

**EPWM - 4**

**PERMITS,  
RENEWALS, &  
MODS**

**Jones, Brad A., EMNRD**

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**From:** Jones, Brad A., EMNRD  
**Sent:** Thursday, November 20, 2014 2:04 PM  
**To:** 'Karen Evans'  
**Cc:** Matthew J. Bruff  
**Subject:** RE: NM OCD REQUEST FOR TEMP APPROVAL - PERMIT EPWM-004  
**Attachments:** 2014 1120 EPWM-004 renewal approval.pdf

Karen,

Please see the attached approval letter. A hardcopy has been placed in the mail. If you have any questions regarding this matter, please do not hesitate to contact me.

Brad

**Brad A. Jones**  
*Environmental Engineer*  
*EMNRD Oil Conservation Division*  
*1220 S. Saint Francis Drive*  
*Santa Fe, New Mexico 87505*  
*E-mail: [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us)*  
*Office: (505) 476-3487*  
*Fax: (505) 476-3462*

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**From:** Karen Evans [<mailto:karen.evans@altelainc.com>]  
**Sent:** Wednesday, November 19, 2014 10:35 AM  
**To:** Jones, Brad A., EMNRD  
**Cc:** Matthew J. Bruff  
**Subject:** NM OCD REQUEST FOR TEMP APPROVAL - PERMIT EPWM-004  
**Importance:** High

Brad,

Attached please find an advance email copy of the annual renewal request for Temporary Approval of EPWM-004 which expires January 16, 2015. The original was mailed out today.

Should you have any questions, please do not hesitate to contact me.

Thanks again for your assistance throughout the year!

Sincerely,

*Karen K. Evans*  
Environmental Regulatory Analyst

**Altela, Inc.**  
DENVER TECHNOLOGY CENTER  
7887 E. Belleview Ave., Suite 1100  
Englewood, CO 80111

PHONE: (303) 993-1952  
FAX: (303) 993-1955  
WEB: [www.altelainc.com](http://www.altelainc.com)

Follow us on Facebook and Twitter:



*Go to [www.CARESforWater.com](http://www.CARESforWater.com) and [www.CAESwater.com](http://www.CAESwater.com) to view  
Altela's two new centralized wastewater treatment facilities in Pennsylvania.*

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey, Division Director**  
Oil Conservation Division



November 20, 2014

Ms. Karen Evans  
Altela, Inc.  
7887 E. Belleview Ave., Suite 1100  
Englewood, Colorado 80111

**Re: Renewal Request for Temporary Approval to Store and Use Produced Water for  
R&D of the AltelaRain™ Technology  
Temporary Approval: EPWM - 004  
Location: 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121**

Dear Ms. Evans:

The Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s (Altela) email request, dated November 19, 2014, to renew Altela's temporary approval to store and use oilfield produced water for testing and development of the AltelaRain™ technology at Altela's design, research, and manufacturing facility, which expired January 16, 2015. The OCD has granted this temporary approval to serve certain purposes and achieve certain results. One purpose is to allow Altela the opportunity to use real produced water in a controlled environment to assist in the research and development of the AltelaRain™ technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRain™ technology. Such analytical results should represent the initial test/source water concentrations prior to treatment and the concentrations present after treatment for all of the constituents specified in Subsection A, B, and C of 20.6.2.3103 NMAC.

The OCD hereby grants this temporary approval with the following understandings and conditions:

1. The produced water approved for storage and the testing and development of the AltelaRain™ technology shall only occur at Altela's design, research, and manufacturing facility (Meridian), located at 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121;
2. Only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to and from the Meridian facility;

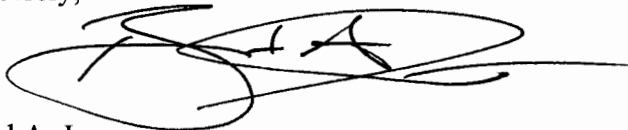
3. No produced water shall be disposed at the Meridian facility. All produced water shall be removed from the Meridian facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility;
4. Altela shall retain records documenting all produced water received and removed from the Meridian facility. The record shall indicate the facility/well name and permit number in which the produced water is obtained from and the facility/well name and permit number of the OCD approved facility in which the produced is disposed;
5. Altela shall report all unauthorized discharges of produced water pursuant to 19.15.29 NMAC to the OCD within 24 hours of determining a release; and
6. Altela shall provide the OCD copies of the water quality analytical test results received from third party water quality laboratories with respect to tests using the produced water at the Meridian facility.

This authorization is approved for a period of one (1) year. This temporary approval will expire January 16, 2016. 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.

Please be advised that approval of this request does not relieve Altela of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Altela 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 [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'BAJ', with a long horizontal line extending to the right.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

State of New Mexico  
Energy, Minerals and Natural Resources Department

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**Susana Martinez**  
Governor

**David Martin**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey, Division Director**  
Oil Conservation Division



July 10, 2014

Ms. Karen Evans  
Altela, Inc.  
5350 South Roslyn Street, Suite 210  
Englewood, Colorado 80111

**Re: Renewal Request for Temporary Approval to Store and Use Produced Water for  
R&D of the AltelaRain™ Technology  
Temporary Approval: EPWM - 004  
Location: 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121**

Dear Ms. Evans:

The Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s (Altela) request, dated July 9, 2014, to renew Altela's temporary approval to store and use oilfield produced water for testing and development of the AltelaRain™ technology at Altela's design, research, and manufacturing facility, which expired January 16, 2014. The OCD has granted this temporary approval to serve certain purposes and achieve certain results. One purpose is to allow Altela the opportunity to use real produced water in a controlled environment to assist in the research and development of the AltelaRain™ technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRain™ technology. Such analytical results should represent the initial test/source water concentrations prior to treatment and the concentrations present after treatment for all of the constituents specified in Subsection A, B, and C of 20.6.2.3103 NMAC.

The OCD hereby grants this temporary approval with the following understandings and conditions:

1. The produced water approved for storage and the testing and development of the AltelaRain™ technology shall only occur at Altela's design, research, and manufacturing facility (Meridian), located at 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121;
2. Only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to and from the Meridian facility;


3. No produced water shall be disposed at the Meridian facility. All produced water shall be removed from the Meridian facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility;
4. Altela shall retain records documenting all produced water received and removed from the Meridian facility. The record shall indicate the facility/well name and permit number in which the produced water is obtained from and the facility/well name and permit number of the OCD approved facility in which the produced is disposed;
5. Altela shall report all unauthorized discharges of produced water pursuant to 19.15.29 NMAC to the OCD within 24 hours of determining a release; and
6. Altela shall provide the OCD copies of the water quality analytical test results received from third party water quality laboratories with respect to tests using the produced water at the Meridian facility.

This authorization is approved for a period of one (1) year. This temporary approval will expire January 16, 2015. 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.

Please be advised that approval of this request does not relieve Altela of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Altela 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 [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a large, stylized 'B' and 'J'.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

State of New Mexico  
Energy, Minerals and Natural Resources Department

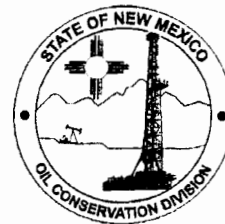
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**Susana Martinez**  
Governor

**John Bemis**  
Cabinet Secretary

**Brett F. Woods, Ph.D.**  
Deputy Cabinet Secretary

**Jami Bailey**  
Division Director  
Oil Conservation Division



January 16, 2013

Mr. Matthew Bruff  
Altela, Inc.  
Denver Technology Center  
5350 South Roslyn Street, Suite 210  
Englewood, Colorado 80111

**Re: Renewal Request for Temporary Approval to Store and Use Produced Water for  
R&D of the AltelaRain™ Technology  
Temporary Approval: EPWM - 004  
Location: 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121**

Dear Mr. Bruff:

The Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s (Altela) request, dated January 14, 2013, to renew Altela's temporary approval to store and use oilfield produced water for testing and development of the AltelaRain™ technology at Altela's design, research, and manufacturing facility, which expires January 16, 2013. The OCD has granted this temporary approval to serve certain purposes and achieve certain results. One purpose is to allow Altela the opportunity to use real produced water in a controlled environment to assist in the research and development of the AltelaRain™ technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRain™ technology. Such analytical results should represent the initial test/source water concentrations prior to treatment and the concentrations present after treatment for all of the constituents specified in Subsection A, B, and C of 20.6.2.3103 NMAC.

