EPWM - 7

TEMPORARY APPROVALS, PERMITS, RENEWALS, & MODS

District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 S. First St., Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources

> Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

For State Use Only:

Form C-147 September 6, 2013

Submit 1 Copy to Appropriate District Office

APPLICATION FOR *RE-USE* OF PRODUCED WATER, DRILLING FLUIDS, OR OTHER LIQUID OIL FIELD WASTE <u>OTHER THAN</u> FOR DELIVERY TO A PERMITTED SWD WELL OR FACILITY, SECONDARY RECOVERY OR PRESSURE MAINTENANCE INJECTION FACILITY, SURFACE WASTE MANAGEMENT FACILITY, PERMANENT PIT, OR TO A DRILL SITE FOR USE AS DRILLING, COMPLETION, OR PLUGGING FLUID, PURSUANT TO 19.15.34.12(B) OR 19.15.34.13 NMAC

No OCD permit is required for the re-use of produced water, drilling fluids or other oil field liquids for use as a drilling or completion fluid or other type of oil field fluid, including makeup water, fracturing fluid or drilling mud, at a permitted drilling, production or plugging operation; or other use as permitted by OCD rules. **The re-use of produced water may NOT be used in fresh water zones in drilling or plugging operations.** Produced water must be stored and re-used in a manner that protects fresh water, public health, and the environment. This Application is not for the disposal of produced water.

1	Application: New Modification Renewal					
2.	2. Type of fluid to be re-used: Produced water Drilling fluid Frac fluid Other					
3.	Proposed Re-use: 🔲 Road Construction 🗌 Road Maintenance					
	D Other Algae CULTINATION					
4.	Operator: <u>ELDORAdo Biofuels</u> , LLC OGRID					
	Address: 7 Avenida VISTA GRANDE, #454, SANTA FE, NM 87508					
	Contact Person: $PAULLAUR$ BAUNN # 55ND: APT 30, 025-09807 Facility Location: N 14 UNIT N 14 Section 24 Township 25 South					
5.	BROWN # 55 WD: APL 30, 025 - 09807 Facility Location: <u>14 UNIT N 14 Section 24</u> Township <u>25 South</u>					
	Range <u>$36 - E_{45} r$</u> County <u>$lea Coursey$ Attach a plat of the facility and maps that show the source(s) of produced water or other oil field waste, and the location(of re-use. Include a list of facility names and API numbers for proper identification, or pit permit number.</u>					
6.	Scheduled dates for use: $\frac{9/15/2013 - \frac{3}{16}/\frac{2073}{2073}}{\frac{3}{16}/2073}$. If there are deviations from the scheduled dates, ification of the alternative dates is required to be provided to the District/Division prior to deviation.					
	Is this a currently permitted use? \checkmark Yes \Box No If yes, provide permit number $\underline{\mathcal{EPWM} - 0.0}^{7}$					
1.	is and a currently permitted use: [1] res [1] reo in yes, provide permit number					

If the produced water is transported off-lease by motor vehicle, the transporter must possess an approved form C-133 and an approved use permit.

8. Attach the names, addresses, and contact information of the applicant and principal individual(s) with primary responsibility for overseeing re-use.

9. For all road construction or maintenance projects, and any other activity where produced water or other oilfield waste may move directly or indirectly into protectable ground water, attach laboratory analyses, performed by an independent commercial laboratory, for major cations and anions; benzene, toluene, ethyl benzene and xylenes (BTEX); RCRA metals; and total dissolved solids (TDS) of fluid to be re-used. Describe the method of application and volume of produced water that will be applied to road to ensure ponding will not occur and there will be no adverse impact on groundwater or surface water.

10. Attach a description of the purpose and process for treating the fluid for use. Include projected volumes of fluids to be used and waste materials, which may be subject to OCD Rules 19.15.35 and 19.15.36 NMAC.

11. Attach a hydrogen sulfide prevention and contingency plan, if applicable, that complies with those provisions of 19.15.11 NMAC.

