EPWM - 004

GENERAL CORRESPONDENCE

2008 - Present



ALBUQUERQUE OFFICE

7500 Meridian Pl NW, Suite B, Albuquerque, NM 87121

PHONE: 505.923.4140 FAX: 505.923.4130

DENVER OFFICE

7887 E. Belleview Ave., Suite 1100, Englewood, CO 80111

PHONE: 303.993.1950 FAX: 303.993.1955

January 27, 2016

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

> Altela, Inc. - Termination of Temporary Approval EPWM -004 RE: to Store and Use Produced Water for R&D of the AltelaRain® **Technology**

VIA ELECTRONIC MAIL AND UNITED STATES POSTAL SERVICE

Dear Brad,

Following our recent discussion, Altela Inc.'s ("Altela") Temporary Approval to Store and Use Produced Water for R&D of the AltelaRain® Technology at Altela's facilities located at 7500 Meridian Pl., N.W., Suite B, Albuquerque, New Mexico 87121 ("Meridian"), EPWM-004 expired by its own terms on January 16, 2016. This letter serves as confirmation that Altela will not be requesting a further extension of this temporary approval at this time.

Enclosed, please find a copy of Altela's final Produced Water Tracking Summary for 2015-2016. We have also enclosed a copy of our test-bench protocol spreadsheet which outlines the various parameters and data points tracked during testing. No water has been stored or treated at the facility during that time period.

Thank you for your assistance and support of the AltelaRain® technology over the past several years. We look forward to working with you on future projects.

Sincerely,

Altela, Inc.

Karen K. Thomas

Environmental Regulatory Analyst



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
4											
						117-1					
		Annual Control									
										Marine 1	
				ESTERNISH NO.						1 1 1 1 1 1	
20											

ALTELA, INC. DID NOT TREAT ANY PRODUCED WATER DURING 2015 or 2016

						Alt	ela Tow	er Test	Data Inp	uts				Alte	la Tow	er Test	Data Inp	outs											
Tower:		Tost	Station:	41																									
Test Conditions	Test D	uration		al Gas		Tank	Levels		PW Flow	Inlet A	ir Measur	ements	Stre	am				lectical Co	onductivity	,					To	mperatu	re		
Test Conditions / Notes/ Change in Input Conditions from Previous Settings	Start Date/Time	End Date/Time	Natural Gas Meter Reading, Start (CCF)	Natural Gas Meter Reading, End [CCF]	DW Tanks Height Delta [inches]	BW Tanks Height Delta [inches]	PW Tank #1 Height Delta [inches]	PW Tank #2 Height Delta [inches]	PW Flow [GPM]	Air Flow Measurement [Feet Per Minute]	Inlet Air Temp. [°F]	Air Press. [inches H2O]	Steam Press. Before Valve [psig.]	Steam Press. After Valve [psig]	Electical Conductivity of DW Basin @ Start [µS/cm]	Electical Conductivity of DW Basin @ End [µS/cm]	Electical Conductivity of DW Tanks ® Start [µS/cm]	Electical Conductivity of DW Tanks @ End [µS/cm]	Electical Conductivity of PW @ Start [µS/cm]	Electical Conductivity of CW @ Start [μS/cm]	Electical Conductivity of PW @ End [µS/cm]	Electical Conductivity of CW @ End [µS/cm]	PWT #5 (°F)	PW Inlet (*F)	CW Exit (°F)	DWT Right (°F)	DWT Left (°F)	Exhaust Air Temp, Left (°F)	Exhaust Air Temp, Right (°F)
	7																												

Jones, Brad A., EMNRD

From:

Karen Thomas <karen.thomas@altelainc.com>

Sent:

Wednesday, January 27, 2016 12:38 PM

To:

Jones, Brad A., EMNRD

Subject:

Termination of Temporary Approval EPWM 004

Attachments:

160127 Termination of Temporary Approval EPWM-004.pdf

Importance:

High

Brad,

It was a pleasure speaking with you yesterday. I hope you are feeling better.

I've attached an advance copy of the above referenced Termination Letter. The original documents were mailed out today.

Please let me know if you have any questions or require any additional information.

Sincerely,

Karen K. Thomas

Altela, Inc.

DENVER TECHNOLOGY CENTER 7887 E. Belleview Ave., Suite 1100

Denver, CO 80111

PHONE: (303) 993-1950

FAX:

(303) 993-1955

WEB:

www.altelainc.com

Follow us on Facebook and Twitter:









ALBUQUERQUE OFFICE

7500 Meridian Pl NW, Suite B, Albuquerque, NM 87121

PHONE: 505.923.4140 FAX: 505.923.4130

DENVER OFFICE

7887 E. Belleview Ave., Suite 1100, Englewood, CO 80111

PHONE: 303.993.1950 FAX: 303.993.1955

January 27, 2016

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

RE: Altela, Inc. – Termination of Temporary Approval EPWM -004 to Store and Use Produced Water for R&D of the AltelaRain® Technology

VIA ELECTRONIC MAIL AND UNITED STATES POSTAL SERVICE

Dear Brad,

Following our recent discussion, Altela Inc.'s ("Altela") Temporary Approval to Store and Use Produced Water for R&D of the AltelaRain[®] Technology at Altela's facilities located at 7500 Meridian Pl., N.W., Suite B, Albuquerque, New Mexico 87121 ("Meridian"), EPWM-004 expired by its own terms on January 16, 2016. This letter serves as confirmation that Altela will not be requesting a further extension of this temporary approval at this time.

Enclosed, please find a copy of Altela's final Produced Water Tracking Summary for 2015-2016. We have also enclosed a copy of our test-bench protocol spreadsheet which outlines the various parameters and data points tracked during testing. No water has been stored or treated at the facility during that time period.

Thank you for your assistance and support of the AltelaRain® technology over the past several years. We look forward to working with you on future projects.

Sincerely,

Altela, Inc.

Karen K. Thomas

Environmental Regulatory Analyst



5				Meridia	n Produce	d Water Ti	acking Summa	ary 2015 and 2016			
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
gi ; gist :											# # 1 # V 1 #
			\$ 4					世 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 : 1 :			
13											
		And the second								isk.	
	8.4			2 mg Hg 1 2 mg 2 mg 2 2 mg 2 mg 2 2 mg 2 mg 2 2 mg 2 2 2 mg 2 2 2 mg 2 2 2 mg 2 2 mg 2 2 2 mg 2 2 2 mg 2 2 mg 2 2 2 mg 2 2 2 2 mg 2 2 2 mg 2 2 2 2 mg 2 2 2 2 mg 2 2 2 2 2 mg 2 2 2 2 2 mg 2 2 2 2 2 mg 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2							
				ASEK Senti militari Senti militari							

ALTELA, INC. DID NOT TREAT ANY PRODUCED WATER DURING 2015 or 2016

	,,,,,,,,		 	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,								
Tower:	Test Conditions	Test Candibons / Hotel/ Change in Input Conditions from Previous Settings											
	Test Duration	Start Date/Time											
Test.	ration	End Date/Time											
Test Station:	Natural Gas	Natural Gas Meter Reading, Start [CCF]											
#	G	Natural Gas Meter Reading, End [CCF]											
		DW Tanks Height Delta [Iriches]									į		
	Tank Levels	BW Tanks Height Oelta (inches)											
	levels	PW Tank #1 Height Delta [inches]											
		PW Tank #2 Height Delta (inchès)											
	PW Flow	PW Flow (GPM)											
	inlet Al	Air Flow Measurement [Feet Per Minute]											
	inlet Air Measurements	inlet Air Temp. ["F]											
	ements	Air Press. (Inches H2O)											
	£	Steam Press. Before Valve [psig]			Γ								Γ
	Stream	Steam Press. After Valve [psig]				T			Ī				
	T	Electical Conductivity of DW Basin @ Start [µ5/cm]											r
		Electical Conductivity of DW Basin @ End [µS/cm]					T	ļ					r
		Electical Conductivity of DW Tanks @ Start			l			l					
	Electical Co	[µS/cm] Electical Conductivity of DW Tanks @ End [µS/cm] Electical Conductivity of PW @ Start [µS/cm]											
	aductivit	Electical Conductivity of PW @ Start [µS/cm]											
		Electical Conductivity of CW @ Start [µS/cm]											
		Electical Conductivity of PW @ End [µS/cm]											
		Electical Conductivity of CW @ End [pS/cm]											
	Γ	PNVT #5 ("F)											
	1	PW Inlet (*F)											
		CW Eath ("F)											
	Temperature	DWT Right (FF)			İ			-				T	
	200	DWT Left (*F)			T	T	T			T	T		
		Exhaust Air Temp, Left (*F)					T					T	
		Exhaust Air Temp, Right											
J	L	1 ,,,	 <u></u>	1		<u></u>		<u> </u>				Т	

Altela Tower Test Data Inputs

Altela Tower Test Data Inputs





ALBUQUERQUE OFFICE

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

DENVER OFFICE

7887 E. Belleview Ave., Suite 1100, Englewood, CO 80111

PHONE: 303.993.1950 FAX: 303.993.1955

November 19, 2014

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, 2015

VIA ELECTRONIC MAIL AND 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 July 10, 2014. 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 the annual renewal of EPWM -004 as we anticipate receiving produced water in the coming year to continue the development of the AltelaRain[®] technology.

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.

Karen K. Evans

Environmental Regulatory Analyst

Were to Evanso

cc: Altela Day File

	Balance		
	Delivered / Taken Away		
	2		
	Owner of Well		
Immapy 2014	Name of Originating Well (If Taken Away - NA)		
er Tracking Si	C133 Permit No.		
nitosi Ma	Fax Number		
oridan Pro	Phone		
	Address		
	Contact at		-
	Transport Company Contact at Name Company		
	Date	 	
	N ON		

ALTELA, INC. DID NOT TREAT ANY PRODUCED WATER DURING 2014

State of New Mexico Energy, Minerals an Natural Resources Department

Susana Martinez Governor

David Martin Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jemi 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 AltelaRainTM 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 AltelaRainTM 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 AltelaRainTM technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRainTM 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:

- The produced water approved for storage and the testing and development of the AltelaRainTM 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;

Altela, Inc. EPWM - 004 July 10, 2014 Page 2 of 2

- 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 <u>brad.a.jones@state.nm.us</u>.

Sincerely,

Brad A. Jones

Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

Eshanst Ab Yomp, Right (*) Mai ,qurej MA Russita) (†) (4) AND TWO (1") MAIN TWO CW EER (TS) (1.) 1914 Md (17) En TW9 CW @ End [µ5/cm] ectical Canductivity (PW @ End [µ5/cm] beckical Conductivity o ertical Conductivity (Electical Conductivity of Electical Conductivity of End [µ5/cm] Altela Tower Test Data Inputs Electrical Conductivity of DWF Tents @ Start [us/cm] Electical Conductivity of I'm basin @ End [µ5/cm] [lectical Conductivity of DW bank @ Start [µ5/cm] evisy with alon menti [girq] iesm Press. Bolose Valve [pulg] Inlet Air Measurements (1) series NA Select Insmewzeshi wol? via [studin we teet] Altela Tower Test Data Inputs PW Flow [Mes] word we aned rigion in and we [redon] asted stages to sand WY (revise) astad subject steat WO [sectors] Test Station: #1 Natural Gas Hatural Gas Moter Reading, End [CCF] Hatural Gas Matter Reading, Start [CCF] End Date/Time Test Duration Start Date/Time Tower: Test Conditions

Jones, Brad A., EMNRD

From:

Karen Evans karen.evans@altelainc.com

Sent:

Wednesday, November 19, 2014 10:35 AM

To: Cc:

Jones, Brad A., EMNRD

Subject:

Matthew J. Bruff NM OCD REQUEST FOR TEMP APPROVAL - PERMIT EPWM-004

Attachments:

11.19.14 Renewal Request Temp Approval EPWM 004.pdf

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

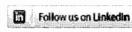
WEB:

www.altelainc.com

Follow us on Facebook and Twitter:







Go to www.CARESforWater.com and www.CAESwater.com to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.





ALBUOUEROUE OFFICE

7500 Meridian Pl NW, Suite B, Albuquerque, NM 87121 PHONE: 505,923,4140 FAX: 505.923,4130

DENVER OFFICE

7887 E. Belleview Ave., Suite 1100, Englewood, CO 80111

PHONE: 303.993.1950 FAX: 303.993.1955

November 19, 2014

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, 2015

VIA ELECTRONIC MAIL AND 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 July 10, 2014. 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 the annual renewal of EPWM – 004 as we anticipate receiving produced water in the coming year to continue the development of the AltelaRain[®] technology.

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.

Karen K. Evans

Environmental Regulatory Analyst

cc: Altela Day File

- 8 J	١,
	11
	=
()	
•	1
-	`

	Balance	**************************************			# F2/1	1.00	133
	Ž		Tana 143	97446 967			
	aken			#/\ #/\	2.5		
4.7	Delivered / Taken Away						
i i	Delive						
1				1000 AN			1.9
	_			7777			
	Owner of Well	9879/Y					
	Jwner						
							John Harris
V. 14		1672. 3680a					778
	N SEE						
	ating '						
2014	Name of Originating Well (If Taken Away - NA)						
ary 2	(If Ta						
шшг	ž			996			
g St	NO.			Engran	SERV.	With-	- 31 4-
ackin	C133 Permit No.			or of			
ır Tra	C(133)						
Meridian Produced Water Tracking Summary 2014	à l	Bill state	PRA FOR	See		ASA Barran	-FS):
, pao	Fax Number		Salah Sanah		May i Book		Vet 2
npo	£.	1/674 1/665			85.5 85.5		
an Pi	Phone		1377. 1475.				
erìdia	ā g				Marti.	A	-1862h
						: 1:	EXPEN
							i in lie
	Address	kippi Lili Reg.					
5207220	Adc						
196							
		1 .A.u.	J.F.	1. 1		131	71
	ect at Dany			3.25 3.25			
	Contact at			V.		ikij sekra	200
1000		42-1	ilian.	4875			*3 6* v.
	Name						-
	Transport Company Name						13.44 13.44
					V: 4		
	Date	537925.					198451.u
	£	- 44	i Angli Jefazia	alphi.			31

ALTELA, INC. DID NOT TREAT ANY PRODUCED WATER DURING 2014

State of New Mexico Energy, Minerals an Natural Resources Department

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 AltelaRainTM 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 AltelaRainTM 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 AltelaRainTM technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRainTM 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:

- The produced water approved for storage and the testing and development of the AltelaRainTM 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;

Altela, Inc. EPWM - 004 July 10, 2014 Page 2 of 2

- 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
- 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.

Sincerely.

Brad A. Jones

Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

Cabauri Air Yemp, Bight [17] (1) (Y) HAJ TWO (17) JAGHI TWO CM 148 (LI) (al) some first IIJ SR LMd ectical Conductivity (CW @ End [Li2/cm] Pertical Conductivity CW @ Start [psl/cm] iestikai Ceedustivity PW @ Start [LGJ tm] Specifical Conductability of [ers\24] and @ close [Williams] Altela Tower Test Data Inputs Factional Conductionity and Dwy Taola (#) Start [act/cm] Liectical Canductivity of VW Basin @ End (jul/cm) (Inclinal Canductivity of Dwy kasin @ lear (pil/cm) SANS TOTAL ATTENTIONS team Frenc Before Valv. (ping) (Oth reduit start MA [1] .qenst NA tales Imamerarashi walil uh [studihi net ree1] Altela Tower Test Data Inputs PW Flow [Med] Moti Me und stayen Sa Jout Wo [radio] E stied idjest tane. ... asta arbian afast WO [restro] Matural Gas Mater Reading, End [CCF] **∓** § Test Station: Natural Matural Gas Mater Reading, Stan (CCS) Ind Duty/Time Test Duration San Date/Dine Tower Test Conditions / Notes/ Change in Impul Conditions from Previous Settings Test Conditions

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

David Martin
Cabinet Secretary

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

Jami Bailey, Division Director Oil Conservation Division



October 21, 2014

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

AltelaRainTM Technology

Altela, Inc.

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 October 21, 2014, 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[®] technology at Altela's design, research, and manufacturing facility dated July 10 2014. Condition #2 requires "only haulers authorized (OCD approved C-133) to move produced water shall provide transport of produced water to the Meridian facility."

Based upon the information provided in the request, Altela proposes to ship "no more than 2000 gallons" of produced water by a commercial shipper from the Fayetteville Basin of Arkansas to Altela's Albuquerque Meridian facility for testing. The test bench analyses will allow Altela to finalize the design requirements of the AltelaRain® system for a specific project.

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

- 1. Altela shall transport the produced water from the Fayetteville Basin of Arkansas 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 July 10 2014, upon the arrival and acceptance of the

Ms. Evans Altela, Inc. Permit EPWM - 004 October 21, 2014 Page 2 of 2

produced water from the Fayetteville Basin of Arkansas at Altela's Albuquerque Meridian 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.

Sincerely

Brad A. Jones

Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe





REGEN 1.000 2014 (CT 24 P 3 C° ALBUQUERQUE OFFICE

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

DENVER OFFICE

7887 E. Belleview Ave., Suite 1100, Englewood, CO 80111

PHONE: 303.993.1950 FAX: 303.993.1955

October 21, 2014

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® Technology

VIA ELECTRONIC MAIL

Dear Brad,

Per our discussions, this letter serves as written request for an exemption to employ a C-133 NM permitted water hauler.

Part of this project deals with influent water quality review and testing. Specifically, Altela has received a request to provide bench testing on produced and/or frac flow-back water from the Fayetteville Basin area in regards to removal of ammonia and methanol. This test bench analysis will verify water treatment efficacy as well as finalize design requirements of the AltelaRain® system to be used for this project.

The cost to have a C-133 water hauler send a truck out to Arkansas is prohibitively expensive for such a small amount of water. As discussed, Altela would like approval to utilize a commercial shipper to send no more than 2,000 gallons of produced and or frac-flow back 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:

1. Only haulers authorized (OCD approved C-133) to move produced water may provide transport of produced water to the Meridian facility;

- 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;
- 3. Altela must retain records documenting all produced water received and removed from the Meridian 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 Meridian facility.

As we reviewed on the phone, we would like to have this water sent to Altela in the next week or so 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.

Karen K. Evans

Environmental Regulatory Analyst

arenti Evaro

cc: Altela Day File

Jones, Brad A., EMNRD

From:

Karen Evans <karen.evans@altelainc.com>

Sent:

Tuesday, October 21, 2014 2:06 PM

To:

Jones, Brad A., EMNRD

Cc:

Matthew J. Bruff; Mike Quinn

Subject:

Exemption Request Revised

Attachments:

10.21.14 Request for Exemption.pdf

Importance:

High

Brad,

I'm sorry. I just found out that the amount of water would probably be closer to 2000 gallons. I have revised the request to state that. I had already mailed a hard copy so please disregard that and I will send a revised request via USPS.

Thanks again for your assistance and sorry for the inconvenience.

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: WEB:

(303) 993-1955 www.altelainc.com

Follow us on Facebook and Twitter:







Go to www.CARESforWater.com and www.CAESwater.com to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From: Karen Evans

Sent: Tuesday, October 21, 2014 9:37 AM

To: 'brad.a.jones@state.nm.us' **Subject:** Exemption Request

Importance: High

Brad,

It was a pleasure speaking with you this morning.

Attached please find an advance email request for the temporary exemption that was discussed. Per our conversation, I have also mailed the original request to you. In addition, we would like to have this water sent to Altela in the next

week or so and would appreciate receiving the approval as soon as possible so we may coordinate shipping schedules. Would you be able to send an advance email version of the approval as well?

Please note that our Denver address has changed, see address in signature line (Albuquerque's facility address remains the same).

Please let me know if you have any questions or require additional information.

Thanks for your assistance over the years.

Sincerely,

Karen K. Evans Environmental Regulatory Analyst

Altela, Inc.

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

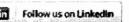
FAX: WEB:

PHONE: (303) 993-1952 (303) 993-1955 www.altelainc.com

Follow us on Facebook and Twitter:







Go to www.CARESforWater.com and www.CAESwater.com to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.





ALBUQUERQUE OFFICE

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

DENVER OFFICE

7887 E. Belleview Ave., Suite 1100, Englewood, CO 80111

PHONE: 303.993.1950 FAX: 303.993.1955

October 21, 2014

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® Technology

VIA ELECTRONIC MAIL

Dear Brad,

Per our discussions, this letter serves as written request for an exemption to employ a C-133 NM permitted water hauler.

Part of this project deals with influent water quality review and testing. Specifically, Altela has received a request to provide bench testing on produced and/or frac flow-back water from the Fayetteville Basin area in regards to removal of ammonia and methanol. This test bench analysis will verify water treatment efficacy as well as finalize design requirements of the AltelaRain® system to be used for this project.

The cost to have a C-133 water hauler send a truck out to Arkansas is prohibitively expensive for such a small amount of water. As discussed, Altela would like approval to utilize a commercial shipper to send no more than 2,000 gallons of produced and or frac-flow back 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:

1. Only haulers authorized (OCD approved C-133) to move produced water may provide transport of produced water to the Meridian facility;

- 2. 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;
- 3. Altela must retain records documenting all produced water received and removed from the Meridian 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 Meridian facility.

As we reviewed on the phone, we would like to have this water sent to Altela in the next week or so 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.

Karen K. Evans

Environmental Regulatory Analyst

cc: Altela Day File

WEB: altelainc.com



ALBUQUERQUE OFFICE

7500 Meridian Pl NW, Suite B, Albuquerque, NM 87121

PHONE: 505.923.4140 FAX: 505.923.4130

COD

DENVER OFFICE

7514 . 75 34 75 3: 5350 South Roslyn Street, Suite 210, Englewood, CO 80111

PHONE: 303.993.1950 FAX: 303.993.1955

July 9, 2014

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, 2014

VIA ELECTRONIC MAIL AND 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 January 16, 2013. 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 the annual renewal of EPWM -004 as we anticipate receiving produced water in the coming year to continue the development of the AltelaRain® technology. Per our conversation, our request for renewal was delayed due to a computer crash in October last year. The annual tickler for renewing the permit in January must have been lost in that crash, however, the 1st and 2^{nd} Quarterly Reports for 2014 have been submitted at the proper times.

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.

Karen K. Evans

Environmental Regulatory Analyst

cc: Altela Day File

<i>(</i>)	<
	_
	F
	<

	Balance	
	Delivered / Taken Away	
	Owner of Well	
	Name of Originating Well (If Taken Away - NA)	
ter Tracking Sa	C133 Permit No.	
Author We	Fax Number	
endon m	Phone	
	Address	
	Contact at	
	Transport Company Name	
	Date	
	£	

ALTELA, INC. DID NOT TREAT ANY PRODUCED WATER DURING 2013

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

John Bemis
Cabinet Secretary

Brett F. Woods, Ph.D. Deputy Cabinet Secretary Jami Beiley
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 AltelaRainTM 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 AltelaRainTM 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 AltelaRainTM technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRainTM 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 AltelaRainTM 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;

Altela, Inc. EPWM - 004 January 16, 2013 Page 2 of 2

- 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 <u>brad.a.jones@state.nm.us</u>.

Sincerely,

Brad A. Jones
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

Test Conditions / Notes/ Change in Input Conditions from Previous Settings **Test Conditions** Start Date/Time Test Duration End Date/Time **Test Station:** Natural Gas Meter Reading, Start [CCF] Natural Gas Meter 8 # Reading, End [CCF] DW Tanks Height Delta [inches] **BW Tanks Height Delta** Tank Levels [inches] PW Tank #1 Height Delta [inches] PW Tank #2 Height Delta [inches] PW Flow PW Flow [GPM] Air Flow Measurement [Feet Per Minute] Inlet Air Temp. [°F] Air Press. [inches H2O] Steam Press. Before Valv (psig) Steam Press. After Valve [psig] **Electical Conductivity of** DW Basin @ Start [µS/cm] **Electical Conductivity of** DW Basin @ End (µS/cm) **Electical Conductivity of** DW Tanks @ Start [μS/cm] [µS/cm]

Electical Conductivity of DW Tanks @ End [µS/cm]

Electical Conductivity of PW @ Start [µS/cm] Electical Conductivity of CW @ Start [µS/cm] Electical Conductivity of PW @ End [µS/cm]

Altela Tower Test Data Inputs

Altela Tower Test Data Inputs

Jones, Brad A., EMNRD

From:

Jones, Brad A., EMNRD

Sent:

Thursday, July 10, 2014 2:47 PM

To:

'Karen Evans'

Matthew J. Bruff

Cc: Subject:

RE: Altela, Inc. Renewal Request for Temporary Approval EPWM 004

Attachments:

2014 0710 EPWM-004 renewal approval.pdf

Karen,

Thank for making the appropriate revisions and clarifying that the documented water was landfill leachate instead of produced water. Please see the attached renewal approval. Hardcopies will be mailed today. If you have any questions, please contact me.

Brad

Brad A. Jones

Environmental Engineer Environmental Bureau NM Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, New Mexico 87505

E-mail: <u>brad.a.jones@state.nm.us</u> Office: (505) 476-3487

Fax: (505) 476-3462

From: Karen Evans [mailto:karen.evans@altelainc.com]

Sent: Thursday, July 10, 2014 1:42 PM

To: Jones, Brad A., EMNRD **Cc:** Matthew J. Bruff

Subject: Altela, Inc. Renewal Request for Temporary Approval EPWM 004

Brad,

Please find attached a revised Request for Temporary Approval of EPWM 004 (the original will be sent via USPS). The Tracking Summary that was initially submitted was incorrect and reflected Leachate. Altela, Inc. did not treat any Produced Water in 2013.

Upon your review, please let me know if you have any questions, etc.

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210 Englewood, CO 80111

PHONE: (303) 9

(303) 993-1952

FAX:

(303) 993-1955

WEB:

www.altelainc.com

Follow us on Facebook and Twitter:







Go to www.CARESforWater.com and www.CAESwater.com to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From: Karen Evans

Sent: Wednesday, July 09, 2014 11:55 AM

To: 'Jones, Brad A., EMNRD'

Cc: Matthew J. Bruff

Subject: Altela, Inc. Renewal Request for Temporary Approval EPWM 004

Importance: High

Brad,

Good morning.

Thanks again for your understanding and for your time on the phone yesterday. Per our conversation, attached please find an advance PDF copy of the request for renewal. The original documents were mailed today.

Upon review of the request, should you have any questions please do not hesitate to contact me.

Sincerely,

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210 Englewood, CO 80111

PHONE: (303) 993-1952

FAX:

(303) 993-1955

WEB:

www.altelainc.com

Follow us on Facebook and Twitter:







Go to www.CARESforWater.com and www.CAESwater.com to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From: Jones, Brad A., EMNRD [mailto:brad.a.jones@state.nm.us]

Sent: Tuesday, July 08, 2014 9:43 AM

To: Karen Evans Cc: Matthew J. Bruff

Subject: RE: Altela Inc. EPWM-004 Quarterly Report - 2nd Qtr 2014

Karen,

OCD records indicate that EPWM-004 expired on January 16, 2014. Please contact me if Altela wishes to continue to operate under this approval.

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

Office: (505) 476-3487 Fax: (505) 476-3462

From: Karen Evans [mailto:karen.evans@altelainc.com]

Sent: Wednesday, July 02, 2014 8:48 AM

To: Jones, Brad A., EMNRD **Cc:** Matthew J. Bruff

Subject: Altela Inc. EPWM-004 Quarterly Report - 2nd Qtr 2014

Brad,

With respect to the State's quarterly survey, for the period April 1 through June 30, 2014, Altela treated zero barrels of produced water in New Mexico.

Thanks -

Karen K. Evanş Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (303) 993-1955 WEB: www.altelainc.com

Follow us on Facebook and Twitter:



Go to <u>www.CARESforWater.com</u> and <u>www.CAESwater.com</u> to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From:

Karen Evans karen.evans@altelainc.com

Sent:

Thursday, July 10, 2014 1:42 PM

To:

Jones, Brad A., EMNRD

Cc:

Matthew J. Bruff

Subject:

Altela, Inc. Renewal Request for Temporary Approval EPWM 004

Attachments:

7.10.14 Revised Request Temp Approval EPWM 004.pdf

Brad,

Please find attached a revised Request for Temporary Approval of EPWM 004 (the original will be sent via USPS). The Tracking Summary that was initially submitted was incorrect and reflected Leachate. Altela, Inc. did not treat any Produced Water in 2013.

Upon your review, please let me know if you have any questions, etc.

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210 Englewood, CO 80111

PHONE:

(303) 993-1952

FAX:

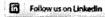
(303) 993-1955

WEB:

www.altelainc.com

Follow us on Facebook and Twitter:





Go to www.CARESforWater.com and www.CAESwater.com to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From: Karen Evans

Sent: Wednesday, July 09, 2014 11:55 AM

To: 'Jones, Brad A., EMNRD'

Cc: Matthew J. Bruff

Subject: Altela, Inc. Renewal Request for Temporary Approval EPWM 004

Importance: High

Brad,

Good morning.

Thanks again for your understanding and for your time on the phone yesterday. Per our conversation, attached please find an advance PDF copy of the request for renewal. The original documents were mailed today.

Upon review of the request, should you have any questions please do not hesitate to contact me.

Sincerely,

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210

Englewood, CO 80111 PHONE:

(303) 993-1952

FAX:

(303) 993-1955

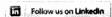
WEB:

www.altelainc.com

Follow us on Facebook and Twitter:







Go to www.CARESforWater.com and www.CAESwater.com to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From: Jones, Brad A., EMNRD [mailto:brad.a.jones@state.nm.us]

Sent: Tuesday, July 08, 2014 9:43 AM

To: Karen Evans Cc: Matthew J. Bruff

Subject: RE: Altela Inc. EPWM-004 Quarterly Report - 2nd Qtr 2014

Karen,

OCD records indicate that EPWM-004 expired on January 16, 2014. Please contact me if Altela wishes to continue to operate under this approval.

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 Office: (505) 476-3487

Fax: (505) 476-3462

From: Karen Evans [mailto:karen.evans@altelainc.com]

Sent: Wednesday, July 02, 2014 8:48 AM

To: Jones, Brad A., EMNRD

Cc: Matthew J. Bruff

Subject: Altela Inc. EPWM-004 Quarterly Report - 2nd Qtr 2014

Brad,

With respect to the State's quarterly survey, for the period April 1 through June 30, 2014, Altela treated zero barrels of produced water in New Mexico.

Thanks -

Karen K. Evans Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210 Englewood, CO 80111

PHONE:

(303) 993-1952

FAX:

(303) 993-1955

WEB:

www.altelainc.com

Follow us on Facebook and Twitter:



Go to <u>www.CARESforWater.com</u> and <u>www.CAESwater.com</u> to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.





ALBUQUEROUE 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

July 9, 2014

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, 2014

VIA ELECTRONIC MAIL AND 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
- 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 January 16, 2013. 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 the annual renewal of EPWM -004 as we anticipate receiving produced water in the coming year to continue the development of the AltelaRain® technology. Per our conversation, our request for renewal was delayed due to a computer crash in October last year. The annual tickler for renewing the permit in January must have been lost in that crash, however, the 1st and 2^{nd} Quarterly Reports for 2014 have been submitted at the proper times.

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.

Karen K. Evans

Environmental Regulatory Analyst

cc: Altela Day File

Enclosures as noted



ا بو						
Balance						
5		1255 ⁴⁴	Transition .		181	74,8 14,8
Delivered / Taken Away						
elivere				147 M.4		
		, state	11577	- 3		1.0
r Well						
Owner of Well				<u> </u>		
°	. K			åär ^a		
		3 4 3		5×84.		
Nell C					1 (1 (1 (1 (1 (1 (1 (1 (1 (1 (4.
ating V		48 44 44				
nary 2013 Name of Originating Well (If Taken Away - NA)						
ary 2						
E Z					V.	7134,
ng Si	į.				842	
r Tracking c133 Permit No.						
Gr Ti					48.79	
Meridian Produced Water Tracking Summary 2013 Phone Fax Number C133 Permit No. (If Taken Aw			1 d		¥.	
duced Wa	10					
po L	stř.	4	a de la composition della comp	100000	- 147	144.5
diar P Phone Number						
Merid				1989	ž.	
Address						
at IV		¥				
Contact at Company						
			- d	7.7		<u> </u>
Transport Company Name	\$3 2015 1578					e #
nsport Co Name						154 43
		1.75	, ergan	1		2. 4 2. 44
Date		## ##		944 1045		
S _S			reject Spirit			1.4
				242 345		

ALTELA, INC. DID NOT TREAT ANY PRODUCED WATER DURING 2013

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

John Bemla Cabinet Secretary

Bratt F. Woods, Ph.D. Deputy Cabinet Secretary

Jami Balley 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 AltelaRainTM 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 AltelaRainTM 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 AltelaRainTM technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRainTM 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:

- The produced water approved for storage and the testing and development of the AltelaRainTM 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;

Altela, Inc. EPWM - 004 January 16, 2013 Page 2 of 2

- 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.