The OCD hereby grants this temporary approval with the following understandings and conditions:

1. The produced water approved for storage and the testing and development of the AltelaRain™ technology shall only occur at Altela's design, research, and manufacturing facility (Meridian), located at 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121;
2. Only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to and from the Meridian facility;



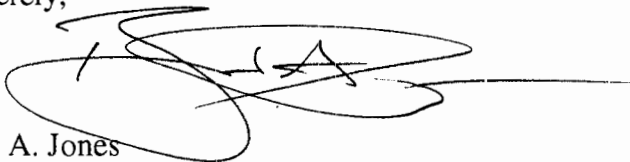
3. No produced water shall be disposed at the Meridian facility. All produced water shall be removed from the Meridian facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility;
4. Altela shall retain records documenting all produced water received and removed from the Meridian facility. The record shall indicate the facility/well name and permit number in which the produced water is obtained from and the facility/well name and permit number of the OCD approved facility in which the produced is disposed;
5. Altela shall report all unauthorized discharges of produced water pursuant to 19.15.29 NMAC to the OCD within 24 hours of determining a release; and
6. Altela shall provide the OCD copies of the water quality analytical test results received from third party water quality laboratories with respect to tests using the produced water at the Meridian facility.

This authorization is approved for a period of one (1) year. This temporary approval will expire January 16, 2014. 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.

Please be advised that approval of this request does not relieve Altela of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Altela 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 [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a long horizontal line extending to the right.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe



WEB: altelainc.com

ALBUQUERQUE OFFICE

7500 Meridian Pl NW, Suite B, Albuquerque, NM 87121  
PHONE: 505.923.4140 FAX: 505.923.4130

DENVER OFFICE

5350 South Roslyn Street, Suite 210, Englewood, CO 80111  
PHONE: 303.993.1950 FAX: 303.993.1955

January 14, 2013

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

**RE: Altela, Inc. – Renewal of Temporary Approval to Store and Use  
Produced Water for R&D of the AltelaRain® Technology  
Temporary Approval EPWM – 004 expiration January 16, 2013**

**VIA UNITED STATES POSTAL SERVICE**

Dear Brad,

This letter serves as written request to renew Altela, Inc.'s (Altela) temporary approval to store and use produced water for R&D of the AltelaRain® technology. Altela requests a one-year renewal to continue using real oilfield produced water for testing and development of the AltelaRain® technology at Altela's design, research, and manufacturing facilities. These facilities are located at 7500 Meridian Pl., N.W., Suite B, Albuquerque, New Mexico 87121 ("Meridian"). Altela continues to agree to the following conditions with respect to use the produced water at Alamo:

1. The produced water approved for storage and testing and development of the AltelaRain® technology will only occur at Altela's design, research and manufacturing facility (Meridian), located at 7500 Meridian Pl., N.W., Suite B, Albuquerque, New Mexico 87121;
2. Only haulers authorized (OCD approved C-133) to move produced water may provide transport of produced water to the Meridian facility;
3. No produced water shall be disposed at the Meridian facility. All produced water must be removed from the Meridian facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility;

4. Altela must retain records documenting all produced water received and removed from the Meridian facility;
5. Altela must report all unauthorized discharges of produced water pursuant to OCD Rule 116 to the OCD within 24 hours of determining a release; and
6. Altela will provide the OCD copies of the water quality test results received from third party water quality laboratories with respect to tests using the produced water at the Meridian facility.

Enclosed, please find a copy of Altela's Produced Water Tracking Summary used to ensure that all produced water is accounted for as well as delivered by approved C-133 permitted water haulers and removed by approved C-133 permitted water haulers for disposal except as noted per the enclosed Temporary Exemption/Approval letter granted December 5, 2011. Finally, we have also enclosed a copy of our test-bench protocol spreadsheet which outlines the various parameters and data points tracked during testing.

We request renewal of EPWM – 004 as we anticipate receiving produced water in the coming year to continue the development of the AltelaRain<sup>®</sup> technology.

Thank you in advance for your continued assistance and support of the AltelaRain<sup>®</sup> technology. Please do not hesitate to contact me if the need arises.

Sincerely,

Altela, Inc.

  
Matthew Bruff  
CDO

cc: Altela Day File

Enclosures as noted



### Meridian Produced Water Tracking Summary

No	Date	Transport Company Name	Contact at Company	Address	Phone Number	Fax Number	C133 Permit No.	Name of Originating Well (If Taken Away - NA)	Owner of Well	Delivered / Taken Away	Balance
1	8/29/12	RL Carriers		P.O. Box 271, Wilmington, OH 45177	(614) 226-9001		unavailable	RNI Trucking		1,050 Gallons Delivered	+*1050 gallons
2	10/19/12	M&R Trucking, Inc.		PO Box 600, Farmington, NM 87409	(505) 326-5541	(505) 328-6002	C-133-399	NA		428 Gallons Taken Away	0 gallons

\*22 gallon difference in volume being taken away attributable to clean, distilled water vapor being exhausted during process.

# 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

Jami Bailey  
Division Director  
Oil Conservation Division



December 5, 2011

Mr. Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center  
5350 South Roslyn Street, Suite 450  
Englewood, Colorado 80111

**Re: Renewal Request for Temporary Approval to Store and Use Produced Water for  
R&D of the AltelaRain™ Technology  
Temporary Approval: EPWM -004  
Location: 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121**

Dear Mr. Bruff:

The Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s (Altela) request, dated November 29, 2011, to renew Altela's temporary approval to store and use oilfield produced water for testing and development of the AltelaRain™ technology at Altela's design, research, and manufacturing facility, which expires January 16, 2012. The OCD has granted this temporary approval to serve certain purposes and achieve certain results. One purpose is to allow Altela the opportunity to use real produced water in a controlled environment to assist in the research and development of the AltelaRain™ technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRain™ technology. Such analytical results should represent the initial test/source water concentrations prior to treatment and the concentrations present after treatment for all of the constituents specified in Subsection A, B, and C of 20.6.2.3103 NMAC.

The OCD hereby grants this temporary approval with the following understandings and conditions:

1. The produced water approved for storage and the testing and development of the AltelaRain™ technology shall only occur at Altela's design, research, and manufacturing facility (Meridian), located at 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121.
2. Only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to and from the Meridian facility.

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

\* Phone: (505) 476-3440 \* Fax (505) 476-3462\* <http://www.emnrd.state.nm.us>

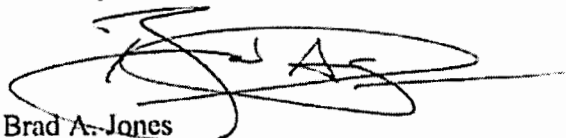
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6. Altela shall provide the OCD copies of the water quality analytical test results received from third party water quality laboratories with respect to tests using the produced water at the Meridian facility.

This authorization is approved for a period of one (1) year. This temporary approval will expire January 16, 2013. 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.

Please be advised that approval of this request does not relieve Altela of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Altela 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 [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

Tower:		Test Station: #1	
Test Conditions	Test Duration	Natural Gas	Test Levels
Test conditions / Notes / Change in input 1 and from from previous testing	Test (enter time) End (enter time)	Natural Gas Meter Reading: Start (CCF)	Initial TDS Concentration (mg/L)
		Natural Gas Meter Reading: End (CCF)	DW Tank #1 Height Delta (inches)
			DW Tank #2 Height Delta (inches)
			PW#1 Tank Height Delta (inches)
			PW#2 Tank Height Delta (inches)
			PW#3 Tank Height Delta (inches)
			PW Tank #1 Height Delta (inches)
			PW Tank #2 Height Delta (inches)
			PW Flow# #1 (GPM)
			PW Flow# #2 (GPM)
	PW Flow# #3 (GPM)		
	PW Flow# #4 (GPM)		
	PW Flow# #5 (GPM)		
	Air Flow Measurement (Feet Per Minute)		
	Inlet Air Temp. (°F)		
	Inlet Air Wet bulb Temp. (°F)		
	Air Press. (inches H2O)		
	Left Exhaust Press. (inches H2O)		
	Right Exhaust Press. (inches H2O)		
	Water M2 Pressure (inches H2O)		
	Steam Pressure (psig)		
	Steam Press. before valve (psig)		
	Steam Press. after valve (psig)		
	Electrical Conductivity of DW Basin @ Start (uS/cm)		
	Electrical Conductivity of DW Basin @ End (uS/cm)		
	Electrical Conductivity of DW Tanks @ Start (uS/cm)		
	Electrical Conductivity of DW Tanks @ End (uS/cm)		
	Electrical Conductivity of PW @ Start (uS/cm)		
	Electrical Conductivity of PW @ End (uS/cm)		
	Electrical Conductivity of CW @ End (uS/cm)		
	Test (°F)		
	PWT #1 (°F)		
	PWT #2 (°F)		
	PWT #3 (°F)		
	PWT #4 (°F)		
	PWT #5 (°F)		
	PWT #6 (°F)		
	PWT #7 (°F)		
	PWT #8 (°F)		
	PWT #9 (°F)		
	PWT #10 (°F)		
	CW Inlet (°F)		
	CW#1 Right (°F)		
	CW#1 Left (°F)		
	Exhaust Air Temp. (°F)		
	Exhaust Air Temp. Right (°F)		
	Exhaust Air Temp. Left (°F)		
	Nuclear Temp #1 (seconds) for a 5 Gallon Bucket		
	Nuclear Temp #2 (seconds) for a 5 Gallon Bucket		
	Nuclear Temp #3 (seconds) for a 5 Gallon Bucket		

Parameter	Units	Primary Region										Output										Water Flow Rates										Water Volumes										Efficiency										Loss Data										Conductivity										Sedimentation										Bacterial																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																							
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*Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)*

September 27, 2012

Michael Wimberly

Altela Inc.