12. For modification of an existing permit for re-use, describe the proposed change and identify information that has changed from the last form C-147 filing.

13. The division may require additional information to demonstrate that the use will not adversely impact fresh water, public health, safety or the environment and that the facility will comply with division rules and orders. Produced water shall not be used in contact with fresh water zones.

14. TERM AND TERMINATION OF PERMIT

The re-use authorized by this permit shall expire 180 days from date of approval. Nothing herein limits the number of modifications or renewals which may be granted. The OCD may cancel or suspend a permit if conditions are not met or if contamination occurs.

15. CERTIFICATION

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name: PAUL M. LAUR	Title:	CEU/P	Resident
Signature: Darf the hand	Date:	CEU/P Sept. 10	, 2013
E-mail Address: Paul & eldoradobiofuels	. Com		
16. CONDITIONS OF APPROVAL	*		
	·		<u> </u>
			<u></u>
			<u></u>
17. OIL CONSERVATION DIVISION			
Approved Until: 03/16/2014			
By: Southflew LeRing			
Environmental Specialist	x		
Title: If the produced water is transported off-lease b	w motor vel	hicle the trans	porter must
possess an approved form C-133 and an appro	-		<u>pottor must</u>

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

John Bemis Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Balley Division Director Oil Conservation Division



August 27, 2012

Paul Laur Eldorado Biofuels, LLC 7 Avenida Vista Grande #454 Santa Fe, New Mexico 87506

RE: Request for Renewal of Temporary Approval EPWM-007 Eldorado Biofuels, LLC Fulfer Oil & Cattle Co. Brown No. 5 SWD (API 30-025-09807) Location: Unit N, Section 24, Township 25 South, Range 36 East, NMPM Lea County, New Mexico

Dear Mr. Laur:

The Oil Conservation Division (OCD) has reviewed Eldorado Biofuels, LLC's (Eldorado) renewal request, dated August 6, 2012, of OCD's temporary approval EPWM-007. Based upon the information provided in the request, OCD understands that Eldorado will take produced water from the Fulfer Oil & Cattle Company's Brown No. 5 SWD (API 30-025-09807) to store and treat for use as a growth medium for algae cultivation at Eldorado's facility in Jal, New Mexico, located within Unit N of Section 24, Township 25 South, Range 36 East, NMPM, Lea County. The algae cultivation activities are permitted under the New Mexico Environment Department's Ground Water Quality Bureau temporary discharge permit DP-1781.

Eldorado's renewal request is hereby approved pursuant to Subsection B of 19.15.34.12 NMAC with the following conditions:

- Eldorado shall comply with all applicable requirements of the Produced Water Rule (19.15.34 NMAC), the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), and all conditions specified in this temporary approval and shall operate and close the project in accordance with the original request of December 16, 2010 and the August 26, 2011 modification request;
- 2. Eldorado shall store, treat, and use produced water only as proposed in the original request of December 16, 2010 and the August 26, 2011 modification request. Eldorado shall submit a modification request and obtain OCD's approval prior to the installation of additional tanks or other structures within the boundaries of the facility, initiating any changes in the storage, treatment, or use of the produced water (treated or untreated) or the disposition of any unused produced water;
- 3. Eldorado may only store, treat, and use produced water from the Fulfer Oil & Cattle Company's Brown No. 5 SWD (API 30-025-09807). Eldorado shall submit a modification request and obtain OCD's approval prior to switching to a new source of the produced water for treatment;



RECEIVED OCD 2012 AUG - 8 P 12: 37

August 6, 2012

Mr. Brad Jones **Oil Conservation Division** 1220 South St. Francis Drive Santa Fe, NM 87505

RE: EPWM-007 Permit Renewal Request - Storage and Use of Produced Water

Dear Mr. Jones,

This letter serves as a written request for approval to renew OCD Permit EPWM-007 to store and use produced water as a growth medium for algae cultivation in lined open ponds at Eldorado Biofuels' facility in Jal, NM, pursuant to New Mexico Environment Department (NMED) Ground Water Discharge Permit DP - 1781.