Sincerely,

Brad A. Jones
Environmental Engineer

BAJ/bai

cc: OCD District IV Office, Santa Fe

_			 	 	 	 		,	
Tower:	Test Conditions	Test Conditions / Nates/ Change in Input Conditions from Previous Settings							
	Test D	Stant Date/Time							
Test	Test Duration	End Date/Time							
Test Station:	Natural Gas	Natural Gas Meter Reading, Start (CCF)							
12	i Gas	Natural Gas Meter Reading, End (CCF)							L
		DW Tariks Height Delta [inches]							
Aitei	Tank Levels	BW Tanks Height Delta [inches]							
a Towe	evels	PW Tank #1 Height Delta [inches]							
riest		PW Tank #2 Height Della (inches)							
Altela Tower Test Data Inputs	PW Flow	PW flow (GPM)							
Į ā	Inlet A	Air Flow Measurement (Feet Per Minute)							
	Inlet Air Measurements	inlet Air Temp. ("F)							
	ements	Air Press, (inches H2O)							
	Str	Steam Press, Before Valve [Psig]							
P	Stream	Steam Press. After Valve (psig)							
Altela Tow		Electical Conductivity of DW Basin Ø Start [µS/cm]							
ver les		Electical Conductivity of DW Basin @ End [µS/cm]							
er lest Data inputs	_	Electical Conductivity of DW Tanks & Start [µS/cm]							
nputs	Electical C	Electical Conductivity of DW Tanks @ End (µS/cm)							
	Electical Conductivity	Electical Conductivity of PW @ Start [uS/cm]							
	Ą	Electical Conductivity of CW @ Start [µS/cm]							
		Electical Conductivity of PW @ End [u5/cm]							
		Electical Conductivity of CW @ End [µS/cm]							
		PWT #5 (*F)							
		PW Inlet (*F)							
	1	CW Extt (°F)							
	Temperature	DWT Right (*F)							
	ire.	DWT Left (°F)							
		Exhaust Air Temp, Left (°F)							
		Exhaust Air Temp, Right (°F)							
		A	 	 	 	 _	•	***************************************	

From:

Karen Evans karen.evans@altelainc.com

Sent:

Wednesday, July 09, 2014 11:55 AM

To:

Jones, Brad A., EMNRD

Cc:

Matthew J. Bruff

Subject:

Altela, Inc. Renewal Request for Temporary Approval EPWM 004

Attachments:

7.9.14 Renewal Request Temp Approval EPWM 004.pdf

Importance:

High

Brad,

Good morning.

Thanks again for your understanding and for your time on the phone yesterday. Per our conversation, attached please find an advance PDF copy of the request for renewal. The original documents were mailed today.

Upon review of the request, should you have any questions please do not hesitate to contact me.

Sincerely,

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210 Englewood, CO 80111

PHONE:

(303) 993-1952

FAX:

(303) 993-1955

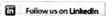
WEB:

www.altelainc.com

Follow us on Facebook and Twitter:







Go to www.CARESforWater.com and www.CAESwater.com to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From: Jones, Brad A., EMNRD [mailto:brad.a.jones@state.nm.us]

Sent: Tuesday, July 08, 2014 9:43 AM

To: Karen Evans Cc: Matthew J. Bruff

Subject: RE: Altela Inc. EPWM-004 Quarterly Report - 2nd Qtr 2014

Karen,

OCD records indicate that EPWM-004 expired on January 16, 2014. Please contact me if Altela wishes to continue to operate under this approval.

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

Office: (505) 476-3487 Fax: (505) 476-3462

From: Karen Evans [mailto:karen.evans@altelainc.com]

Sent: Wednesday, July 02, 2014 8:48 AM

To: Jones, Brad A., EMNRD **Cc:** Matthew J. Bruff

Subject: Altela Inc. EPWM-004 Quarterly Report - 2nd Qtr 2014

Brad,

With respect to the State's quarterly survey, for the period April 1 through June 30, 2014, Altela treated zero barrels of produced water in New Mexico.

Thanks -

Karen K. Evans Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210 Englewood, CO 80111

PHONE:

(303) 993-1952

FAX:

(303) 993-1955

WEB:

www.altelainc.com

Follow us on Facebook and Twitter:



Go to <u>www.CARESforWater.com</u> and <u>www.CAESwater.com</u> to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

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

July 9, 2014

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, 2014

VIA ELECTRONIC MAIL AND 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;
- 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 January 16, 2013. 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 the annual renewal of EPWM – 004 as we anticipate receiving produced water in the coming year to continue the development of the AltelaRain® technology. Per our conversation, our request for renewal was delayed due to a computer crash in October last year. The annual tickler for renewing the permit in January must have been lost in that crash, however, the 1st and 2nd Ouarterly Reports for 2014 have been submitted at the proper times.

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.

Karen K. Evans

Environmental Regulatory Analyst

cc: Altela Day File

Enclosures as noted



No Date Transport Company Contact Address Phone C133 Permit No. C1137 Perm	
Date Transport Company Contact at Address Phone Pax Number C133 Permit No. Mama Company Contact Address Phone Pax Number C133 Permit No. Mar Frieght System (505) 693-1010 Unavailable (505) 328-6541 (505) 328-6002 (5132-392) PO Box 600, Farmington, NAL 87499 (505) 328-6541 (505) 328-6002 (5132-392)	
Date Transport Company Contact at Address Phone Fax Number C133 Permit No. Name Company Company Company Company (505) 603-1010 Unavailable (505) 603-1010 Unavailable (505) 603-600, Farmington, NAI 87499 (505) 528-5541 (505) 528-5002 (5133-392)	
Date Transport Company Contact at Address Phone Fax Number C133 Permit No. Name Company (505) 883-1010 Unavailable (505) 883-1010 Unavailable (505) 328-5541 (505) 328-5002 (5133-392)	
Date Transport Company Contact at Address Phone Fax Number C133 Permit No. Name Company Contact Address Phone Fax Number C133 Permit No. Name Company Contact Address Phone Fax Number C133 Permit No. Name Company Contact Address Phone Fax Number C133 Permit No. Name Company Contact Address Phone Fax Number C133 Permit No. Name Company Contact Address Phone Fax Number C133 Permit No. Name Company Contact Address Phone Fax Number C133 Permit No. Name Company Contact Address Phone Fax Number C133 Permit No.	
Date Transport Company Contact at Address Phone Fax Number C133 Permit No. Number C237 Permit No. Number C33 Permit No. Number C133 Permi	
Date Transport Company Contact at Address Phone Number C133 Permit No. Name Company Contact at Address Phone Number C133 Permit No. Name Company Contact at Address Phone Pax Number C133 Permit No. Number Fax Number C133 Permit No. Number Fax Number C133 Permit No. Number Fax Number C133 Permit No.	
Date Transport Company Contact at Address Phone Fax Number C133 Permit No. Name Company Company Company Company (505) 693-1010 Unavailable	
Date Transport Company Contact at Address Phone Fax Number C133 Permit No. N	Author
	ting Well

gallen difference in volume g taken eway attributable to , dictified water vapor

State of New Mexico Energy, Minerals and Natural Resources Department

Susana Martinez Governor

John Bemia 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 AltelaRainTM 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 AltelaRainTM 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 AltelaRainTM technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRainTM 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:

- The produced water approved for storage and the testing and development of the AltelaRainTM 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;

Altela, Inc. EPWM - 004 January 16, 2013 Page 2 of 2

- 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.

Sincerely,

Brad A. Jones
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

Tower:	Test Conditions	Test Conditions / Notes/ Change in Input Conditions from Previous Settings								
	Test 0	Start Date/Thre								
Test	Test Duration	End Date/Time								
Test Station:	Natural Gas	Natural Gas Meter Reading, Start (CCF)								
#	Gas	Hatural Gas Mater Reading, End (CCF)								
		DW Yanks Height Delta [inches]								
	Tank Levels	BW Tanks Height Detta [inches]								
	evels	PW Tank #1 Height Delta (inches)								
		PW Tank #2 Height Delta (inches)								
	PW Flow	PW Flaw [GPM]								
		Air Flow Measurement [Feet Per Minute]								
	Inlet Air Measurements	inlet Air Temp. (°F)								
	rements	Air Press. (inches H2O)					_			
	51	Steam Press. Before Velve (psig)		T						
	Stream	Steam Press, After Valve (psig)								
		Electical Conductivity of DW Basin @ Start [µS/cm]								
		Electical Conductivity of DW Basin @ End [µS/cm]	1			-				
	Electical C	Electical Conductivity of DW Tenks @ Start [µS/cm]								
		Electical Conductivity of DW Yanks & End (µS/cm)								
	Conductivity	Electical Conductivity of PW @ Start [uS/cm]						-		
	₹	Electical Conductivity of CW @ Start [µS/cm]								
		Electical Conductivity of PW @ End [µS/cm]								
		Electical Conductivity of CW @ End [µ5/cm]								
	П	PW7 #5 (°F)								
		PW inlet (*F)		T						
		CW E=R (°F)		T						
	Temperature	DWT (Ught (°F)		T						
	ure	OWT Left (°F)	П							
		Exhaust Air Yemp, Left (°F)								
		Exhaust Air Temp, Right	П	+						

Altela Tower Test Data input

From:

Karen Evans <karen.evans@altelainc.com>

Sent:

Thursday, January 02, 2014 9:04 AM

To:

Jones, Brad A., EMNRD

Cc:

matthew.bruff@altelainc.com

Subject:

Altela Inc EPWM-004 Quarterly Report - 4th Qtr 2013

Brad,

With respect to the State's quarterly survey, for the period October 1 through December 31, 2013, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Sincerely,

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER

5350 South Roslyn Street, Suite 210

Englewood, CO 80111

PHONE:

(303) 993-1952

FAX:

(303) 993-1955

WEB:

www.altelainc.com

Follow us on Facebook and Twitter:







Go to www.CARESforWater.com and www.CAESwater.com to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From: Karen Evans <karen.evans@altelainc.com>
Sent: Monday, September 30, 2013 11:07 AM

To: Jones, Brad A., EMNRD

Cc: matthew.bruff@altelainc.com

Subject: Altela Inc. EPWM-004 Quarterly Report - third Qtr 2013

Brad,

With respect to the State's quarterly survey, for the period July1 through September 30, 2013, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (303) 993-1955

WEB: www.altelainc.com

Follow us on Facebook and Twitter:



Go to <u>www.CARESforWater.com</u> and <u>www.CAESwater.com</u> to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From: Karen Evans <karen.evans@altelainc.com>

Sent: Monday, July 01, 2013 8:04 AM

To: Jones, Brad A., EMNRD

Subject: NM OCD Altela 2nd Qtr 2013 Report

Brad,

Hope all is well with you.

With respect to the State's quarterly survey, for the period April 1 through June 30, 2013, Altela treated zero barrels of produced water in New Mexico.

Sincerely,

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (303) 993-1955 WEB: www.altelainc.com

Follow us on Facebook and Twitter:



Go to <u>www.CARESforWater.com</u> and <u>www.CAESwater.com</u> to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From:

Karen Evans karen <a href="mailto:karen.evan

Sent:

Tuesday, April 02, 2013 10:50 AM

To:

Jones, Brad A., EMNRD

Cc:

Matthew J. Bruff

Subject:

Altela Inc EPWM-004 Quarterly Report - 1st Qtr 2013

Brad,

Good morning.

With respect to the State's quarterly survey, for the period January 1 through March 31, 2013, Altela treated zero barrels of produced water in New Mexico.

Sincerely,

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER

5350 South Roslyn Street, Suite 210

Englewood, CO 80111

PHONE:

(303) 993-1952

FAX:

(303) 993-1955

WEB:

www.altelainc.com

Follow us on Facebook and Twitter:







Go to www.CARESforWater.com and www.CAESwater.com to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From:

Karen Evans karen.evans@altelainc.com

Sent:

Wednesday, January 02, 2013 3:04 PM

To:

Jones, Brad A., EMNRD

Cc:

Matthew J. Bruff

Subject:

Altela Inc EPWM-004 Quarterly Report - 4th Qtr 2012

Brad,

With respect to the State's quarterly survey, for the period October 1 through December 31, 2012, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Sincerely,

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210

Englewood, CO 80111

PHONE:

(303) 993-1952

FAX:

(303) 993-1955

WEB:

www.altelainc.com

Follow us on Facebook and Twitter:





Go to <u>www.CARESforWater.com</u> and <u>www.CAESwater.com</u> to view Altela's two new centralized wastewater treatment facilities in Pennsylvania.

From:

Karen Evans < karen.evans@altelainc.com>

Sent:

Monday, July 02, 2012 9:14 AM

To:

Jones, Brad A., EMNRD

Cc:

Matthew J. Bruff

Subject:

Altela Inc EPWM-001 Quarterly Report - 2nd Qtr 2012

Brad,

With respect to the State's quarterly survey, for the period April 1 through June 30, 2012, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Sincerely,

Karen K. Evans **Environmental Regulatory Analyst**

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210 Englewood, CO 80111

DIRECT: (303) 993-1952

FAX:

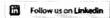
(303) 993-1955

WEB:

www.altelainc.com

Follow us on Facebook and Twitter:





Visit CAES and CARES for updates on Altela's joint venture projects two centralized wastewater treatment facilities in Pennsylvania!

From:

Karen Evans <karen.evans@altelainc.com>

Sent: To:

Monday, April 02, 2012 2:36 PM

Jones, Brad A., EMNRD

Subject:

EPWM-004 Quarterly Report - 1st Qtr 2012

Importance:

High

Brad,

With respect to the State's quarterly survey, for the period January 1 through March 31, 2012, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 210

Englewood, CO 80111

DIRECT: (303) 993-1952

FAX:

(303) 993-1955

WEB:

www.altelainc.com

Please note our new Denver address and Albuquerque Headquarters new phone numbers!

PHONE:

(505) 227-8560

FAX:

(505) 227-8561

Follow us on Facebook and Twitter:







From: Karen Evans <karen.evans@altelainc.com>

Sent: Monday, January 02, 2012 8:17 AM

To: Jones, Brad A., EMNRD

Cc: Matthew J. Bruff

Subject: Altela Inc EPWM-004 Quarterly Report - 4th Qtr 2011

Brad,

With respect to the State's quarterly survey, for the period October 1 through December 31, 2011, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Sincerely,

Karen K. Evans Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

DIRECT: (303) 993-1952 FAX: (303) 993-1955 WEB: www.altelainc.com

Please note our Albuquerque Main Headquarters new phone numbers!

PHONE: (505) 227-8560 FAX: (505) 227-8561

Follow us on Facebook and Twitter:



Karen Evans <karen.evans@altelainc.com> From:

Monday, October 03, 2011 9:03 AM Sent:

To: Jones, Brad A., EMNRD

Cc: Matthew J. Bruff

Altela Inc EPWM-004 Quarterly Report - 3rd Qtr 2011 Subject:

Brad,

With respect to the State's quarterly survey, for the period July1 through September 30, 2011, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Sincerely,

Karen K. Evans

Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450

Englewood, CO 80111

PHONE: (303) 993-1952 [work & cell]

(505) 923-4130 FAX: www.altelainc.com WEB:

Follow us on Facebook and Twitter:





n Follow us on LinkedIn

From: Karen Evans <karen.evans@altelainc.com>

Sent: Friday, July 01, 2011 9:56 AM

To: Jones, Brad A., EMNRD
Cc: Matthew J. Bruff

Subject: Altela Inc EPWM-004 Quarterly Report - 2nd Qtr 2011

Brad,

With respect to the State's quarterly survey, for the period April 1 through June 30, 2011, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Sincerely,

Karen K. Evans Environmental Regulatory Analyst

Altela, Inc.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 [work & cell]

FAX: (505) 923-4130 WEB: www.altelainc.com

Follow us on Facebook and Twitter:





From: Karen Evans <karen.evans@altelainc.com>

Sent: Monday, April 04, 2011 11:38 AM

To: Jones, Brad A., EMNRD

Cc: Matthew J. Bruff

Subject: Altela Inc EPWM-004 Quarterly Report - 1st Qtr 2011

Brad,

With respect to the State's quarterly survey, for the period January 1 through March 31, 2011, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Sincerely,

Karen K. Evans Environmental Regulatory Analyst

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (505) 923-4130 EMAIL: karen.evans@altelainc.com WEB: altelainc.com

From: Karen Evans <karen.evans@altelainc.com>

Sent: Monday, January 03, 2011 5:44 PM

To: Jones, Brad A., EMNRD

Cc: Matthew J. Bruff
Subject: Altela Inc EPWM-004 Quarterly Report - 4th Qtr 2010

Brad,

With respect to the State's quarterly survey, for the period October 1 through December 31, 2010, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Sincerely,

Karen K. Evans Environmental Regulatory Analyst

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (505) 923-4130 EMAIL: karen.evans@altelainc.com WEB: altelainc.com

From: Karen Evans <karen.evans@altelainc.com>

Sent: Friday, October 01, 2010 9:29 AM

To: Jones, Brad A., EMNRD

Cc: Matthew J. Bruff

Subject: Altela Inc EPWM-004 Quarterly Report - 3rd Qtr 2010

Brad,

With respect to the State's quarterly survey, for the period July 1 through September 30, 2010, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Sincerely,

Karen K. Evans
Executive Administrator

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (505) 923-4130 EMAIL: karen.evans@altelainc.com WEB: altelainc.com

From:

Karen Evans <karen.evans@altelainc.com>

Sent:

Thursday, July 01, 2010 11:20 AM

To:

Jones, Brad A., EMNRD

Cc:

Matthew J. Bruff

Subject:

Altela Inc EPWM-004 Quarterly Report - 2nd Qtr 2010

Brad,

With respect to the State's quarterly survey, for the period April 1 through June 30, 2010, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Karen K. Evans
Executive Administrator

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (505) 923-4130 EMAIL: karen.evans@altelainc.com WEB: altelainc.com

From:

Karen Evans [karen.evans@altelainc.com]

Sent:

Thursday, April 01, 2010 12:04 PM

To:

Jones, Brad A., EMNRD

Cc: Subject: Matthew J. Bruff Altela Inc EPWM-004 Quarterly Report - 1st Qtr 2010

Brad,

With respect to the State's quarterly survey, for the period January 1 through March 31, 2010, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Thanks,

Karen K. Evans
Executive Administrator

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (505) 923-4130 EMAIL: karen.evans@altelainc.com WEB: altelainc.com

From:

Karen Evans [karen.evans@altelainc.com]

Sent: Thursday, April 01, 2010 1:19 PM

To: Jones, Brad A., EMNRD

Cc: Matthew J. Bruff

EPWM-004 Change of Address Notification Subject: Attachments: 4.1.10 Change of Address Notification.docx

Brad,

Attached, please find a letter advising of Altela's recent change of address.

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

Sincerely,

Karen K. Evans **Executive Administrator**

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (505) 923-4130 EMAIL: karen.evans@altelainc.com 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 450, Englewood, CO 80111 PHONE: 303.993.1950 FAX: 303.993.1955

April 1, 2010

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

> Altela, Inc. - Change of Address Notification for Temporary RE: Approval EPWM-004

Dear Brad,

Per your recent conversation with Matt Bruff, please be advised that Altela, Inc. has moved its Albuquerque facilities, effective March 1, 2010.

The previous facility location under the above referenced Permit was:

2450 Alamo SE Albuquerque, NM 87106

The new facility address is:

7500 Meridian Pl NW, Suite B Albuquerque, NM 87121

We would appreciate the Oil Conservation Division's acknowledgement and confirmation of this change of address with respect to Altela, Inc.'s Temporary Approval EPWM -004 to Store and Use Produced Water for R&D of the AltelaRain® Technology.

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

Sincerely,

Altela, Inc.

Matthew Bruff CDO

cc: Altela Day File



ALBUQUERQUE OFFICE

FECEN 7500 Meridian Pl NW, Suite B, Albuquerque, NM 87121

2013 JAM 22 7: 35 5350 South Roslyn Street, Suite 210, Englewood, CO 80111

January 14, 2013

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

> 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. 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[®] technology.

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

	ELA
6	Ľ.∀

1, 6, 28				
	Balance	+'1050 gallons	0 gallons	
	Delivered / Taken Away	1,050 Gallons Delivered	428 Gallons Taken Away	
	Owner of Well			
Summary	Name of Originating Well (If Taken Away - NA)	RNI Trucking	¥	
Meridian Produced Water Tracking Summary	C133 Permit No.	unavailable	C-133-399	
peonpou	Fax Number		(505) 326-5541 (505) 328-6002	
Meridian (Phone	(814) 226-8001	(505) 326-5541	
	Address	P.O. Box Box 271, Wilmington, OH 45177	PO Box 600, Farmington, NM 87499	
	Company			
	Transport Company Contact at Name Company	8/29/12 RL Carriers	10/19/12 M&R Trucking, Inc.	·
	Date	8/29/12	10/19/12	
	£	-	~	

*622 gallon difference in volume being taken every attributable to clean, distilled water vapor

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 AltelaRainTM 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 AltelaRainTM 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 AltelaRainTM technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRainTM 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:

- The produced water approved for storage and the testing and development of the AltelaRainTM 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.

Matt Bruff Altela, Inc. Permit EPWM - 004 December 5, 2011 Page 2 of 2

- 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.

Sincerely.

Brad A. Jones
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

Tower:	Test Conditions	est Conditions of thirteel Change or input Conditions frame Supernose Santings	
	Test Duration	Start Date/Time End	
	0.0	Sate/Time	
Test Station.	Natural Gas	Restured Case Martin Reading, Start (OCF)	
E B		featured ties blotter Reading, End [CCF]	
	-	Initial TDS Concentration (mg/l) DW Tark #3 resignt (bette (incres)	
		DW fare #2 Height Delta (inches)	
	1	SMITS Tarm rought Gotto (Inches)	
	Tank Levels	BWR2 Yank might Delta (Inches)	
	=	Sores Tank major Seita (inches) For Term et major Centa (inches)	
		Plat Yann 42 ineight Delta (Inches)	
		PW Nows #5 (GPM)	
	3	PM Rows #2 (GPM)	
	PW Flows	PM Rows #5 (GPM)	
	-	Par figure 45 (GPSI)	
	5	Air Flow Measurement (Feet No.	
	inlet Air Measurements am Measurern	Minute) over Air Temp. [V]	
	è	mint for sore that Temp [19]	
	lui a	Air Press (inches H20)	
	3	Left Enhaust Press. [Inches HGQ]	
	Ē	Augm Extravel frens. [inches 420]	
	3	Spring AG Pressure (Inches ACC)	
	aver	Sham fress, Sofore Veter [purg]	
	3	Steam Frees. After Value (paig)	
		Startical Conductivity of DW basin & Mart (u.b/cm)	
		Electrical Conductivity of SW basin @	
		Electrical Conductivity of OW beain @ End (ut)/cm)	
	lies	Electrical Conductivity of OW Basin & End (sis/cm) [Section Conductivity of OM Taxes & Section Links and Conductivity of OM Taxes &	
		Electrical Conductivity of OW Basin & End (sis/cm) [Section Conductivity of OM Taxes & Section Links and Conductivity of OM Taxes &	
		Electrical Conductivity of OW Basin & End (sis/cm) [Section Conductivity of OM Taxes & Section Links and Conductivity of OM Taxes &	
		Electrical Conductivity of OW Basin & End (sis/cm) [Section Conductivity of OM Taxes & Section Links and Conductivity of OM Taxes &	
	Electical Conductivity	Electivist Conductivativ of CNN Basin (6) End (askinni) Elections Connuctivativ of the Tanna (6) Wart (askinni) Elections Connuctivativ of She Tanna (6) (ind (askinni) Elections Connuctivativ of She (6) Mart (askinni) Elections Connuctivativ of CNN (6) Mart (askinni) Elections Connuctivativ of CNN (6) Mart	
		Electroni Consuctante of OW Basin (I) End (animalization) Floritical Consuctante (I) Electroni Consuctante (I) Electroni Consuctante of OM Tanks (I) Electroni Consuctante of OM Tanks (I) Electroni Consuctante of OM (II) Electroni Consuctante of OM (III) Electroni Consuctante of OM (III) Electroni Consuctante of OM (III)	
		Sector of Completently of CNM Basin (6) End (alifem) Flectoral Completently of CNM Tames (6) Nort (alifem) Since Completently of CNM Tames (6) Since (alifem) Since Completently of CNM (6) Since (alifem)	
		Electival Conductivity of CNN Basin (I) End (Jaforni) Electrical Conductivity of CNN Tamas (I) Electrical Conductivity of CNN Tamas (I) Electrical Conductivity of CNN (I) Seart (Jaforni) Electrical Conductivity of CNN (I) Seart (Jaforni) Electrical Conductivity of CNN (I) End (Jaforni) Electrical Conductivity of CNN (II) End (Jaforni) Electrical Conductivity of CNN (II) End (Jaforni) Electrical Conductivity of CNN (II) End	
		Electroni Conductority of ON Basin (I) End (askirm) Electroni Conductority of ON Tonica (I) Start (askirm) Electroni Conductority of Del Tonica (I) End (askirm) Electroni Conductority of Del Tonica (I) Electroni Conductority of Del (I) Electroni Conductority of Del (II) Electroni Conductority of Del (II) Electroni Conductority of Del (II) Electroni Conductority of Del (III) Electroni Conductority Electroni	
		Electroni Conductority of ON Basin (I) End (asignm) Electroni Conductority of ON Tomas (I) Start (asignm) Electroni Conductority of Die Tomas (I) Electroni Conductority of Die Tomas (I) Electroni Conductority of Pini (I) Start (asignm) Electroni Conductority of Die (I) Start (asignm) Electroni Conductority of Die (I) Start (asignm) Electroni Conductority of Die (I) Electroni (asignm) Electroni Conductority of Die (I) Electroni (asignm) Electroni Conductority of Die (I) Electroni Conductority of Die (II) Electroni Conductority of Die (II) Electroni Conductority (III) Electroni Conductority (III	
		Sector of Completents of OW Basin (6) End (paigness) Flectoral Completents of OW Tames (6) North (paigness) Sincetoral Completents of OW Tames (6) Sincetoral Completents of OW Tames (6) Sincetoral Completents of OW Tames (6) Sincetoral Completents of OW (6) Sincet	
		Electroni Conductority of ON Basin (I) End (asignm) Electroni Conductority of ON Tomas (I) Start (asignm) Electroni Conductority of Die Tomas (I) Electroni Conductority of Die Tomas (I) Electroni Conductority of Pini (I) Start (asignm) Electroni Conductority of Die (I) Start (asignm) Electroni Conductority of Die (I) Start (asignm) Electroni Conductority of Die (I) Electroni (asignm) Electroni Conductority of Die (I) Electroni (asignm) Electroni Conductority of Die (I) Electroni Conductority of Die (II) Electroni Conductority of Die (II) Electroni Conductority (III) Electroni Conductority (III	
	ectical Conductivity	Electival Conductivity of CNN Basin (I) End (asidem) Election Conductivity of CNN Tamas (I) Start (asidem) Election Conductivity of CNN Tamas (I) Election Conductivity of CNN (I) East jubicion) Electrical Conductivity Electrical Conductivity Invited (I) PNN (II) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III)	
	ectical Conductivity	Electival Conductivity of CNN Basin (I) End (asidem) Election Conductivity of CNN Tamas (I) Start (asidem) Election Conductivity of CNN Tamas (I) Election Conductivity of CNN (I) East jubicion) Electrical Conductivity Electrical Conductivity Invited (I) PNN (II) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III)	
	ectical Conductivity	Electival Conductivity of CNN Basin (I) End (asidem) Election Conductivity of CNN Tamas (I) Start (asidem) Election Conductivity of CNN Tamas (I) Election Conductivity of CNN (I) East jubicion) Electrical Conductivity Electrical Conductivity Invited (I) PNN (II) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III)	
	ectical Conductivity	Electival Conductivity of CNN Basin (I) End (asidem) Election Conductivity of CNN Tamas (I) Start (asidem) Election Conductivity of CNN Tamas (I) Election Conductivity of CNN (I) East jubicion) Electrical Conductivity Electrical Conductivity Invited (I) PNN (II) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III)	
	ectical Conductivity	Electival Conductivity of CNN Basin (I) End (asidem) Election Conductivity of CNN Tamas (I) Start (asidem) Election Conductivity of CNN Tamas (I) Election Conductivity of CNN (I) East jubicion) Electrical Conductivity Electrical Conductivity Invited (I) PNN (II) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III)	
		Electival Conductivity of CNN Basin (I) End (asidem) Election Conductivity of CNN Tamas (I) Start (asidem) Election Conductivity of CNN Tamas (I) Election Conductivity of CNN (I) East jubicion) Electrical Conductivity Electrical Conductivity Invited (I) PNN (II) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III) PNN (III)	
	ectical Conductivity	Sector of Conductority of ONE Basin (I) End (paigness) Frectoral Connuctority of ONE Tanna (I) Start (paignes) Sincetoral Conductority of ONE Tanna (I) Sincetoral Conductority of ONE Tanna (I) Sincetoral Conductority of PAI (I) Sincetoral Conductority of ONE (II) Sincetoral Conductority of ONE (II) Sincetoral Conductority of ONE (II) Sincetoral Conductority of ONE (III) Sincetoral Conductority Part (II) Part (III)	
	ectical Conductivity	Electroni Consuctente of ON Basin (III bed Janica) Florition Consuctente of ON Tanna (III bed Janica) Florition Consuctente of ON Tanna (III bed Janica) Electroni Consuctente of ON Tanna (III bed Janica) Electroni Consuctente of ON (III bed Janica) Electroni Consuctente of ON (III bed Janica) Electroni Consuctente of ON (III bed Basin) Part (III) Part (
	ectical Conductivity	Electrical Consultations of ON Basin (I) Indicate Consultation (Internal ON Basin (Inter	
	ectical Conductivity	Sector of Consultatives of ON Basin (III) Indicate Consultatives of ON Tanas (III) Start (askinn) Start (askinn) Sectoral Conductivity of ON Tanas (III) Sectoral Conductivity of ON Tanas (III) Sectoral Conductivity of ON (III) Sectoral Conductivity of ON (III) Sectoral Conductivity of ON (IIII) Sectoral Conductivity of ON (IIIII) Sectoral Conductivity of ON (IIIII) Sectoral Conductivity of ON (IIIII) Sectoral Conductivity PAT (III) PAT (IIII) PAT (IIII) PAT (IIII) PAT (IIII) PAT (IIII) PAT (IIII) PAT (IIIII) PAT (IIIII) PAT (IIIII) PAT (IIIIII) PAT (IIIIIII) PAT (IIIIIIII) PAT (IIIIIIIIII) Sectoral Conductivity CALLET (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
	ectical Conductivity	Sector of Compactority of DN Basin (I)	
	estical Conductivity Tower Femperatures	Electrical Constructive of OW Basin (I) End (assem) Frectical Constructive of OW Tanna (I) Start (assem) Electrical Constructive of OW Tanna (I) Electrical Constructive of OW Tanna (I) Electrical Constructive of OW Tanna (II) Electrical Constructive of OW Tanna (III) Electrical Constructive of OW (III) POWT (III) POWT (III) POWT (III) POWT (III) POWT (III) Electrical Constructive (III) Electrical Ow (IIII) Electrical Own (IIIII) Electrical Constructive (III) Electrical Own (IIII) Electrical Own (IIIII) Electrical Own (IIII) Electrical Own (IIII) Electrical Own (IIII) Electrical Own (IIIII) Electrical Own (IIII) Electrical Own (IIIII) Electrical Own (IIIIII) Electrical Own (IIIIII) Electrical Own (IIIIIIIIIII) Electrical Own (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
	estical Conductivity Tower Femperatures	Electrical Constructive of OW Basin (I) End (assem) Frectical Constructive of OW Tanna (I) Start (assem) Electrical Constructive of OW Tanna (I) Electrical Constructive of OW Tanna (I) Electrical Constructive of OW Tanna (II) Electrical Constructive of OW Tanna (III) Electrical Constructive of OW (III) POWT (III) POWT (III) POWT (III) POWT (III) POWT (III) Electrical Constructive (III) Electrical Ow (IIII) Electrical Own (IIIII) Electrical Constructive (III) Electrical Own (IIII) Electrical Own (IIIII) Electrical Own (IIII) Electrical Own (IIII) Electrical Own (IIII) Electrical Own (IIIII) Electrical Own (IIII) Electrical Own (IIIII) Electrical Own (IIIIII) Electrical Own (IIIIII) Electrical Own (IIIIIIIIIII) Electrical Own (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	
	ectical Conductivity	Electrical Constructive of OW Basin (I) End (assem) Frectical Constructive of OW Tanna (I) Start (assem) Electrical Constructive of OW Tanna (I) Electrical Constructive of OW Tanna (I) Electrical Constructive of OW Tanna (II) Electrical Constructive of OW Tanna (III) Electrical Constructive of OW (III) POWT (III) POWT (III) POWT (III) POWT (III) POWT (III) Electrical Constructive (III) Electrical Ow (IIII) Electrical Own (IIIII) Electrical Constructive (III) Electrical Own (IIII) Electrical Own (IIIII) Electrical Own (IIII) Electrical Own (IIII) Electrical Own (IIII) Electrical Own (IIIII) Electrical Own (IIII) Electrical Own (IIIII) Electrical Own (IIIIII) Electrical Own (IIIIII) Electrical Own (IIIIIIIIIII) Electrical Own (IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	

Altela Tower Test Data Inputs

	171.00	luer	
4 7 2 7 7 9 2 8 8 8 8 8	And the second s	8	
	topal (or play (APA)) Special Charge (APA) Type Special Charge (APA)	Primary Equat	
Manage of the state of the stat			
		Outputs	
	Section Sections		
20 A 40 A	Aprilant September		
	Marie Commence of the Commence	7	
	Operation (Cont.)		
	the second second second second second second	Water Flow Rates	
	Personal later 10 (1074)	Rates	
1,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Total S-colui Sanony Shall	¥	
	The second second second second second	Weler Volumes	
2	International Confession Confessi	3	
	the second secon		-
			104 000
		CHIC	Artes reser test bits outputs
		Efficiences:	Ann and
CONTROLL	The latest tension to the latest tension tensi		Mili
	Inchesory to the CO		
	Security Security Security	1	
	Annual Contemp (military (b)) Are Front Spherick of Friedman	A.	
		16	
	Inflament		-
	Command Comman	i	
	Order Control (T)		
	1500 AND	Cardina S	
	Mary amount		
		Constitution	
		See par	
	Statute Transport State STATES		
	Backer Free Diff Specific (CPU)	let Fire	-
	The base for SWI-	*	-

Tower:	RNI Produced Wa	ter Testing Test	Test Station:	#1							
Test Conditions	Test D	Duration	Natural Gas	al Gas				T	Tank Levels	sls	
Test Conditions / Notes/ Change in Input Conditions from Previous Settings	Start Date/Time	End Date/Time	Natural Gas Meter Reading, Start [CCF]	Matural Gas Meter Reading, End [CCF]	noitisal TDS Concentration [I/8m]	DW Tank #1 Height Delta [inches]	DW Tank #2 Height Delta [inches]	BW#1 Tank Height Delta [inches]	BW#2 Tank Height Delta [inches]	BW#3 Tank Height Delta [inches]	PW Tank #1 Height Delta [inches]
Starting Reading	9/5/12 7:30 AM		4,231.0	1				•		1	
2nd Reading	9/5/12 7:30 AM	9/5/12 8:30 AM	4,231.0	4,236.8		-	•			-	-
3rd Reading	9/5/12 8:30 AM	9/5/12 9:30 AM	4,236.8	4,240.9		7.625	-	6.563	6.563	6.563	7.000
4th Reading	9/5/12 9:30 AM	9/5/12 10:30 AM	4,241	4,245		5.750		4.250	4.250	4.250	3.833
5th Reading	9/5/12 10:30 AM	9/5/12 11:30 AM	4,245	4,250	-	4.375	-	3.500	3.500	3.500	4.250
6th Reading	9/5/12 11:30 AM	9/5/12 12:30 PM	4,250	4,255		4.250		3.750	3.750	3.750	5.750
7th Reading	9/5/12 12:30 PM	9/5/12 1:30 PM	4,255	4,259		4.063	-	3.125	3.125	3.125	3.188
8th Reading	9/5/12 1:30 PM	9/5/12 2:30 PM	4,259	4,264		3.063	•	3.563	3.563	3.563	3.188
9th Reading	9/5/12 2:30 PM	9/5/12 3:30 PM	4,264	4,268		3.063	,	3.188	3.188	3.188	3.625
10th Reading	9/5/12 3:30 PM	9/5/12 4:30 PM	4,268	4,272		3.375		3.625	3.625	3.625	3.313
11th Reading	9/5/12 4:30 PM	9/5/12 5:30 PM	4,272	4,277		2.875		3.375	3.375	3.375	2.500

	п		
- 1			
ш	ı		
ы			
п			
н			
-			
	н		
3			
- 1			
	L		
-			
-1			
и	ш		
н			
	н		
_	п		
н			
-1	г		
	ш		
ч			
-			
	н		
	ш		
	1		
	1		
	1		
	п		
	Н		
	Н		
-			
	П		
	ı		
	ı		
	ı		
-	ı		
	п		
	ı		
	ı		

		Test Conditions / Notes/ Change in Input Condition from Previous Settings	Starting Reading	2nd Reading	3rd Reading	4th Reading	5th Reading	6th Reading	7th Reading	8th Reading	9th Reading	10th Reading	11th Reading	0
П	S	Bucket Time #1 (seconds) for a 5 Gallon Bucket	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Bucket Times	Bucket Time #1 (seconds) for a 5 Gallon Bucket	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	96	Bucket Time #1 (seconds) for a 5 Gallon Bucket	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
		Fxhaust Air Temp, Right (1°)	123.8	134.2	145.7	148.1	152.5	153.5	153.8	154.4	154.1	155.9	156.8	
		Exhaust Air Temp, Left (°F)	122.7	134.3	145.9	151.4	152.2	149.3	153.5	153.9	153.9	155.3	157.4	
		(1°) Heat Two	111.2	141.5	152.3	157.3	158.7	160.1	160.1	159.4	154.3	158.3	164.2	
		(4°) shgiя TWG	110.9	144.8	155.9	159.6	159.7	160.6	160.5	159.5	160.1	161	161.4	

123.2

CW Exit (°F)

122.4

128.7

132.7

134.8

135.2

136.3

137.3

138.6

137.5

139.1

#VALUE!