7500 Meridian Place NW Suite B

Albuquerque, NM 87121

TEL: (505) 227-8601

FAX

RE: RNI Produced Water/ Solidification

OrderNo.: 1209213

Dear Michael Wimberly:

Hall Environmental Analysis Laboratory received 2 sample(s) on 9/6/2012 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. All samples are reported as received unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

Sincerely,

A handwritten signature in black ink, appearing to read "Andy Freeman".

Andy Freeman

Laboratory Manager

4901 Hawkins NE

Albuquerque, NM 87109

**Analytical Report**

Lab Order 1209213

Date Reported: 9/27/2012

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Altela Inc.**Client Sample ID:** RNI Produced Water-Stat**Project:** RNI Produced Water/ Solidification**Collection Date:** 9/4/2012 3:30:00 PM**Lab ID:** 1209213-001**Matrix:** AQUEOUS**Received Date:** 9/6/2012 2:55:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: <b>KS</b>
Total Dissolved Solids	188000	1000		mg/L	1	9/12/2012 6:37:00 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

## Analytical Report

Lab Order 1209213

Date Reported: 9/27/2012

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Altela Inc.

Client Sample ID: RNI Produced Water-CW At En

Project: RNI Produced Water/ Solidification

Collection Date: 9/5/2012 5:30:00 PM

Lab ID: 1209213-002

Matrix: AQUEOUS

Received Date: 9/6/2012 2:55:00 PM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: JRR
Chloride	250000	10000		mg/L	20000	9/13/2012 5:33:16 PM
Sulfate	ND	25		mg/L	50	9/10/2012 10:33:43 PM
<b>EPA METHOD 7470: MERCURY</b>						Analyst: JLF
Mercury	ND	0.00020		mg/L	1	9/13/2012 10:31:49 AM
<b>EPA 6010B: TOTAL RECOVERABLE METALS</b>						Analyst: JLF
Arsenic	ND	0.20		mg/L	5	9/17/2012 3:38:31 PM
Barium	6600	200		mg/L	5000	9/19/2012 12:12:33 PM
Cadmium	ND	0.020		mg/L	5	9/17/2012 3:38:31 PM
Chromium	ND	0.060		mg/L	5	9/17/2012 3:38:31 PM
Lead	ND	0.50		mg/L	50	9/19/2012 12:28:58 PM
Selenium	ND	0.50		mg/L	5	9/17/2012 3:38:31 PM
Silver	ND	0.050		mg/L	5	9/17/2012 3:38:31 PM
<b>SM2540C MOD: TOTAL DISSOLVED SOLIDS</b>						Analyst: KS
Total Dissolved Solids	373000	1000		mg/L	1	9/12/2012 6:37:00 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- RL Reporting Detection Limit

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209213

27-Sep-12

**Client:** Altela Inc.  
**Project:** RNI Produced Water/ Solidification

Sample ID <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>
Client ID: <b>PBW</b>	Batch ID: <b>R5413</b>	RunNo: <b>5413</b>
Prep Date:	Analysis Date: <b>9/10/2012</b>	SeqNo: <b>154452</b> Units: <b>mg/L</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Sulfate	ND	0.50

Sample ID <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>
Client ID: <b>LCSW</b>	Batch ID: <b>R5413</b>	RunNo: <b>5413</b>
Prep Date:	Analysis Date: <b>9/10/2012</b>	SeqNo: <b>154453</b> Units: <b>mg/L</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Sulfate	9.5	0.50 10.00 0 94.7 90 110

Sample ID <b>MB</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>
Client ID: <b>PBW</b>	Batch ID: <b>R5528</b>	RunNo: <b>5528</b>
Prep Date:	Analysis Date: <b>9/13/2012</b>	SeqNo: <b>158122</b> Units: <b>mg/L</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	ND	0.50

Sample ID <b>LCS</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>
Client ID: <b>LCSW</b>	Batch ID: <b>R5528</b>	RunNo: <b>5528</b>
Prep Date:	Analysis Date: <b>9/13/2012</b>	SeqNo: <b>158123</b> Units: <b>mg/L</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	4.7	0.50 5.000 0 93.6 90 110

Sample ID <b>1209493-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 300.0: Anions</b>
Client ID: <b>BatchQC</b>	Batch ID: <b>R5528</b>	RunNo: <b>5528</b>
Prep Date:	Analysis Date: <b>9/13/2012</b>	SeqNo: <b>158136</b> Units: <b>mg/L</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	16	0.50 5.000 11.2 104 87.8 111

Sample ID <b>1209493-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 300.0: Anions</b>
Client ID: <b>BatchQC</b>	Batch ID: <b>R5528</b>	RunNo: <b>5528</b>
Prep Date:	Analysis Date: <b>9/13/2012</b>	SeqNo: <b>158137</b> Units: <b>mg/L</b>
Analyte	Result	PQL SPK value SPK Ref Val %REC LowLimit HighLimit %RPD RPDLimit Qual
Chloride	16	0.50 5.000 11.2 105 87.8 111 0.226 20

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1209213

27-Sep-12

Client: Altela Inc.

Project: RNI Produced Water/ Solidification

Sample ID	MB-3725	SampType:	MBLK	TestCode:	EPA Method 7470: Mercury					
Client ID:	PBW	Batch ID:	3725	RunNo:	5495					
Prep Date:	9/12/2012	Analysis Date:	9/13/2012	SeqNo:	157092	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	ND	0.00020								

Sample ID	LCS-3725	SampType:	LCS	TestCode:	EPA Method 7470: Mercury					
Client ID:	LCSW	Batch ID:	3725	RunNo:	5495					
Prep Date:	9/12/2012	Analysis Date:	9/13/2012	SeqNo:	157093	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0050	0.00020	0.005000	0	99.8	80	120			

Sample ID	1209172-001FMS	SampType:	MS	TestCode:	EPA Method 7470: Mercury					
Client ID:	BatchQC	Batch ID:	3725	RunNo:	5495					
Prep Date:	9/12/2012	Analysis Date:	9/13/2012	SeqNo:	157099	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0048	0.00020	0.005000	0	96.3	75	125			

Sample ID	1209172-001FMSD	SampType:	MSD	TestCode:	EPA Method 7470: Mercury					
Client ID:	BatchQC	Batch ID:	3725	RunNo:	5495					
Prep Date:	9/12/2012	Analysis Date:	9/13/2012	SeqNo:	157100	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Mercury	0.0049	0.00020	0.005000	0	99.0	75	125	2.74	20	

### Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209213

27-Sep-12

Client: Altela Inc.  
Project: RNI Produced Water/ Solidification

Sample ID	MB-3763		SampType:	MBLK		TestCode:	EPA 6010B: Total Recoverable Metals				
Client ID:	PBW		Batch ID:	3763		RunNo:	5574				
Prep Date:	9/14/2012		Analysis Date:	9/17/2012		SeqNo:	159602		Units: mg/L		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	ND	0.020									
Barium	ND	0.020									
Cadmium	ND	0.0020									
Chromium	ND	0.0060									
Lead	ND	0.0050									
Selenium	ND	0.050									
Silver	ND	0.0050									

Sample ID	LCS-3763		SampType: LCS		TestCode: EPA 6010B: Total Recoverable Metals					
Client ID:	LCSW		Batch ID: 3763		RunNo: 5574					
Prep Date:	9/14/2012		Analysis Date: 9/17/2012		SeqNo: 159603		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.47	0.020	0.5000	0	95.0	80	120			
Barium	0.47	0.020	0.5000	0	94.0	80	120			
Cadmium	0.47	0.0020	0.5000	0.0005200	94.5	80	120			
Chromium	0.47	0.0060	0.5000	0.002920	93.5	80	120			
Lead	0.48	0.0050	0.5000	0.003730	94.5	80	120			
Selenium	0.46	0.050	0.5000	0	92.3	80	120			
Silver	0.096	0.0050	0.1000	0.0002600	95.3	80	120			