Eldorado Biofuels, "The Company", has a produced water treatment facility located on a property leased from Fulfer Oil & Cattle Company at Brown No. 5 SWD: API 30-025-09807, Unit N, Section 24, Township 25 South, Range 36 East, Lea County, New Mexico. The purpose of this facility is to cultivate algae in treated produced water for biofuels and bioproducts production.

The Company is currently operating under a permit from the New Mexico Oil Conservation Division (OCD), EPWM-007, set to expire on September 15, 2012. All conditions of this existing permit will apply to continued operations, including the annual report of produced water diverted from Brown #5 SWD (cited above), due on or before November 14, 2012.

Thank you in advance for your continued support and assistance.

Sincerely

CEO/President Eldorado Biofuels, LLC

Eldorado Biofuels, LLC • 7 Avenida Vista Grande #454 • Santa Fe, NM 87508

Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

John H. Bemis Cabinet Secretary-Designate

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey Division Director Oil Conservation Division



August 31, 2011

Paul Laur Eldorado Biofuels, LLC 7 Avenida Vista Grande #454 Santa Fe, New Mexico 87506

RE: Request for a Modification of Temporary Approval EPWM-007 Eldorado Biofuels, LLC Fulfer Oil & Cattle Co. Brown No. 5 SWD (API 30-025-09807) Location: Unit N, Section 24, Township 25 South, Range 36 East, NMPM Lea County, New Mexico

Dear Mr. Laur:

The Oil Conservation Division (OCD) has reviewed Eldorado Biofuels, LLC's (Eldorado) request, dated August 26, 2011, to modify OCD's temporary approval EPWM-007. Based upon the information provided in the request, OCD understands that Eldorado will take produced water from the Fulfer Oil & Cattle Company's Brown No. 5 SWD (API 30-025-09807) to store and treat for use as a growth medium for algae cultivation at Eldorado's facility in Jal, New Mexico, located within Unit N of Section 24, Township 25 South, Range 36 East, NMPM, Lea County. The algae cultivation activities are permitted under the New Mexico Environment Department's Ground Water Quality Bureau temporary discharge permit DP-1781.

Eldorado's modification request is hereby approved pursuant to Subsection B of 19.15.34.12 NMAC with the following conditions:

- Eldorado shall comply with all applicable requirements of the Produced Water Rule (19.15.34 NMAC), the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), and all conditions specified in this temporary approval and shall operate and close the project in accordance with the August 26, 2011 request;
- 2. Eldorado shall store, treat, and use produced water only as proposed in its August 26, 2011 request. Eldorado shall submit a modification request and obtain OCD's approval prior to the installation of additional tanks or other structures within the boundaries of the facility, initiating any changes in the storage, treatment, or use of the produced water (treated or untreated) or the disposition of any unused produced water;
- Eldorado may only store, treat, and use produced water from the Fulfer Oil & Cattle Company's Brown No. 5 SWD (API 30-025-09807). Eldorado shall submit a modification request and obtain OCD's approval prior to switching to a new source of the produced water for treatment;

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

* Phone: (505) 476-3440 * Fax (505).476-3462* <u>http://www.eminrd.state.mm.us</u>