359

15.00

Input Steam Flow [GPH]

Input Air Flow [CFM]

Input PW Flow [GPM]

ous

#VALUE!

365

15.00

37.2

355

15.00

48.2

389

15.00

39.7

369

15.00

42.5

406

15.00

35.4

356

15.00

Primary Inputs

wer: PT-1244

#DIV/0!

0

0.00

38.3

369

15.00

41.1

359

15.00

36.2

359

15.00

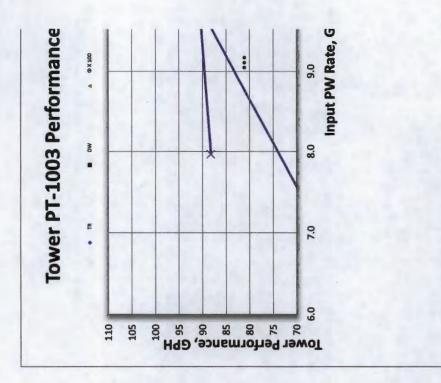
40.4

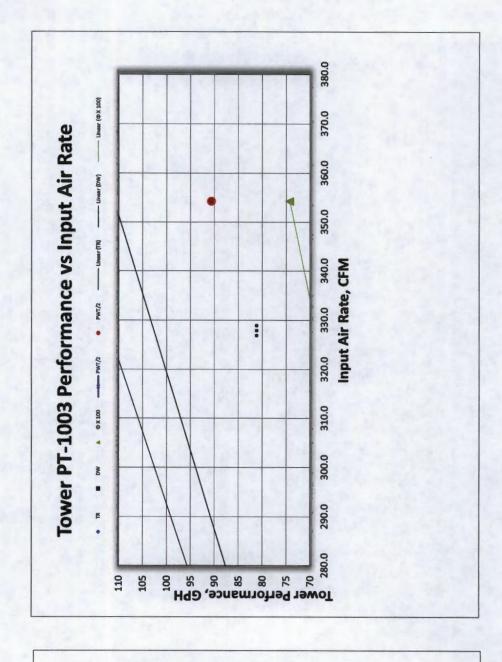
359

15.00

Altela Tower Test Data Outputs

-													
	Air Flow, Velocity in a 6" diameter pipe [FPM]	1,829	1,856	1,805	1,978	1,878	2,065	1,814	1,829	1,827	1,825	1,878	0
Usage	Matural Gas Usage [AT ACF/bbl TR]	#VALUE!	#VALUE!	0.264	0.259	0.265	0.192	0.283	0.333	0.243	0.293	0.406	#DIV/01
Gas L	Matural Gas Usage [MCF]	#VALUE!	0.58	0.41	0.44	0.50	0.49	0.40	0.47	0.39	0.43	0.45	0.00
	% ,"HeS to seo1"	#VALUE!	#VALUE!	-9.4%	-3.4%	-5.1%	-6.2%	-8.7%	-10.7%	-6.5%	-0.1%	1.4%	#DIV/01
	Total Recovery Rate, RR=1-Ci/Cf	#VALUE!	2.0%	13.0%	7.9%	9.3%	12.0%	11.9%	13.9%	10.1%	3.4%	1.2%	#DIV/0!
	Total Recovery Rate, RR=TR/PW=(PW-	#VALUE!	#VALUE!	3.5%	4.5%	4.3%	5.8%	3.2%	3.2%	3.6%	3.3%	2.5%	#DIV/01
	Concentration Multiplication Factor, MF	#VALUE!	#VALUE!	1.037	1.047	1.045	1.061	1.033	1.033	1.038	1.034	1.026	#DIV/0I
Efficienices	Single-pass Concentration Ratio, CCs	#VALUE!	3.9%	4.6%	7.2%	2.6%	4.4%	9.8%	7.0%	1.9%	1.8%	2.4%	#DIV/01
Efficie	Single-Pass Recovery [%] Wq/AT=8R8, Paste, Rate, Paste, Pa	#VALUE!	#VALUE!	7.2%	7.9%	8.8%	11.9%	%9.9	89.9	7.5%	%6.9	5.2%	#DIV/0I
	Treatment Rate ERF, GOR, = TR/BW, f	#VALUE!	#VALUE!	1.75	1.48	1.99	2.52	1.68	1.47	1.87	1.50	1.22	#DIV/01
	Energy Reuse Factor, GOR, =DW/BW, f	#VALUE!	#VALUE!	1.91	2.22	2.05	1.86	2.13	1.41	1.58	1.53	1.40	#DIV/0!
	Ф х тоо	#VALUE!	#VALUE!	84	26	94	166	54	106	129	97	82	#DIV/0!
	Φ, phi [dim] τ+wa\(wα-πτ)=wa\wv	#VALUE!	#VALUE!	84%	79%	94%	166%	54%	106%	129%	%16	82%	#DIV/01
	Total VW Volume [Gal] Calculated	#VALUE!	#VALUE!	31	13	37	02	19	43	47	40	31	#DIV/0I
	[Isə] əmuloV W8 istoT	#VALUE!	#VALUE!	37	48	40	43	35	40	36	41	38	#DIV/0I
olumes	[IsD] əmuloV WG Is30T	#VALUE!	#VALUE!	71	107	81	79	92	57	57	63	54	#DIV/0I
Water Volumes	Total CW Volume [Gal]	#VALUE!	#VALUE!	1,785	1,529	1,771	1,743	1,791	1,791	1,783	1,788	1,803	#DIV/0!
-	emuloV besearT issoT [is2]	#VALUE!	#VALUE!	. 99	7.1	97	107	59	59	29	62	47	#DIV/0I





12.0

11.0

10.0

PM

s vs Input Water Rate

PWT/2

PWT/2



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: 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 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,

Andy Freeman

Laboratory Manager

andyl

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 Pruduced 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 Qua	l Units	DF	Date Analyzed
SM2540C MOD: TOTAL DISSOLVE	D SOLIDS	•			Analyst: KS
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
- Analyte detected below quantitation limits
- Sample pH greater than 2
- Reporting Detection Limit

- Analyte detected in the associated Method Blank В
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits
- Spike Recovery outside accepted recovery limits 1 of 7

Analytical Report

Lab Order 1209213

Date Reported: 9/27/2012

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Altela Inc.

Client Sample ID: RNI Pruduced Water-CW At En

RNI Produced Water/ Solidification Project:

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 Qu	al Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS					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
EPA METHOD 7470: MERCURY					Analyst: JLF
Mercury	ND	0.00020	mg/L	1	9/13/2012 10:31:49 AM
EPA 6010B: TOTAL RECOVERABLE	METALS				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
SM2540C MOD: TOTAL DISSOLVED	SOLIDS				Analyst: KS
Total Dissolved Solids	373000	1000	mg/L	1	9/12/2012 6:37:00 PM

Qualifiers:

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

- Analyte detected in the associated Method Blank
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- RPD outside accepted recovery limits R
- Spike Recovery outside accepted recovery limits Page 2 of 7

Hall Environmental Analysis Laboratory, Inc.

Client: Altela Inc. RNI Produced Water/ Solidification Project: Sample ID MB SampType: MBLK TestCode: EPA Method 300.0: Anions Client ID: **PBW** Batch ID: R5413 RunNo: 5413 Prep Date: Analysis Date: 9/10/2012 SeqNo: 154452 Units: mg/L %RPD SPK value SPK Ref Val %REC LowLimit **RPDLimit** Analyte Result POL HighLimit Qual ND Sulfate 0.50 Sample ID LCS TestCode: EPA Method 300.0: Anions SampType: LCS Client ID: LCSW Batch ID: R5413 RunNo: 5413 Analysis Date: 9/10/2012 Prep Date: SeqNo: 154453 Units: mg/L SPK value SPK Ref Val %REC HighLimit **RPDLimit** Analyte PQL LowLimit %RPD Qual 94.7 Sulfate 9.5 0.50 10.00 110 Sample ID MB SampType: MBLK TestCode: EPA Method 300.0: Anions Client ID: **PBW** Batch ID: R5528 RunNo: 5528 Prep Date: Analysis Date: 9/13/2012 SeqNo: 158122 Units: mg/L Analyte **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Qual ND 0.50 Chloride Sample ID LCS SampType: LCS TestCode: EPA Method 300.0: Anions Client ID: LCSW Batch ID: R5528 RunNo: 5528 Prep Date: Analysis Date: 9/13/2012 SeqNo: 158123 Units: mg/L SPK value SPK Ref Val Result %REC LowLimit HighLimit %RPD **RPDLimit** Analyte PQL Qual 4.7 0.50 5.000 93.6 90 110 Chloride Sample ID 1209493-002AMS SampType: MS TestCode: EPA Method 300.0: Anions Client ID: BatchQC Batch ID: R5528 RunNo: 5528 Prep Date: Analysis Date: 9/13/2012 SeqNo: 158136 Units: mg/L SPK value SPK Ref Val %REC %RPD **RPDLimit** Qual Result POL LowLimit HighLimit Analyte 0.50 87.8 Chloride 16 5.000 11.12 104 Sample ID 1209493-002AMSD SampType: MSD TestCode: EPA Method 300.0: Anions Client ID: BatchQC Batch ID: R5528 RunNo: 5528 Analysis Date: 9/13/2012 SeqNo: 158137 Units: mg/L Prep Date:

Qualifiers:

Analyte

Chloride

Value exceeds Maximum Contaminant Level.

Result

16

PQL

0.50

SPK value SPK Ref Val

11.12

5.000

- 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

LowLimit

87.8

HighLimit

%RPD

0.226

RPDLimit

20

Qual

- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit

%REC

105

R RPD outside accepted recovery limits

WO#:

1209213

27-Sep-12

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209213

Qual

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

Client ID:

Analysis Date: 9/13/2012

Result

SeqNo: 157092 SPK value SPK Ref Val %REC LowLimit

Units: mg/L HighLimit

RPDLimit %RPD

Analyte Mercury

ND 0.00020

PQL

TestCode: EPA Method 7470: Mercury

Sample ID LCS-3725

SampType: LCS Batch ID: 3725

RunNo: 5495

Units: mg/L

Qual

Analyte

Prep Date: 9/12/2012

LCSW

Analysis Date: 9/13/2012

SeqNo: 157093

RPDLimit %RPD

Result **PQL** 0.0050 0.00020 SPK value SPK Ref Val 0.005000

LowLimit %REC 99.8

HighLimit 80 120

Mercury

Sample ID 1209172-001FMS

SampType: MS

TestCode: EPA Method 7470: Mercury

Client ID: **BatchQC** Prep Date: 9/12/2012

Batch ID: 3725 Analysis Date: 9/13/2012 RunNo: 5495

SeqNo: 157099

Units: mg/L

Analyte

POL

SPK value SPK Ref Val

LowLimit %REC

HighLimit

RPDLimit

Qual

Mercury

0.0048 0.00020

Result

0.005000

96.3

75 125

Sample ID 1209172-001FMSD

9/12/2012

SampType: MSD

TestCode: EPA Method 7470: Mercury

Client ID: BatchQC

Batch ID: 3725 Analysis Date: 9/13/2012

RunNo: 5495 SeqNo: 157100

Units: mg/L

HighLimit

125

%RPD

%RPD

RPDLimit Qual

Analyte Mercury

Prep Date:

SPK value SPK Ref Val %REC LowLimit PQL 0.0049 0.00020 0.005000

0

99.0

75

2.74

20

Qualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

Sample pH greater than 2

Analyte detected in the associated Method Blank В

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit RPD outside accepted recovery limits

ND

Page 4 of 7

Hall Environmental Analysis Laboratory, Inc.

WO#:

1209213

27-Sep-12

Client:

Altela Inc.

Project:

RNI Produced Water/ Solidification

Sample ID MB-3763	Samp	Type: ME	BLK	Tes	tCode: El	PA 6010B:	Total Recover	able Met	als	
Client ID: PBW	Batc	h ID: 37	63	F	RunNo: 5	574				
Prep Date: 9/14/2012	Analysis (Date: 9/	17/2012	5	SeqNo: 1	59602	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	Samp	Type: LC	s	Tes	tCode: El	PA 6010B:	Total Recove	rable Meta	als	
Client ID: LCSW	Bato	ch ID: 37	63	F	RunNo: 5	574				
Prep Date: 9/14/2012	Analysis	Date: 9/	17/2012	8	SeqNo: 1	59603	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	Samp	Type: MS	3	Test	Code: El	PA 6010B:	Total Recove	rable Meta	als	
Client ID: BatchQC	Bato	h ID: 37	63	R	tunNo: 5	574				
Prep Date: 9/14/2012	Analysis I	Date: 9/	17/2012	S	SeqNo: 1	59631	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref 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	Samp [*]	Type: MS	SD	Tes	tCode: E	PA 6010B:	Total Recove	rable Meta	als	
Client ID: BatchQC	Batc	h ID: 37 6	63	F	RunNo: 5	574				
Prep Date: 9/14/2012	Analysis (Date: 9/	17/2012	8	SeqNo: 1	59632	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

Page 5 of 7

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209213

27-Sep-12

Client:

Altela Inc.

Project:

RNI Produced Water/ Solidification

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

Sample ID	1209328-001AMSD	Samp	Type: MS	SD	Test	tCode: El	PA 6010B: 1	Total Recove	rable Meta	als	
Client ID:	BatchQC	Bato	h ID: 370	63	R	RunNo: 5	627				
Prep Date:	9/14/2012	Analysis (Date: 9/	19/2012	S	SeqNo: 1	61201	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

Page 6 of 7

Hall Environmental Analysis Laboratory, Inc.

WO#: 1209213

27-Sep-12

Client: Altela Inc.

RNI Produced Water/ Solidification Project:

Sample ID MB-3698 SampType: MBLK TestCode: SM2540C MOD: Total Dissolved Solids

RunNo: 5470 Client ID: **PBW** Batch ID: 3698

Prep Date: 9/11/2012 Analysis Date: 9/12/2012 SeqNo: 156268 Units: mg/L

SPK value SPK Ref Val %REC LowLimit Result **PQL** HighLimit %RPD **RPDLimit** Qual Analyte

ND **Total Dissolved Solids** 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

Result **PQL** SPK value SPK Ref Val %REC LowLimit HighLimit %RPD **RPDLimit** Analyte

1020 20.0 1000 102 80 120 **Total Dissolved Solids**

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 HighLimit %RPD **RPDLimit** Qual

1470 1000 446.0 102 80 120 20 **Total Dissolved Solids** 20.0 0.137

Qualifiers:

Value exceeds Maximum Contaminant Level.

E Value above quantitation range

Analyte detected below quantitation limits

Sample pH greater than 2

В Analyte detected in the associated Method Blank

Н Holding times for preparation or analysis exceeded

Not Detected at the Reporting Limit R RPD outside accepted recovery limits Page 7 of 7



Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87105 TEL: 505-345-3975 FAX: 505-345-4107 Website: www.hallenvironmental.com

Sample Log-In Check List

						_	_					_
Client Name:	Altelatinc.	/	/ Wo	rk Ord	ler N	lumt	er. 1	209 213				
Received by/date	X1/(09/00	12									
Logged By:	Ashley Gallegos	9/6/2012 2:55:	00 PM				54	7				
Completed By:	Ashley Gallegos	9/6/2012 4:24:	28 PM				A -	*				
Reviewed By:	AL	OP CORPLE						ų.				
Chain of Cust	tody	17.0										
				Yes	1	No	1 ;	Not Present				
1. Were seals i				Yes				Not Present	:			
	Custody complete? e sample delivered?			Clien		140		THOU TOOCH				
3. 110m was the	e sample delivered			<u>QiiQii</u>	3							
Log In												
4. Coolers are	present? (see 19. for co	oler specific information	n)	Yes	✓	No		NA	:			
									1 .			
5. Was an atte	empt made to cool the sa	amples?		Yes	V	No	1 '	NA	i '			
9 Mars all sans			300	Yes	اورا	Na	:	NA				
6. Were all sar	mples received at a temp	perature of >0° C to 6.0	, ,	105		NO		IVA				
7 Sample(s) in	n proper container(s)?			Yes	V	No						
	ample volume for indicat	ed test(s)?		Yes	V	No						
•	s (except VOA and ONG			Yes			:					
	vative added to bottles?			Yes	: :	No	V	NA	: .			
11. VOA vials h	ave zero headspace?				1 .			No VOA Vials	₩			
	ample containers receive			Yes	1 1	,,,,		# of pre	havnas	1		
	rwork match bottle labels epancies on chain of cus			Yes	V	No	' '	bottles		(
	es correctly identified on			Yes	V	No		for pH:	(<2	pr >12 unle	ss noted)	
	hat analyses were reque			Yes	•	No		A	djusted?		,	
	olding times able to be m			Yes	•	No	1 :			J	$\overline{}$	
(If no, notify	customer for authorizat	ion.)						Ch	ecked by:	F		\prec
Special Hand	iling (If applicable)											
17. Was client i	notified of all discrepand	ies with this order?		Yes	1	No	. ;	NA	✓			
Persor	n Notified:		Date:				***	Note that and had		:		
. By Wh	hom:		,	eMa	il .	P	hone	Fax I In	Person			
Regard	ding:			A STATE OF THE STA			·	a diversity of the second				
Client	Instructions:											
18. Additional re	remarks:											
-												

19. Cooler Information

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

									(M no	۲) ؛	Air Bubbles	-			Щ	\Box	\Box			_	_	_				
=	2															_		_	_	4	\dashv		_	ÐĘ		
È	LABORATORY					gur i,	. بسار	0.0	W 10	CUL	2011-112							_	_		_	_		ર્કુ-દુ	<u> </u>	port.
Z	₹		o.								EPA Me		_			_			_	_	\dashv	_	\dashv	2 6		tical re
Σ	. K		3710	02		_	-				:: COT	>	\ <u>`</u>		\square		\square	_	\dashv	\dashv	\dashv	\dashv	4	Sample	, l	analy
Ž	ĕ	E	¥	541	st		····		(A((SY) (Semi	l	Н		-1	_		\dashv	\dashv	4	\dashv	\dashv	_) رئ	•)	or the
	15	ntal.	ne,	505-345-4107	Request				000 / 6		8260B (VO.	_	ļ		\dashv				_	_	_	\dashv				otated
FNVTEONMENT		a)	Albuquerque, NM 87109								oitse9 1808				\square			\rightarrow	\dashv	4	-	\dashv		5-1.05	5 .	of this possibility. Any sub-contracted deta will be clearly notated on the analytical report.
Z	ANALYSIS	viro	bng	Fax	Analysis	(*0	S''(<u></u>			D, H) anoinA	┝						_	_		_	\dashv		1155	3	De c le
	. `_	allen	•	١,0	Ana						RCRA 8 Me		>							_			_	, ,	{	ta will
	! !	¥.	岁	397	H						AN9) 0168	—							_	\dashv	\dashv	\dashv		790	projek	ted de
ì	₹	}	kins	345-							EDB (Wetho													day off	ہِ کے	ontrac
_			¥a	505-		(100)		(CDC			ornow rring		<u> </u>						\dashv	\dashv	_	_		3	3 2	o-qns
			4901 Hawkins NE	Tel. 505-345-3975							TPH Metho								_					۱	٠. ۱۲	. Any
			4	'							TM + X318	-			\vdash					\dashv		-		Remarks:	<u></u> ተሞ	sibility
						()	302	3) 2's	AMT +	BE.	TM + X3T8								\dashv		-			82	2 2	sod sir
											100	>	1												55	% of #
											100	X	Q											Time	Time	is notic
'												7	Y											<u>o</u>	977	IVES 8
	Ì	1	<u> </u>				4		, 108 Sept		400	1	'											Date	Date	This se
	اءِ	Custer ter	Testing			•	Michael Limberby	ار			0	<u> </u>	ļ <u>.</u>												h0	98.
	□ Rush	3	띡			•	4	Ž			Preservative Type	۱,	1	Ĺ												arato
i.		03	5				衤	Ž	, (職)		зегvа Туре	[₫	P -	alte										7	ited la
Ē	_	Name:	Acch			Project Manager:	<u>ح</u>	工				,	<u> </u>	<u> </u>	ĺ								_	,	7	locripid
punc	darc	<u> </u>	4.5	<u></u>		Man	ž	4			ner nd #	£	4	۱ ـ	20									100	i d	other
Ą	的 Standard	_	501.01.6	Project #:		ject l	jc	Victor	nple	Sample	Container Type and #	11,500,41	ZX SOM		D	-	<u> </u>								caived by:	racted to other
Tum-Around Time:	Æ	Project RNT	. V	Pro		Proj	<u>ح</u>		Sampler:	8	ა ≽	=	1									(Receive		V E
								Ē			۵	15													7	SE C
5			3					datio	1		est	Webs	200												-	may.
8			2					☐ Level 4 (Full Validation)			Sample Request ID		ئي ڏا													ental
Re			3	STIBI	اه			Full			%	Produced State		ı										17	1	viron
→			9	٦	-8560	-8561		el 4			혈	野	Aroduced											1	1.2	tall En
ğ			25	Ž	8	_		Lev			Sar	RINT	J JNW											5,7	1/3	od to H
nS	Tac	1	R	\ \dagger{1}{3}	237	3a_			ler_			T	T	├	 	\vdash	┢					\vdash		a ged	E S	npmtt(
Ų			Sos	2377	, Ç	ıı					Matrix	9	3											Relinquished by \mathcal{M} \mathcal{M}	Relinquished by:	ples st
þ	2	1	s: 7	Albertar 1mm	S	505					-				 	_	├-					L			X S	E .
Chain-of-Custody Record	A 140 16		dres	র	555	**	kage	ģ	co	ype)	Time	3, 3,	5:320	1								۸.		Time: 2:3-4	Time:	if necessary, samples submitted to Hall Environmental may be subco
Š		1	g Ad	છ	#	P	Pac	ında	ditat	La		<u> </u>	1	1		\vdash	\vdash							_		Ę
	Client:		Mailing Address: 7500 mending Mace No.	Su, Je 13	Phone #:	email or Fax#:	QA/QC Package:	☑ Standard	Accreditation	□ EDD (Type)	Date	9/4/2	3/5/1a											Date: /6/kg	Date:	
	O	1	≥	l vi	П	0	ď	171	∢ ⊔	Ι⊔	I	1 0	7/-	1	I	I	I	l	1	1	I	ı	1	10 /a	[%]	1

Jones, Brad A., EMNRD

From:

Matthew J. Bruff <matthew.bruff@altelainc.com>

Sent:

Monday, December 10, 2012 2:15 PM

To:

Jones, Brad A., EMNRD

Cc:

karen.evans@altelainc.com; michael.wimberly@altelainc.com

Subject:

Temporary Approval EPWM-004

Brad,

Following our discussion today, we hereby request you retract our submittal dated November 26, 2012 with respect to Temporary Approval EPWM-004. We will re-submit the renewal request and limit the information to what is requested and required under the authorization.

Thanks, Matt

Matthew Bruff
Altela, Inc.
5350 South Roslyn Street, Suite 210
Englewood, CO 80111
Phone 303-993-1951
Fax 303-993-1955
www.altelainc.com



ALBUQUEROUE OFFICE

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

2812 DEC -3 A 9: 16

DENVER OFFICE

5350 South Roslyn Street, Suite 210, Englewood, CO 80111

PHONE: 303.993.1950 FAX: 303.993.1955

November 26, 2012

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[®] technology.

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



		12	=	10	•	00	7 1	•	Ch	•	ω	N	1	No	
		1					0/19/12	10/5/12	8/29/12	8/22/12	7/2/12	6/19/12	5/11/12	Date	
							10/19/12 M&R Trucking, Inc.	ABF Freight System	RL Carriers	M&R Trucking, Inc.	YRC Freight	M&R Trucking, Inc.	ABF Freight System	Transport Company Name	
											Kyle Craig			Company	
							Post Office Box 600, Farmington, NM 87499	P.O. Box 10048, Fort Smith , AR 72917	P.O. Box Box 271, Wilmington, OH 45177	Post Office Box 800, Farmington, NM 87499	2500 State Road 60 W, Bartow, FI 33830	Post Office Box 600, Farmington, NM 87499		Address	
The state of	-	-					(505) 328-5541	(515) 263-0406	(814) 226-8001	(505) 326-5541	(863) - 533 - 8776	(505) 328-5541	505-883-1010	Phone	Meridian
							(505) 328-8002			(505) 328-8002		(505) 328-8002		Fax Number	Produced
							C-133-00			C-133-86		C-133-06		C133 Permit No.	Meridian Produced Water Fracking Summary
					The state of the s		X	Feed Energy Company	RNI Trucking	NA.	Cedar Trail Landfill	*	Delaware County Solid Waste	Name of Originating Well (If Taken Away - NA)	Summary
											Republic Services			Owner of Well	
							1,386 Gallons Taken Away	1,800 Gallons Delivered	1,050 Gallons Delivered	746 Gallons Taken Away	1535 Gallons Delivered	996 Gallons Taken Away	1650 Gallons Delivered	Delivered / Taken Away	
							y +1484 gallons	+'2,850 gailons	+*1050 gallons	0 gallons	+1535 gallons	0 gallions	+1650 gallons	Balance	

*1464 gallon difference in volume being taken away attributable to clean, distilled water vapor being exhausted during process and also remaining Feed Energy Water to be tested.

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 AltelaRainTM Technology

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 AltelaRainTM 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 AltelaRainTM technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRainTM 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 AltelaRainTM 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.

Matt Bruff Altela, Inc. Permit EPWM - 004 December 5, 2011 Page 2 of 2

- 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.