Sample ID	1209328-001AMS			SampType:	MS		TestCode:	EPA 6010B: Total Recoverable Metals			
Client ID:	BatchQC			Batch ID:	3763		RunNo:	5574			
Prep Date:	9/14/2012			Analysis Date:	9/17/2012		SeqNo:	159631		Units: mg/L	
Analyte	Result	PQL	SPK value	SPK Re: Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Arsenic	0.46	0.020	0.5000	0	92.9	75	125				
Cadmium	0.47	0.0020	0.5000	0	93.3	75	125				
Chromium	0.44	0.0060	0.5000	0	88.8	75	125				
Selenium	0.44	0.050	0.5000	0	87.0	75	125				
Silver	0.095	0.0050	0.1000	0	94.7	75	125				

Sample ID	1209328-001AMSD		SampType: MSD		TestCode: EPA 6010B: Total Recoverable Metals					
Client ID:	BatchQC		Batch ID: 3763		RunNo: 5574					
Prep Date:	9/14/2012		Analysis Date: 9/17/2012		SeqNo: 159632		Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Arsenic	0.48	0.020	0.5000	0	95.0	75	125	2.32	20	
Cadmium	0.47	0.0020	0.5000	0	93.3	75	125	0.0171	20	
Chromium	0.45	0.0060	0.5000	0	89.6	75	125	0.854	20	
Selenium	0.39	0.050	0.5000	0	78.8	75	125	9.91	20	
Silver	0.095	0.0050	0.1000	0	95.3	75	125	0.600	20	

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209213

27-Sep-12

Client: Altela Inc.

Project: RNI Produced Water/ Solidification

Sample ID	1209328-001AMS	SampType:	MS	TestCode:	EPA 6010B: Total Recoverable Metals					
Client ID:	BatchQC	Batch ID:	3763	RunNo:	5627					
Prep Date:	9/14/2012	Analysis Date:	9/19/2012	SeqNo:	161200	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.020	0.5000	0.01961	95.2	75	125			
Lead	0.46	0.0050	0.5000	0.005690	90.4	75	125			

Sample ID	1209328-001AMSD	SampType:	MSD	TestCode:	EPA 6010B: Total Recoverable Metals					
Client ID:	BatchQC	Batch ID:	3763	RunNo:	5627					
Prep Date:	9/14/2012	Analysis Date:	9/19/2012	SeqNo:	161201	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Barium	0.50	0.020	0.5000	0.01961	96.2	75	125	1.05	20	
Lead	0.46	0.0050	0.5000	0.005690	90.6	75	125	0.164	20	

## Qualifiers:

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH greater than 2

- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits

# QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209213

27-Sep-12

Client: Altela Inc.  
Project: RNI Produced Water/ Solidification

Sample ID	MB-3698	SampType:	MBLK	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	PBW	Batch ID:	3698	RunNo:	5470					
Prep Date:	9/11/2012	Analysis Date:	9/12/2012	SeqNo:	156268	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	ND	20.0								

Sample ID	LCS-3698	SampType:	LCS	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	LCSW	Batch ID:	3698	RunNo:	5470					
Prep Date:	9/11/2012	Analysis Date:	9/12/2012	SeqNo:	156269	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1020	20.0	1000	0	102	80	120			

Sample ID	1209265-001BMSD	SampType:	MSD	TestCode:	SM2540C MOD: Total Dissolved Solids					
Client ID:	BatchQC	Batch ID:	3698	RunNo:	5470					
Prep Date:	9/11/2012	Analysis Date:	9/12/2012	SeqNo:	156286	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids	1470	20.0	1000	446.0	102	80	120	0.137	20	

## Qualifiers:

- |  |  |
|--|--|
| * Value exceeds Maximum Contaminant Level.   | B Analyte detected in the associated Method Blank    |
| E Value above quantitation range             | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits | ND Not Detected at the Reporting Limit               |
| P Sample pH greater than 2                   | R RPD outside accepted recovery limits               |



## Sample Log-In Check List

Client Name: Altela Inc. Work Order Number: 1209213

Received by/date:

*LM* 09/06/12

Logged By: Ashley Gallegos

9/6/2012 2:55:00 PM

*AG*

Completed By: Ashley Gallegos

9/6/2012 4:24:28 PM

*AG*

Reviewed By:

*AG*

09/07/12

### Chain of Custody

- |                                  |               |                                     |             |                                     |
|----------------------------------|---------------|-------------------------------------|-------------|-------------------------------------|
| 1. Were seals intact?            | Yes           | No                                  | Not Present | <input checked="" type="checkbox"/> |
| 2. Is Chain of Custody complete? | Yes           | <input checked="" type="checkbox"/> | No          | Not Present                         |
| 3. How was the sample delivered? | <u>Client</u> |                                     |             |                                     |

### Log In

- |   |     |                                     |    |  |
|---|-----|-------------------------------------|----|--|
| 4. Coolers are present? (see 19. for cooler specific information)                         | Yes | <input checked="" type="checkbox"/> | No | NA   |
| 5. Was an attempt made to cool the samples?   | Yes | <input checked="" type="checkbox"/> | No | NA   |
| 6. Were all samples received at a temperature of >0° C to 6.0°C                           | Yes | <input checked="" type="checkbox"/> | No | NA   |
| 7. Sample(s) in proper container(s)?  | Yes | <input checked="" type="checkbox"/> | No |  |
| 8. Sufficient sample volume for indicated test(s)?  | Yes | <input checked="" type="checkbox"/> | No |  |
| 9. Are samples (except VOA and ONG) properly preserved?                                   | Yes | <input checked="" type="checkbox"/> | No |  |
| 10. Was preservative added to bottles?  | Yes |                                     | No | <input checked="" type="checkbox"/> NA           |
| 11. VOA vials have zero headspace?  | Yes |                                     | No | No VOA Vials <input checked="" type="checkbox"/> |
| 12. Were any sample containers received broken?   | Yes |                                     | No | <input checked="" type="checkbox"/>              |
| 13. Does paperwork match bottle labels?<br>(Note discrepancies on chain of custody)       | Yes | <input checked="" type="checkbox"/> | No |  |
| 14. Are matrices correctly identified on Chain of Custody?                                | Yes | <input checked="" type="checkbox"/> | No |  |
| 15. Is it clear what analyses were requested?   | Yes | <input checked="" type="checkbox"/> | No |  |
| 16. Were all holding times able to be met?<br>(If no, notify customer for authorization.) | Yes | <input checked="" type="checkbox"/> | No |  |

# of preserved bottles checked for pH: 1  
(<2 or >12 unless noted)  
Adjusted?

Checked by: *AG*

### Special Handling (If applicable)

- |   |     |    |    |                                     |
|---|-----|----|----|-------------------------------------|
| 17. Was client notified of all discrepancies with this order? | Yes | No | NA | <input checked="" type="checkbox"/> |
|---|-----|----|----|-------------------------------------|

Person Notified:

Date:

By Whom:

Via:

eMail

Phone

Fax

In Person

Regarding:

Client Instructions:

18. Additional remarks:

### 19. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good	Not Present			



# 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

**Jami Bailey**  
Division Director  
Oil Conservation Division



December 5, 2011

Mr. Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center  
5350 South Roslyn Street, Suite 450  
Englewood, Colorado 80111

**Re: Renewal Request for Temporary Approval to Store and Use Produced Water for R&D of the AltelaRain™ Technology**  
**Temporary Approval: EPWM -004**  
**Location: 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121**

Dear Mr. Bruff:

The Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s (Altela) request, dated November 29, 2011, to renew Altela's temporary approval to store and use oilfield produced water for testing and development of the AltelaRain™ technology at Altela's design, research, and manufacturing facility, which expires January 16, 2012. The OCD has granted this temporary approval to serve certain purposes and achieve certain results. One purpose is to allow Altela the opportunity to use real produced water in a controlled environment to assist in the research and development of the AltelaRain™ technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRain™ technology. Such analytical results should represent the initial test/source water concentrations prior to treatment and the concentrations present after treatment for all of the constituents specified in Subsection A, B, and C of 20.6.2.3103 NMAC.

The OCD hereby grants this temporary approval with the following understandings and conditions:

1. The produced water approved for storage and the testing and development of the AltelaRain™ technology shall only occur at Altela's design, research, and manufacturing facility (Meridian), located at 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121.
2. Only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to and from the Meridian facility.