- 4. Eldorado shall store and treat produced water within the constructed containment area to prevent unauthorized releases. Eldorado shall report all unauthorized discharges, spills, leaks, and releases of produced water or other oilfield waste pursuant to 19.15.29 NMAC;
- 5. Eldorado shall not manage any oilfield waste at the produced water treatment facility site on the ground in pits, ponds, below-grade tanks or land application units without an OCD approved permit;
- 6. Eldorado shall not discharge any treated or untreated produced water on the ground, to ground water, or into any surface water body;
- 7. Eldorado shall ensure that liquid oilfield waste and produced water (treated or untreated) is transported using an OCD permitted (C-133 Authorization to Move Produced Water) hauler;
- 8. Eldorado shall dispose of its solid and semi-solid oilfield waste, including, but not limited to, flocculants, treatment filters, membranes, etc., at Sundance Services, Inc.'s Surface Waste Management Facility (NM1-003) as proposed in its August 26, 2011 request. Eldorado shall retain records (OCD Form C-138) documenting all oilfield waste removed from the site. The records shall indicate the facility name and permit number of the OCD approved facility in which the oilfield waste is disposed;
- 9. Eldorado shall dispose of any unused, treated or untreated produced water at the Fulfer Oil & Cattle Company's Brown No. 5 SWD (API 30-025-09807); and
- 10. Eldorado shall submit an annual report of discharge volumes (produced water diverted) in gallons to the OCD's Environmental Bureau within 60 days after the temporary permission expiration date.

This temporary approval shall expire September 14, 2012. Renewal requests for temporary approvals shall be submitted 45 days prior to the expiration date. Temporary approval may be revoked or suspended for violation of any applicable provisions and/or conditions. OCD may administratively modify this temporary approval at any time, if it determines that an emergency exists requiring emergency response operations to abate immediate threats to fresh water, public health, and the environment.

Please be advised that approval of this request does not relieve Eldorado of liability should operations result in pollution of surface water, ground water or the environment; nor does approval relieve Eldorado of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact Mr. Brad A. Jones of my staff at (505) 476-3487 or <u>brad.a.jones@state.nm.us</u>.

Sincerely,

Jami Bailey Director

JB/baj

cc: OCD District I Office, Hobbs

New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez

John H. Bemis Cabinet Secretary-Designate

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Bailey Division Director Oil Conservation Division



June 15, 2011

Paul Laur Eldorado Biofuels, LLC 7 Avenida Vista Grande #454 Santa Fe, New Mexico 87506

RE: Request for a Three Month Extension of Temporary Approval EPWM-007 Eldorado Biofuels, LLC Fulfer Oil & Cattle Co. Brown No. 5 SWD (API 30-025-09807) Location: Unit N, Section 24, Township 25 South, Range 36 East, NMPM Lea County, New Mexico

Dear Mr. Laur:

The Oil Conservation Division (OCD) has reviewed Eldorado Biofuels, LLC's (Eldorado) request, dated June 14, 2011, for a three (3) month extension of temporary approval EPWM-007; which expires June 16, 2011. Based upon the information provided in the request, OCD's understands that the extension will allow Eldorado the opportunity to continue to operations under the existing approval while providing additional time to complete the modification request for temporary approval EPWM-007 and resolve any permitting issues with the New Mexico Environment Department. OCD acknowledges receipt of the Site Plan illustrations with the June 14, 2011 request in order to satisfy the submittal of some of the information required to comply with Condition 13 of December 16, 2010 temporary approval EPWM-007.

Based upon the information provided in the request, OCD hereby grants Eldorado the requested three (3) month extension of temporary approval EPWM-007. The three (3) month extension will be initiated after the June 16, 2011 expiration date and is subject to the following condition:

• Within thirty (30) days from the date of this letter, Eldorado shall submit to OCD detailed construction/installation cross-sections and diagrams (as-built drawings) of the secondary containment constructed for operations and treatment of produced water at the Fulfer Oil &

Oil Conservation Division 1220 South St. Francis Drive • Santa Fe, New Mexico 87505 Phone (505) 476-3440 • Fax (505) 476-3462 • <u>www.emnrd.state.nm.us/OCD</u>



Mr. Laur Eldorado Biofuels, LLC EPWM-007 June 15, 2011 Page 2 of 2

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Cattle Co. Brown No. 5 SWD (API 30-025-09807) located in Unit N, Section 24, Township 25 South, Range 36 East, Lea County, New Mexico.