Sincerely,

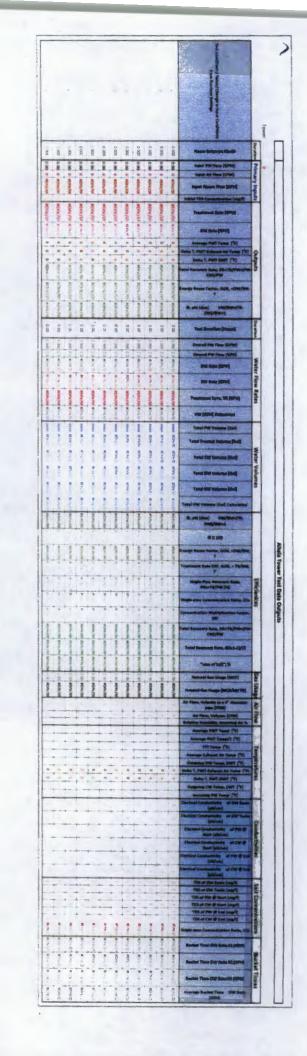
Brad A. Jones
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

	-		7	-	_	_				-	-	-	-
Tower:	Test Conditions	ryp in Ingus Sacting		When the contract of the contr	Apparentment of the latter would be able to the latter of					the control of the co			tion time of the second of the
	Test Duration	Start Date/Firme											
	ation	End Date/Firms			A CONTRACTOR OF THE PARTY OF TH								
Test Station:	Natural Gas	Natural Gas Meter Reading, Start (CCF)											
=======================================	a	Natural Gas Meter Reading, End [CCF]											
		Initial TDS Concentration [mg/l]											
		DW Tank #2 Height Defta (Inches)	-	-	-	-		-	-	-	-		-
	Tank	DW Yank #2 Height Delta (inches) BWW. Tank Height Delta (inches)	+		-	-		-	-				-
	nk L	BW#2 Yank Height Delta (Inches)											
1	Levels	BWWS Tank Height Delts [Inches]											
	8	PW Tens #1 Height Delta (Inches)											
		PW Tank #2 Height Defta [inches] PW Hows #1 (GPM)	-	-	-			-	-				_
	Md	PW Flows #2 [GPM]	+	-	-	-	-						
	N Flows	PW Rows #S [GPM]											
								-			-		
		PW Flows #S [GPM] Air Flow Measurement [Feet Per	+ +	-	-		-		-				-
All	Inlet	Minute)											
eia eia	3	Inlet Air Temp. (°F)											
MO	Measurements	injet Air Wet Bulb Temp. [*F]	-	-	-		-	-	-		-		
er	11640	Air Press. (Inches H2O) Left Exhaust Press. (Inches H2O)	+	-	-	-		-		-			-
65	ents	Right Exhaust Press. [Inches H2O]	1	-	-			-		-			
Attela Tower Test Data Inputs													
12													
ngr.	Measurem	Steam Press. Before Value [paig]		-	-		-	-	-	-			
3	8	Steam Press. After Valve [peig] Electical Conductivity of DW Basin @	-	-	-	-		-	-	-			-
		Start [µS/cm]											
		Electical Conductivity of DW Basin @ End [µS/cm]											
		Electical Conductivity of DW Tunks	1	1									
	Elect	Start [µS/cm]	-	-	-		-	-	-	-	-		-
	tical (-								
	ond	Electical Conductivity of PW @ Start											
	Conductivity	[µ\$/cm] Electical Conductivity of CW @ Start	+-	-	-	-	-		-	+	-		
	A	[us/cm]											
		Electical Conductivity of PW @ End											
		[µ\$/cm] Electrical Conductivity of CW @ End		1	-	-							
		[µ\$/cm]		-	-			-	-	-		-	
		TTT (°F)	-	+	-		-		-	-	-		
		PWT #1 (°F) PWT #2 (°F)	+	-	-	-		-		+			
		PWT #5 (°F)	1										
		PWT #4 (Tr)											
		man as det											
	_	PWT 45 (F)	1 1	-	-		-	-	-	-		-	-
	Towe		-				-		-	-			
	Tower Ten			-	+	1	-		-	+	-		
	Tower Tempera					-				1	ì		
	Tower Temperatures												
	Tower Temperatures												
	Tower Temperatures	PMT #5 (*F) PMT #2 (*F) PMT #6 (*F) PMT #6 (*F) PMT #10 (*F) CW Exit (*F)											
	Tower Temperatures	PWT #6 (*F) PWT #2 (*F) PWT #6 (*F) PWT #6 (*F) PWT #10 (*F) CW Exit (*F) OWT Right (*F)											
	Yower Temperatures	PMT 45 (°F) PMT 45 (°F) PMT 46 (°F) PMT 45 (°F) PMT 410 (°F) PM Inlet (°F) CW Exit (°F) OWT Right (°F) OWT LORI (°F)											
	Tower Temperatures	PMT 45 (°F) PM inlex (°F) CW Eart (°F) DMT Right (°F) DMT right (°F) Eitheast Air Terrig, Left (°F)											
	Tower Temperatures	PAYT #6 (°F) PAYT #6 (°F) PAYT #6 (°F) PAYT #10 (°F) PAYT #10 (°F) PAYT #10 (°F) CW Exit (°F) DAYT Right (°F) DAYT Right (°F) Eshaust Air Temp, Left (°F) Eshaust Air Temp, Right (°F) Bucket Time #1 (seconds) for a 5									is the control of the		
	Tower Temperatures Suc	PMT as (°F) PMT fall (°F) PM Inlet (°F) CW East (°F) DMT Right (°F) CMT Laft (°F) Enhaust Air Tennp, Laft (°F) Enhaust Air Tennp, Laft (°F) flucket Time 81 (seconds) for a 5 flucket Time 82 (seconds) for a 5											
	Bucket	PAYT #6 (°F) PAYT #6 (°F) PAYT #6 (°F) PAYT #10 (°F) PAYT #10 (°F) PAYT #10 (°F) CW Exit (°F) DAYT Right (°F) DAYT Right (°F) Eshaust Air Temp, Left (°F) Eshaust Air Temp, Right (°F) Bucket Time #1 (seconds) for a 5									a manufacture of the contract		
	Tower Temperatures Bucket Times	PMT as (°F) PMT as (°F) PMT as (°F) PMT as (°F) PMT at (°F) PM inlet (°F) CW Eart (°F) DMT Right (°F) Cahaust Air Temp, Right (°F) Exhaust Air Temp, Right (°F) Bucket Time 81 (seconds) for a 5 Gallon Bucket Bucket Time 81 (seconds) for a 5									a male demonstration of the control		

>





RECEIVED OCD

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 450, Englewood, CO 80111 PHONE: 303,993,1950 FAX: 303,993,1955

November 29, 2011

Mr. Wayne Price 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, 2012

VIA UNITED STATES POSTAL SERVICE

Dear Wayne and 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;
- Only haulers authorized (OCD approved C-133) to move produced water may provide transport of produced water to the Meridian facility;
- 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 January 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.

While we have not received, stored or used any produced water this year, we request renewal of EPWM - 004 as we anticipate receiving produced water in the coming year to continue the development of the AltelaRain® technology.

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



	ಸ	==	10	φ	00	7	0	Ch	-	co	N	 *	E
												Date	
		-										Transport Company Contact at	
												Company	
												Address	
												Phone	Alamo F
												Fax Number	roduced V
												C133 Parmit No.	Alamo Produced Water Tracking Summary
												Name of Originating Well (If Taken Away - NA)	Summary
			7					The state of the s				Owner of Well	
											The state of the s	Delivered / Taken Away	
											-	Balance	



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 AltelaRainTM 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 AltelaRainTM 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 AltelaRainTM technology. Another purpose is to obtain testing results of the treatment of the produced water in order to assess the capability of the AltelaRainTM 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 AltelaRainTM 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.



Matt Bruff Altela, Inc. Permit EPWM - 004 January 5, 2011 Page 2 of 2

- 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.
- 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.

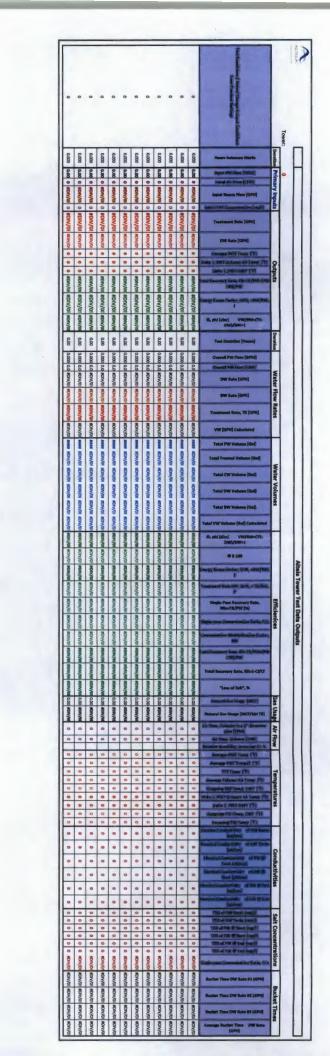
Sincerely,

Brad A. Jones
Environmental Engineer

BAJ/baj

cc: OCD District IV Office, Santa Fe

| Natural Gas Moter Reading, In [CCF] Natural Gas Meter Reading, En Initial TDS Concentration (in DW Yank 81 Height Delta (in BW93 Yank Height Delta (in BW93 | Tower:
Test Conditions | Test Duration | atton | Test Station:
Natural Gas | d [ccr] | | thes] | hes) | hes] | ines] | , indep | 3 | PW Flows | | ¥ | | | | | | Day - | | Per Inlet Air Messurements | Per Inlet Air Messurements | Per Inlet Air Measurements III | Day - | Day - | Day - | Par Inlet Air Measurements am Measure | Per Inlet Air Measurements am Measurement (200) 100 | FPav International Park Inte | Few Index Air Measurements and Measureme | Pay Inlet Air Measurements and Measurement (20) and | Pay Inlet Air Measurements and Measurement (20) and | Per Inlet Alr Messurement to 120] In Messurement to 1200 In Messurem | Per Intel Al-r Measurements 120] Intel Al-r M | Par International Control of Cont | Par Inter Air Measurements am Measurement (20) am Measurement (20) am Measurement (20) asin @ Electical (20) a | Par Inlet Air Measurements am Measurement (20) am Measurement (20) am Measurement (20) asin @ Electrical (20) asin | Par Inlet Air Measurements am Measurement (20) am Measurement (20) am Measurement (20) asin @ Electrical (20) asin | Par Inter Air Measurements am Measurement (20) am Measurement (20) am Measurement (20) asin @ Electical (20) a | Per Inlet Air Measurements am Measurement (20) | Per Inlet Air Measurements and Measurement (20) and | Per Inlet Air Messurements and Messurem (20) and Messurem (20) and Messurem (20) and Messurem (20) and | Per Inlet Air Messurements am Messurement am Messurement am Messurement am Messurement and Conductivity asin @ Start @ Start @ Start @ Start @ Start | Per Inlet Air Messurements am Messurement am Messurement am Messurement am Messurement and Conductivity asin @ Start @ Start @ Start @ Start @ Start | Per Inlet Air Messurements am Messurement am Messurement am Messurement am Messurement and Conductivity asin @ Start @ Start @ Start @ Start @ Start | Per Inlet Air Messurements am Messurement am Messurement am Messurement am Messurement and Conductivity asin @ Start @ Start @ Start @ Start @ Start | Per Inlet Alr Measurements and Measurement (200) and Measurement (| Per Infer Air Messurements and Messurement (200) and Messurement (| Per Infet Air Messurements Infet | Per Infer Air Messurements and Messurement (200) and Messurement (| Per Inlet Alr Measurements and Measurement (200) and Measurement (| Per Infer Air Messurements and Messurement (200) and Messurement (| Per Infer Air Messurements and Messurement (200) and Messurement (| Per Inlet Air Messurement Per Pe | Per Inlet Air Measurements and Measurement (20) and | Per Inlet Air Measurement Per Pe | Per Inlet Air Measurement 200] [7] Selection of the Sele | Per Inlet Air Measurements am Measurement (20) am Measurement (20) am Measurement (20) am Measurement (20) and | Per Inlet Air Measurement 200] 120] In Measurement 200 Inlet Air Measurement 200 | Per Iniet Air Measurement to Measure | Per Inlet Air Measurement 200] 120] In Measurement 200 Inlet Air Measurement 200 | Per Imiet Air Messurements Im Messurement Imiet Air Messurement Im | Per Inlet Air Measurement 200] [7] Selection of the Sele | Per Iniet Air Measurement to Measure | Per Inlet Air Measurement 120] In Measurement | Per Inlet Air Measurements am Measurement (200) Im | Per Inlet Air Measurements am Measurement (200) Im Measurements (200) Im Measurement (200) Im | Per Inlet Air Measurements am Measurement (200) Im | Per Inlet Air Measurements and Measurement (20) and | Fig. 1 Measurements on Measurement (200) and (20 | Fig. Inlet Air Measurements Part | Per Inlet Air Measurement to Inlet Air Measurement to Inlet Air Measurement to Inlet Air Measurement to Inlet Air Measurement Inlet Air | Per Inlet Air Measurement Inlet Air Measurement | Per Inlet Air Measurement Inlet Air Measurement | Per Infect Air Measurement Infect Air Me | Per Inlet Air Measurement | Per Infect Air Measurement Infect Air Me | Per Infet Air Measurements am Measurement am Me | Per Iniet Air Measurement Iniet Air Measurem |
|--|---|-----------------|---------------|---|------------------------------------|----------------------------------|----------------------------------|------|---------------------------------|----------------------------------|---------|---|------------------|-------------------|-------------------|---|--------------------------------|---|---|--|---|--|---|---|--|---|---|--|--|---|--
--	--	--	--
--	--	--	--
--	--	--	--
--	---	--	--
--	--	--	--
--	--	---	---
--	--	--	--
--	---	--	--
---	--	--	---
--	---	---	--
--	--	--	--
	Test Conditions / Notes/ Change in Input Conditions from Previous Settings	Start Date/Time	and Date/Time
 | Air Flow Measurement [Feet Per Minute] Indet Air Terenp. [*F] Inlet Air West Builb Temps. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boller HG Pressure [inches H2O] Steam Pressure [psig] Steam Press Before Yelve [psig] Steam Press After Valve [psig] Electical Conductivity of DM Basin Start [ps/cm] | Air Flow Measurement [Feet Per Minute] Indet Air Teren, ["F] Inlet Air Wet Bulb Temp. ["F] Air Press. [Inches H2O] Left Exhaust Press. [Inches H2O] Boller NG Pressure [Inches H2O] Steam Pressure [Inches H2O] Steam Press. Before Valve [Insig] Steam Press. After Valve [Insig] Electical Conductivity of DW Basin Start [Insig] Electical Conductivity of DW Basin | Air Flow Measurement [Feet Per Mitrate] Indet Air Terep. ["F] Indet Air Wett Buith Temp. ["F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boiler MG Pressure [Inches H2O] Steam Pressure [Inches H2O] Steam Pressure [Inches H2O] Steam Press. Refore Valve [Insig] Steam Press. After Valve [Insig] Bectical Conductivity of DW Basin Start [Insign] Electical Conductivity of DW Basin End [InSign] | Air Flow Measurement [Feet Per Minute] Inlet Air Teren, [*F] Inlet Air Wete Builb Temp. [*F] Air Press. [Inches H2O] Left Enhaust Press. [Inches H2O] Boller NG Pressure [Inches H2O] Steam Press. Defore Valve [psig] Steam Press. Before Valve [psig] Electical Conductivity of DW Besin Ent [psi/cm] | Air Flow Measurement [Feet Per Minute] Indet Air Terenp. [*F] Inlet Air Wett Builb Temps. [*F] Inlet Air Wett Builb Temps. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boller HG Pressure [pickes H2O] Steam Press. Before Yelve [pick] Steam Press. Before Yelve [pick] Electical Conductivity of DM Basin End [pickern] Electical Conductivity of DM Basin End [pickern]
 | Air Flow Measurement [Feet Per Minstel] Indet Air Teren, ["F] Inlet Air Wet Bulb Temp. ["F] Air Press. [Inches H2O] Left Exhaust Press. [Inches H2O] Right Exhaust Press. [Inches H2O] Steam Pressure [poig] Steam Press. Before Valve [poig] Steam Press. After Valve [poig] Electical Conductivity of DW Bain Start [ps/em] Electical Conductivity of DW Bain End [ps/em] Electical Conductivity of DW Tanks Start [ps/em] Electical Conductivity of DW Tanks Start [ps/em] Electical Conductivity of DW Tanks | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wett Buith Temp. [*F] Air Press. [inches H2O] Left Eubeust Press. [inches H2O] Boiler HG Pressure [poig] Steam Press. Before Valve [poig] Steam Press. Before Valve [poig] Bectical Conductivity of DW Basin Start [ps/cm] Electical Conductivity of DW Basin End [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks | Air Flow Measurement [Feet Per Minute] Inlet Air Terenp. [*F] Inlet Air Wete Buib Temp. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boller MG Pressure [inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Electical Conductivity of DW Besin Estat [psi/cm] Electical Conductivity of DW Besin Estat [psi/cm] Electical Conductivity of DW Tanks Start [psi/cm] Electical Conductivity of DW Tanks Start [psi/cm] Electical Conductivity of DW Tanks Start [psi/cm] Electical Conductivity of DW Tanks Electical Conductivity of PW Ø St | Air Flow Measurement [Feet Per Minute] Indet Air Terenp. [*F] Inlet Air Wett Builb Temps. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boller HG Pressure [inches H2O] Steam Pressure [psig] Steam Press. Before Yelve [psig] Steam Press. After Valve [psig] Electical Conductivity of DW Basin Start [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] | Air Flow Measurement [Feet Per Minute] Indet Air Terep. [*F] Indet Air Wett Buith Temp. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boiler HG Pressure [inches H2O] Boiler HG Pressure [inches H2O] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Steam Press. After Valve [psig] Blectical Conductivity of DW Besin End [is5/cm] Electical Conductivity of DW Tanks Start [is5/cm] Electical Conductivity of DW Tanks End [is5/cm] Electical Conductivity of DW Starks End [is5/cm] Electical Conductivity of PW @ Starks End [is5/cm] Electical Conductivity of CW @ St
 | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wet Buib Temp. [*F] Air Press. [inches 12O] Left Euheust Press. [inches 12O] Boiler MS Pressure [inches 12O] Steem Pressure [inches 12O] Steem Pressure [inches 12O] Steem Press. After Valve [insig] Steem Press. After Valve [insig] Bectical Conductivity of DW Basin Start [insign] Electical Conductivity of DW Basin End [insign] Electical Conductivity of DW Tanks Start [insign] Electical Conductivity of DW Tanks Start [insign] Electical Conductivity of DW Tanks Ind [insign] Electical Conductivity of DW Tanks End [insign] Electical Conductivity of DW Tanks End [insign] Electical Conductivity of DW G St [insign] | Air Flow Measurement [Feet Per Minute] Inlet Air Teren, [*F] Inlet Air Wett Builb Temp. [*F] Inlet Air Wett Builb Temp. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boiler HG Pressure [inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Electical Conductivity of DW Basin Start [ps/cm] Electical Conductivity of DW Basin End [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks Electical Conductivity of DW Tanks [ps/cm] Electical Conductivity of DW Tanks [ps/cm] Electical Conductivity of OW @ St | Air Flow Measurement [Feet Per Minute] Indet Air Temp. [*F] Inlet Air Wet Bulb Temp. [*F] Inlet Air Wet Bulb Temp. [*F] Air Press. [inches 1420] Left Exhaust Press. [inches 1420] Boller HG Pressure [pickes 1420] Steam Press. Before Yelve [pick] Steam Press. Before Yelve [pick] Steam Press. After Valve [pick] Bectical Conductivity of DW Basin End [pis/cm] Electical Conductivity of DW Tanks End [pis/cm] Electical Conductivity of DW G St [pis/cm] | Air Flow Measurement [Feet Per Minute] Inlet Air Terrep. [*F] Inlet Air Wett Buith Terrep. [*F] Air Press. [inches 120] Left Euheust Press. [inches 120] Boiler MG Pressure [poig] Steam Press. Before Valve [poig] Steam Press. Before Valve [poig] Bectical Conductivity of DW Besin Start [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of DW Start [ps/cm] Electical Conductivity of DW Electical Con | Air Flow Measurement [Feet Per Minute] Indet Air Temp. [*F] Inlet Air Wet Bulb Temp. [*F] Inlet Air Wet Bulb Temp. [*F] Air Press. [inches 1420] Left Exhaust Press. [inches 1420] Boller HG Pressure [pickes 1420] Steam Press. Before Yelve [pick] Steam Press. Before Yelve [pick] Steam Press. After Valve [pick] Bectical Conductivity of DW Basin End [pis/cm] Electical Conductivity of DW Tanks End [pis/cm] Electical Conductivity of DW G St [pis/cm] | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wet Buib Temp. [*F] Air Press. [inches 120] Left Enhaust Press. [inches 120] Boiler MS Pressure [inches 120] Steam Pressure [inches 120] Steam Pressure [inches 120] Steam Pressure [inches 120] Steam Pressure [inches 120] Bectical Conductivity of DW Basin Start [inches 120] Electical Conductivity of DW Basin End [inches 120] Electical Conductivity of DW Tanks Start [inches 120] Electical Conductivity of DW Tanks Start [inches 120] Electical Conductivity of DW Tanks End [inches 120] Electical Conductivity of DW Tanks End [inches 120] Electical Conductivity of PW @ St [inches 120] Electical Conductivity of Electical Conductivity | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air West Built Temp. [*F] Air Press. [inches H2O] Left Enhaust Press. [inches H2O] Boller NG Pressure [inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Electical Conductivity of DW Besin End [sts/cm] Electical Conductivity of DW Tanks Start [ss/cm] Electical Conductivity of DW Tanks End [ss/cm] Electical Conductivity of DW Tanks End [ss/cm] Electical Conductivity of DW Tanks End [ss/cm] Electical Conductivity of DW Start [ss/cm] Electical Conductivity of DW Start [ss/cm] Electical Conductivity of DW Start [ss/cm] Electical Conductivity of PW Start [ss/cm] | Air Flow Measurement [Feet Per Minute] Inlet Air Terenp. [*F] Inlet Air West Built Temps. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boller MG Pressure [inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Electical Conductivity of DW Besin Start [psi/cm] Electical Conductivity of DW Besin Entire [psig/cm] Electical Conductivity of DW Tanks Start [psi/cm] Electical Conductivity of DW Tanks Start [psi/cm] Electical Conductivity of DW Tanks Start [psi/cm] Electical Conductivity of DW Tanks [psi/cm] Electical Conductivity of PW @ St [psi/cm] Electical Conductivity of PW @ St [psi/cm] Electical Conductivity of PW @ St [psi/cm] Electical Conductivity of PW @ Electi | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air West Built Temp. [*F] Air Press. [inches H2O] Left Enhaust Press. [inches H2O] Boller NG Pressure [inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Electical Conductivity of DW Besin End [sts/cm] Electical Conductivity of DW Tanks Start [ss/cm] Electical Conductivity of DW Tanks End [ss/cm] Electical Conductivity of DW Tanks End [ss/cm] Electical Conductivity of DW Tanks End [ss/cm] Electical Conductivity of DW Start [ss/cm] Electical Conductivity of DW Start [ss/cm] Electical Conductivity of DW Start [ss/cm] Electical Conductivity of PW Start [ss/cm] | Air Flow Measurement [Feet Per Minute] Inlet Air Terenp. [*F] Inlet Air West Builb Temps. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boiler MG Pressure [inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Electical Conductivity of DW Basin Entry [psig] Electical Conductivity of DW Tanks Start [psig/cm] Electical Conductivity of DW Tanks [psig/cm] Electical Conductivity of DW
Start [psig/cm] TTT [*F] PWT 61 (*F) PWT 62 (*F) | Air Flow Measurement [Feet Per Minute] Inlet Air Terenp. [*F] Inlet Air Wett Build Temps. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boller HG Pressure [inches H2O] Steam Pressure [inches H2O] Steam Pressure [inches H2O] Steam Pressure [inches H2O] Steam Pressure [inches H2O] Boller HG Pressure [inches H2O] Steam Press. After Valve [psig] Electical Conductivity of DW Basin Start [ps/cm] Electical Conductivity of DW Basin End [ps/cm] Electical Conductivity of DW Tarks End [ps/cm] Electical Conductivity of DW Tarks End [ps/cm] Electical Conductivity of DW Tarks End [ps/cm] Electical Conductivity of DW Start [ps/cm] Electical Conductivity of DW Basin End [ps/cm] Electical Conductivity of DW Basin End [ps/cm] Electical Conductivity of DW Tarks End [ps/cm] Electical Conductivity of DW Basin Electical Electical Electical Conductivity of DW Basin Electical Elect | Air Flow Measurement [Feet Per Minute] Inlet Air Terenp. [*F] Inlet Air West Builb Temps. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boiler MG Pressure [inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Electical Conductivity of DW Basin Entry [psig] Electical Conductivity of DW Tanks Start [psig/cm] Electical Conductivity of DW Tanks [psig/cm] Electical Conductivity of DW Start [psig/cm] TTT [*F] PWT 61 (*F) PWT 62 (*F) | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Air Press. [inches 120] Left Exhaust Press. [inches 120] Left Exhaust Press. [inches 120] Boller MG Pressure [psig] Steam Press. After Valve [psig] Steam Press. After Valve [psig] Blectical Conductivity of DW Besin Start [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ Electical Conductivity | Air Flow Measurement [Feet Per Minute] Inlet Air Teren, [*F] Inlet Air Wett Buith Temp. [*F] Air Press, [inches 120] Left Exhaust Press, [inches 120] Boller NG Pressure [poig] Steam Pressure [poig] Steam Pressure [poig] Steam Press After Valve [poig] Bectical Conductivity of DW Besin Start [poign] Electical Conductivity of DW Besin End [poign] Electical Conductivity of DW Tanks Start [poign] Electical Conductivity of PW @ St [poign] Electical Conductivity of PW @ St [poign] Electical Conductivity of PW @ El | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Air Press. [inches 120] Left Exhaust Press. [inches 120] Left Exhaust Press. [inches 120] Boller MG Pressure [psig] Steam Press. After Valve [psig] Steam Press. After Valve [psig] Blectical Conductivity of DW Besin Start [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ Electical Conductivity | Air Flow Measurement [Feet Per Minute] Inlet Air Teren, [*F] Inlet Air Wett Buith Temp. [*F] Inlet Air Wett Buith Temp. [*F] Air Press, [inches H2O] Left Eubeust Press, [inches H2O] Boller MG Pressure [poig] Steam Press. Before Valve [poig] Steam Press. Before Valve [poig] Bectical Conductivity of DW Besin Start [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ Electical PW @ Electical Conductivity of PW @ | Air Flow Measurement [Feet Per Minute] Inlet Air Terrup. [*F] Inlet Air Wett Buith Terrup. [*F] Air Press. [inches H2O] Left Enhaust Press. [inches H2O] Boiler MS Pressure [inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Geam Press. After Valve [psig] Bectical Conductivity of DW Basin Start [jsis/cm] Electical Conductivity of DW Basin Start [jsis/cm] Electical Conductivity of DW Tanks Start [jsis/cm] Electical Conductivity of DW Tanks Start [jsis/cm] Electical Conductivity of DW Tanks Ind [jsis/cm] Electical Conductivity of DW Tanks [jsis/cm] Electical Conductivity of DW Tanks Ind [jsis/cm] Electical Conductivity of DW Tanks Ind [jsis/cm] Electical Conductivity of PW @ St [jsis/cm] Electical Conductivity of PW @ Electical Conductivity | Air Flow Measurement [Feet Per Minute] Inlet Air Teren, [*F] Inlet Air Wett Buith Temp. [*F] Inlet Air Wett Buith Temp. [*F] Air Press, [inches H2O] Left Eubeust Press, [inches H2O] Boller MG Pressure [poig] Steam Press. Before Valve [poig] Steam Press. Before Valve [poig] Bectical Conductivity of DW Besin Start [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ Electical PW @ Electical Conductivity of PW @ | Air Flow Measurement [Feet Per Minute] Inlet Air Terrup. [*F] Inlet Air Wet Buib Terrup. [*F] Air Press. [inches 120] Left Euheuut Press. [inches 120] Boiler MS Pressure [inches 120] Steem Pressure [inches 120] Steem Pressure [inches 120] Steem Pressure [inches 120] Determine Pressure [inches 120] Steem Pressure [inches 120] Bectical Conductivity of DW Basin Start [ind/em] Electical Conductivity of DW Basin End [ind/em] Electical Conductivity of DW Tanks Start [ind/em] Electical Conductivity of DW Tanks End [ind/em] Electical Conductivity of DW Tanks End [ind/em] Electical Conductivity of DW Tanks [ind/em] Electical Conductivity of DW Tanks [ind/em] Electical Conductivity of DW Tanks [ind/em] Electical Conductivity of PW @ St [ind/em] Electical Conductivity of PW @ St [ind/em] Electical Conductivity of PW @ St [ind/em] TTT [*F] PWT 81 (*F) PWT 82 (*F) PWT 83 (*F) PWT 83 (*F) PWT 86 (*F) PWT 86 (*F) | Air Flow Measurement [Feet Per Minute] Inlet Air Terrup. [*F] Inlet Air Wett Buith Terrup. [*F] Air Press. [inches H2O] Left Enhaust Press. [inches H2O] Boiler MS Pressure [inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Geam Press. After Valve [psig] Bectical Conductivity of DW Basin Start [jsis/cm] Electical Conductivity of DW Basin Start [jsis/cm] Electical Conductivity of DW Tanks Start [jsis/cm] Electical Conductivity of DW Tanks Start [jsis/cm] Electical Conductivity of DW Tanks Ind [jsis/cm] Electical Conductivity of DW Tanks [jsis/cm] Electical Conductivity of DW Tanks Ind [jsis/cm] Electical
Conductivity of DW Tanks Ind [jsis/cm] Electical Conductivity of PW @ St [jsis/cm] Electical Conductivity of PW @ Electical Conductivity | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wet Buib Temp. [*F] Air Press. [inches 120] Left Enhaust Press. [inches 120] Boiler MS Pressure [inches 120] Steam Pressure [inches 120] Steam Pressure [inches 120] Steam Pressure [inches 120] Steam Pressure [inches 120] Bectical Conductivity of DW Basin Start [inches 120] Electical Conductivity of DW Basin Start [inches 120] Electical Conductivity of DW Tanks Start [inches 120] Electical Conductivity of DW Tanks Start [inches 120] Electical Conductivity of DW Tanks End [inches 120] Electical Conductivity of DW Tanks End [inches 120] Electical Conductivity of DW Tanks End [inches 120] Electical Conductivity of PW @ St [inches 120] Electical Conductivi | Air Flow Measurement [Feet Per Ministe] Inlet Air Terep. [*F] Inlet Air West Built Temp. [*F] Air Press. [Inches H2O] Left Enhaust Press. [Inches H2O] Boller MS Pressure [Inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Electical Conductivity of DW Basin End [Ls/cm] Electical Conductivity of DW Tanks Start [Ls/cm] Electical Conductivity of DW Tanks Start [Ls/cm] Electical Conductivity of DW Tanks Start [Ls/cm] Electical Conductivity of DW Tanks End [Ls/cm] Electical Conductivity of DW © Bt [Ls/cm] Electical Conductivity of PW © St [Ls/cm] Electical Conductivity of PW © Bt [Ls/cm] TTT (*F) PWT 81 (*F) PWT 82 (*F) PWT 83 (*F) PWT 86 (*F) PWT 86 (*F) PWT 86 (*F) PWT 81 (*F) PWT 81 (*F) | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wet Buib Temp. [*F] Air Press. [inches 120] Left Enhaust Press. [inches 120] Boiler MS Pressure [inches 120] Steam Pressure [inches 120] Steam Pressure [inches 120] Steam Pressure [inches 120] Steam Pressure [inches 120] Bectical Conductivity of DW Basin Start [inches 120] Electical Conductivity of DW Basin Start [inches 120] Electical Conductivity of DW Tanks Start [inches 120] Electical Conductivity of DW Tanks Start [inches 120] Electical Conductivity of DW Tanks End [inches 120] Electical Conductivity of DW Tanks End [inches 120] Electical Conductivity of DW Tanks End [inches 120] Electical Conductivity of PW @ St [inches 120] Electical Conductivi | Air Flow Measurement [Feet Per Minute] Inlet Air Teren, [*F] Inlet Air Wete Bulb Temp. [*F] Air Press. [Inches H2O] Left Enhaust Press. [Inches H2O] Boller NG Pressure [Inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Electical Conductivity of DW Besin End [Lis/cm] Electical Conductivity of DW Tanks Start [Lis/cm] Electical Conductivity of DW Tanks Start [Lis/cm] Electical Conductivity of DW Tanks Start [Lis/cm] Electical Conductivity of DW Tanks End [Lis/cm] Electical Conductivity of DW Tanks End [Lis/cm] Electical Conductivity of DW Tanks [Lis/cm] Electical Conductivity of DW Tanks End [Lis/cm] Electical Conductivity of DW Tanks End [Lis/cm] Electical Conductivity of DW © B [Lis/cm] Electical Conductivity of PW © St [Lis/cm] Electical Conductivity of PW © End [Lis/cm] TTT (*F) PWT 81 (*F) PWT 82 (*F) PWT 83 (*F) PWT 84 (*F) PWT 86 (*F) PWT 86 (*F) PWT 81 (*F) | Air Flow Measurement [Feet Per Minute] Inlet Air Teren, [*F] Inlet Air Wete Bulb Temp. [*F] Air Press. [Inches H2O] Left Enhaust Press. [Inches H2O] Boller NG Pressure [Inches H2O] Steam Press. Before Valve [psig] Steam Press. Before Valve [psig] Electical Conductivity of DW Besin End [Lis/cm] Electical Conductivity of DW Tanks Start [Lis/cm] Electical Conductivity of DW Tanks Start [Lis/cm] Electical Conductivity of DW Tanks Start [Lis/cm] Electical Conductivity of DW Tanks End [Lis/cm] Electical Conductivity of DW Tanks End [Lis/cm] Electical Conductivity of DW Tanks [Lis/cm] Electical Conductivity of DW Tanks End [Lis/cm] Electical Conductivity of DW Tanks End [Lis/cm] Electical Conductivity of DW © B [Lis/cm] Electical Conductivity of PW © St [Lis/cm] Electical Conductivity of PW © End [Lis/cm] TTT (*F) PWT 81 (*F) PWT 82 (*F) PWT 83 (*F) PWT 84 (*F) PWT 86 (*F) PWT 86 (*F) PWT 81 (*F) | Air Flow Measurement [Feet Per Minute] Indet Air Terep. [*F] Indet Air Terep. [*F] Air Press. [inches HzO] Left Exhaust Press. [inches HzO] Boller HG Pressure [inches HzO] Boller HG Pressure [inches HzO] Boller HG Pressure [inches HzO] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Blectical Conductivity of DW Basin Start [ps/cm] Electical Conductivity of DW Basin Start [ps/cm] Electical Conductivity of DW Tariks Start [ps/cm] Electical Conductivity of DW Tariks End [ps/cm] Electical Conductivity of DW Tariks End [ps/cm] Electical Conductivity of PW Electical Conductivity of PW Blectical Con | Air Flow Measurement [Feet Per Minute] Indet Air Terep. [*F] Indet Air Terep. [*F] Air Press. [inches HzO] Left Exhaust Press. [inches HzO] Boller HG Pressure [inches HzO] Boller HG Pressure [inches HzO] Boller HG Pressure [inches HzO] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Blectical Conductivity of DW Basin Start [ps/cm] Electical Conductivity of DW Basin Start [ps/cm] Electical Conductivity of DW Tariks Start [ps/cm] Electical Conductivity of DW Tariks End [ps/cm] Electical Conductivity of DW Tariks End [ps/cm] Electical Conductivity of PW Electical Conductivity of PW Blectical Con | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wet Bulb Temp. [*F] Air Press. [inches 120] Left Exhaust Press. [inches 120] Boller MG Pressure [inches 120] Boller MG Pressure [inches 120] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Steam Press. After Valve [psig] Blectical Conductivity of DW Besin Start [jss/cm] Electical Conductivity of DW Tanks Start [jss/cm] Electical Conductivity of DW Tanks Start [jss/cm] Electical Conductivity of DW Tanks End [jss/cm] Electical Conductivity of DW Tanks End [jss/cm] Electical Conductivity of PW @ St [jss/cm] Electical Conductivity of PW @ St [jss/cm] Electical Conductivity of PW @ St [jss/cm] Electical Conductivity of PW @ Electical Electical Electical Electical Conductivity of PW @ Electical Electical Electical | Air Flow Measurement [Feet Per Minute] Indet Air Terep. [*F] Indet Air Terep. [*F] Air Press. [inches HzO] Left Exhaust Press. [inches HzO] Boller HG Pressure [inches HzO] Boller HG Pressure [inches HzO] Boller HG Pressure [inches HzO] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Blectical Conductivity of DW Basin Start [ps/cm] Electical Conductivity of DW Basin Start [ps/cm] Electical Conductivity of DW Tariks Start [ps/cm] Electical Conductivity of DW Tariks End [ps/cm] Electical Conductivity of DW Tariks End [ps/cm]
Electical Conductivity of PW Electical Conductivity of PW Blectical Con | Air Flow Measurement [Feet Per Minute] Inlet Air Teren, [*F] Inlet Air Wett Bulb Temp. [*F] Inlet Air Wett Bulb Temp. [*F] Air Press. [inches 12O] Left Exhaust Press. [inches 12O] Boller NG Pressure [poig] Steam Press. Refore Valve [poig] Steam Press. Refore Valve [poig] Blectical Conductivity of DW Besin Start [ps/cm] Electical Conductivity of DW Besin End [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ Electical Electical Conductivity of PW @ Electical Electica | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wet Bulb Temp. [*F] Air Press. [inches 120] Left Exhaust Press. [inches 120] Boller MG Pressure [inches 120] Boller MG Pressure [inches 120] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Steam Press. After Valve [psig] Blectical Conductivity of DW Besin Start [jss/cm] Electical Conductivity of DW Tanks Start [jss/cm] Electical Conductivity of DW Tanks Start [jss/cm] Electical Conductivity of DW Tanks End [jss/cm] Electical Conductivity of DW Tanks End [jss/cm] Electical Conductivity of PW @ St [jss/cm] Electical Conductivity of PW @ St [jss/cm] Electical Conductivity of PW @ St [jss/cm] Electical Conductivity of PW @ Electical Electical Electical Electical Conductivity of PW @ Electical Electical Electical | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wett Bulb Temp. [*F] Air Press. [inches H2O] Left Exhaust Press. [inches H2O] Boller MG Pressure [poig] Steam Press. Before Valve [poig] Steam Press. Refore Valve [poig] Steam Press. Air Valve [poig] Bectical Conductivity of DW Besin Start [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ Electical PW @ Electical Conductivity of PW @ Electical Conductivity of PW @ Electical Conductivity of PW @ Electical Conductivity electical Electical Conductivity electical E | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wet Bulb Temp. [*F] Air Press. [inches 120] Left Eubaust Press. [inches 120] Boiler MS Pressure [inches 120] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Steam Press. After Valve [psig] Bectical Conductivity of DW Basin Start [jus/cm] Electical Conductivity of DW Basin Start [jus/cm] Electical Conductivity of DW Tanks [jus/cm] Electical Conductivity of DW @ St [jus/cm] Electical Conductivity of PW @ St [jus/cm] Fir (*F) PWT 81 (*F) PWT 82 (*F) PWT 83 (*F) PWT 83 (*F) PWT 83 (*F) PWT 85 (*F) PWT 80 (*F) PWT 81 (*F) Exhaust Air Temp, Left (*F) Exhaust Air Temp, Left (*F) Exhaust Air Temp, Right (*F) | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wet Bulb Temp. [*F] Air Press. [inches 120] Left Eubaust Press. [inches 120] Boiler MS Pressure [inches 120] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Steam Press. After Valve [psig] Bectical Conductivity of DW Basin Start [jus/cm] Electical Conductivity of DW Basin Start [jus/cm] Electical Conductivity of DW Tanks [jus/cm] Electical Conductivity of DW @ St [jus/cm] Electical Conductivity of PW @ St [jus/cm] Fir (*F) PWT 81 (*F) PWT 82 (*F) PWT 83 (*F) PWT 83 (*F) PWT 83 (*F) PWT 85 (*F) PWT 80 (*F) PWT 81 (*F) Exhaust Air Temp, Left (*F) Exhaust Air Temp, Left (*F) Exhaust Air Temp, Right (*F) | Air Flow Measurement [Feet Per Minute] Inlet Air Terenp. [*F] Inlet Air Wet Built Temp. [*F] Air Press. [Inches 120] Left Exhaust Press. [Inches 120] Boller MS Pressure [Inches 120] Steam Pressure [Inches 120] Steam Pressure [Inches 120] Steam Press. After Valve [Inle] Steam Press. After Valve [Inle] Electical Conductivity of DW Beain End [Is/om] Electical Conductivity of DW Tanks Start [Is/om] Electical Conductivity of DW Tanks Start [Is/om] Electical Conductivity of DW Tanks End [Is/om] Electical Conductivity of DW Tanks End [Is/om] Electical Conductivity of DW Tanks End [Is/om] Electical Conductivity of PW @ St [Is/om] Electical Conductivity of PW @ | Air Flow Measurement [Feet Per Minute] Indet Air Terep. [*F] Air Press. [inches 120] Left Exhaust Press. [inches 120] Left Exhaust Press. [inches 120] Boller MG Pressure [inches 120] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Steam Press. After Valve [psig] Electical Conductivity of DW Besin Start [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ Elec | Air Flow Measurement [Feet Per Minute] Inlet Air Terenp. [*F] Inlet Air Wet Built Temp. [*F] Air Press. [Inches 120] Left Exhaust Press. [Inches 120] Boller MS Pressure [Inches 120] Steam Pressure [Inches 120] Steam Pressure [Inches 120] Steam Press. After Valve [Inle] Steam Press. After Valve [Inle] Electical Conductivity of DW Beain End [Is/om] Electical Conductivity of DW Tanks Start [Is/om] Electical Conductivity of DW Tanks Start [Is/om] Electical Conductivity of DW Tanks End [Is/om] Electical Conductivity of DW Tanks End [Is/om] Electical Conductivity of DW Tanks End [Is/om] Electical Conductivity of PW @ St [Is/om] Electical Conductivity of PW @ | Air Flow Measurement [Feet Per Minute] Inlet Air Terep. [*F] Inlet Air Wett Buith Temp. [*F] Air Press. [inches H2O] Left Enhaust Press. [inches H2O] Boller MG Pressure [poig] Steam Press. Before Valve [poig] Steam Press. Before Valve [poig] Bectical Conductivity of DW Besin Start [ps/cm] Electical Conductivity of DW Tanks Tanks [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks Tanks [ps/cm] Electical Conductivity of DW Electical Conductivity Electical Conductivity of DW Electical Conductivity Electical Conductivity Electical Conductivity Electical Conductivity El | Air Flow Measurement [Feet Per Minute] Indet Air Terep. [*F] Air Press. [inches 120] Left Exhaust Press. [inches 120] Left Exhaust Press. [inches 120] Boller MG Pressure [inches 120] Steam Press. Before Valve [psig] Steam Press. After Valve [psig] Steam Press. After Valve [psig] Electical Conductivity of DW Besin Start [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks Start [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of DW Tanks End [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ St [ps/cm] Electical Conductivity of PW @ Elec |
								H																							
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |
| | | | | | | | | - | | | | | | | | | | | | | | | | | | | | | | | |
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |
| | | | | | | | | | | | _ | | | | | | | | | | | | | | | | | | | | |
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |
| | | | | | | | | | | | _ | | | | | _ | | | | | | | | | | | | | | | |
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |
| | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | |
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |
| | | | | | | | | | | | | | | | | - | | | | | | | | | | | | | | | |
 | | | | |
 | | | | |
 | | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | | |
 | | | |
 | | | | |
 | | | | |