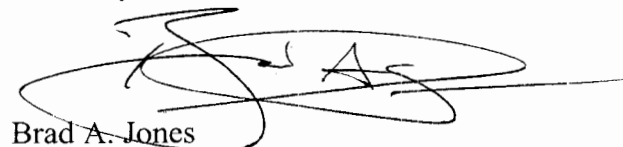
3. No produced water shall be disposed at the Meridian facility. All produced water shall be removed from the Meridian facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility.
4. Altela shall retain records documenting all produced water received and removed from the Meridian facility. The record shall indicate the facility/well name and permit number in which the produced water is obtained from and the facility/well name and permit number of the OCD approved facility in which the produced is disposed.
5. Altela shall report all unauthorized discharges of produced water pursuant to 19.15.29 NMAC to the OCD within 24 hours of determining a release.
6. Altela shall provide the OCD copies of the water quality analytical test results received from third party water quality laboratories with respect to tests using the produced water at the Meridian facility.

This authorization is approved for a period of one (1) year. This temporary approval will expire January 16, 2013. 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.

Please be advised that approval of this request does not relieve Altela of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Altela 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 [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe



# New Mexico Energy, Minerals and Natural Resources Department

**Susana Martinez**

Governor

**Bill Brancard**

Acting Cabinet Secretary

**Daniel Sanchez**

Acting Division Director

Oil Conservation Division



January 5, 2011

Mr. Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center  
5350 South Roslyn Street, Suite 450  
Englewood, Colorado 80111

**Re: Renewal Request for Temporary Approval to Store and Use Produced Water for R&D  
of the AltelaRain™ Technology  
Temporary Approval: EPWM -004  
7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121**

Dear Mr. Bruff:

The Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s (Altela) request, dated November 30, 2010, to renew Altela's temporary approval to store and use oilfield produced water for testing and development of the AltelaRain™ technology at Altela's design, research, and manufacturing facility, which expires January 16, 2011. The OCD has granted this temporary approval to serve certain purposes and achieve certain results. One purpose is to allow Altela the opportunity to use real produced water in a controlled environment to assist in the research and development of the AltelaRain™ technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRain™ technology. Such analytical results should represent the initial test/source water concentrations prior to treatment and the concentrations present after treatment for all of the constituents specified in Subsection A, B, and C of 20.6.2.3103 NMAC.

The OCD hereby grants this temporary approval with the following understandings and conditions:

1. The produced water approved for storage and the testing and development of the AltelaRain™ technology shall only occur at Altela's design, research, and manufacturing facility (Meridian), located at 7500 Meridian Pl. NW, Suite B, Albuquerque, New Mexico 87121.
2. Only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to the Meridian facility.



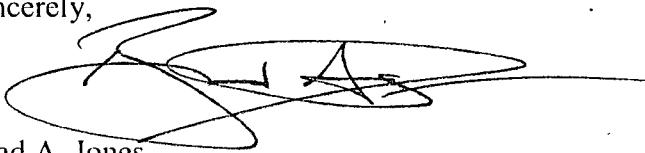
3. No produced water shall be disposed at the Meridian facility. All produced water shall be removed from the Meridian facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility.
4. Altela shall retain records documenting all produced water received and removed from the Meridian facility. The record shall indicate the facility/well name and permit number in which the produced water is obtained from and the facility/well name and permit number of the OCD approved facility in which the produced is disposed.
5. Altela shall report all unauthorized discharges of produced water pursuant to 19.15.29 NMAC to the OCD within 24 hours of determining a release.
6. Altela shall provide the OCD copies of the water quality analytical test results received from third party water quality laboratories with respect to tests using the produced water at the Meridian facility.

This authorization is approved for a period of one (1) year. This temporary approval will expire January 16, 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.

Please be advised that approval of this request does not relieve Altela of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Altela 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 [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

## **Jones, Brad A., EMNRD**

---

**From:** Matthew J. Bruff [matthew.bruff@altelainc.com]  
**Sent:** Friday, December 18, 2009 2:30 PM  
**To:** Jones, Brad A., EMNRD  
**Cc:** Karen Evans  
**Subject:** RE: Water Quality  
**Attachments:** Alamo Produced Water Tracking Summary Dec 09.pdf

Brad,  
Thanks for your call this afternoon. As we discussed, please find attached the updated Produced Water Tracking Summary clarifying the fact that there is currently a zero balance at Alamo.  
Please let me know if this is now clear and that any deficiencies with respect to this temporary permit have been duly addressed. Again, thanks for your help.  
Happy Holidays.  
Matt

Matthew Bruff, CDO  
Altela, Inc.  
5350 South Roslyn Street, Suite 430  
Englewood, CO 80111  
Phone 303-993-1950  
Fax 303-993-1955  
[www.altelainc.com](http://www.altelainc.com)

---

**From:** Matthew J. Bruff  
**Sent:** Friday, December 18, 2009 1:02 PM  
**To:** 'Jones, Brad A., EMNRD'  
**Cc:** 'VonGonten, Glenn, EMNRD'; Karen Evans  
**Subject:** Water Quality

Brad,

Please find attached copies of water quality analytical test results pursuant to Condition No. 6 of Altela's Temporary Approval to Store and Use Produced Water for R&D of the AltelaRain® technology. These water quality tests were performed by a certified, independent water quality lab, Energy Laboratories, Inc., with respect to treatment performed using the AltelaRain® technology at our Alamo facility. I don't recall if you have these on-file previously. If not, we would like to request that you treat these as Altela, Inc. *Confidential and Proprietary Information*, not subject to further distribution without the prior written consent of Altela. Three separate reports are attached. The first report is for the input water (produced water "PW"). The second report is for the clean water (distilled water "DW"). Finally, the third report is for the concentrated water after treatment ("CW"). During this past year, 2009, there were no additional water quality tests available since no produced water was delivered. We anticipate additional testing of real-world produced water in 2010 as we move to larger volume towers and will share any analytical results as applicable with the OCD. As always, we certainly appreciate your continued support and assistance with respect to Altela's produced water treatment efforts towards increased environmental sustainability and stewardship. I have attached an article you might find of interest with respect to a project we did in Colorado (Piceance Basin and discharge of the clean, treated water into the Colorado River). Finally, here is a link to a recent article with respect to a system we are successfully operating in the Marcellus Basin of PA I thought you might be interested in reading.

[http://www.pittsburghlive.com/x/dailycourier/s\\_657502.html](http://www.pittsburghlive.com/x/dailycourier/s_657502.html)

In the meantime, please don't hesitate to contact me if the need arises.

Thanks,

Matt

Matthew Bruff, CDO  
Altela, Inc.  
5350 South Roslyn Street, Suite 430  
Englewood, CO 80111  
Phone 303-993-1950  
Fax 303-993-1955  
[www.altelainc.com](http://www.altelainc.com)

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### Alamo Produced Water Tracking Summary

No	Date	Transport Company Name	Contact at Company	Address	Phone Number	Fax Number	CI33 Permit No.	Name of Originating Well (If Taken Away - NA)	Owner of Well	Delivered / Taken Away	Balance
1	2/2/07	M&R Trucking, Inc.	John Davis	Post Office Box 600, Farmington, NM 87499	(505) 326-5541	(505) 326-6002	C-133-66	Blackshawl Com. #001 (San Juan Basin)	Merron Oil and Gas Corporation	300 Gallons Delivered	+300 gallons
2	11/1/907	M&R Trucking, Inc.	John Davis	Post Office Box 600, Farmington, NM 87499	(505) 326-5541	(505) 326-6002	C-133-66	NA		300 Gallons Taken Away	0 gallons
3	11/1/907	M&R Trucking, Inc.	John Davis	Post Office Box 600, Farmington, NM 87499	(505) 326-5541	(505) 326-6002	C-133-66	Blackshawl Com. #001 (San Juan Basin)	Merron Oil and Gas Corporation	300 Gallons Delivered	+300 gallons
4	6/16/08	Mountain States Hot Spot Oil Field Services	Adam Stevens	P.O. Box 1210, Grand Junction, CO 81502	(970) 434-4030	(970) 314-9724	(Attached)	Occidental Piceance Basin	Occidental Petroleum Corporation	500 Gallons	+800 gallons
5	9/22/08	M&R Trucking, Inc.	Barry Bonds	Post Office Box 600, Farmington, NM 87499	(505) 326-5541	(505) 326-6002	C-133-66	NA		500 Gallons Taken Away*	0 gallons
6										(300 gallon difference in volume being taken away attributable to clean, distilled water vapor being exhausted during process)	
7											
8											
9											
10											
11											
12											



# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Joanna Prukop**  
Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



December 14, 2009

Mr. Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center  
5350 South Roslyn Street, Suite 430  
Englewood, Colorado 80111

**Re: Renewal Request for Temporary Approval to Store and Use Produced Water for  
R&D of the AltelaRain™ Technology  
Temporary Approval: EPWM -004  
2450 Alamo SE, Albuquerque, New Mexico 87106**

Dear Mr. Bruff:

The Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s (Altela) request, dated November 20, 2009, to renew Altela's temporary approval to store and use oilfield produced water for testing and development of the AltelaRain™ technology at Altela's design, research, and manufacturing facility, which expires January 16, 2010. The OCD has granted this temporary approval to serve certain purposes and achieve certain results. One purpose is to allow Altela the opportunity to use real produced water in a controlled environment to assist in the research and development of the AltelaRain™ technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRain™ technology. Such analytical results should represent the initial test/source water concentrations prior to treatment and the concentrations present after treatment for all of the constituents specified in Subsection A, B, and C of 20.6.2.3103 NMAC. The November 20, 2009 renewal request only provided a Produced Water Tracking Summary, it did not include any water quality analytical test results as required of Condition #6 of the March 2, 2009 approval.

