35E	1100
CJYPU	111	30-025-08610-00-00	Р	13	22S	35E	1100
CJYPU	127	30-025-08916-00-00	J	13	22S	35E	1100
CJYPU	128	30-025-08917-00-00	I	13	22S	35E	1100
CJYPU	146	NOT YET DRILLED	E	24	22S	35E	1100
CJYPU	201	30-025-08643-00-00	A	24	22S	35E	1100
CJYPU	202	30-025-08644-00-00	В	24	22S	35E	1100
CJYPU	303	30-025-08645-00-00	G	24	22S	35E	1100
CJYPU	304	30-025-08646-00-00	Н	24	22S	35E	1100
CJYPU	502	30-025-08640-00-00	L	24	22S	35E	1100
CJYPU	503	30-025-08641-00-00	N	24	22S	35E	1100
CJYPU	602	30-025-08651-00-00	J	24	22S	35E	1100
CJYPU	701	30-025-08663-00-00	Н	25	22S	35E	1100
CJYPU	702	30-025-08664-00-00	В	25	22S	35E	1100
CJYPU	804	30-025-08658-00-00	K	25	22S	35E	1100

Note: Some of the wells to be drilled or re-completed do not have perforated intervals future perfs must stay within the unitized interval as outlined in R-2495.

This approval is subject to Quantum being in compliance with all other Division rules, including but not limited to Division Rule 5.9.

The Division Director may rescind this injection pressure increase if it becomes apparent that the injected fluid is not being confined to the injection zone or is endangering any fresh water aquifers, or is causing waste of oil and gas. Quantum is prohibited from injecting at pressures that would induce fracturing in individual wells.

The injection authority granted herein shall terminate one year after the effective date of this order if the operator has not commenced injection operations into at least one of the subject wells, provided however, the Division, upon written request by the operator received prior to the one year deadline, may grant an extension thereof for good cause shown.

Administrative Application IPI-394 Quantum Resources Management, LLC March 18, 2011 Page 3 of 4

J. Daniel Sanchez Acting Director

JDS/tw

cc: Oil Conservation Division –Hobbs New Mexico State Land Office - Santa Fe