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 450, Englewood, CO 80111
PHONE: 303.993.1950 FAX: 303.993.1955

November 30, 2010

Mr. Wayne Price 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, 2011

VIA UNITED STATES POSTAL SERVICE

Dear Wayne and 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 January 27, 2010. Please also find copies of the water quality analytical test results received from third party water quality laboratories with respect to tests conducted on the produced water at our facility. Finally, we have also enclosed a copy of our test-bench protocol spreadsheet which outlines the various parameters and data points tracked during testing.

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.

Marthew Bruff

CDO

cc: Altela Day File

Enclosures as noted



					Alemo P	A pessingol	later Thacking	Summery			
No	Date	Transport Company	Contact at	Address	Phone Number	Fax Number	C133 Permit No.	Name of Originating Well (If Taken Away - NA)	Owner of Well	Delivered / Taken Away	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	Blackshawl Com #001 (San Juan Basin)	Merrion Oil and Gas Corporation	300 Gallons Delivered	+300 gallons
2	11/19/07	M&R-Trucking, Inc	John Dayis	Post Office Box 600, Farmington, NM 87499	(505) 326-5541	(505) 326-6002	C-133-66	NA .		300 Gallons Taken Away	0 gallons
3	11/19/07	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)	Memon Oil and Gas Corporation	300 Gallons Delivered	+300 gallons
4	6/16/08	Mountain States Hot Shot 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	2/8/10	Associated Global Systems	Pat Riedel	2300 Buena Vista S E., Albuquerque, NM 87106	(505) 842-2000	505-842-2002	Temp Exemption granted per attached letter dated Jan 27, 2010	Grant Project - Marcellus Basin	BLX, Inc.	599 Gallons Delivered	599 gallons
7	7/7/10		Kelvin Matthews	Post Office Box 600, Farmington, NM 87499	(505) 334-5541	(505) 326-6002	C-133-66	NA	Secretaria: Access and comments are controlled to the control of the control	205 Gallons Taken Away*	0 gallons
8	-,			American products to the management of the second s				,			,
9		Sammanagan impadial transfer and the same an								, 	
10									2 a		
11											
12							12.				
									who waster minimum, recommens and the control of which selections are control of the control of	A change of the figure and the contract of the	-an amount amountainess rigoness
ار د د الا	17 3 14 16 16 16 16 16 16 16 16 16 16 16 16 16				1				manana		
	annumber of the state of the st	market state a solidan diametric . Therefore account them						a Carantespecialis no reconnection and proportion between contents of proportion and contents of the contents	- November of the content of the con		-
. :					,						
							Actions was an annual			Same of the state	
		The state of the s		, Mg							1

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

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 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® 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® 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



Matt Bruff Altela Inc Permit EPWM 004 January 27, 2010 Page 2 of 2

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 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.

Sincerely,

Brad A. Jones

Environmental Engineer

BAJ/bai

cc: OCD District IV Office, Santa Fe



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

__. _ _..

Site: NETL Ross PW

Monitoring Pt:

Resutant CW

Source Type:

N/A

Collection Date:

02/18/10 17:25

Received Date: 02

02/23/10 11:03

Matrix: N/A

Collection Method:

Grab

02100762	Result	Reporting Limit	Method	Analysis Date	Analyst
Thorium 232	0.150 pCi/L	pCi/L	HSL-300m	3/19/10 13:34	6502103
Thorium 228	22.7 pCi/L	pCi/L	HSL-300M	3/19/10 13:32	6502103
Thorium 230	0.465 pCi/L	pCi/L	HSL-300m	3/19/10 13:34	6502103
Copper	2.0 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:16	AML .
Benzene	1.2 ug/L	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
pH	5.96 SU	SU	SM4500 H+B	2/24/10 15:21	AML
Total Dissolved Solids	345,680 mg/l	5 mg/l	SM 2540 C	2/23/10 11:49	RCS
Total Suspended Solids	_176 mg/L	3 mg/L	SM 2540 D	2/23/10 13:00	RCS
Oil & Grease	2.2 mg/l	5 mg/l	EPA 1664 Rev A	2/26/10 12:40	NJD
BOD	62.7 mg/L	2 mg/L	SM5210B	2/24/10 10:35	то
COD	3800 mg/L	10 mg/L	HACH 8000	3/10/10 7:22	NJD
Surfactants (MBAS)	0.184 mg/L	0.025 mg/L	SM20-5540 C	2/24/10 21:45	22-293
Color	20 pccu	5 pccu		2/23/10 11:16	WEH .

Degen C Holo

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Ross PW

Monitoring Pt:

Resutant CW

Source Type:

Site:

N/A

Collection Date:

02/18/10 17:25

Received Date: 0

02/23/10 11:03

Matrix: N/A

Collection Method:

Grab

02100762	Result	Reporting Limit	Method	Analysis Date	Analyst
Temperature (F), Field	NA	deg F	na	3/5/10 9:02	RCS
Osmotic Pressure	2970 mOs/kg	10 mOs/kg .	PA DEP	2/25/10 6:00	22-293
Ammonia	Completed	mg/L	SM 4500 NH3 B	2/25/10 8:42	WEḤ
Ammonia Nitrogen	267 mg/L	.10 mg/L	SM 4500 NH3 D	2/25/10 9:40	WEH
Nitrate	<5.0 mg/l	0.10 mg/l	EPA 300.0	2/24/10 12.52	AML
Nitrite	<5.0 mg/l	0.10 mg/l	EPA 300.0	2/24/10 12:51	AML
Nitrate / Nitrite	<10.0 mg/l	0.20 mg/l	EPA 300.0	-2/24/10 12:51	AML
Acidity	236.0 mg/L	3 mg/L	SM 2310 B	2/24/10 16:13	AML
Alkalinity	32.0 mg/l	5 mg/l	SM 2320 B	2/24/10 15:20	AML
Bicarbonate	32.0 mg/L	5 mg/L	SM4500 CO2 D	2/25/10 10:46	' AML
Sulfate	550.0 mg/l	1 mg/l	EPA 300.0	2/24/10 12:52	AML
Chloride	205200 mg/L	1 mg/L	EPA 300.0	2/24/10 12:53	AML
Fluoride	10.5 mg/l	0.20 mg/l	EPA 300.0	2/24/10 12:52	AML

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM **Confidential** Page 2 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Ross PW

Monitoring Pt:

Site:

Resutant CW

Source Type:

Collection Date:

02/18/10 17:25

02/23/10 11:03 **Received Date:**

Matrix: N/A

Collection Method:

Grab

02100762	Result	Reporting Limit	Method	Analysis Date	Analyst
Calcium	29,800 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	AML
Iron	2.4 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML
Iron, Dissolved	<0.4 mg/l	0.02 mg/l	EPA 200.7	3/12/10 13:47	AML
Magnesium	3120.0 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	AML
Potassium	1320 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:53	AML
Sodium	85,600 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:53	AML
Aluminum	<2.0 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:25	AML
Arsenic	<1.0 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Barium	148.0 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:28	AML
Beryllium	<1.0 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML
Cadmium	<1.0 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML ,
Chromium	<0.4 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Cobalt	<1.0 mg/L	0.001 mg/L	. EPA 200.7	3/10/10 13:59	AML

Degen C Holo

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 Page 3 of 10 3:52:06PM Confidential



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Ross PW

Monitoring Pt:

Site:

Pt: Resutant CW

Source Type:

N/A

Collection Date:

02/18/10 17:25

Received Date: 02

02/23/10 11:03

Matrix: N/A

Collection Method:

Grab

02100762	Result	Reporting Limit	Method	Analysis Date	Analyst
Manganese	8.2 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML
Molybdenum	<1.0 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML
Nickel	<1.0 mg/l	0.05 mg/l	EPA 200.7	2/26/10 14:51	AML
Selenium	<1.0 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:58	AML
Silver	<1.0 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:57	AML
Strontium, Total	4970 mg/L	1.5 mg/L	EPA 200.7	3/5/10 9:10	22-293
Thallium	<1.0 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:59	AML
Tin	<1.0 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:02	AML
Titanium	<10 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Zinc	<0.4 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Gross Alpha DW	. 1,912 PCi/L	3 PCi/L	EPA 900	3/3/10 11:49	6502103
Gross Beta DW	529 PCi/L	4 PCi/L	EPA 900	3/3/10 11:49	6502103
Radium 226	1,527 pCi/L	.6 pCi/L	EPA 903.1	3/19/10 11:47	6502103

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Ross PW

Monitoring Pt:

Site:

Pt: Resutant CW

Source Type:

N/A

Collection Date:

02/18/10 17:25

Received Date: 02

02/23/10 11:03

Matrix: N/A

Collection Method:

Grab

02100762	Result	Reporting Limit	Method	Analysis Date	Analyst
Radium 228 -	751 pCi/L	.9 pCi/L	EPA 904.0	3/18/10 11:48	6502103
Total Residual	<0.10 mg/L	0.10 mg/L	HACH 8167	2/23/10 15:39	RCS
Phenolics	ND	^ 0.01 mg/L	EPA 420.4	3/1/10 10:11	22-293
Uranium	ND	1.1 mg/L	SW846 6020A	3/8/10 14:52	22-293
Mercury, Total	ND	0.013 mg/L	EPA 245.1	3/1/10 12:01	22-293
Lead	<0.4 mg/L	0.02 mg/L	EPA 200.7	2/26/10 14:51	AML .
Lithium, Total	319 mg/L	30.0 mg/L	EPA 200.7	3/5/10 9:10	22-293
Boron	17.4 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:48	AML
Antimony	<1.0 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Silicon, Total	10.0 mg/L	10.0 mg/L	EPA 200.7	3/3/10 11:07	22-293
Bromide	2360.0 mg/l	0.10 mg/l	EPA 300.1	2/24/10 12:53	AML
Hardness, Total	87,259 mg/l	10 mg/l	EPA 200.7	2/26/10 13:43	AML ·
Heterotrophic Plate Count	32 /ml	1 /ml	SM 9215B	2/23/10 15:14	WEH

Degen C Stob.

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed. 3/25/2010 3:52:06PM **Confidential** Page 5 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Ross PW

Monitoring Pt:

Resutant CW

Source Type:

N/A

Collection Date:

02/18/10 17:25

Received Date:

02/23/10 11:03

Matrix: N/A

Collection Method:

Grab

02100762	Result	Reporting Limit	Method	Analysis Date	Analyst
Total Coliform	0 /100 mls	0 /100 mls	SM 9223B	2/23/10 15:14	WEH
E Coli	NA	+/-	SM 9223B	2/23/10 15:14	WEH
Specific Conductance	234,000 umhos/cm	2 umhos/cm	EPA 120.1	2/23/10 0:00	WEH -
Gasoline Range Organics	ND	500 ug/L	SW846 8015D	3/1/10 20:52	22-293
Diesel Range Organics C10-C28	1.0 mg/L	0.15 mg/L	SW846 8015D	2/28/10 1:53	22-293
Methane	ND	1.0 ug/L _.	RSK 175	2/26/10 20:39	22-293
Ethylene Glycol	ND .	10.0 mg/L	SW846 8015D	2/25/10 2:54	22-293
Alkalinity, Carbonate	ND	5 mg/L	SM20-2322	2/25/10 8:31 4	22-293
Alkalinity, Hydroxide	ND	5 mg/L · .	SM20-2320 B	2/25/10 8:31	22-293
Alkalinity, Phenolphthalein	ND	5 mg/L	SM20-2320 B	2/25/10 8:31	22-293
Total Kjeldahl Nitrogen	42.3 mg/L	1.0 mg/L	SM20-4500-N C	2/27/10 11:00	22-293
Formaldehyde	34.5 mg/L	1.0 mg/L	SW846 8015D	3/4/10 17:41	22-293
Acetone	978 ug/L	10.0 ug/L	SW846 8260B	3/1/10 7.00	22-293

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM **Confidential** Page 6 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Ross PW

Monitoring Pt:

Resutant CW

Source Type: N/A

Collection Date:

02/18/10 17:25

Received Date:

02/23/10 11:03

Matrix: N/A

Collection Method:

Grab

02100762	Result	Reporting Limit	Method	Analysis Date	Analyst
Silica, Dissolved	15 mg/L	1 ṁg/L	SM20-4500SiD	3/2/10 0:15	22-293
2-Hexanone	ND	5.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
4-Methyl-2-Pentan one(MIBK)	ND	5.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
2-Butanone	74.0 ug/L	10.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Ethene	ND	3.0 ug/L	RSK 175	2/26/10 20:39	22-293
Methanol .	11.3 mg/L	1.0 mg/L	SW846 8015D	3/7/10 20:54	22-293
o-Xylene	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
mp-Xylene	3.3 ug/L	2.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Chloromethane	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Ethane	, ND	3.0 ug/L	RSK 175	2/26/10 20:39	22-293
Chlorodibromomet hane	ND ·	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Chloroethane	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Chloroform	· ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293

Desem C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM **Confidential** Page 7 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Ross PW

Monitoring Pt:

Pt: Resutant CW

Source Type:

Site:

N/A

Collection Date:

02/18/10 17:25

Received Date: 02

02/23/10 11:03

Matrix: N/A

Collection Method:

Grab

02100762	Result	Reporting Limit	Method	Analysis Date	Analyst
Bromomethane	ND .	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Carbon Disulfide	ND .	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Bromide	2000 mg/L	1000 mg/L	EPA 300	3/2/10 6:42	22-293
Bromochlorometha ne	ND .	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Bromodichloromet hane	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
1,2-Dibromo-3-chl oropropane	· ND	7.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
1,2-Dibromoethan e	ND .	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
1,1,2,2-Tetrachioro ethane	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
1,1-Dichloroethane	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
1,1-Dichloroethene	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
cis-1,2-Dichloroeth	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Methylene Chloride	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
1,2-Dichloropropan e	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293

Degen C Hob

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM **Confidential** Page 8 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Altela **Customer:**

NETL Ross PW Site:

Monitoring Pt:

Resutant CW

Source Type:

N/A

Collection Date:

02/18/10 17:25

02/23/10 11:03 **Received Date:**

Matrix: N/A

Collection Method:

Grab

02100762	Result	Reporting Limit	Method	Analysis Date	Analyst
Chlorobenzene	ND	1 0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Tetrachloroethene	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Trichloroethene	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
trans-1,2-Dichloroe thene	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
trans-1,3-Dichlorop	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
cis-1,3-Dichloropro	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Carbon Tetrachloride	, ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
1,2-Dichloroethane	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Ethylbenzene	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Styrene	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Toluene	3.0 ug/L	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
1,1,1-Trichloroetha ne	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	· 22-293
1,1,2-Trichloroetha ne	ND	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
•		•			

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM Confidential Page 9 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Collection Date:

02/18/10 17:25

Site: NETL Ross PW

Received Date: 02/23/10 11:03

Monitoring Pt:

Matrix: N/A

Source Type: N/A

Collection Method:

Grab

02100762	Result	Reporting Limit	Method	Analysis Date	Analyst
Vinyl Chloride	24 8 ug/L	1.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Total Xylenes	4.1 ug/L	3.0 ug/L	SW846 8260B	3/1/10 7:00	22-293
Vanadium, Total	ND	_ 1.5 mg/L	EPA 200.7	3/5/10 9:10	22-293
Bromoform	ND	1.0 ug/L	SW846 8260B	. 3/1/10 7:00	22-293

Sample Comments:

BOD: Unseeded Blank depletion was greater than 0.2 mg/L limit.

Resutant CW

Degen C Stob

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM **Confidential** Page 10 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Ross PW

Monitoring Pt:

q Pt: Resultant DW

Source Type:

N/A

Collection Date:

02/18/10 17:25

Received Date: 02/2

02/23/10 11:06

Matrix: N/A

Collection Method:

Grab

02100763	Result	Reporting Limit	Method	Analysis Date	Analyst
Thorium 232	0.000 pCi/L	pCi/L	HSL-300m	3/18/10 13:35	6502103
Copper	<0.02 mg/l	, 0.02√mg/l	EPA 200.7	2/26/10 14:16	AML
Thorium 228	0.177 pCi/L	pCi/L	HSL-300M	3/18/10 13:32	6502103
Thorium 230	0.400 pCi/L	pCi/L	HSL-300m	3/18/10 13:34	6502103
Benzene	ND	1.0 ug/L ·	SW846 8260B	2/26/10 19:36	22-293
рН	8.58 SU	SU	SM4500 H+B	2/24/10 15:21	AML
Total Dissolved Solids	88 mg/l	5 mg/ł	SM 2540 C	2/23/10 11:49	RCS
Total Suspended Solids	<3 mg/L	3 mg/L	SM 2540 D	2/23/10 13:00 .	RCS
Oil & Grease	2.9 mg/l	5 mg/l	EPA 1664 Rev A.	2/26/10 12:40	NJD
BOD	> 75.3	2 mg/L	SM5210B	2/24/10 10:35	. то
COD	185 mg/L	10 mg/L	HACH 8000	3/10/10 7:22	NJD
Surfactants (MBAS)	ND	0.025 mg/L	SM20-5540 C	2/24/10 21:45	22-293
Color	< 5 pccu	5, pccu		2/23/10 11:16	WEH

Digen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM **Confidential** Page 1 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Collection Date:

02/18/10 17:25

Site: NETL Ross PW

Received Date:

02/23/10 11:06

Monitoring Pt:

Resultant DW

N/A

Matrix: N/A

Source Type:

Collection Method:

Grab

02100763	Result	Reporting Limit	Method	Analysis Date	Analyst
Temperature (F), Field	NA	deg F	na	3/5/10 9:02	RCS
Osmotic Pressure	27 mOs/kg	` 10 mOs/kg	PA DEP	2/25/10 6:00	22-293
Ammonia Distillation	Completed	mg/L	SM 4500 NH3 B	2/25/10 8:42	WEH .
Ammonia Nitrogen	6.99 mg/L	.10 mg/L	SM 4500 NH3 D	2/25/10 9:40	WEH .
Nitrate ,	<0.10 mg/l	0.10 mg/l	EPA 300.0	2/24/10 12:52	AML
Nitrite	<0.10 mg/l	0.10 mg/l	EPA 300.0	2/24/10 12:51	AML
Nitrate / Nitrite	<0.20 mg/l	. 0.20 mg/l	EPA 300.0	2/24/10 12:51	AML
Acidity	-18.0 mg/L	3 mg/L	SM 2310 B	2/24/10 16:13	AML
Alkalinity	30.0 mg/l	5 mg/l	SM 2320 B	2/24/10 15:20	AML,
Bicarbonate	29.0 mg/L	5 mg/L	SM4500 CO2 D	2/25/10 10:46	AML
Sulfate	3.1 mg/l	1 mg/l	EPA 300.0	2/24/10 12:52	AML
Chloride	45.1 mg/L	1 mg/L	EPA 300.0	2/24/10 12:53	AML
Fluoride	0,16 mg/l	0.20 mg/l	EPA 300.0	2/24/10 12:52	· AML

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Ross PW

Monitoring Pt:

t: Resultant DW

Source Type:

Site:

N/A

Collection Date:

02/18/10 17:25

Received Date:

02/23/10 11:06

Matrix: N/A

Collection Method:

Grab

02100763	Result	Reporting Limit	Method	Analysis Date	Analyst
Calcium	5.12 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	AML
Iron	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML
Iron, Dissolved	<0.02 mg/l	0.02 mg/l	EPA 200.7	3/12/10 13:47	AML
Magnesium	0.47 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	AML
Potassium	0.35 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:53	AML
Sodium	24.8 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:56	. AML ·
Aluminum	<0.10 mg/l	0.10.mg/l	EPA 200.7	2/26/10 14:25	AML
Arsenic	<0.5 mg/L	0:001 mg/L	EPA 200.7	3/10/10 14:01	AML
Barium	<0.10 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:28	AML
Beryllium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML
Cadmium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML
Chromium	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Cobalt	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3.52:06PM **Confidential** Page 3 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Altela **Customer:**

NETL Ross PW Site:

Resultant DW **Monitoring Pt:**

Source Type:

N/A

Collection Date:

02/18/10 17:25

Received Date:

02/23/10 11:06

Matrix: N/A

Collection Method:

Grab

02100763	Result	Reporting Limit	Method	Analysis Date	Analyst
Manganese	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML
Molybdenum	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML
Nickel	<0.05 mg/l	0.05 mg/l	EPA 200.7	2/26/10 14:51	AML .
Selenium	<0.5 mg/L	0.001 mg/L	EPA 200 7	3/10/10 13:58	AML
Silver	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:57	AML
Strontium, Total	0.70 mg/L	0.0025 mg/L	EPA 200.7	3/1/10 14:34	22-293
Thallium	<0.5 mg/L	0.001 mg/L	ÉPA 200.7	3/10/10 14:59	AML
Tin	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:02	AML .
Titanium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Zinc	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Gross Alpha DW	0.685 PC _I /L	3 PCi/L	.* EPA 900	3/3/10 11:49	6502103
Gross Beta DW	0.429 PCi/L	4 PCi/L	EPA 900	3/3/10 11:49	6502103
Radium 226	0.231 pCi/L	.6 pCi/L	EPA 903.1	3/17/10 11:47	6502103

Digen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Page 4 of 10 Printed: 3/25/2010 3:52:06PM Confidential



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Ross PW

Monitoring Pt: Resultant DW

Source Type: N/A

Collection Date:

02/18/10 17:25

Received Date: 02/2

02/23/10 11:06

Matrix: N/A

Collection Method:

Grab

02100763	Result	Reporting Limit	Method	Analysis Date	Analyst
Radium 228	0.434 pCi/L	.9 pCi/L	EPA 904.0	3/11/10 11:48	6502103
Total Residual	<0.10 mg/L	0.10 mg/L	HACH 8167	2/23/10 15:39	RCS
Phenolics	0.06 mg/L	0.01 mg/L	EPA 420.4	3/1/10 10:12 .	22-293
Uranium	ND	_ 1.1 mg/L	SW846 6020A	3/8/10 14:54	22-293
Mercury, Total	. ND	0.00050 mg/L	EPA 245.1	3/1/10 12:02	22-293
Lead	<0.02 mg/L	0.02 mg/L	EPA 200.7	2/26/10 14:51	AML
Lithium, Total	ND	0.050 mg/L	EPA 200.7	3/1/10 14:34	22-293
Boron	<0.02 mg/l	_0.02 mg/l	EPA 200.7	2/26/10 14:48	AML
Antimony	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Silicon, Total	0.20 mg/L	0.050 mg/L	EPA 200.7	3/3/10 11:11	22-293
Bromide	0.40 mg/l	0.10 mg/l	EPA 300 1	2/24/10 12:53	AML
Hardness, Total	15 mg/l	10 mg/l	EPA 200.7	2/26/10 13:43	AML
Heterotrophic Plate Count	5400 /ml	1 /ml	SM 9215B	2/23/10 15:14	WEH

Ryan C Shafer, Technical Director

Degen C Stol

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM **Confidential** Page 5 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

02/18/10 17:25

Lab Analysis Report

Customer: Altela

Site: NETL Ross PW

Monitoring Pt: Resultant DW

Source Type: N/A

Collection Date:

Received Date: 02/23/10 11:06

Matrix: N/A

Collection Method: Grab

02100763	Result	Reporting Limit	Method	Analysis Date	Analyst
Total Coliform	0 /100 mls	0 /100 mls	SM 9223B	2/23/10 15:14	WEH
E Coli	NA .	+/-	SM 9223B	2/23/10 15:14	. WEH
Specific Conductance	211 umhos/cm	2 umhos/cm	EPA 120.1	2/23/10 0:00	WEH
Gasoline Range Organics	ND	100 ug/L	SW846 8015D	2/27/10 0:36	22-293
Diesel Range Organics C10-C28	0.53 mg/L	0.15 mg/L	SW846 8015D	2/28/10 3:52	22-293
Methane	ND	1.0 ug/L	RSK 175	2/26/10 20:54	22-293
Ethylene Glycol	ND	10.0 mg/L	SW846 8015D	2/25/10 3:15	22-293
Alkalinity, Carbonate	9 mg/L	5 mg/L	SM20-2322	2/25/10 8:40	22-293
Alkalinity, Hydroxide	ND	5 mg/L	SM20-2320 B	2/25/10 8:40	22-293
Alkalinity, Phenolphthalein	ND	5 mg/L	SM20-2320 B	2/25/10 8:40	· 22-293
Total Kjeldahl Nitrogen	6.0 mg/L	1.0 mg/L	SM20-4500-N C	2/27/10 11:00°	22-293
Formaldehyde	1870 mg/L	500 mg/L	SW846 8015D	3/4/10 19:22	22-293
Acetone	195 ug/L	10 0 ug/L	SW846 8260B	2/26/10 19:36	22-293

Ryan C Shafer, Technical Director

Degen C Stole

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Ross PW

Monitoring Pt:

Pt: Resultant DW

Source Type:

NI/Δ

Collection Date:

02/18/10 17:25

Received Date: 02/23/

02/23/10 11:06

Matrix: N/A

Collection Method:

Grab

02100763	Result	Reporting Limit	Method	Analysis Date	Analyst
Silica, Dissolved	ND	1 mg/L	SM20-4500SiD	3/2/10 0:15	22-293
2-Hexanone	ND	5.0 ug/ L	SW846 8260B	2/26/10 19:36	22-293
4-Methyl-2-Pentan one(MIBK)	ND	5.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
2-Butanone	ND	10.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Ethene	ND	3.0 ug/L	RSK 1,75	2/26/10 20:54	22-293
Methanol	1030 mg/L	100 mg/L	SW846 8015D	3/3/10 19:07	22-293
o-Xylene	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
mp-Xylene	ND	2.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Chloromethane	, ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Ethane	ND	3.0 ug/L	RSK 175	2/26/10 20:54	22-293
Chlorodibromomet hane	ND .	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Chloroethane	NŌ	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Chloroform	ND	. · 1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM Confidential Page 7 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Altela **Customer:**

NETL Ross PW Site:

Monitoring Pt: Resultant DW

Source Type: N/A **Collection Date:** 02/18/10 17:25

Received Date: 02/23/10 11:06

Matrix: N/A

Collection Method: Grab

02100763	Result	Reporting Limit	Method	Analysis Date	Analyst
Bromomethane	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Carbon Disulfide	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Bromide	0.43 mg/L	0.30 mg/L	EPA 300	2/25/10 9:03	22-293
Bromochlorometha ne	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Bromodichloromet hane	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
1,2-Dibromo-3-chl oropropane	ND	7.0 ug/L	SW846 8260B	2/26/10 19:36	22-293 ,
1,2-Dibromoethan e	ND	. 1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
1,1,2,2-Tetrachloro ethane	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
1,1-Dichloroethane	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
1,1-Dichloroethene	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
cis-1,2-Dichloroeth ene	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Methylene Chloride	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
1,2-Dichloropropan e	ND	1.0 ug/L	,SW846 8260B	2/26/10 19:36	22-293
Ť,					

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 Page 8 of 10 3:52:06PM Confidential



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Collection Date:

02/18/10⁻ 17:25

Site: NETL Ross PW

Resultant DW

Received Date:

02/23/10 11:06

Monitoring Pt:

Matrix: N/A

Source Type: N/A

Collection Method:

Grab

02100763	Result	Reporting Limit	Method	Analysis Date	Analyst
Chlorobenzene	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Tetrachloroethene	ND	. 1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Trichloroethene	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
trans-1,2-Dichloroe thene	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293 ·
trans-1,3-Dichlorop ropene	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
cis-1,3-Dichloropro	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Carbon Tetrachloride	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
1,2-Dichloroethane	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Ethylbenzene	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Styrene	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Toluene	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
1,1,1-Trichloroetha ne	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
1,1,2-Trichloroetha ne .	ND .	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
			1		

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM **Confidential** Page 9 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Ross PW

Monitoring Pt:

: Resultant DW

Source Type:

Site:

N/A

Collection Date:

02/18/10 17:25

Received Date:

02/23/10 11:06

Matrix: N/A

Collection Method:

Grab

02100763	Result	Reporting Limit	Method	Analysis Date	Analyst
Vinyl Chloride	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Total Xylenes	ND .	3 0 ug/L	SW846 8260B	2/26/10 19:36	22-293
Vanadium, Total	ND	0.0025 mg/L	EPA 200.7	3/1/10 14:34	22-293
Bromoform	ND	1.0 ug/L	SW846 8260B	2/26/10 19:36	22-293

Sample Comments:

BOD: Unseeded Blank depletion was greater than 0.2 mg/L limit.