OCD's consideration of the continuance of this temporary approval is based on Altela's commitment to comply with the conditions of approval and to address the deficiency identified above. The OCD hereby approval this temporary approval with the following understandings and conditions:

1. The produced water approved for storage and the testing and development of the AltelaRain™ technology shall only occur at Altela's design, research, and manufacturing facility (Alamo), located at 2450 Alamo SE, Albuquerque, New Mexico 87106.



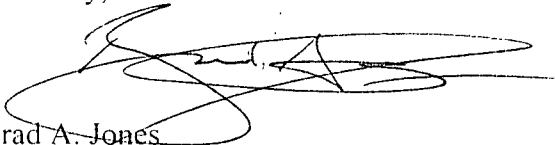
2. Only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to the Alamo facility.
3. No produced water shall be disposed at the Alamo facility. All produced water shall be removed from the Alamo facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility.
4. Altela shall retain records documenting all produced water received and removed from the Alamo facility.
5. Altela shall report all unauthorized discharges of produced water pursuant to 19.15.29 NMAC to the OCD within 24 hours of determining a release.
6. Altela shall provide the OCD copies of the water quality analytical test results received from third party water quality laboratories with respect to tests using the produced water at the Alamo facility.

This authorization is approved for a period of one (1) year. **This temporary approval will expire January 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.

Please be advised that approval of this request does not relieve Altela of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Altela 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 [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe



November 20, 2009

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

**RE: Altela, Inc. – Renewal of Temporary Approval to Store and Use  
Produced Water for R&D of the AltelaRain® Technology**

**VIA UNITED STATES POSTAL SERVICE**

Dear Brad,

This letter serves as written request to renew Altela, Inc.'s (Altela) temporary approval to store and use produced water for R&D of the AltelaRain® technology. Altela requests a one-year renewal to continue using real oilfield produced water for testing and development of the AltelaRain® technology at Altela's design, research, and manufacturing facilities. These facilities are located at 2450 Alamo SE, Albuquerque, New Mexico 87106 ("Alamo"). Altela continues to agree to the following conditions with respect to use the produced water at Alamo:

1. The produced water approved for storage and testing and development of the AltelaRain® technology will only occur at Altela's design, research and manufacturing facility (Alamo), located at 2450 Alamo SE, Albuquerque, New Mexico 87106;
2. Only haulers authorized (OCD approved C-133) to move produced water may provide transport of produced water to the Alamo facility;
3. No produced water shall be disposed at the Alamo facility. All produced water must be removed from the Alamo facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility;
4. Altela must retain records documenting all produced water received and removed from the Alamo facility;
5. Altela must report all unauthorized discharges of produced water pursuant to OCD Rule 116 to the OCD within 24 hours of determining a release; and

November 20, 2009  
Page 2 of 2


6. Altela will provide the OCD copies of the water quality test results received from third party water quality laboratories with respect to tests using the produced water at the Alamo facility.

Enclosed, please find a copy of Altela's Produced Water Tracking Summary used to ensure that all produced water is accounted for as well as delivered by approved C-133 permitted water haulers and removed by approved C-133 permitted water haulers for disposal. There has been no change since last year.

Thank you in advance for your continued assistance and support of the AltelaRain® technology. Please do not hesitate to contact me if the need arises.

Sincerely,

Altela, Inc.



Matthew Bruff  
CDO

cc: Altela Day File

Enclosures as noted



1 DECEMBER 2008

### Alamo Produced Water Tracking Summary

No	Date	Transport Company Name	Contact at Company	Address	Phone Number	Fax Number	C133 Permit No.	Name of Originating Well (If Taken Away - NA)	Owner of Well	Delivered / Taken Away	Disposal Location (If Delivery - NA)	Balance
1	2/22/07	M&R Trucking, Inc.	John Davis	Post Office Box 600, Farmington, NM 87499	(505) 326-5541	(505) 326-6002	C-133-66	Blackshaw Com. #001 (San Juan Basin, NM)	Merrion Oil and Gas Corporation	300 Gallons Delivered	NA	+300 gallons
2	11/19/07	M&R Trucking, Inc.	John Davis	Post Office Box 600, Farmington, NM 87499	(505) 326-5541	(505) 326-6002	C-133-66	NA		300 Gallons Taken Away	Pretty Lady 3011 34 Well No. 1 San Juan County, NM	0 gallons
3	11/19/07	M&R Trucking, Inc.	John Davis	Post Office Box 600, Farmington, NM 87499	(505) 326-5541	(505) 326-6002	C-133-66	Blackshaw Com. #001 (San Juan Basin, NM)	Merrion Oil and Gas Corporation	300 Gallons Delivered	NA	+300 gallons
4	6/16/08	Mountain States Hot Spot Oil Field Services	Adam Stevens	P.O. Box 1210, Grand Junction, CO 81502	(970) 434-4030	(970) 314-9724	(Attached)	Occidental Facility (Priceance Basin, CO)	Occidental Petroleum Corporation	500 Gallons Delivered	NA	+ 800 gallons
5	10/1/08	M&R Trucking, Inc.	Barry Bonds	Post Office Box 600, Farmington, NM 87499	(505) 326-5541	(505) 326-6002	C-133-66	NA		Remaining Concentrated Produced Water at Alamo, 479 Gallons	Pretty Lady 3011 34 Well No. 1 San Juan County, NM	0 gallons

\*The AlteiaRain<sup>SM</sup> technology treats produced water by a distillation process. The Alteia System is a waste reduction process, meaning the "bad" water is reduced by up to 80% through the creation of distilled water ("DW"). Approximately half of this DW is used to fund steam boilers. A portion of this DW is exhausted by the boiler as steam vapor resulting in less water being available for disposal compared to original produced water delivery volumes.

## Jones, Brad A., EMNRD

---

**From:** Matthew J. Bruff [matthew.bruff@altelainc.com]  
**Sent:** Wednesday, January 27, 2010 2:24 PM  
**To:** Jones, Brad A., EMNRD  
**Subject:** RE: Exemption Request

Thank you Brad for your quick turn-around with this request.  
It's much appreciated.

---

**From:** Jones, Brad A., EMNRD [mailto:brad.a.jones@state.nm.us]  
**Sent:** Wednesday, January 27, 2010 1:24 PM  
**To:** Matthew J. Bruff  
**Cc:** Karen Evans  
**Subject:** RE: Exemption Request

Matt,

Please see the attached... it is a copy of your temporary exemption approval. A hard copy has been placed in the mail. Please be advised that approval of this request does not relieve Altela of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Altela of its responsibility to comply with any other applicable governmental authority's rules and regulations. If you have any questions regarding this matter, please do not hesitate to contact me.

Also, thank you for clearing up the issues regarding the December 14, 2009 temporary approval renewal. Altela no longer has any deficiencies with respect to the temporary approval (EPWM-004).

Brad

**Brad A. Jones**  
*Environmental Engineer*  
*Environmental Bureau*  
*NM Oil Conservation Division*  
*1220 S. St. Francis Drive*  
*Santa Fe, New Mexico 87505*  
*E-mail: [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us)*  
*Office: (505) 476-3487*  
*Fax: (505) 476-3462*

---

**From:** Matthew J. Bruff [mailto:matthew.bruff@altelainc.com]  
**Sent:** Tuesday, January 26, 2010 10:43 AM  
**To:** Jones, Brad A., EMNRD  
**Cc:** Karen Evans  
**Subject:** Exemption Request

Brad,  
Following our discussion this morning, please find attached the exemption request. Also, here is the link to the U.S. Department of Energy's National Energy Technology Laboratory ("NETL") grant program for your convenience (so you don't have to type a long URL address in again...).