This temporary approval will expire September 14, 2011. Renewal requests for temporary approvals shall be submitted 45 days prior to the expiration date. Temporary approval may be revoked or suspended for violation of any applicable provisions and/or conditions. OCD may administratively modify this temporary approval at any time, by incorporating additional conditions, if it determines that such conditions are necessary and proper for the protection of fresh water, public health, and the environment.

Please be advised that approval of this request does not relieve Eldorado of liability should operations result in pollution of surface water, ground water or the environment; nor does approval relieve Eldorado of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If there are any questions regarding this matter, please do not hesitate to contact me at (505) 476-3487 or <u>brad.a.jones@state.nm.us</u>.

Sincerely,

Brad A. Jones Environmental Engineer

BAJ/baj

cc: OCD District I Office, Hobbs



June 14, 2011

Mr. Brad Jones Environmental Bureau NM Oil Conservation Division 1220 S St. Francis Drive Santa Fe, NM 87505

RE: Request for a 3 Months Extension of Temporary Permit # EPWM-007

Dear Mr. Jones,

This letter serves as a written request for a 3 months extension of our current temporary permit # EPWM-007 (Expiration date: June 16, 2011) while Eldorado Biofuels is still working through the modification of this permit.

Eldorado Biofuels is also working with the NMED to obtain a permit for the use of produced water at the Jal facility, located at Fulfer Oil & Cattle Company at Brown No. 5 SWD (API 30-025-09807), Unit N, Section 24, Township 25 South, Range 36 East. A temporary permit from the NMED is currently in review proceedings. The modified permit EPWM-007 will be linked to the NMED permit for the use of produced water.

An extension of temporary permit EPWM-007 would allow us to continue operations under the current permit while completing above mentioned processes.

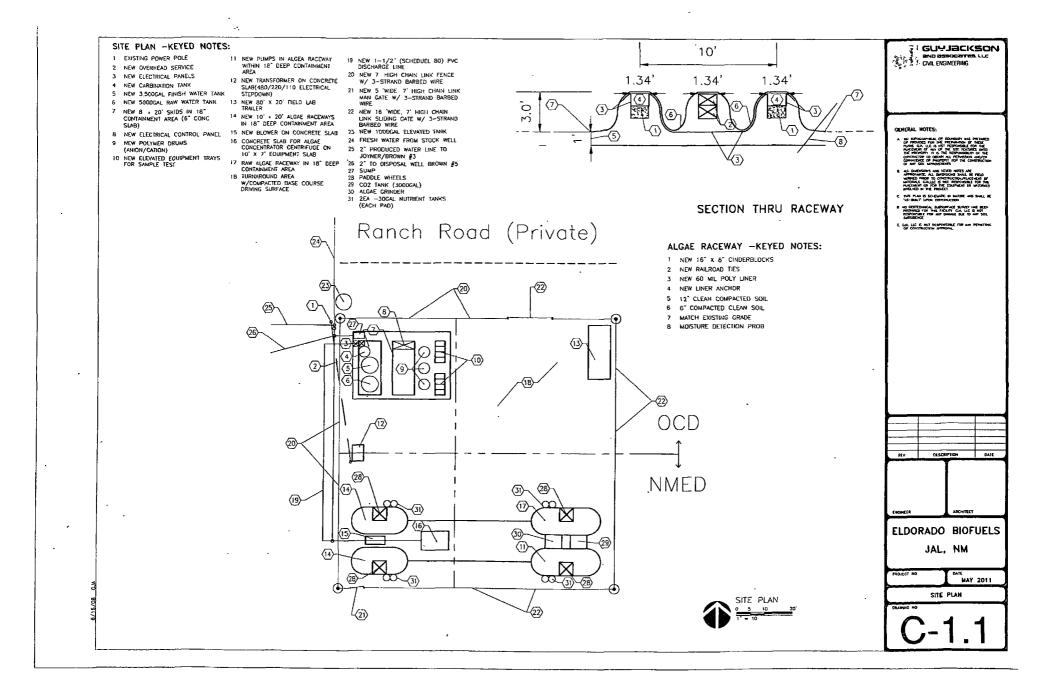
In compliance with condition 13 of our temporary permit please find the site plans of the Eldorado Biofuels Jal Facility enclosed.