Degen C Stol

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:52:06PM **Confidential** Page 10 of 10.



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Frac water

Monitoring Pt: Resultant CW

Source Type: N

Collection Date:

02/22/10 14:45

Received Date: 02/24/10 10:20

Matrix: N/A

Collection Method:

Grab

02100809	Result	Reporting Limit	Method	Analysis Date	Analyst
Thorium 230	0.554 pCi/L	· pCi/L	HSL-300m	3/18/10 13:34	6502103
Thorium 232	0.111 pCı/L	pCi/L	HSL-300m	3/18/10 13:35	6502103
Bromoform	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Copper	0.8 mg/l	0.02 mg/l	EPA 200.7	2/26/10 .14:16	AML
Thorium 228	2.07 pCi/L	. pCi/L	HSL-300M	3/18/10 13:32	6502103
pН	7.58 SU	SU	SM4500 H+B	2/24/10 15:21	AML
Total Dissolved Solids	52,504 mg/l	5 mg/l	SM 2540 C	2/26/10 12:55	RCS
Total Suspended Solids	338 mg/L	3 mg/L	SM 2540 D	2/25/10 14:00	RCS
Oil & Grease	6.4 mg/l	5 mg/l	EPA 1664 Rev A	2/26/10 12:40	NJD .
BOD	373 mg/L	2 mg/L	SM5210B	2/25/10 9:38	то
COD	2275 mg/L	10 mg/L	HACH 8000	3/10/10 7:22	NJD
Surfactants (MBAS)	0.395 mg/L	0.025 mg/L	SM20-5540 C	2/25/10 23:00	22-293
Color	150 pccu	5 pccu		2/24/10 11:47	WEH

Degen C Stold

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 1 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Frac water Site:

02/22/10 14:45 02/24/10 10:20

Source Type:

Received Date: Matrix: N/A

Collection Date:

Monitoring Pt: Resultant CW

Collection Method:

Grab

02100809	Result	Reporting Limit	Method	Analysis Date	Analyst
Temperature (F), Field	NA	deg F	na	3/5/10 9:02	RCS
Osmotic Pressure	1620 mOs/kg	10 mOs/kg	PA DEP	2/26/10 6:50	22-293
Ammonia Distillation	Completed	mg/L	SM 4500 NH3 B	2/25/10 8:42	WEH
Ammonia Nitrogen	9.04 mg/L	.10 mg/L	SM 4500 NH3 D	2/25/10 9:40	WEH ·
Nitrate	< 5.0 mg/l	0.10 mg/l	EPA 300.0	2/24/10 0:00	AML
Nitrite	< 5 mg/l	0.10 mg/l	EPA 300.0	2/24/10 0:00	AML
Nitrate / Nitrite	< 10 mg/l	0.20 mg/l	EPA 300.0	2/24/10 0:00	AML
Acidity	14.0 mg/L	3 mg/L	SM 2310 B	2/24/10 16:13	AML
Alkalinity	160.0 mg/l	5 mg/l	SM 2320 B	2/24/10 15:20	AML
Bicarbonate	159.0 mg/L	5 mg/L	SM4500 CO2 D	2/25/10 10:46	AML
Sulfate	240 mg/l	1 mg/l	EPA 300.0	2/24/10 0.00	AML
Chloride	32400 mg/L	1 mg/L	EPA 300.0	2/24/10 0:00	AML
Fluoride	15.5 mg/l	0.20 mg/l	EPA 300.0	2/24/10 0:00	AML

Degen C Holo

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation

Printed: 3/25/2010 3:53:35PM Confidential Page 2 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Frac water

Site: NETL Fr Monitoring Pt:

t: Resultant CW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date: 02

02/24/10 10:20

Matrix: N/A

Collection Method:

Grab

02100809	Result	Reporting Limit	Method	Analysis Date	Analyst
Calcium	2540 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	AML
iron	10.8 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML
Iron, Dissolved	11.1 mg/l	0.02 mg/l	EPA 200.7	3/12/10 13:47	AML
Magnesium	240.0 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	AML
Potassium	. 180.0 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:53	AML
Sodium	15,840 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:53	AML
Aluminum	<2.0 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:25	AML
Arsenic `	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Barium	25.4 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:28	AML
Beryllium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML
Cadmium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML
Chromium	<0.4 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Cobalt	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML

Digen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 3 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 5 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Frac water Site:

Monitoring Pt: Resultant CW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date:

02/24/10 10:20

Matrix: N/A

Collection Method:

Grab

02100809	Result	Reporting Limit	Method	Analysis Date	Analyst
Manganese	<0.4 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML
Molybdenum	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML
Nickel	<1.0 mg/l	0.05 mg/l	EPA 200.7	,2/26/10 14:51	AML
Selenium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:58	AML
Silver	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:57	AML
Strontium, Total	305 mg/L	0.13 mg/L	EPA 200.7	3/4/10 14:10	22-293
Thallium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 .14:59	AML .
Tin	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:02	AML
Titanium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Zinc	<0.4 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Gross Alpha DW	-92.601 PCi/L	3 PCi/L	EPA 900	3/3/10 11:53	6502103
Gross Beta DW	2.46 PCi/L	4 PCi/L	EPA 900	3/3/10 11:53	6502103
Radium 226	86.2 pCi/L	.6 pCi/L	EPA 903.1	3/17/10 11:54	6502103

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Confidential Page 4 of 10 Printed: 3/25/2010 3:53:35PM



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Frac water

Monitoring Pt:

Pt: Resultant CW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date:

02/24/10 10:20

Matrix: N/A

Collection Method:

Grab

02100809	Result	Reporting Limit	Method	Analysis Date	Analyst -
Radium 228	16.9 pCi/L	.9 pCi/L	EPA 904.0	3/11/10 11:54	6502103
Phenolics	0.06 mg/L	0.01 mg/L	EPA 420.4	3/1/10 11:26	22-293
Uranium	ND	0.050 mg/L	SW846 6020A	3/3/10 21:46	22-293
Mercury, Total	ND	0.00050 mg/L	EPA 245.1	3/1/10 12:03	22-293
Lead	<0.4 mg/L	0.02 mg/L	EPA 200.7	2/26/10 14:51,	AML
Lithium, Total	32.0 mg/L	2.5 mg/L	EPA 200.7	3/4/10 14:10	22-293
Boron	10.0 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:48	AML
Antimony	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Silicon, Total	22 1 mg/L	′ 2.5 mg/L	EPA 200.7	3/3/10 11:34	22-293
Bromide	, 467.5 mg/l	. 0.10 mg/l	EPA 300.1	2/24/10 0:00	AML
Hardness, Total	7331 mg/l	10 mg/i	EPA 200.7	2/26/10 13:43	AML
Heterotrophic Plate Count	58000 /ml	1 /ml	SM 9215B	2/24/10 15:30	WEH
Total Coliform	0 /100 mls	0 /100 mls	SM 9223B	2/24/10 15:50 .	WEH

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 5 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Frac water

Monitoring Pt: R

q Pt: Resultant CW

Source Type:

Site:

N/A

Collection Date:

02/22/10 14:45

Received Date: 02/2

02/24/10 10:20

Matrix: N/A

Collection Method:

Grab

02100809	Result	Reporting Limit	Method	Analysis Date	Analyst
E Coli	NA	+/-	SM 9223B	2/24/10 15:50	WEH
Specific Conductance	76,600 umhos/cm	2 umhos/cm	EPA 120.1	2/26/10 0:00	то
Gasoline Range Organics	2560 ug/L	2500 ug/L	SW846 8015D	3/4/10 1:55	22-293
Diesel Range Organics C10-C28	3.5 mg/L	0.76 mg/L	SW846 8015D	3/3/10 10:17	22-293
Methane .	- 5.5 ug/L	1.0 ug/L	RSK 175	2/26/10 21:12	22-293
Ethylene Glycol	33.2 mg/L·	10.0 mg/L	SW846 8015D	3/5/10 20:01	22-293
Alkalinity, Carbonate	. ND	5 mg/L	SM20-2322	2/26/10 11:22	22-293
Alkalinity, Hydroxide	ND	5 mg/L	SM20-2320 B	2/26/10 11:22	22-293
Alkalinity, Phenolphthalein	ND .	5 mg/L	SM20-2320 B	2/26/10 11:22	22-293
Total Kjeldahl Nitrogen	5.4 mg/L	1.0 mg/L	SM20-4500-N C	3/1/10 19:44	22-293
Formaldehyde	ND	1.0 mg/L	SW846 8015D	3/4/10 18:02	22-293
Acetone	1850 ug/L	50.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Silica, Dissolved	142 mg/L	10 mg/L	SM20-4500SiD	3/2/10 0:15	22-293

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 6 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Frac water

Monitoring Pt:

Pt: Resultant CW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date: 02/24

02/24/10 10:20

Matrix: N/A

Collection Method:

Grab

02100809	Result	Reporting Limit	Method	Analysis Date	Analyst
2-Hexanone	ND	25.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
4-Methyl-2-Pentan one(MIBK)	ND	25.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
2-Butanone	ND	50.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Ethene	ND	3.0 ug/L	RSK 175	2/26/10 21:12	22-293
Methanol	ND	1.0 mg/L	SW846 8015D	9/8/10 21:51	22-293
o-Xylene	6.4 ug/L	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
mp-Xylene	34.2 ug/L	10.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Chloromethane	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Ethane	3.5 ug/L	3.0 ug/L	RSK 175	2/26/10 21:12	22-293
Chlorodibromomet hane	ND	. 5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Chloroethane	ND ,	5.0 ug/L	SW846 8260B	2/26/10, 21:08	22-293
Chloroform	ND .	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Bromomethane	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed .3/25/2010 3:53:35PM **Confidential** Page 7 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Frac water Site:

Resultant CW Monitoring Pt:

Source Type:

Collection Date:

02/22/10 14:45

02/24/10 10:20 Received Date:

Matrix: N/A

Collection Method: Grab

02100809	Result	Reporting Limit	Method	Analysis Date	Analyst
Carbon Disulfide	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Bromide	425 mg/L [′]	150 mg/L	EPA 300	2/26/10 5:06	22-293
Bromochlorometha ne	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Bromodichloromet hane	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
1,2-Dibromo-3-chl oropropane	ND	35.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
1,2-Dibromoethan´ e	ŅĎ	5.0 ug/L	SW846 8260B	2/26/10 21:08	. 22-293
1,1,2,2-Tetrachloro ethane	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
1,1-Dichloroethane	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
1,1-Dichloroethene	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
cis-1,2-Dichloroeth ene	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Methylene Chloride	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
1,2-Dichloropropan e	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Chlorobenzene	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293

Degen C. Holo

Ryan C Shafer, Technical Director -

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM Confidential Page 8 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Frac water

Site: NET

iac water

Monitoring Pt:

Resultant CW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date:

02/24/10 10:20

Matrix: N/A

Collection Method:

Grab

02100809	Result	Reporting Limit	Method	Analysis Date	Analyst
Tetrachloroethene	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Trichloroethene	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
trans-1,2-Dichloroe thene	ND ·	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
trans-1,3-Dichlorop ropene	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
cis-1,3-Dichloropro	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Benzene	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Carbon Tetrachloride	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
1,2-Dichloroethane	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Ethylbenzene	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Styrene	ND	′5.0′ug/L	SW846 8260B	2/26/10 21:08	22-293
Toluene	11:8 ug/L	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
1,1,1-Trichloroetha	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
1,1,2-Trichloroetha ne	ND	, 5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293

Dejen C Mola

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 9 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Frac water

Monitoring Pt:

Pt: Resultant CW

Source Type:

Site:

NI/Δ

Collection Date:

02/22/10 14:45

Received Date: 02

02/24/10 10:20

Matrix: N/A

Collection Method:

Grab

02100809	Result	Reporting Limit	Method	Analysis Date	Analyst
Vinyl Chloride	ND	5.0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Total Xylenes	40.6 [.] ug/L	15 0 ug/L	SW846 8260B	2/26/10 21:08	22-293
Vanadium, Total	ND	0.13 mg/L	EPA 200.7	3/4/10 14:10	22-293

Sample Comments:

BOD: Unseeded Blank depletion was greater than 0.2 mg/L limit.

Degen C Stob

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 10 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Frac Water

Monitoring Pt: Resultant DW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date: 02/24/1

02/24/10 10:21

Matrix: N/A

Collection Method:

Grab

02100810	Result	Reporting Limit	Method	Analysis Date	Analyst
Thorium 230	0.244 pCi/L	pCı/L	HSL-300m	3/18/10 13:34	6502103
Thorium 232	0.027 pCi/L	pCi/L	HSL-300m	3/18/10 13:35	6502103
Bromoform	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Copper	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:16	AML
Thorium 228	0.236 pCi/L	pCı/L	HSL-300M	3/18/10 13:32	6502103
рН	9.22 SU	SU	SM4500 H+B	2/24/10 15:21	AML .
Total Dissolved Solids	198 mg/l	5 mg/l	SM 2540 C	2/26/10 12:55	RCS
Total Suspended Solids	<3 mg/L	3 mg/L	SM 2540 D	2/25/10 14:00	RCS
Oil & Grease	1.3 mg/l	5 mg/l	EPA 1664 Rev A	2/26/10 12:40	NJD ·
BOD	74.3 mg/L	· 2 mg/L	SM5210B	2/25/10 9:38	то
COD	194 mg/L	10 mg/L	HACH 8000	3/10/10 7:22	NJD
Surfactants (MBAS)	ND	0.025 mg/L	SM20-5540 C	- 2/25/10 23:00	22-293
Color	< 5 pccu	5 pccu		2/24/10 11:47	WEH

Digen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM Confidential Page 1 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Frac Water

Monitoring Pt: Resultant DW

Source Type:

Collection Date:

02/22/10 14:45

Received Date: 02/24/10 10:21

Matrix: N/A

Collection Method:

Grab

02100810	Result	Reporting Limit	Method	Analysis Date	Analyst
Temperature (F), Field	NA	deg F	na	3/5/10 9:02	RCS
Osmotic Pressure	ND	10 mOs/kg	PA DEP	2/26/10 6:50	22-293
Ammonia Distillation	Completed	mg/L	SM 4500 NH3 B	2/25/10 8:42	WEH
Ammonia Nitrogen	8.22 mg/L	.10 mg/L	SM 4500 NH3 D	2/25/10 9:40	WEH
Nitrate	< 0.10 mg/l	0.10 mg/l	EPA 300.0	2/24/10 0:00	AML
Nitrite	< 0.10 mg/l	0.10 mg/l	EPA 300.0	2/24/10 0:00	AML
Nitrate / Nitrite	< 0.20 mg/l	0.20 mg/l	EPA 300.0	2/24/10 0:00	AML
Acidity	-118.0 mg/L	3 mg/L	SM 2310 B	2/24/10 16:13	AML
Alkalinity	38.0 mg/l	5 mg/l	SM 2320 B	2/24/10 15:20	AML
Bicarbonate	32.0 mg/L	5 mg/L	SM4500 CO2 D	2/25/10 10:46	AML
Sulfate	2.4 mg/l	1 mg/l	EPA 300.0	2/24/10 0:00	AML
Chloride	23.2 mg/L	1 mg/L	EPA 300.0	2/24/10 0:00	AML
Fluoride	0.14 mg/l	0.20 mg/l	EPA 300.0	2/24/10 0:00	AML

Degen C Holo

Ryan C Shafer, Technical Director

Printed: 3/25/2010 3:53:35PM **Confidential** Page 2 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Collection Date:

02/22/10 14:45

Site: NETL Frac Water

Received Date: 02/24/

02/24/10 10:21

Monitoring Pt: Source Type:

N/A .-

Resultant DW

Matrix: N/A
Collection Method:

Grab

02100810	Result	Reporting Limit	Method	Analysis Date	Analyst
Calcium	1.91 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	· AML -
Iron	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML ,
Iron, Dissolved	0.04 mg/l	0.02 mg/l	EPA 200.7	3/12/10 13:47	AML
Magnesium	0.17 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	AML
Potassium	0.14 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:53	AML
Sodium	14.3 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:56	AML
Aluminum	<0.10 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:25	AML
Arsenic	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Barium	<0.10 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:28	. AML
Beryllium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML
Cadmium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML
Chromium	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Cobalt	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Frac Water

Monitoring Pt:

t: Resultant DW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date: 02/24

02/24/10 10:21

Matrix: N/A

Collection Method:

Grab

02100810	Result	Reporting Limit	Method	Analysis Date	Analyst
Manganese	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML
Molybdenum	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML
Nickel	<0.05 mg/l	0.05 mg/l	" EPA 200.7	2/26/10 14:51	AML
Selenium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:58	AML
Silver	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:57	AML
Strontium, Total	0.23 mg/L	0.0025 mg/L	EPA 200.7	3/1/10 19:48	22-293
Thallium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:59	AML
Tin	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:02	AML
Titanium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Zinc .	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Gross Alpha DW	-0.127 PCi/L	3 PCi/L	EPA 900	3/3/10 11:53	6502103
Gross Beta DW	0.481 PCi/L	4 PCi/L	EPA 900	3/3/10 11:53	6502103
Radium 226	0.144 pCi/L	6 pCı/L	EPA 903.1	3/17/10 11:54	6502103

Degen C Stober.

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** . Page 4 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Frac Water

Monitoring Pt: Resultant DW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date: 02/24/

02/24/10 10:21

Matrix: N/A

Collection Method:

Grab

02100810	Result	Reporting Limit	Method	Analysis Date	Analyst
Radium 228	0.238 pCi/L	.9 pCı/L	EPA 904.0	3/11/10 11:54	6502103
Phenolics	0.06 mg/L	0.01 mg/L	EPA 420.4	3/1/10 11:27	22-293
Uranium .	ND	0.0050 mg/L	SW846 6020A	3/3/10 21:17	22-293
Mercury, Total	ND	0.00050 mg/L	EPA 245.1	3/1/10 12:04	22-293
Lead	<0.02 mg/L	0.02 mg/L	EPA 200.7	2/26/10 14:51	AML [`]
Lithium, Total	, ND	0.050 mg/L	EPA 200.7	3/1/10 19:48	22-293
Boron	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:48 [*]	AML
Antimony	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Silicon, Total	0.12 mg/L	0.050 mg/L	EPA 200.7	3/3/10 11:55	22-293
Bromide	0.23 mg/l	0.10 mg/l	EPA 300.1	2/24/10 0:00	AML
Hardness, Total	<10 mg/l	10 mg/l	EPA 200.7	2/26/10 13:43	AML
Heterotrophic Plate Count	5000 /ml	1 /ml 、	SM 9215B	2/24/10 15:30	WEH
Total Coliform	0 /100 mls	0 /100 mls	SM 9223B	2/24/10 15:50	WEH

Degen C Holo

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 5 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

.

Site: NETL Frac Water

Monitoring Pt:

t: Resultant DW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date:

02/24/10 10:21

Matrix: N/A

Collection Method:

Grab

Result	Reporting Limit	Method	Analysis Date	Analyst
NA	+/-	SM 9223B	2/24/10 15:50	WEH
130 umhos/cm	2 umhos/cm	EPA 120.1	2/26/10 0:00	., то.
266 ug/L	100 ug/L	SW846 8015D	3/2/10 5:54	22-293
1.4 mg/L	0.15 mg/L	SW846 8015D	3/2/10 19:28	22-293
ND	1.0 ug/L	RSK 175	3/2/10 14:54	22-293
ND	10.0 mg/L	SW846 8015D	3/5/10 20:21	22-293
15 mg/L	5 mg/L	SM20-2322	2/26/10 11:30	22-293
ND	5 mg/L	SM20-2320 B	2/26/10 11:30	22-293
7 mg/L	5 mg/L	SM20-2320 B	2/26/10 11:30	22-293
7.2 mg/L	1.0 mg/L	SM20-4500-N C	. 3/2/10 12:30	22-293
71.4 mg/L	1.0 mg/L	SW846 8015D	3/4/10 18:14	22-293
985 ug/L	10.0.ug/L	SW846 8260B	2/26/10 20:37	22-293
ND	1 mg/L	SM20-4500SiD	3/2/10 0:15	22-293
	NA 130 umhos/cm 266 ug/L 1.4 mg/L ND ND 15 mg/L ND 7 mg/L 7.2 mg/L 71.4 mg/L 985 ug/L	NA +/- 130 umhos/cm 2 umhos/cm 266 ug/L 100 ug/L 1.4 mg/L 0.15 mg/L ND 1.0 ug/L ND 10.0 mg/L 15 mg/L 5 mg/L ND 5 mg/L 7 mg/L 5 mg/L 7.2 mg/L 1.0 mg/L 71.4 mg/L 1.0 mg/L 985 ug/L 10.0 ug/L	NA +/- SM 9223B 130 umhos/cm 2 umhos/cm EPA 120.1 266 ug/L 100 ug/L SW846 8015D 1.4 mg/L 0.15 mg/L SW846 8015D ND 1.0 ug/L RSK 175 ND 10.0 mg/L SW846 8015D 15 mg/L 5 mg/L SM20-2322 ND 5 mg/L SM20-2320 B 7 mg/L 5 mg/L SM20-2320 B 7.2 mg/L 1.0 mg/L SM20-4500-N C 71.4 mg/L 1.0 mg/L SW846 8015D 985 ug/L 10.0 ug/L SW846 8260B	NA +/- SM 9223B 2/24/10 15:50 130 umhos/cm 2 umhos/cm EPA 120.1 2/26/10 0:00 266 ug/L 100 ug/L SW846 8015D 3/2/10 5:54 1.4 mg/L 0.15 mg/L SW846 8015D 3/2/10 19:28 ND 1.0 ug/L RSK 175 3/2/10 14:54 ND 10.0 mg/L SW846 8015D 3/5/10 20:21 15 mg/L 5 mg/L SM20-2322 2/26/10 11:30 ND 5 mg/L SM20-2320 B 2/26/10 11:30 7 mg/L 5 mg/L SM20-2320 B 2/26/10 11:30 7.2 mg/L 1.0 mg/L SM20-4500-N C 3/2/10 12:30 71.4 mg/L 1.0 mg/L SW846 8015D 3/4/10 18:14 985 ug/L 10.0 ug/L SW846 8260B 2/26/10 20:37

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 6 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Frac Water

Monitoring Pt:

Resultant DW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date:

02/24/10 10:21

Matrix: N/A

Collection Method:

Grab

02100810	Result	Reporting Limit	Method	Analysis Date	Analyst
2-Hexanone	ND .	5.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
4-Methyl-2-Pentan one(MIBK)	ND	5.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
2-Butanone	ND	10.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Ethene	ND	3.0 ug/L	RSK 175	3/2/10 14:54	22-293
Methanol	22.3 mg/L	1.0 mg/L	SW846 8015D	9/8/10 22:07	22-293
o-Xylene	ND	1.0 ug/L ⁻	SW846 8260B	2/26/10 20:37	22-293
mp-Xylene	ND	2.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Chloromethane	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Ethane	ND	3.0 ug/L	RSK 175	3/2/10 14:54	22-293
Chlorodibromomet hane	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Chloroethane	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Chloroform	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Bromomethane	ND .	1 0 ug/L	SW846 8260B	2/26/10 20:37	22-293

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 7 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Frac Water

Monitoring Pt:

Pt: Resultant DW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date: 02

02/24/10 10:21

Matrix: N/A

Collection Method:

Grab

02100810	Result	Reporting Limit	Method	Analysis Date	Analyst
Carbon Disulfide	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Bromide	0.21 mg/L	0.10 mg/L	EPA 300	2/26/10 5:21	22-293
Bromochlorometha ne	ND	1.0 ug/L .5	SW846 8260B	2/26/10 20:37	22-293
Bromodichloromet hane	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
1,2-Dibromo-3-chl oropropane	, ND	7.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
1,2-Dibromoethan	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
1,1,2,2-Tetrachioro ethane	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
1,1-Dichloroethane	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
1,1-Dichloroethene	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
cis-1,2-Dichloroeth •	ND .	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Methylene Chloride	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
1,2-Dichloropropan e	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Chlorobenzene	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 8 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

.

Site: NETL Frac Water

Monitoring Pt:

Resultant DW

Source Type:

N/A

Collection Date:

02/22/10 14:45

Received Date:

02/24/10 10:21

Matrix: N/A

Collection Method:

Grab

02100810	Result	Reporting Limit	Method	Analysis Date	Analyst
Tetrachloroethene	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Trichloroethene	NĎ	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
trans-1,2-Dichloroe thene	ND ·	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
trans-1,3-Dichlorop ropene	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
cis-1,3-Dichloropro pene	ND · ·	1.0 ug/L	SW846 8260B	2/26/10 20:37 ·	22-293
Benzene	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Carbon Tetrachloride	ND .	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
1,2-Dichloroethane	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Ethylbenzene	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Styrene	ND	1.0 ug/L₌	SW846 8260B	2/26/10 20:37	22-293
Toluene	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
1,1,1-Trichloroetha	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
1,1,2-Trichloroetha	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293

Digen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 9 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Collection Date:

02/22/10 14:45

Site:

NETL Frac Water

Received Date: 02/24/10 10:21

Monitoring Pt:

Resultant DW

Matrix: N/A

Source Type:

Collection Method:

Grab

02100810	Result	Reporting Limit	Method	Analysis Date	Analyst
Vinyl Chloride	ND	1.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Total Xylenes	ND	3.0 ug/L	SW846 8260B	2/26/10 20:37	22-293
Vanadium, Total	ND	0.0025 mg/L	EPA 200.7	3/1/10 19:48	22-293

Sample Comments:

BOD: Unseeded Blank depletion was greater than 0.2 mg/L limit.

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:53:35PM **Confidential** Page 10 of 10 ·



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Flowback Water

Monitoring Pt: F

Resultant CW

Source Type:

Site:

N/A

Collection Date:

02/23/10 17:55

Received Date: 02/25/10 11:10

Matrix: N/A

Collection Method:

Grab

	•			, .	
02100864	Result	Reporting Limit	Method	Analysis Date	Analyst
Thorium 228	5.31 pCı/L	pCi/L	HSL-300M	3/19/10 13:35	6502103
Thorium 230	0.635 pCi/L	pCi/L	HSL-300m	3/19/10 13:36	6502103
Thorium 232	0.276 pCi/L	pCi/L	HSL-300m	3/19/10 13:36	6502103
Copper	0.8 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:16	AML
Bromoform	ND _,	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
рН	6.90 SU	su	SM4500 H+B	2/25/10 15:10	AML
Total Dissolved Solids	113,460 mg/l	5 mg/l	SM 2540 C	2/26/10 12:55	RCS
Total Suspended Solids	32 mg/L	3 mg/L	SM 2540 D	2/25/10 14:00	RCS
Oil & Grease	1.4 mg/l	5 mg/l	EPA 1664 Rev A	2/26/10 12:40	NJD
BOD	> 379	2 mg/L	SM5210B	2/26/10 9:13	то
COD	1040 mg/L	10 mg/L .	HACH 8000	3/10/10 7:22	. NJD
Surfactants (MBAS)	0.184 mg/L	0.025 mg/L	SM20-5540 C	2/26/10 21:45	22-293
Color	250 pccu	5 pccu		2/25/10 11:36	WEH

Degen C Stole.

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM **Confidential** Page 1 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Flowback Water

Site: Monitoring Pt: . Resultant CW

Source Type:

N/A .