[http://www.netl.doe.gov/technologies/oil-gas/Petroleum/projects/Environmental/Produced Water/00833 MarcellusWater.html](http://www.netl.doe.gov/technologies/oil-gas/Petroleum/projects/Environmental/Produced%20Water/00833%20MarcellusWater.html)

We certainly appreciate your help and continued assistance. We anticipate that we will get some good water quality data from this grant project that we will be able to share with OCD pursuant to the terms of our OCD approval. Please let me know if I can provide any additional information.

Thanks,

Matt

Matthew Bruff, CDO  
Altela, Inc.  
5350 South Roslyn Street, Suite 430  
Englewood, CO 80111  
Phone 303-993-1950  
Fax 303-993-1955  
[www.altelainc.com](http://www.altelainc.com)

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# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Jon Goldstein**  
Cabinet Secretary

**Jim Noel**  
Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



January 27, 2010

Mr. Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center  
5350 South Roslyn Street, Suite 430  
Englewood, Colorado 80111

**Re: Request for a Temporary Exemption Regarding Condition #2 of an Annual  
Temporary Approval to Store and Use Produced Water for R&D of the  
AltelaRain<sup>TM</sup> Technology  
Temporary Approval: EPWM -004  
2450 Alamo SE Albuquerque, New Mexico 87106**

Dear Mr. Bruff:

The Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s (Altela) request, dated January 26, 2010, for a temporary exemption regarding Condition #2 of Altela's annual temporary approval (EPWM-004) to store and use oilfield produced water for testing and development of the AltelaRain<sup>®</sup> technology at Altela's design, research, and manufacturing facility dated December 14, 2009. Condition #2 requires "only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to the Alamo facility."

Based upon the information provided in the request, Altela proposes to ship approximately 660 gallons, not to exceed 1000 gallons, of produced water by a commercial shipper from the Marcellus Basin of Pennsylvania to Altela's Albuquerque Alamo facility for testing. The test bench analyses will allow Altela to finalize the design requirements of the AltelaRain<sup>®</sup> system for the Marcellus grant project.

The OCD hereby approves this temporary exemption request with the following understandings and conditions:

1. Altela shall transport the produced water from the Marcellus Basin of Pennsylvania to Altela's Albuquerque Alamo facility via a commercial shipper. Altela shall ensure that the commercial shipper will be responsible for complying with all applicable shipping requirements and related Department of Transportation rules and regulations; and



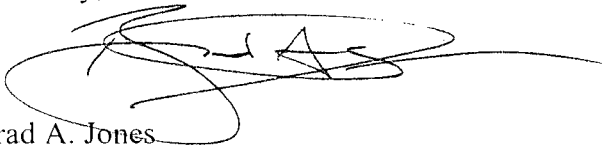
2. Altela shall continue to comply with the conditions specified within the OCD temporary approval (EPWM-004), dated December 14, 2009, upon the arrival and acceptance of the produced water from the Marcellus Basin of Pennsylvania at Altela's Albuquerque Alamo facility;

This authorization is a one-time approval. Altela shall request and obtain OCD approval for any future exemption requests of a similar nature. Approval may be revoked or suspended for violation of any applicable provisions and/or conditions.

Please be advised that approval of this request does not relieve Altela of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve Altela 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 [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,

A handwritten signature in black ink, appearing to read 'Brad A. Jones', with a large, sweeping flourish extending to the right.

Brad A. Jones  
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

**Jones, Brad A., EMNRD**

---

**From:** Matthew J. Bruff [matthew.bruff@altelainc.com]  
**Sent:** Tuesday, January 26, 2010 10:43 AM  
**To:** Jones, Brad A., EMNRD  
**Cc:** Karen Evans  
**Subject:** Exemption Request  
**Attachments:** 1.26.10 OCD Request for Exemption.pdf

Brad,

Following our discussion this morning, please find attached the exemption request. Also, here is the link to the U.S. Department of Energy's National Energy Technology Laboratory ("NETL") grant program for your convenience (so you don't have to type a long URL address in again...).

[http://www.netl.doe.gov/technologies/oil-gas/Petroleum/projects/Environmental/Produced\\_Water/00833\\_MarcellusWater.html](http://www.netl.doe.gov/technologies/oil-gas/Petroleum/projects/Environmental/Produced_Water/00833_MarcellusWater.html)

We certainly appreciate your help and continued assistance. We anticipate that we will get some good water quality data from this grant project that we will be able to share with OCD pursuant to the terms of our OCD approval. Please let me know if I can provide any additional information.

Thanks,

Matt

Matthew Bruff, CDO  
Altela, Inc.  
5350 South Roslyn Street, Suite 430  
Englewood, CO 80111  
Phone 303-993-1950  
Fax 303-993-1955  
[www.altelainc.com](http://www.altelainc.com)

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This inbound email has been scanned for malicious software and transmitted safely to you using Webroot Email Security.

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WEB: altelaine.com

ALBUQUERQUE OFFICE

ONE TECHNOLOGY CENTER  
2450 Alamo Ave. SE, Suite 200, Albuquerque, NM 87106  
PHONE: 505.923.4140 FAX: 505.923.4130

DENVER OFFICE

DENVER TECHNOLOGY CENTER  
5350 South Roslyn Street, Suite 430, Englewood, CO 80111  
PHONE: 303.993.1950 FAX: 303.993.1955

January 26, 2010

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

**RE: Altela, Inc. Request for Exemption for Temporary Approval to Store  
and Use Produced Water for R&D of the AltelaRain<sup>®</sup> Technology**

**VIA ELECTRONIC MAIL**

Dear Brad,

As discussed this morning, this letter serves as written request for an exemption to employ a C-133 NM permitted water hauler. Altela has recently been awarded a U.S. Department of Energy technology grant from the National Energy Technology Laboratory ("NETL") for a Marcellus Basin technology demonstration. Details of this grant award can be found at:

[http://www.netl.doe.gov/technologies/oil-gas/Petroleum/projects/Environmental/Produced\\_Water/00833\\_MarcellusWater.html](http://www.netl.doe.gov/technologies/oil-gas/Petroleum/projects/Environmental/Produced_Water/00833_MarcellusWater.html)

Part of this project deals with influent water quality review and testing. Specifically, Altela is tasked with taking representative samples of frac and produced water from the Marcellus Basin and shipping these samples for testing and related analysis using Altela's test bench apparatus. The test bench analysis will verify water treatment efficacy as well as to finalize the design requirements of the AltelaRain<sup>®</sup> system to be used for the Marcellus grant project.

The cost to have a C-133 water hauler send a truck out to PA is prohibitively expensive for such a small amount of water. As we discussed, Altela would like approval to utilize a commercial shipper to send four 55 gallon barrels of each Marcellus water sample (frac, frac-flow back and produced water) to Altela's Albuquerque facility for testing. The commercial shipper will be responsible for complying with all shipping requirements and related Department of Transportation rules and regulations. Once the samples arrive at Altela's Albuquerque facility, Altela continues to agree to the following conditions with respect to use the produced water at Alamo:

January 26, 2010

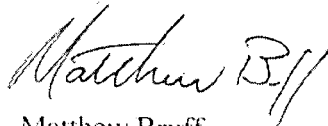
Page 2 of 2

1. Only haulers authorized (OCD approved C-133) to move produced water may provide transport of the above noted produced water samples from the Alamo facility for disposal;
2. No produced water shall be disposed at the Alamo facility. All produced water must be removed from the Alamo facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility;
3. Altela must retain records documenting all produced water received and removed from the Alamo facility;
4. Altela must report all unauthorized discharges of produced water pursuant to OCD Rule 116 to the OCD within 24 hours of determining a release; and
5. Altela will provide the OCD copies of the water quality test results received from third party water quality laboratories with respect to tests using the produced water at the Alamo facility.

We certainly understand OCD's incredibly busy schedule this time of year while the Legislature is in session. As we reviewed on the phone, we would like to have this water sent to Altela next week and would appreciate receiving the approval this week so we may coordinate shipping schedules. Thank you in advance for your continued assistance and support of the AltelaRain® technology. Please do not hesitate to contact me if the need arises.


Sincerely,

Altela, Inc.

A handwritten signature in cursive script that reads "Matthew Bruff".