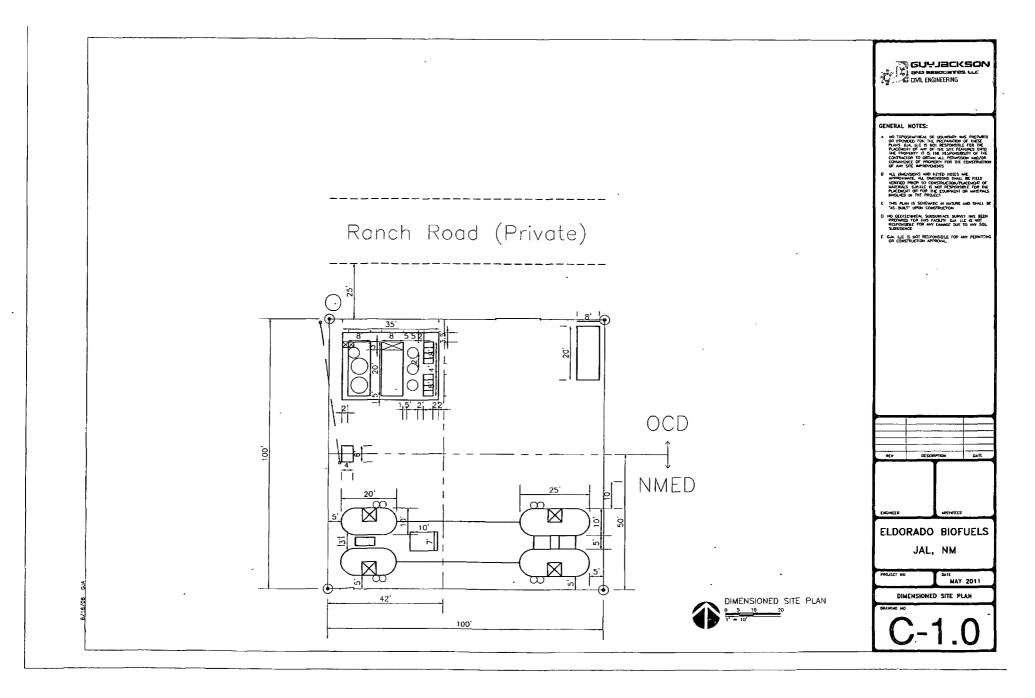
Sincerely,

Paul Laur

CEO Eldorado Biofuels, LLC

Fldorado Biofuels, LLC • 7 Avenida Vista Grande #454 • Santa Fe, NM 87506





New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson

Jim Noel Cabinet Secretary

Karen W. Garcia Deputy Cabinet Secretary Mark Fesmire Division Director Oil Conservation Division



DECEMBER 16, 2010

Mr. Paul M. Laur, CEO Eldorado Biofuels 7 Ave. Vista Grande, #454 Santa Fe, NM 87508

Re: Application For Temporary Approval To Store And Use Produced Water For Research And Development Of Eldorado Biofuels Produced Water Treatment System (VM Technology UVOX[™] Water Treatment System EPWM-007

Location: Fulfer Oil & Cattle Co. Brown No. 5 SWD (API 30-025-09807)

Unit N, Section 24, Township 25 South, Range 36 East

The Oil Conservation Division (OCD) has reviewed Eldorado Biofuels' application, dated December 16, 2010, for a Temporary Approval to Store and Use Produced Water for Research and Development at the Fulfer Oil & Cattle Co. Brown No. 5 SWD (API 30-025-09807) located in Unit N, Section 24, Township 25 South, Range 36 East, Lea County, New Mexico. OCD understands that Eldorado Biofuels will take produced water from the Fulfer SWD, test and treat it onsite, and send it for further testing at the National Alliance for Advanced Biofuels and Bioproducts (NAABB), Texas AgriLife, Pecos, Texas facility.