Collection Date:

02/23/10 17:55

Received Date:

02/25/10 11:10

Matrix: N/A

Collection Method:

Grab

02100864	Result	Reporting Limit	Method	Analysis Date	Analyst
Temperature (F), Field	. NA	deg F	na	3/5/10 9:02	RCS
Osmotic Pressure	3440 mOs/kg	10 mOs/kg	PA DEP	2/27/10 4:35	22-293
Ammonia Distillation	Completed	mg/L	SM 4500 NH3 B	3/3/10 13:51	WEH
Ammonia Nitrogen	28.2 mg/L	.10 mg/L	SM 4500 NH3 D	3/4/10 14:58	WEH
Nitrate	<5.0 mg/l	0.10 mg/l	EPA 300.0	2/26/10 10:43	AML
Nitrite	<5.0 mg/l	0.10 mg/l	EPA 300.0	2/26/10 10:44	AML
Nitrate / Nitrite .	<10.0 mg/l	0.20 mg/l	EPA 300.0	2/26/10 10:43	AML -
Acidity	50.0 mg/L	3 mg/L	SM 2310 B	2/25/10 15:09	AML
Alkalinity	148.0 mg/l	5 mg/l	SM 2320 B	2/25/10 15:10	AML
Bicarbonate	148.0 mg/L	5 mg/L	SM4500 CO2 D	2/25/10 10:46	AML
Sulfate	275.0 mg/l	1 mg/l	EPA 300.0	2/26/10 10:45	AML
Chloride	64,800 mg/L	1 mg/L	EPA 300.0	2/26/10 10:42	AML
Fluoride	12.0 mg/l	0.20 mg/l	EPA 300.0	2/26/10 10:45	AML

Degen C. Holo

Ryan C Shafer; Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM Confidential Page 2 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Flowback Water

Monitoring Pt:

Resultant CW

Source Type:

Site:

NI/A

Collection Date:

02/23/10 17:55

Received Date: 02

02/25/10 11:10

Matrix: N/A

Collection Method:

Grab

02100864	Result	Reporting Limit	Method	Analysis Date	Analyst
Calcium	6780 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	AML
Iron	16.6 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML
Iron, Dissolved	16.7 mg/l	0.02 mg/l	EPA 200.7	3/12/10 13:47	AML
Magnesium	660.0 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	AML
Potassium	360.0 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:53	AML
Sodium	32,200 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:53	AML
Aluminum	<2.0 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:25	AML
Arsenic	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Barium	45.4 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:28	AML
Beryllium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML ·
Cadmium	<0.5 mg/L	0.001 mg/L	· EPA 200.7	3/10/10 14:00	AML
Chromium	<0.4 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	~AML
Cobalt	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML

Degen C Molo

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM **Confidential** Page 3 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Flowback Water

Site: **Monitoring Pt:** Resultant CW

Source Type: N/A **Collection Date:** 02/23/10 17:55

02/25/10 11:10 **Received Date:**

Matrix: N/A

Collection Method: Grab

02100864	Result	Reporting Limit	Method	Analysis Date	Analyst
Manganese	2.6 mg/l	0.02 mg/l	EPA 200 7	2/26/10 14:26	AML
Molybdenum	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML
Nickel	<1.0 mg/l	0.05 mg/l	EPA 200.7	2/26/10 14:51	AML
Selenium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:58	AML .
Silver	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:57	AML
Strontium, Total	788 mg/L	0.25 mg/L	EPA 200.7	3/4/10 10:25	22-293
Thallium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:59	AML
Tin	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:02	AML
Titanium	<0.5 mg/L	0.00 ¹ mg/L	EPA 200.7	3/10/10 14:01	AML
Zinc	<0.4 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Gross Alpha DW	15.8 PCi/L	3 PCi/L	EPA 900	3/3/10 11:56	6502103
Gross Beta DW	86.5 PCi/L	4 PCi/L	EPA 900	3/3/10 11:57.	6502103
Radium 226	46.6 pCi/L	.6 pCi/L	EPA 903.1	3/17/10 11:58	6502103

Degen C Stob

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM Confidential Page 4 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Flowback Water

Monitoring Pt:

Resultant CW

Source Type:

Site:

N/A

Collection Date:

02/23/10 17:55

Received Date:

02/25/10 11:10

Matrix: N/A

Collection Method:

Grab

02100864	Result	Reporting Limit	Method	Analysis Date	Analyst
Radium 228	17.9 pCi/L	.9 pCí/L	EPA 904.0	3/18/10 11:58	6502103
Phenolics	0.02 mg/L	0.01 mg/L	EPA 420.4	3/1/10 11:48	22-293
Uranium	ND	0.050 mg/L	SW846 6020A	3/3/10 21:56	22-293
Mercury, Total	ND	0.010 mg/L	EPA 200.8	3/4/10 8:29	22-293
Lead	<0.4 mg/L	0.02 mg/L	EPA 200.7	2/26/10 14:51	AML.
Lithium, Total	66.1 mg/L	5.0 mg/L	EPA 200.7	3/4/10 10:25	22-293
Boron	17.0 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:48	AML
Antimony	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Silicon, Total	26.6 mg/L	5.0 mg/L	EPA 200.7	3/3/10 11:59	22-293
Bromide	995.0 mg/l	0.10 mg/l	EPA 300.1	2/26/10 10:44	AML
Hardness, Total	19,648 mg/l	· 10 mg/l	EPA 200.7	2/26/10 13:43	AML
Heterotrophic Plate Count	8,200 /ml	1 /ml	SM 9215B	2/25/10 15:37	WEH
Total Coliform	0 /100 mls	0 /100 mls	SM 9223B	2/25/10 15:35	WEH

Degen & Molo

Ryan C Shafer, Technical Director

Printed: 3/25/2010 3:54:21PM **Confidential** Page 5 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Flowback Water

Monitoring Pt: Resultant CW

Source Type:

Collection Date:

02/23/10 17:55

Received Date: 02/25/10 11:10

Matrix: N/A

Collection Method:

Grab

02100864	Result	Reporting Limit	Method	Analysis Date	Analyst
E Coli	NA	+/-	SM 9223B	2/25/10 15:35	WEH
Specific Conductance	143,500 umhos/cm	2 umhos/cm	EPA 120.1	2/26/10 0:00	то
Gasoline Range Organics	2850 ug/L	2500 ug/L	SW846 8015D	3/4/10 1:21	22-293
Diesel Range Organics C10-C28	5.1 mg/L	0.75 mg/L	SW846 8015D	3/3/10 11:16	22-293
Methane	ND ·	1.0 ug/L	RSK 175	3/2/10 15:10	22-293
Ethylene Glycol	ND .	10.0 mg/L	SW846 8015D	3/6/10 1:13	22-293
Alkalinity, Carbonate	ND	5 mg/L	SM20-2322	2/27/10 7:14	22-293
Alkalınity, Hydroxide	, ND	5 mg/L	SM20-2320 B	2/27/10 7:14	22-293
Alkalinity, Phenolphthalein	ND	5 mg/L	SM20-2320 B	2/27/10 7:14	22-293
Total Kjeldahl Nitrogen	47.0 mg/L	4.0 mg/L	SM20-4500-N C	3/8/10 11:20	22-293
Formaldehyde	ND	1.0 mg/L	SW846 8015D	3/4/10 18:25	22-293
Acetone	661 ug/L	10.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Silica, Dissolved	14 mg/L	1 mg/L	SM20-4500SiD	3/2/10 0:15	22-293

Degen C Holo

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM **Confidential** Page 6 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Altela **Customer:**

NETL Flowback Water

Monitoring Pt: . Resultant CW

Source Type: N/A **Collection Date:**

02/23/10 17:55

Received Date: 02/25/10 11:10

Matrix: N/A

Collection Method:

Grab

02100864	Result	Reporting Limit	Method	Analysis Date	Analyst	
2-Hexanone	ND	5.0 ug/L	SW846 8260B	3/1/10 23:39	22-293	_
4-Methyl-2-Pentan one(MIBK)	ND `	5.0 ug/L	SW846 8260B	3/1/10 23:39	22-293	
2-Butanone	46.6 ug/L	10.0 ug/L	SW846 8260B	3/1/10 23:39	22-293	
Ethene	ND ·	· 3.0 ug/L	RSK 175	3/2/10 15:10	22-293	
Methanol	ND	1.0 mg/L	SW846 8015D	9/8/10 22:22	22-293	
o-Xylene	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293	
mp-Xylene	3.5 ug/L	2.0 ug/L	SW846 8260B	3/1/10 23:39	22-293	
Chloromethane	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293	
Ethane	ND	3.0 ug/L	RSK 175	3/2/10 15:10	22-293	
Chlorodibromomet hane	, ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293	
Chloroethane	ND '	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293	
Chloroform	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293	
Bromomethane	ND	1 0 ug/L	SW846 8260B	3/1/10 23:39	22-293	

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Page 7 of 10 Printed: 3/25/2010 3:54:21PM Confidential



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Flowback Water

Monitoring Pt:

Resultant CW

Source Type:

N/A

Collection Date:

02/23/10 17:55

Received Date:

02/25/10 11:10

Matrix: N/A

Collection Method: G

Grab

02100864	Result	Reporting Limit	Method	Analysis Date	Analyst
Carbon Disulfide	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Bromide	825 mg/L	150 mg/L [·]	EPA 300	2/27/10 9:17	22-293
Bromochlorometha ne	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Bromodichloromet hane	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
1,2-Dibromo-3-chl oropropane	ND	7.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
1,2-Dibromoethan e	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
1,1,2,2-Tetrachloro ethane	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
1,1-Dichloroethane	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
1,1-Dichloroethene	ND ·	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
cis-1,2-Dichloroeth ene	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Methylene Chloride	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
1,2-Dichloropropan e	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Chlorobenzene	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM **Confidential** Page 8 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Collection Date:

02/23/10 17:55

Site: NETL Flowback Water

N/Á

Received Date: 02/25/10 11:10

Monitoring Pt:

Resultant CW

Matrix: N/A

Source Type:

Collection Method:

Grab

02100864	Result	Reporting Limit	Method	Analysis Date	Analyst
Tetrachloroethene	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Trichloroethene	ND	- 1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
trans-1,2-Dichloroe thene	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
trans-1,3-Dichlorop ropene	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
cis-1,3-Dichloropro pene	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Benzene	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Carbon Tetrachloride	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
1,2-Dichloroethane	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Ethylbenzene	, ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Styrene	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Toluene	1.3 ug/L	1.0 ug/L :	SW846 8260B	3/1/10 23:39	22-293
1,1,1-Trichloroetha	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
1,1,2-Trichloroetha ne	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM **Confidential** Page 9 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Flowback Water

Monitoring Pt:

Resultant CW

Source Type: N

N/A

Collection Date:

02/23/10 17:55

Received Date:

02/25/10 11:10

Matrix: N/A .

Collection Method:

Grab

02100864	Result	Reporting Limit	Method	Analysis Date	Analyst
Vinyl Chloride	ND	1.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Total Xylenes	4.3 ug/L	3.0 ug/L	SW846 8260B	3/1/10 23:39	22-293
Vanadium, Total	ND ·	0.25 mg/L	EPA 200.7	3/4/10 10:25	22-293

Sample Comments:

None

Jugen C Holo

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM **Confidential** Page 10 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela **Collection Date:**

02/23/10 17:55

Site:

NETL Flowback Water

02/25/10 11:11 Received Date:

Monitoring Pt:

Resultant DW

Matrix: N/A

Source Type:

N/A

Collection Method:

Grab

02100865	Result	Reporting Limit	Method	Analysis Date	Analyst
Thorium 228	0.143 pCi/L	pCi/L	HSL-300M	3/18/10 13:35	6502103
Thorium 230	0.126 pCi/L	pCi/L	HSL-300m	3/18/10 13:36	6502103
Thorium 232	0.000 pCi/L	pCi/L	HSL-300m	3/18/10 13:37	6502103
Copper	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:16	AML
Bromoform	ND	1:0 ug/L	SW846 8260B	3/1/10 12:09	22-293
рН	9.94 SU	. SU	SM4500 H+B	2/25/10 15:10	AML .
Total Dissolved Solids	76 mg/l	5 mg/l	SM 2540 C	2/26/10 12:55	RCS
Total Suspended Solids	<3 mg/L	3 mg/L	SM 2540 D	2/25/10 14:00	RCS
Oil & Grease	1.2 mg/l	5 mg/l	EPA 1664 Rev A	2/26/10 12:40	NJD
BOD	> 75.3	2 mg/L	SM5210B	2/26/10 9:13	то
COD	410 mg/L	10 mg/L	HACH 8000	3/10/10 7:22	NJD
Surfactants (MBAS)	ND ·	0.025 mg/L	SM20-5540 C	2/26/10 21:45	22-293
Color	< 5 pccu	5 pccu		2/25/10 11:36	WEH

Degen C Hols

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Page 1 of 10 Printed: 3/25/2010 3:54:21PM Confidential



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Flowback Water

Monitoring Pt:

Resultant DW

Source Type:

Site:

N/A

Collection Date: 02/23/10 17:55

02/25/10 11:11 **Received Date:**

Matrix: N/A

Collection Method:

Grab

02100865	Result	Reporting Limit	Method	Analysis Date	Analyst
Temperature (F), Field	NA	deg F	na ,	3/5/10 9:02	RCS
Osmotic Pressure	ND	10 mOs/kg	PA DEP	2/27/10 4:35	22-293
Ammonia Distillation	Completed	mġ/L ·	SM 4500 NH3 B	3/3/10 13:51	WEH
Ammonia Nitrogen	9.64 mg/L	.10 mg/L	SM 4500 NH3 D	3/4/10 14:58	WEH
Nitrate	0.19 mg/l	0.10 mg/l	EPA 300.0	2/26/10 10:43	AML
Nitrite	<0.10 mg/l	0.10 mg/l	, EPA 300.0	2/26/10 10:44	AML
Nitrate / Nitrite	0.29 mg/l	0.20 mg/l	EPA 300.0	2/26/10 10:43	AML
Acidity	- 22.0 mg/L	3 mg/L	SM 2310 B	2/25/10 15:09	AML
Alkalinity	48.0 mg/l	5 mg/l	SM 2320 B	2/25/10 15:10	AML ·
Bicarbonate	24.0 mg/L	5 mg/L	SM4500 CO2 D	2/25/10 10:46	AML
Sulfate	2.2 mg/l	1 mg/l	EPA 300.0	2/26/10 10:45	AML
Chloride	35.4 mg/L	1 mg/L	EPA 300.0	2/26/10 10:42	AML .
Fluoride	0.15 mg/l	0.20 mg/l	EPA 300.0	2/26/10 10:45	AML

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 Confidential Page 2 of 10 3:54:21PM



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Altela **Customer:**

NETL Flowback Water Site:

Monitoring Pt: Resultant DW

Source Type:

N/A

Collection Date: 02/23/10 17:55

Received Date:

02/25/10 11:11

Matrix: N/A

Collection Method: Grab

02100865	Result	Reporting Limit	Method	Analysis Date	Analyst
Calcium	3.81 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:52	AML
Iron	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML
Iron, Dissolved	0.02 mg/l	0.02 mg/l	EPA 200.7	3/12/10 13:47 .	AML
Magnesium	0.36 mg/l	0 10 mg/l	EPA 200.7	2/26/10 14:52	AML
Potassium	0.19 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:53	AML
Sodium	18.6 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:56	AML
Aluminum	<0.10 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:25	AML
Arsenic	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Barium	<0.10 mg/l	0.10 mg/l	EPA 200.7	2/26/10 14:28	AML
Beryllium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML
Cadmium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:00	AML
Chromium	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Cobalt	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML

Degen C. Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Page 3 of 10 Printed: 3/25/2010 3:54:21PM Confidential



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Flowback Water

Monitoring Pt: Resultant DW

Source Type:

N/A

Collection Date:

02/23/10 17:55

Received Date: 02/25/10 11:11

Matrix: N/A

Collection Method:

Grab

02100865	Result	Reporting Limit	Method	Analysis Date	Analyst
Manganese	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:26	AML
Molybdenum	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:59	AML
Nickel	<0.05 mg/l	0.05 mg/l	EPA 200.7	2/26/10 14:51	AML
Selenium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:58	AML
Silver	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 13:57	AML
Strontium, Total	0.47 mg/L	0.0025 mg/L	EPA 200.7	3/4/10 12:30	22-293
Thallium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:59	AML
Tin ·	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:02	AML
Titanium	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML
Zinc	0.16 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:49	AML
Gross Alpha DW	-0.125 PCi/L	3 PCi/L	EPA 900	3/3/10 11:56	6502103
Gross Beta DW	-0.088 PCi/L	4 PCi/L	· EPA 900	3/3/10 11:57	6502103
Radium 226	0.0917 pCi/L	.6 pCi/L	EPA 903.1	3/17/10 11:58	6502103

Degen C Stob

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM **Confidential** Page 4 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Flowback Water

Monitoring Pt:

Resultant DW

Source Type:

N/A

Collection Date:

02/23/10 17:55

Received Date: 02/

02/25/10 11:11

Matrix: N/A

Collection Method:

Grab

02100865	Result	Reporting Limit	Method	Analysis Date	Analyst
Radium 228	-0.134 pCi/L	.9 pCi/L	EPA 904.0	3/11/10 11:59	6502103
Phenolics	0.05 mg/L	0.01 mg/L	EPA 420.4	3/1/10 11:49	22-293
Uranium	. ND	0.0050 mg/L	SW846 6020A	3/3/10 21:37	22-293
Mercury, Total	ND	0.0010 mg/L	EPA 200.8	3/4/10 8:19	22-293
Lead	<0.02 mg/L	0.02 mg/L	EPA 200.7	2/26/10 14:51	AML
Lithium, Total	ND	0.050 mg/L	EPA 200.7	3/4/10 12:30	22-293
Boron	<0.02 mg/l	0.02 mg/l	EPA 200.7	2/26/10 14:48	AML
Antimony	<0.5 mg/L	0.001 mg/L	EPA 200.7	3/10/10 14:01	AML ·
Silicon, Total	0.089 mg/L	0.050 mg/L	EPA 200.7	3/3/10 12:04	22-293
Bromide	0.40 mg/l	0.10 mg/l	EPA 300.1	2/26/10 10:44	AML .
Hardness, Total	11 mg/l	10 mg/l	EPA 200.7	2/26/10 13:43	AML
Heterotrophic Plate Count	55,000 /ml .	1 /ml	SM 9215B	2/25/10 15:37	WEH
Total Coliform	0 /100 mls	0 /100 mls	SM 9223B	2/25/10 15:35	WEH .

Degen C Holo

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Flowback Water

Monitoring Pt:

Resultant DW

Source Type:

Site:

N/A

Collection Date:

02/23/10 17:55

Received Date:

02/25/10 11:11

Matrix: N/A

Collection Method:

Grab

02100865	Result	Reporting Limit	Method	Analysis Date	Analyst
E Coli	NA	+/-	SM 9223B	2/25/10 15:35	WEH
Specific Conductance	184 umhos/cm	2 umhos/cm	EPA 120.1	2/26/10 0:00	то
Gasoline Range Organics	154 ug/L	100 ug/L	SW846 8015D	3/2/10 5:19	22-293
Diesel Range Organics C10-C28	1.7 mg/L	0.15 mg/L	SW846 8015D	3/2/10 22:31	22-293
Methane	ND	1.0 ug/L	RSK 175	2/26/10 21:26	22-293
Ethylene Glycol	ND	10.0 mg/L	SW846 8015D	3/6/10 1:34	22-293
Alkalinity, Carbonate	20 mg/L	5 mg/L .	SM20-2322	2/27/10 7:22	22-293
Alkalinity, Hydroxide	. ND	. 5 mg/L 1	SM20-2320 B	2/27/10 7:22	22-293
Alkalinity, Phenolphthalein	10 mg/L	5 mg/L	SM20-2320 B	2/27/10 7:22	22-293
Total Kjeldahl Nitrogen	9.8 mg/L	1.0 mg/L	SM20-4500-N C	3/3/10 14:00	22-293
Formaldehyde	41.4 mg/L	1.0 mg/L	SW846 8015D	3/4/10 18:37	22-293
Acetone	5230 ug/L	200 ug/L	SW846 8260B	3/2/10 0:40	22-293
Silica, Dissolved	, ND	1 mg/L	SM20-4500SiD	3/2/10 0:15	22-293

Digeni C. Stold

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation

Printed: 3/25/2010 3:54:21PM Confidential Page 6 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Flowback Water

Monitoring Pt:

Resultant DW

Source Type:

N/A

Collection Date:

02/23/10 17:55

Received Date: 02

02/25/10 11:11

Matrix: N/A

Collection Method:

Grab

02100865	Result	Reporting Limit	Method	Analysis Date	Analyst
2-Hexanone	ND	5.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
4-Methyl-2-Pentan one(MIBK)	ND	5.0 ug/L ·	SW846 8260B	3/1/10 12:09	22-293
2-Butanone	ND	10.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Ethene	ND	3.0 ug/L	RSK 175	2/26/10 21:26	22-293
Methanol	27 4 mg/L	1.0 mg/L	SW846 8015D	9/8/10 22:37	22-293
o-Xylene	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
mp-Xylene	ND	. 2.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Chloromethane	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Ethane	ND	3.0 ug/L	RSK 175	2/26/10 21:26	22-293
Chlorodibromomet hane	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Chloroethane	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Chloroform	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Bromomethane	. ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293

Degen C May

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM **Confidential** Page 7 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Flowback Water

Monitoring Pt:

Resultant DW

Source Type:

N/A

Collection Date:

02/23/10 17:55

Received Date: 02/25/10 11:11

Matrix: N/A

Collection Method:

Grab

02100865	Result	Reporting Limit	Method	Analysis Date	Analyst
Carbon Disulfide	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Bromide	0.38 mg/L	0.30 mg/L	EPA 300	2/27/10 9:32	22-293
Bromochlorometha ne	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Bromodichloromet hane	ND	1.0 ug/L	SW846 8260B	. 3/1/10 12:09	22-293
1,2-Dibromo-3-chl oropropane	ND ·	7.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
1,2-Dibromoethan e	ND .	1.0 ug/L	SW846 8260B	3/1/10 12:09 🖟	22-293
1,1,2,2-Tetrachloro ethane	ND ·	, 1.0 ug/L	SW846 8260B	3/1/10 12:09	. 22-293
1,1-Dichloroethane	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
1,1-Dichloroethene	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
cis-1,2-Dichloroeth	. ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Methylene Chloride	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
1,2-Dichloropropan e	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Chlorobenzene	ND	" 1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293

Digen C Stold

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM **Confidential** Page 8 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

NETL Flowback Water

Monitoring Pt:

Resultant DW

Source Type:

Site:

N/A

Collection Date: 02/

02/23/10 17:55

Received Date: 0

02/25/10 11:11

Matrix: N/A

Collection Method:

Grab

02100865	Result	Reporting Limit	Method	Analysis Date	Analyst
Tetrachloroethene	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Trichloroethene	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
trans-1,2-Dichloroe thene	· ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
trans-1,3-Dichlorop ropene	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
cis-1,3-Dichloropro	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Benzene	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Carbon Tetrachloride	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
1,2-Dichloroethane	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Ethylbenzene	ND	1 0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Styrene	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Toluene	2.2 ug/L	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
1,1,1-Trichloroetha	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
1,1,2-Trichloroetha ne	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293

Degen C Stole

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

Printed: 3/25/2010 3:54:21PM **Confidential** Page 9 of 10



11931 State Route 85 Kittanning, Pennsylvania 16201 724-543-3011

Lab # 03-457

Lab Analysis Report

Customer: Altela

Site: NETL Flowback Water

Monitoring Pt:

Resultant DW

Source Type:

N/A

Collection Date: 02/23/

02/23/10 17:55

Received Date:

02/25/10 11:11

Matrix: N/A

Collection Method:

Grab

02100865	Result	Reporting Limit	Method	Analysis Date	Analyst
Vinyl Chloride	ND	1.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Total Xylenes	ND	3.0 ug/L	SW846 8260B	3/1/10 12:09	22-293
Vanadium, Total	ND	0.0025 mg/L	EPA 200.7	3/4/10 12:30	22-293

Sample Comments:

None

Degen C Mot

Ryan C Shafer, Technical Director

Analyte names in bold are listed under the laboratory's current NELAP scope of accreditation.

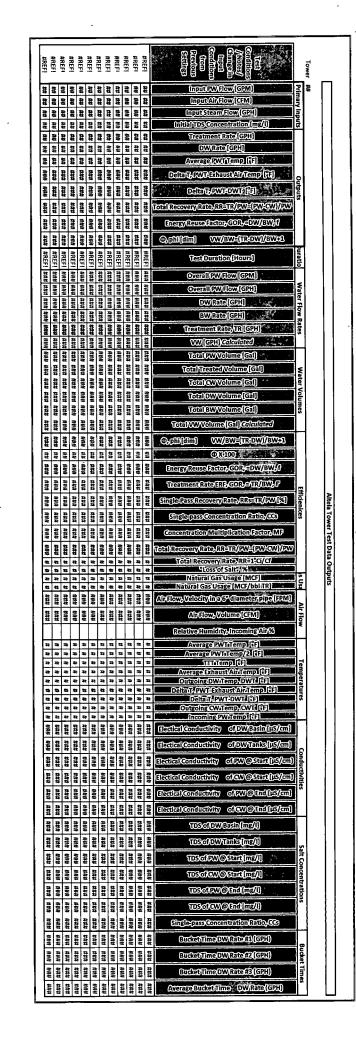
Printed: 3/25/2010 3:54:21PM **Confidential** Page 10 of 10

Station: Test Conditions / Notes 1 Start Date/Time Tower: End Date/Time Hours between Marks Ö DW Tank #1 Height Delta [inches] DW Tank #2 Height Delta [inches] **BW Tank Height** Delta [inches] PW Tank Height Delta [inches] CW Tank Height Delta [inches] BW Rate [gal/hr] PW Rate [gal/hr] (PW-CW) Rate [gal/hr] VW [gal/hr] Colculated Treatment Rate (per Energy Reuse Factor, f PW&W Left PW Flows **Right PW Flows** Air Flow [CFM] Test Station: Air Temp. [°F] Air Press. [in H2O] **Boiler NG Pressure** Ŵ. nģ. Steam Pressure Steam Press. Before Steam Press. After TDS of DW [µS] Tower: TDS of PW [µS] TDS of CW [µS] TDS of DW, Left [μS] TDS of DW, Right Reading Date/Time 1 Gallon DW Time 1 Gallon DW Time DW gal/hr Tower Top [F] PWT Right (°F) PWT Left (°F) Evap. Middle (°F) DWT Right (°F) DWT Left (°F) PW Inlet (°F) CW Exit (°F)

Test

Altela Tower Test Data Inputs

Tower:		Test St	ation:	#1																																								_
Test Conditions	Test D	uration	Natura	al Gas				Tar	nk Lev	els _			P۱	V Flo	vs.		tnle	t Air M	easure	ments		5	team Me	asurem	nts	↓		_	ctrical (Conduct	tivity					Towe	r Tem	perati	ures			Buck	et Tim	es
Test Conditions / Notes/ Change in Input Conditions from Previous Settings	Start Date/Ti me	End Date/Ti me	Natural Gas Meter Reading, Start [CCF]	Natural Gas Meter Reading, End (CCF)	Initial TDS Concentration [mg/l]	DW Tank #1 Height Delta [inches]	DW Tank #2 Height Delta [inches]	BW#1 Tank Height Delta [inches]	BW#2 Tank Height Delta [inches]	BW#3 Tank Height Delta [inches]	PW Tank #1 Height Deita [inches]	PW Tank #2 Height Delta [inches]	PW Flows #1 [GPM] PW Flows #2 [GPM]	Flows #3 [GPI	PW Flows #4 [GPM] PW Flows #5 [GPM]	Air Flow Measurement [Feet Per Minute]	Inlet Air Temp. (°F)	Inlet Air Wet Bulb Temp. [² F]	Air Press. [inches H2O]	Left Exhaust Press. [inches H2O]	Right Exhaust Press. [inches H20]	Boller NG Pressure [inches H2O]	Steam Pressure [psig]	Steam Press. Before Valve [psig]	Steam Press. After Valve [psig]	Electical Conductivity of DW Basin @ Start [µS/cm]	Electical Conductivity of DW Basin @ End [µ5/cm]	Electical Conductivity of DW Tanks @ Start [µ5/cm]	Electical Conductivity of DW Tanks @ End [µS/cm]	Electical Conductivity of PW @ Start [µ5/cm]	Electical Conductivity of CW @ Start [µS/cm]	Electical Conductivity of PW @ End [µS/cm]	Electical Conductivity of CW @ End [µ5/cm]	TTT (°F) PWT #1 (°F)	PWT #3 (°F)	PWT #4 (F) PWT #5 (°F)	PWT #7 (*F)	PWT #9 (*F)	PW Inlet (*F) CW Exit (*F)	DWT Right (°F) DWT Left (°F)	Exhaust Air Temp, Left (°F) Exhaust Air Temp, Right (°F)	Bucket Time #1 (seconds) for a 5 Gallon Bucket	#1 (seconds) for a S	Bucket Time #1 (seconds) for a 5 Gallon Bucket
														$\downarrow \downarrow$	_ _		ļ	ļ	-			↓		<u> </u>		1-	-		↓ —	4		-		$\vdash \vdash$	++	++	╂	++	++-	+++	-++	\dashv		
			Ц.	Ш	L.,	\vdash	<u> </u>	_	_		<u> </u>	\sqcup	-	++			-	₩			-	+	-	+-	+	+		+	+	┼	\vdash	\vdash	-	++	++	++	╁┼	++	++-	+		-+	-+	-
		ļ	↓ _	\sqcup		<u> </u>	<u> </u>	_	L		<u> </u>		 -	+		⊢.	-	+-	╂	+		+-	+	+	-	+	+-	+	+-	+	 	-		HH	+	++	++	++	++-	+ + -	$\vdash \vdash \vdash \vdash$			_
		<u> </u>	├				<u> </u>			┝	<u> </u>		-	+			-	┼—	┼─	+	+-	+-	+		+		+	+	+	+		-		${\mathsf H}{\mathsf H}$	+	+	++	+	++-	++	-+-			_
	-	-	\vdash	-	<u> </u>	-		-		 	-			+	+-		-	+	+	+	+-	+	 	1	+	+	+	+	+	 	1-			H	\top	++	+	11	++-	$^{\dagger }$	7			
		-	+-			-	 	-		-	-			+ 1		\vdash	 	+	1	+	+-	1	 	 	+	+-	+	+	+	†	 			HT	\top		11	11	11	Ш	\Box		$\neg \uparrow$	
		 	+-	+	 	\vdash		1	\vdash	\vdash				1 1	+	\vdash	 	1	1	+	T	1 .	T	 	1		\top	1	1	T'''		\Box		Ш	\top		Π	11.						
		 	+		 	 	1	-					-	+		t		_	1	\top	\top	1		T	1		T-			1 .														
			T		\vdash	\vdash		_						1-1	\top	1		T	Ī		\top				I									Ш			\coprod	ĿΤ	LL.	$\perp \perp$	Ш			
		!		—	T	├	<u> </u>		_		П					İ																		Ш	47	$\perp \downarrow$		44	4	\sqcup	$\sqcup \sqcup$			
		 	†	1	T	 		1			Г					Ī	1				T			T						L				ш										'



From:

Karen Evans [karen.evans@altelainc.com]

Sent:

Friday, October 01, 2010 9:29 AM

To:

Jones, Brad A., EMNRD

Cc: Subject: Matthew J. Bruff Altela Inc EPWM-004 Quarterly Report - 3rd Qtr 2010

Brad,

With respect to the State's quarterly survey, for the period July 1 through September 30, 2010, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Sincerely,

Karen K. Evans Executive Administrator

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (505) 923-4130 EMAIL: karen.evans@altelainc.com WEB: altelainc.com

From: Karen Evans [karen.evans@altelainc.com]

Sent: Thursday, July 01, 2010 11:20 AM

To: Jones, Brad A., EMNRD

Cc: Matthew J. Bruff

Subject: Altela Inc EPWM-004 Quarterly Report - 2nd Qtr 2010

Brad,

With respect to the State's quarterly survey, for the period April 1 through June 30, 2010, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Karen K. Evans Executive Administrator

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (505) 923-4130 EMAIL: karen.evans@altelainc.com WEB: altelainc.com

From: Karen Evans [karen.evans@altelainc.com]

Sent: Thursday, April 01, 2010 1:19 PM

To: Jones, Brad A., EMNRD

Cc: Matthew J. Bruff

Subject: EPWM-004 Change of Address Notification 4.1.10 Change of Address Notification.docx

Brad,

Attached, please find a letter advising of Altela's recent change of address.

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

Sincerely,

Karen K. Evans Executive Administrator

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (505) 923-4130 EMAIL: karen.evans@altelainc.com 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 450, Englewood, CO 80111

PHONE: 303.993.1950 FAX: 303.993.1955

April 1, 2010

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

RE: Altela, Inc. – Change of Address Notification for Temporary Approval EPWM-004

Dear Brad,

Per your recent conversation with Matt Bruff, please be advised that Altela, Inc. has moved its Albuquerque facilities, effective March 1, 2010.

The previous facility location under the above referenced Permit was:

2450 Alamo SE Albuquerque, NM 87106

The new facility address is:

7500 Meridian Pl NW, Suite B Albuquerque, NM 87121

We would appreciate the Oil Conservation Division's acknowledgement and confirmation of this change of address with respect to Altela, Inc.'s Temporary Approval EPWM -004 to Store and Use Produced Water for R&D of the AltelaRain® Technology.

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

Sincerely,

Altela, Inc.

Matthew Bruff CDO

cc: Altela Day File

From: Karen Evans [karen.evans@altelainc.com]

Sent: Thursday, April 01, 2010 12:04 PM

To: Jones, Brad A., EMNRD

Cc: Matthew J. Bruff

Subject: Altela Inc EPWM-004 Quarterly Report - 1st Qtr 2010

Brad,

With respect to the State's quarterly survey, for the period January 1 through March 31, 2010, Altela treated zero barrels of produced water in New Mexico.

Please let me know if you have any questions.

Thanks,

Karen K. Evans Executive Administrator

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 450 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (505) 923-4130 EMAIL: karen.evans@altelainc.com WEB: altelainc.com



** ECEIVED
2008 DEC 10 PM 1 16

ALBUQUERQUE OFFICE

ONE TECHNOLOGY CENTER
2450 Alamo Ave. SE, Suite 200, Albuquerque, NM 87106

PHONE: 505.923.4140 FAX: 505.923.4130

DENVER OFFICE

December 8, 2008

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

Mr. Wayne Price 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 AltelaRainSM Technology

VIA FEDERAL EXPRESS

Dear Wayne and 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 AltelaRainSM technology. Altela requests a one-year renewal to continue using real oilfield produced water for testing and development of the AltelaRainSM 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 of the produced water at Alamo:

- 1. The produced water approved for storage and the testing and development of the AltelaRainSM 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
- 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 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. Please also find copies of the water quality analytical test results received from third party water quality laboratories with respect to tests conducted on the produced water at the Alamo facility. Finally, we have also enclosed a copy of our test-bench protocol spreadsheet which outlines the various parameters and data points tracked during testing.