Matthew Bruff  
CDO

cc: Altela Day File



# New Mexico Energy, Minerals and Natural Resources Department

**Bill Richardson**  
Governor

**Joanna Prukop**  
Cabinet Secretary  
**Reese Fullerton**  
Deputy Cabinet Secretary

**Mark Fesmire**  
Division Director  
Oil Conservation Division



March 2, 2009

Mr. Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center  
5350 South Roslyn Street, Suite 430  
Englewood, CO 80111

**Re: Application for temporary approval to store and use produced water for R&D of the AltelaRain™ technology**  
**Temporary Approval EPWM - 004**  
**2450 Alamo SE, Albuquerque, New Mexico 87106**

Dear Mr. Bruff:

The New Mexico Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s (Altela) request to renew Altela's temporary approval to store and use oilfield produced water for testing and development of the AltelaRain™ technology at Altela, Inc.'s design, research, and manufacturing facility, which expired January 16, 2009. The initial temporary approval was granted by OCD to serve certain purposes and achieve certain results. One purpose was to allow Altela the opportunity to use real produced water in a controlled environment to assist in the research and development of the AltelaRain™ technology. OCD's anticipated result of the temporary approval was to obtain testing results of the treatment of the produced water in order to demonstrate the capability of the AltelaRain™ technology. Such analytical results would represent the initial test/source water concentrations prior to treatment and the concentrations present after treatment for all of the constituents specified in Subsections A, B, and C of 20.6.2.3103 NMAC.

The OCD hereby approves this temporary approval with the following understandings and conditions:

1. The produced water approved for storage and the testing and development of the AltelaRain™ technology shall only occur at Altela, Inc.'s design, research, and manufacturing facility (Alamo), located at 2450 Alamo SE, Albuquerque, New Mexico 87106.
2. Only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to the Alamo facility.

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

\* Phone: (505) 476-3440 \* Fax (505) 476-3462\* <http://www.emnrd.state.nm.us>



3. No produced water shall be disposed at the Alamo facility. All produced water shall be removed from the Alamo facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility.
4. Altela, Inc. shall retain records documenting all produced water received and removed from the Alamo facility.
5. Altela, Inc. shall report all unauthorized discharges of produced water pursuant to OCD Rule 116 to the OCD within 24 hours of determining a release.
6. Altela, Inc. shall provide the OCD copies of the water quality analytical test results received from third party water quality laboratories with respect to tests using the produced water at the Alamo facility.

This authorization is approved for a period of one (1) year from the original issue date. **This temporary approval will expire January 16, 2010.** 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.

Please be advised that authorization of this approval does not relieve the owner/operator (Altela, Inc.) of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does approval of the permit relieve the owner/operator (Altela, Inc.) of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If you have any questions, regarding this matter, please do not hesitate to contact Brad Jones at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

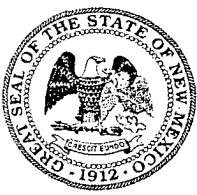
Sincerely,



Wayne Price  
Environmental Bureau Chief

WP/bj

Cc: OCD District IV Office, Santa Fe



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

December 7, 2007

Mr. Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center  
Bellevue Tower  
7887 E. Bellevue Ave, Suite 1100  
Englewood, CO 80111

**Re: Application for temporary approval to store and use produced water for R&D of the  
AltelaRain™ technology  
2450 Alamo SE, Albuquerque, New Mexico 87106**

Dear Mr. Bruff:

The New Mexico Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s (Altela) request to renew Altela's temporary approval to store and use oilfield produced water for testing and development of the AltelaRain™ technology at Altela, Inc.'s design, research, and manufacturing facility, which expires January 16, 2008. The initial temporary approval was granted by OCD to serve certain purposes and achieve certain results. One purpose was to allow Altela the opportunity to use real produced water in a controlled environment to assist in the research and development of the AltelaRain™ technology. OCD's anticipated result of the temporary approval was to obtain testing results of the treatment of the produced water in order to demonstrate the capability of the AltelaRain™ technology. Such analytical results would represent the initial test/source water concentrations prior to treatment and the concentrations present after treatment. The November 28, 2007 renewal request only provided results of one testing event, which would suggest that only one treatment cycle using the produced water has been performed. OCD's review of the analytical results indicates some concern regarding the concentration of certain constituents.

The November 28, 2007 renewal request also provided a Produced Water Tracking Summary sheet. The sheet provides such information as the transporter, the source of the produced water, the volume delivered and the volume taken away. OCD would like to remind Altela of condition #3 of the January 16, 2007 temporary approval. Condition #3 states:

*"No produced water shall be disposed at the Alamo facility. All produced water must be removed from the Alamo facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility."*

The Produced Water Tracking Summary does not indicate where the initial 300 gallons of produced water was taken for disposal or if it was taken to an OCD approved facility, as required by the condition.



OCD's consideration of the continuance of this temporary approval is based on Altela's commitment to resolve the issues and concerns stated above. This request is hereby approved with the following understandings and conditions:

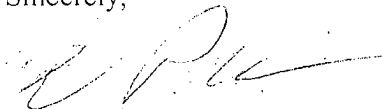
1. The produced water approved for storage and the testing and development of the AltelaRain™ technology shall only occur at Altela, Inc.'s design, research, and manufacturing facility (Alamo), located at 2450 Alamo SE, Albuquerque, New Mexico 87106.
2. Only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to the Alamo facility.
3. No produced water shall be disposed at the Alamo facility. All produced water shall be removed from the Alamo facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility.
4. Altela, Inc. shall retain records documenting all produced water received and removed from the Alamo facility.
5. Altela, Inc. shall report all unauthorized discharges of produced water pursuant to OCD Rule 116 to the OCD within 24 hours of determining a release.
6. Altela, Inc. shall provide the OCD copies of the water quality analytical test results received from third party water quality laboratories with respect to tests using the produced water at the Alamo facility.

This authorization is approved for a period of one (1) year. **This temporary approval will expire January 16, 2009.** 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.

Please be advised that authorization of this approval does not relieve the owner/operator (Altela, Inc.) of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does approval of the permit relieve the owner/operator (Altela, Inc.) of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If you have any questions, regarding this matter, please do not hesitate to contact Brad Jones at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Wayne Price  
Environmental Bureau Chief

-WP/bj

Cc: OCD District IV Office, Santa Fe



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**

Governor

**Joanna Prukop**

Cabinet Secretary

**Mark E. Fesmire, P.E.**

Director

**Oil Conservation Division**

January 16, 2007

Mr. Matthew J. Bruff  
Altela, Inc.  
Denver Technology Center  
Bellevue Tower  
7887 E. Bellevue Ave, Suite 1100  
Englewood, CO 80111

**Re: Application for temporary approval to store and use produced water for R&D of  
the AltelaRain™ technology  
2450 Alamo SE' Albuquerque, New Mexico 87106**

Dear Mr. Bruff:

The New Mexico Oil Conservation Division (OCD) has received and reviewed Altela, Inc.'s request to store and use oilfield produced water for testing and development of the AltelaRain™ technology at Altela, Inc.'s design, research, and manufacturing facility. Altela, Inc.'s design, research, and manufacturing facility (Alamo) is located at 2450 Alamo SE' Albuquerque, New Mexico 87106. This request is hereby approved with the following understandings and conditions:

1. The produced water approved for storage and the testing and development of the AltelaRain™ technology will only occur at Altela, Inc.'s design, research, and manufacturing facility (Alamo), located at 2450 Alamo SE' Albuquerque, New Mexico 87106.
2. Only haulers authorized (OCD approved C-133) to move produced water may provide transport of produced water to the Alamo facility.
3. No produced water shall be disposed at the Alamo facility. All produced water must be removed from the Alamo facility by a hauler authorized (OCD approved C-133) to move produced water and properly disposed at an OCD approved facility.
4. Altela, Inc. must retain records documenting all produced water received and removed from the Alamo facility.

5. Altela, Inc. must report all unauthorized discharges of produced water pursuant to OCD Rule 116 to the OCD within 24 hours of determining a release.
6. Altela, Inc. will provide the OCD copies of the water quality test results received from third party water quality laboratories with respect to tests using the produced water at the Alamo facility.

This authorization is approved for a period of one (1) year. **This temporary approval will expire January 16, 2008.** 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.

Please be advised that authorization of this approval does not relieve the owner/operator (Altela, Inc.) of responsibility should operations result in pollution of surface water, ground water or the environment. Nor does approval of the permit relieve the owner/operator (Altela, Inc.) of its responsibility to comply with any other applicable governmental authority's rules and regulations.

If you have any questions, regarding this matter, please do not hesitate to contact Brad Jones at (505) 476-3487 or [brad.a.jones@state.nm.us](mailto:brad.a.jones@state.nm.us).

Sincerely,



Wayne Price  
Environmental Bureau Chief

WP/bj

cc: OCD District IV Office, Santa Fe