Eldorado's application is hereby approved pursuant to Subsection B of 19.15.34.12 NMAC with the following conditions:

1. Eldorado shall comply with all applicable requirements of the Produced Water Rule (19.15.34 NMAC), the Oil and Gas Act (Chapter 70, Article 2 NMSA 1978), and all conditions specified in this Temporary Approval.

2. Eldorado shall store, test, and treat produced water only as proposed in its December 16, 2010 application.

3. Eldorado may only store, test, and treat produced water from the Fulfer SWD.

Oil Conservation Division 1220 South St. Francis Drive • Santa Fe, New Mexico 87505 Phone (505) 476-3440 • Fax (505) 476-3462 • www.emnrd.state.nm.us/OCD 4. Eldorado shall store, test, and treat produced water on a bermed, lined containment area using 20-mil string reinforced LLDPE or equivalent geomembrane liner to prevent unauthorized releases.

5. Eldorado shall not manage any oilfield wastes at the produced water treatment facility site on the ground in pits, ponds, below-grade tanks or land application units without an OCD approved permit.

6. Eldorado shall not discharge any treated or untreated produced water on the ground, to ground water, or into any surface water body.

7. Eldorado shall report all unauthorized discharges, spills, leaks, and releases of produced water or other oilfield waste pursuant to 19.15.29 NMAC.

8. Eldorado shall ensure that its treated produced water is transported to the National Alliance for Advanced Biofuels and Bioproducts (NAABB), Texas AgriLife, Pecos, Texas facility using an OCD permitted (C-133) water hauler.

9. Eldorado shall ensure all oilfield waste is transported by a hauler that has a form C-133, Authorization to Move Produced Water, approved by OCD.

10. Eldorado shall dispose of its oilfield waste (*i.e.*; "the small amount of non-toxic solid waste," including, but not limited to, treatment filters, membranes *etc.*) at the Sundance Parabo Surface Waste Management Facility (NM1-003).

11. Eldorado shall dispose of any unused, treated or untreated produced water at the Fulfer SWD.

12. Eldorado shall submit a modification request and obtain OCD's approval prior to initiating any changes in the storage or use of the treated produced water or the disposition of any unused produced water.

13. Eldorado shall submit a report to OCD within 30 days of the conclusion of its approved activities and shall document the volumes of the produced water that was obtained from the Fulfer SWD, the volumes that were treated, the volumes that were sent to the Pecos Texas facility, and the volumes that were finally disposed of at the Fulfer SWD. Eldorado shall also provide OCD with a site diagram depicting the location of the SWD, the location and details of the containment area, and the locations and details of the above grade tanks and equipment. Eldorado shall propose how it will dispose of the geomembrane liner material and any other waste.

This Temporary Approval is valid for six months. This temporary approval begins December 16, 2010 and expires June 16, 2011. Renewal requests for temporary approvals shall be submitted 45 days prior to the expiration date. Temporary approval may be revoked or suspended for violation of any applicable provisions and/or conditions. OCD may administratively modify this temporary approval at any time, by incorporating additional conditions, if it determines that EPWM - 007 Page 3 of 3

such conditions are necessary and proper for the protection of fresh water, public health, and the environment.

Please be advised that approval of this request does not relieve Eldorado of liability if its operations result in pollution of surface water, ground water or the environment. Nor does OCD's temporary approval relieve Eldorado of its responsibility to comply with any other applicable governmental authority's rules and regulations.

Please refer to OCD Permit EPWM-007 in all future correspondence. If there are any questions regarding this matter, please do not hesitate to contact Brad Jones at (505) 476-3487 or brad.a.jones@state.nm.us.

Sincerely,

Gtenn von Gonten Acting Environmental Bureau Chief

GVG/BAJ cc: OCD District I, Hobbs