Thank you in advance for your continued assistance and support of the AltelaRainSM 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



0 gallons		Remaing Concentrated Produced Water at Alamo, 479 Gallons*		NA	C-133-66	(505) 326-6002	(505) 326-5541	Post Office Box 600, Farmington, NM 87499	Barry Bonds	10/1/08 M&R Trucking, Inc.	10/1/08	O ₁
+ 800 gallons	NA	500 Gallons Delivered	in, CO) Occidental Petroleum Corporation	Occidental Facility (Piceance Basin, CO)	(Attached)	(970) 434-4030 (970) 314-9724	(970) 434-4030	Adam Stevens P.O. Box 1210, Grand Junction, CO 81502	Adam Stevens	Mountain States Hot Shot Oil Field Services	6/16/08	4
+300 gallons	NA	300 Gallons Delivered	Merrion Oil and Gas Corporation	Blackshawl Com. #001 (San Juan Basin, NM)	C-133-66	(505) 326-6002	(505) 326-5541	Post Office Box 600, Farmington, NM 87499	John Davis	11/19/07 M&R Trucking, Inc.	11/19/07	ω
0 gallons		300 Gallons Taken Away No.1 San Juan County, NM		NA	C-133-66	(505) 326-6002	(505) 326-5541	Post Office Box 600, Farmington, NM 87499	John Davis	11/19/07 M&R Trucking, Inc.	11/19/07	2
+300 gallons		300 Gallons Delivered	Merrion Oil and Gas Corporation	Blackshawl Com. #001 (San Juan Basin, NM)	C-133-66	(505) 326-6002	(505) 326-5541	Post Office Box 600, Farmington, NM 87499	John Davis	2/22/07 M&R Trucking, Inc.	2/22/07	_
Balance	Disposal Location (If Delivery - NA)	Delivered / Taken Away	Owner of Well	Name of Originating Well (If Taken Away - NA)	C133 Permit No.	Fax Number	Phone Number	Address	Contact at Company	Transport Company Contact at Name Company	Date	8
				Alamo Produced Water Tracking Summary	duced Water T	Alamo Prod						
										, ,		1

^{*}The AltelaRain ** technology treats produced water by a distillation process. The Altela 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 sent to find the policy of the boiler as steam vapor resulting in less water being available for disposal compared to original produced water delivery volumes.

Submit a single copy to Santa Fe Office

State of New Mexico Energy Minerals and Natural Resources

Form C-133 Revised Men 27, 2007

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

AUTHORIZATION TO MOVE PRODUCED WATER

Tennsnorter Nas	me Mountain State	a Holehot LCC
		Office Location (If different)
	12 Marquez Place ek 106 B	3181 Bunking Ave
	nta te NM 87505	Grand Set CO 81501
	(1) 970 - 434 4030	970-361-1121
Phone Number	on Commission Permit No. 4044	
corporation nam Secretary of State (1) commission to d (2) New Mexico. (3) commission adn (4) exceeding 25 pe in another ontip violating division	te or LLC has got been established with the PRC to Office In accordance with Section 51 of 19 6 2 the applicant is a corporation or limited liabilit to business in New Mexico, the applicant is a limited partnership, and is no the applicant does not possess a carrier permit unissers, if it is required to have such a permit un the applicant or an officer, director ar pariner recent, is or was within the pass five years an office yethat possesses or has possessed an approved for or rules or other state or federal environmental la	ion Commission (PRC) N'arrant for Transportation Services if a or a partnership has got been established with the New Mexico NMAC. The division may demy approval of a form C-133 if y company, and is not registered with the public regulation of registered with the New Mexico secretary of state to do business in under the single state registration system the public regulation der applicable stanues or rules, or in the applicant, or a person with an interest in the applicant er, director, partner or person with an interest exceeding 25 percent er, C-131 that has been cancelled or suspended, has a history of wis, is subject to a commission or division order, issued after notice wiring corrective action, or has a paralty assessment for violation of 10 days after issuance of the order assessing the penalty.
NOTE:	It is the responsibility of each holder of an personnel with the content of Sections 51 and the section of Sections 51 and 51 an	approved Form C-133 to familiarize its and 52 of 19.15.2 NMAC and to assure to move and dispose of produced water in 15.2 NMAC are cause for cancellation of Form
I hereby certi	fy that the information above is true and com	plete to the best of my knowledge and belief.
Signature	Kase bettinan	Date 5-16-08
Printed Name	KAK OHMAN	Title Office Manager
E-mail Addre	Kak @ mountainst	akshotshot com
(This space f	in State Use)	Title <i>EB</i> C
Approved by	Andre	_



ANALYTICAL SUMMARY REPORT

July 21, 2008

Matthew Bruff Altela Inc 5350 S Roslyn St Ste 430 Englewood, CO 80111

Workorder No.: C08070342
Project Name: Not Indicated

Energy Laboratories, Inc. received the following 4 samples from Altela Inc on 7/8/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C08070342-00	1 Oxy CW	07/02/08 14:38	07/08/08	Aqueous	Solids, Total Dissolved
C08070342-00	2 Oxy CW	07/07/08 10:01	07/08/08	Aqueous	Same As Above
C08070342-00	3 Oxy CW	07/07/08 11:34	07/08/08	Aqueous	Same As Above
C08070342-00	4 Oxy CW	07/07/08 12:44	07/08/08	Aqueous	Same As Above

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By:

STEVE CARLSTON



LABORATORY ANALYTICAL REPORT

Client:

Altela Inc

Site Name:

Not Indicated

Report Date: 07/18/08

Lab ID:

C08070342-001

Collection Date: 07/02/08 14:38

Client Sample ID: Oxy CW

DateReceived: 07/08/08

Matrix:

Analyses

Aqueous

Qualifier

QCL RL

MCL

Method

Analysis Date / By

PHYSICAL PROPERTIES

Solids, Total Dissolved TDS @ 180 C

34900 mg/L

Units

Result

10

A2540 C

07/09/08 10:30 / dd

Lab ID:

C08070342-002

Client Sample ID: Oxy CW

Collection Date: 07/07/08 10:01 DateReceived: 07/08/08

Matrix:

Aqueous

MCL QCL

> MCL/ QCL

Analyses

Result Units

Qualifier RL

Method

A2540 C

Analysis Date / By

PHYSICAL PROPERTIES

Solids, Total Dissolved TDS @ 180 C

mg/L 36500

10

07/09/08 10:30 / dd

Lab ID:

C08070342-003

Client Sample ID: Oxy CW

Matrix:

Analyses

Aqueous

Collection Date: 07/07/08 11:34

DateReceived: 07/08/08

PHYSICAL PROPERTIES Solids, Total Dissolved TDS @ 180 C

mg/L 40900

Units

Units

Result

10

RL

Qualifier

Qualifier

A2540 C

Method

07/09/08 10:30 / dd

Analysis Date / By

Lab ID:

C08070342-004

Client Sample ID:

Matrix:

Analyses

Oxy CW Aqueous Collection Date: 07/07/08 12:44 DateReceived: 07/08/08

MCL Analysis Date / By QCL Method

PHYSICAL PROPERTIES

Solids, Total Dissolved TDS @ 180 C

48400 mg/L

Result

10

RL

A2540 C

07/09/08 10:31 / dd

Report Definitions:

RL - Analyte reporting limit.

QCL - Quality control limit.

MCL - Maximum contaminant level.



Client: Altela Inc
Project: Not Indicated

Report Date: 07/18/08 **Work Order:** C08070342

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 C							Batch: 08	0709_1_SLD	S-TDS-W
Sample ID: MBLK1_080709 Solids, Total Dissolved TDS @ 180 C	Method Blank ND	mg/L	6		Run: BAL-	1_080710A		07/09	9/08 10:25
Sample ID: LCS1_080709 Solids, Total Dissolved TDS @ 180 C	Laboratory Cor	ntrol Sample mg/L	10	99		1_080710A 110		07/0	9/08 10:26
Sample ID: C08070343-001FMS Solids, Total Dissolved TDS @ 180 C	Sample Matrix 4480	Spike mg/L	10	100		1_080710A 110		07/0	9/08 10:31
Sample ID: C08070343-001FMSD Solids, Total Dissolved TDS @ 180 C	Sample Matrix 4490	Spike Duplicate mg/L	10	100		-1_080710A 110	0.3	07/0 10	9/08 10:31

7	Ì
\mathcal{L}	101
E	11.00
Z	100
	į

Chain of Custody and Analytical Request Record

TEARSONANGINES-	PLEASE PRINT. Provide as much information as possible		Sample Origin	EPA/State Compliance:
Company Name:	Project Name, PWS, Permit, Etc.		:	
		State	State: DL	
Altela Inc.	Phone/Fax:	Email:	=	Sampler: (Please Print)
Report Mail Address:	į		motther. or RP Q	m check,
2450 Alamo SE Suite 200	Motther Broth (303) 773-1730		, Cm	Wimberly
Albis 6/21 NM S7/26	Drode Disco	Pur	Purchase Order:	Quote/Bottle Order:
Invoice Address:	Invoice Contact & Figure.		-	100/036
< >	Bill Huitt (505-923-4144)	7	11.1	Shipped by:
Special Report/Formats – ELI must be notified			RUSH sample submittal	Demittal Feel Ex Exp
prior to sample submittal for the following:				
	aine V S Solidi Vy Oly	AT)	Instruction Page	<u> </u>
			Comments:	Receipt Temp
□ DW □ A2LA □ A2LA □ A2LA □ A2LA		ojei		
GSA Format:	radin V. Visit Visitori Sation	TA nuT		¥
		ew.		
Other:				/ ≻
Collection Collection Collection	× (0)			Signature Y N Match
 	+			
77/108 2:380	* 13		222	
3			Grab	N C
Oct (12)	M T		(zreb) <u>S</u>
Oxy CL2 7/7/08 11:34pm	TIM.		726	is (
20xx CD CD x0/L/C	N T T T		ò	7 &
· .				<u></u> 80
9				D.A.G
7				7 5 10
σ			11/01/104/	
o.			77007	7/00 Pa/
	Received by (print)			Signature:
Date/fime:	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	Mad -1/8/108	Sh6 801	Signature:
Relinquished by (print): Date/Time:	Signature:		è	
0	Received by Laboratory:	ooratory: Date/Time	īne:	Signature:
Signed Sample Disposal: Return to Client:	Lab Disposal:	certified laboratories in	order to complete th	e analysis requested.

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to compart of this serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Energy Laboratories Inc Workorder Receipt Checklist

C0	8070	342

Altela Inc

Login completed by: Jennifer McVay		Date and Time F	Received: 7/8/2008 9:4	15 AM
Reviewed by:		Red	eived by: KW	
Reviewed Date:		Сагт	ier name: FedEx	
Shipping container/cooler in good condition?	Yes [✓]	No 🗀	Not Present	
Custody seals intact on shipping container/cooler?	Yes 🗌	No 🗌	Not Present 🗸	
Custody seals intact on sample bottles?	Yes 🗌	No 🗌	Not Present 🗹	
Chain of custody present?	Yes ☑	No 🗀		
Chain of custody signed when relinquished and received?	Yes 🗹	No 🗌		
Chain of custody agrees with sample labels?	Yes 🗸	No 🗀		
Samples in proper container/bottle?	Yes 🗹	No 🗀		
Sample containers intact?	Yes 🗹	No 🗌		
Sufficient sample volume for indicated test?	Yes 🔽	No 🗀		
All samples received within holding time?	Yes 🗹	No 🗌		
Container/Temp Blank temperature in compliance?	Yes 🗹	No 🗌	1°C On Ice	
Water - VOA vials have zero headspace?	Yes 🗌	No 🗌	No VOA vials submitted	
Water - pH acceptable upon receipt?	Yes 🗹	No 🗀	Not Applicable	

Contact and Corrective Action Comments:

None



Date: 18-Jul-08

CLIENT:

Altela Inc

Project:

Not Indicated

Sample Delivery Group: C08070342

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

ORIGINAL SAMPLE SUBMITTAL(S)

All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS

Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

RADON IN AIR ANALYSIS

The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

SOIL/SOLID SAMPLES

All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS USING EPA 505

Data for Atrazine and Simazine are reported from EPA 525.2, not from EPA 505. Data reported by ELI using EPA method 505 reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT

eli-g - Energy Laboratories, Inc. - Gillette, WY

eli-h - Energy Laboratories, Inc. - Helena, MT

eli-r - Energy Laboratories, Inc. - Rapid City, SD

eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:

USEPA: WY00002; FL-DOH NELAC: E87641; Arizona: AZ0699; California: 02118CA

Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:

The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.



ANALYTICAL SUMMARY REPORT

July 31, 2008

Altela Inc

5350 S Roslyn St Ste 430 Englewood, CO 80111

Workorder No.: C08070223

Quote ID: C2860

Project Name:

Not Indicated

Energy Laboratories, Inc. received the following 1 sample from Altela Inc on 7/3/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C08070223-001	Oxy DW	07/02/08 10:18	07/03/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Chloride Conductivity Sample Filtering Liquid-Liquid Extraction SW8021B, BTEX Diesel Range Organics Gasoline Range Organics Methanol Prep for TOX SW9020B Total Organic Halogens Hardness Nitrogen, Ammonia Nitrogen, Nitrite Dissolved Nitrogen, Nitrate + Nitrite Dissolved Nitrogen, Nitrate Dissolved Nitrogen, Total Kjeldahl pH Services Provided by Lab Solids, Total Dissolved Solids, Total Suspended Sulfate

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By: XXXX Brully



LABORATORY ANALYTICAL REPORT

Client:

Altela Inc

Project:

Not Indicated

Lab ID:

C08070223-001

Client Sample ID: Oxy DW

Report Date: 07/31/08 Collection Date: 07/02/08 10:18

DateReceived: 07/03/08 Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS	:					<u> </u>	
Alkalinity, Phenolphthalein as CaCO3	6	mg/L		1		A2320 B	07/08/08 11:57 / ljl
Alkalinity, Total as CaCO3	18	mg/L		1		A2320 B	07/08/08 11:57 / ljl
Carbonate as CO3	7	mg/L		1		A2320 B	07/08/08 11:57 / ljl
Bicarbonate as HCO3	7	mg/L		1		A2320 B	07/08/08 11:57 / ljl
Hydroxide as OH	ND	mg/L		1		A2320 B	07/08/08 11:57 / ljl
Chloride	ND	mg/L		1		A4500-CI B	07/10/08 15:41 / ljl
Nitrogen, Ammonia as N	4.57	mg/L		0.05		E350.1	07/14/08 14:25 / eli-k
Nitrogen, Kjeldahl, Total as N	5.0	mg/L		0.5		E351.2	07/09/08 14:46 / eli-k
Sulfate	ND	mg/L		1		A4500-SO4 E	07/08/08 16:14 / jal
MAJOR IONS - DISSOLVED							
Nitrogen, Nitrate as N	ND	mg/L		0.1		E353.2	07/18/08 11:31 / sec
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/17/08 11:35 / jal
Nitrogen, Nitrite as N	ND	mg/L		0.1		A4500-NO2 B	07/03/08 16:05 / jal
PHYSICAL PROPERTIES							
Conductivity	32	umhos/cm		1		A2510 B	07/07/08 11:45 / dd
Hardness as CaCO3	2	mg/L		1		A2340 B	07/23/08 10:51 / sec
pH	9.36	s.u.		0.01		A4500-H B	07/07/08 11:45 / dd
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	07/07/08 09:16 / dd
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1		A2540 D	07/03/08 15:41 / sp
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	07/21/08 21:48 / sml
Antimony	ND	mg/L		0.05		E200.8	07/21/08 21:48 / sml
Arsenic	ND	mg/L		0.001		E200.8	07/21/08 21:48 / sml
Barium	ND	mg/L		0.1		E200.8	07/21/08 21:48 / sml
Beryllium	ND	mg/L		0.01		E200.8	07/21/08 21:48 / sm
Boron	ND	mg/L		0.1		E200.8	07/21/08 21:48 / sm
Cadmium	ND	mg/L		0.01		E200.8	07/21/08 21:48 / sm
Calcium	ND	mg/L		1		E200.8	07/21/08 21:48 / sm
Chromium	ND	mg/L		0.05		E200.8	07/21/08 21:48 / sm
Cobalt	ND	mg/L		0.01		E200.8	07/21/08 21:48 / sm
Copper	NĎ	mg/L		0.01		E200.8	07/21/08 21:48 / sm
Iron	ND	mg/L		0.03		E200.8	07/21/08 21:48 / sm
Lead	ND	mg/L		0.05		E200.8	07/21/08 21:48 / sm
Lithium	ND	mg/L		0.1		E200.7	07/22/08 12:32 / rw
Magnesium	ND	mg/L		1		E200.8	07/21/08 21:48 / sm
Manganese	ND	mg/L		0.01		E200.8	07/21/08 21:48 / sm
Molybdenum	ND	mg/L		0.1		E200.8	07/21/08 21:48 / sm
Nickel	ND	mg/L		0.05		E200.8	07/21/08 21:48 / sm
Phosphorus	ND	mg/L		0.1		E200.7	07/22/08 12:32 / rw

RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.



LABORATORY ANALYTICAL REPORT

Client:

Altela Inc

Project:

Not Indicated

Lab ID:

C08070223-001

Client Sample ID: Oxy DW

Report Date: 07/31/08

Collection Date: 07/02/08 10:18

DateReceived: 07/03/08

Matrix: Aqueous

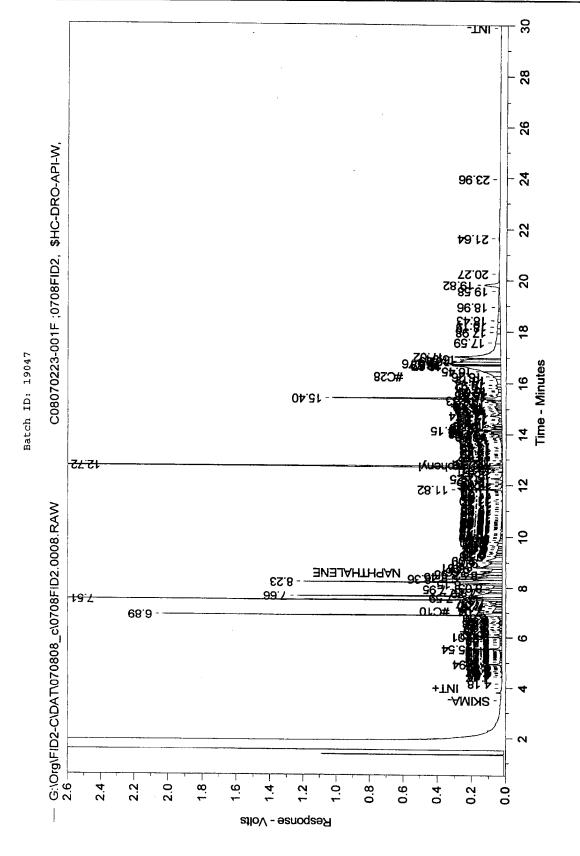
Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - DISSOLVED					· ·		
Potassium	ND	mg/L		1		E200.8	07/21/08 21:48 / sml
Selenium	ND	mg/L		0.001		E200.8	07/21/08 21:48 / sml
Silica	ND	mg/L		0.1		E200.7	07/22/08 12:32 / rw
Silicon	ND	mg/L		0.05		E200.7	07/22/08 12:32 / rw
Silver	ND	mg/L		0.01		E200.8	07/21/08 21:48 / sml
Sodium	1	mg/L		1		E200.8	07/21/08 21:48 / sml
Strontium	ND	mg/L		0.1		E200.8	07/21/08 21:48 / sml
Thallium	ND	mg/L		0.1		E200.8	07/21/08 21:48 / sml
Tin	ND	mg/ L		0.1		E200.8	07/21/08 21:48 / sml
Titanium	ND	mg/L		0.1		E200.8	07/21/08 21:48 / sml
Uranium	ND	mg/L	(0.0003		E200.8	07/21/08 21:48 / sml
Vanadium	ND	mg/L		0.1		E200.8	07/21/08 21:48 / sml
Zinc	ND	mg/L		0.01		E200.8	07/21/08 21:48 / sml
DATA QUALITY							
A/C Balance (± 5)	9.71	%				Calculation	07/23/08 12:11 / sw
Anions	0.363	meq/L				Calculation	07/23/08 12:11 / sw
Cations - The ion balance is not appropriate for near bla	0.441 ank results.	meq/L				Calculation	07/23/08 12:11 / sw
VOLATILE ORGANIC COMPOUNDS							
Benzene	0.89	ug/L		0.50		SW8021B	07/08/08 01:35 / dkh
Ethylbenzene	ND	ug/L		0.50		SW8021B	07/08/08 01:35 / dkh
m+p-Xylenes	0.54	ug/L		0.50		SW8021B	07/08/08 01:35 / dkh
o-Xylene	ND	ug/L		0.50		SW8021B	07/08/08 01:35 / dkh
Toluene	1.1	ug/L		0.50		SW8021B	07/08/08 01:35 / dkh
Surr: Trifluorotoluene	99.0	%REC	8	80-120		SW8021B	07/08/08 01:35 / dkh
NON-HALOGENATED VOLATILES							
Methanol	ND	mg/L		1.0		SW8015B	07/10/08 10:40 / eli-b
Surr: sec-Butyl Alcohol	102	%REC	8	80-120		SW8015B	07/10/08 10:40 / eli-b
ORGANIC CHARACTERISTICS							
Diesel Range Organics (DRO)	ND	mg/L		1.0		SW8015M as	07/08/08 18:27 / cis
Surr: o-Terphenyl	95.0	%REC	•	50-120			07/08/08 18:27 / cjs
Gasoline Range Organics (GRO)	ND	mg/L		0.040		SW8015M as	07/08/08 01:35 / dkh
Surr: Trifluorotoluene	95.0	%REC	8	80-120		SW8015M as	07/08/08 01:35 / dkh
ORGANIC CHARACTERISTICS							
Organic Halides, Total	ND	mg Cl/L		0.1		SW9020B	07/11/08 10:54 / wen

Report

RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.





Client: Altela Inc
Project: Not Indicated

Report Date: 07/31/08
Work Order: C08070223

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B								Batch:	R103884
Sample ID: MBLK-1	Method Blank				Run: MAN	TECH_080708A		07/08	3/08 10:46
Alkalinity, Phenolphthalein as CaCO3	ND	mg/L	1						
Alkalinity, Total as CaCO3	ND	mg/L	0.2						
Carbonate as CO3	ND	mg/L	1						
Bicarbonate as HCO3	ND	mg/L	1						
Hydroxide as OH	ND	mg/L	1						
Sample ID: LCS-1	Laboratory Cor	ntrol Sample			Run: MAN	TECH_080708A		07/08	3/08 10:53
Alkalinity, Total as CaCO3	200	mg/L	1.0	100	90	110			
Sample ID: C08070223-001AMS	Sample Matrix	Spike			Run: MAN	TECH_080708A		07/08	3/08 12:05
Alkalinity, Total as CaCO3	138	mg/L	1.0	104	80	120			
Sample ID: C08070223-001AMSD	Sample Matrix	Spike Duplicate			Run: MAN	TECH_080708A		07/08	3/08 12:12
Alkalinity, Total as CaCO3	138	mg/L	1.0	105	80	120	0.4	10	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
Method: A2510 B						Analytica	l Run:	ORION555A	_080707
Sample ID: ICV2_080707_1	Initial Calibration	on Verification Star	dard					07/07	7/08 11:03
Conductivity	1380 ι	mhos/cm	1.0	98	90	110			
Method: A2510 B						Bat	ch: 080	0707_1_PH-\	N_555A-
Sample ID: MBLK1_080707_1	Method Blank				Run: ORIC	N555A 080707A		07/07	7/08 10:58
Conductivity	0.7 ι	ımhos/cm	0.2			_			
Sample ID: C08070220-001FDUP	Sample Duplic	ate			Run: ORIC	N555A 080707A		07/07	7/08 11:41
Conductivity	756 u	ımhos/cm	1.0			-	0.0	10	
Method: A2540 C	· <u>···</u>					Ва	tch: 08	0707_1_SLD	S-TDS-W
Sample ID: MBLK1_080707	Method Blank				Run: BAL	1_080707A		07/07	7/08 09:10
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	6		Null. DAL	1_000/0/A		07707	700 05.10
Sample ID: LCS1_080707	Laboratory Cor	ntrol Sample			Run: BAL-	1_080707A		07/07	7/08 09:1 ⁻
Solids, Total Dissolved TDS @ 180 C	1010	mg/L	10	101	90	110		_,,,	
Sample ID: C08070217-001FMS	Sample Matrix	Spike			Run: BAL-	1_080707A		07/07	7/08 09:15
Solids, Total Dissolved TDS @ 180 C	2250	mg/L	10	100	90	110			
Sample ID: C08070217-001FMSD	Sample Matrix	Spike Duplicate			Run: BAL-	1_080707A		07/07	7/08 09:16
Solids, Total Dissolved TDS @ 180 C	2230	mg/L	10	99	90	110	0.8	10	

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc
Project: Not Indicated

Report Date: 07/31/08
Work Order: C08070223

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Quai
Method: A2540 D	-						Batch: 0	80703B-SLD	S-TSS-W
Sample ID: MBLK1_080703B	Method Blank				Run: BAL-1				
Solids, Total Suspended TSS @ 105 C	ND.	mg/L	0.7		Man. DAL	_000703B		07/03	/08 15:39
Sample ID: C08070223-001ADUP	Sample Duplic	ate							
Solids, Total Suspended TSS @ 105 C	ND	mg/L	1.0		Run: BAL-1	_080703B			/08 15:41
Method: A4500-CI B							0.0	25	
							Batch	: 080710A-C	L-TTR-W
Sample ID: MBLK9-080710A	Method Blank				Run: TITRA	TION_080710A		07/10/	08 13:33
Chloride	ND	mg/L	0.4			_			10.00
Sample ID: C08070237-001BMS	Sample Matrix	Spike			Run: TITDA	TION_080710A			
Chloride	32700	mg/L	1.0	101	90	110		0//10/	08 15:57
Samula ID: COORTOOK 004DEED									
Sample ID: C08070237-001BMSD Chloride	Sample Matrix	•				TION_080710A		07/10/	08 15:58
Chionae	32700	mg/L	1.0	101	90	110	0.0	10	
Sample ID: LCS35-080710A	Laboratory Con	trol Sample			Run: TITRA	TION_080710A		07/10/	08 16:03
Chloride	3550	mg/L	1.0	100	90	110		077107	00 10.03
Method: A4500-H B						Analytica	I Run: O	RION555A_0	1907074
Sample ID: ICV1_080707_1	Initial Calibratio	n Verification S	tandard			, many 100	ritun. O		
pH	6.89	s.u.	0.010	100	98	102		07/07/0	08 11:00
Method: A4500-H B									
						Bat	ch: 0807	'07_1_PH-W_	_555A-1
Sample ID: C08070220-001FDUP	Sample Duplica	te			Run: ORION	I555A_080707A		07/07/0	08 11:41
pH 	7.64	S.U.	0.010				0.0	10	
Method: A4500-NO2 B						Analytical R	un: HAC	H DR3000_0	80703C
Sample ID: ICV-2	Initial Calibration	Nerification St	andard			•			
Nitrogen, Nitrite as N	0.969	mg/L	0.10	97	90	110		07/03/0	8 16:04
Method: A4500-NO2 B						Bat	ch: A20	08-07-03_6_1	102 02
Sample ID: MBLK-1	Method Blank				Busi HACH				
Nitrogen, Nitrite as N	ND	mg/L	0.003		Null, HACH	DR3000_08070;	sc	07/03/0	8 16:04
Sample ID: C08070231-001FMS	Sample Matrix S	pike			Run: HACH	DR3000_080703		07/00/0	
Nitrogen, Nitrite as N	0.0490	mg/L	0.10	103	80	120	,	07/03/0	о ть:05
Sample ID: C08070231-001FMSD	Sample Matrix S	pike Duplicate			Run: HACH !	30000 000 7 00			
Nitrogen, N itrite as N	0.0497	mg/L	0.10	105	Ruii. NACH I 80	DR3000_080703 120	0.0	07/03/0 10	ช 16:05
							- · · -		

Qualifiers:

RL - Analyte reporting limit.



Client: Altela inc

Report Date: 07/31/08

Project: Not Indicated

Work Order: C08070223

					· · · · · · · · · · · · · · · · · · ·				
Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A4500-SO4 E	.						Batch: 08	0708_1_SO4	-TURB-W
Sample ID: LCS-1 080708	Laboratory Co	ntrol Sample			Run: TURE	3-2_080708A		07/08	3/08 10:56
Sulfate	5010	mg/L	59	104	90	110			
Sample ID: MBLK-1_080708	Method Blank				Run: TURE	3-2_080708A		07/08	3/08 10:56
Sulfate	ND	mg/L	0.6						
Sample ID: C08070231-001CMS	Sample Matrix	Spike			Run: TURE	3-2_080708A		07/08	8/08 16:42
Sulfate	356	mg/L	5.9	108	90	110			
Sample ID: C08070231-001CMSD	Sample Matrix	Spike Duplicate)		Run: TURE	3-2_080708A		07/08	3/08 16:44
Sulfate	353	mg/L	5.9	106	90	110	1.1	10	
Method: E200.7							Analytical I	Run: ICP3-C	_080722A
Sample ID: CCB	Continuing Ca	libration Blank						07/22	2/08 11:40
Lithium	0.0210	m g/L	0.10						
Phosphorus	-0.00500	mg/L	0.10						
Silica	-0.00400	mg/L	0.10						
Method: E200.7								Batch	R104679
Sample ID: CCV-ICP	ICP Continuin	Calibration			Run: ICP3-	C_080722A		07/22	2/08 11:44
Lithium	2.44	mg/L	0.10	98	90	110		31,122	
Phosphorus	2.54	mg/L	0.10	102	90	110			
Silica	2.51	mg/L	0.10	100	90	110			
Silicon	1.17	mg/L	0.047		0	0			
Sample ID: C08061205-004AMS	Sample Matrix	Spike			Run: ICP3-	C_080722A		07/22	2/08 12:16
Lithium	1.34	mg/L	0.10	106	70	130			
Sample ID: C08061205-004AMSD	Sample Matrix	Spike Duplicate	:		Run: ICP3-	C_080722A		07/22	2/08 12:20
Lithium	1.22	mg/L	0.10	94	70	130	9.2	20	
Sample ID: C08070893-002BDUP	Sample Duplic	ate			Run: ICP3-	C_080722A		07/23	3/08 01:34
Lithium	0.0100	mg/L	0.10				0.0	20	
Phosphorus	ND	mg/L	0.10				0.0	20	
Silica	ND	mg/L	0.10						
Silicon	ND	mg/L	0.047				0.0	20	

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc
Project: Not Indicated

Report Date: 07/31/08
Work Order: C08070223

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8			·	-				Batch:	R104609
Sample ID: LRB	Method Blank				Run: ICPM	S4-C_080721B		07/21	/08 16:56
Aluminum	0.0006	mg/L	0.0001						
Antimony	9E-06	mg/L	4E-06						
Arsenic	ND	mg/L	4E-05						
Barium	ND	mg/L	3E-05						
Beryllium	ND	mg/L	4E-06						
Boron	ND	mg/L	0.0004						
Cadmium	DИ	mg/L	3E-06						
Calcium	ND	mg/L	0.005						
Chromium	ND	mg/L	4E-05						
Cobalt	ND	mg/L	5E-06						
Copper	ND	mg/L	3E-05						
Iron	ND	mg/L	0.0002						
Lead	ND	mg/L	3E-06						
Magnesium	ND	mg/L	0.003						
Manganese	ND	mg/L	6E-06						
Molybdenum	ND	mg/L	9E-06						
Nickel	0.0003	mg/L	3E-05						
Potassium	0.006	mg/L	0.006						
Seleniu m	ND	mg/L	0.0001						
Silver	9E-06	mg/L	7E-06						
Sodium	N D	mg/L	0.01						
Strontium	ND	mg/L	2E-05						
Thallium	ND	mg/L	4E-06						
Tin	1.0E-05	mg/L	8E-06						
Titanium	ND	mg/L	6E-05						
Uranium	ND	mg/L	2E-06						
Vanadium	ND	mg/L	3E-05						
Zinc	0.0007	mg/L	3E-05						
Sample ID: LFB	Laboratory Fo	rtified Blank			Run: ICPN	/IS4-C_080721B		07/2	1/08 17:02
Aluminum	0.0472	mg/L	0.0010	93		115			
Antimony	0.0508	mg/L	0.0010	102	85	115			
Arsenic	0.0503	mg/L	0.0010	101	85	115			
Barium	0.0501	mg/L	0.0010	100	85	115			
Beryllium	0.0491	mg/L	0.0010	98	85	115			
Boron	0.0479	mg/L	0.0010	96		115			
Cadmium	0.0510	mg/L	0.0010	102		115			
Calcium	3.16	mg/L	0.0049	101		115			
Chromium	0.0498	mg/L	0.0010	100		115			
Cobalt	0.0489	mg/L	0.0010	98		115			
Copper	0.0506	mg/L	0.0010	101		115			

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc
Project: Not Indicated

Report Date: 07/31/08

Work Order: C08070223

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Quai
Method: E200.8								Batch:	R104609
Sample ID: LFB	Laboratory Fo	rtified Blank		Run: ICPMS4-C_080721B				07/21	/08 17:02
Iron	0.301	mg/L	0.0010	96	85	115			
Lead	0.0494	mg/L	0.0010	99	85	115			
Magnesium	2.57	mg/L	0.0030	82	85	115			s
Manganese	0.0463	mg/L	0.0010	93	85	115			
Molybdenum	0.0488	mg/L	0.0010	98	85	115			
Nickel	0.0501	mg/L	0.0010	100	85	115			
Potassium	2.48	mg/L	0.0059	79	85	115			s
Seleniu m	0.0518	mg/L	0.0010	104	85	115			
Silver	0.0196	mg/L	0.0010	98	85	115			
Sodium	2.56	mg/L	0.010	82	85	115			s
Strontium	0.0464	mg/L	0.0010	93	85	115			
Thailium	0.0490	mg/L	0.0010	98	85	115			
Tin	0.0510	mg/L	0.0010	102	85	115			
Titanium	0.0481	mg/L	0.0010	96	85	115			
Uranium	0.0483	mg/L	0.00030	97	85	115			
Vanadium	0.0488	mg/L	0.0010	98	85	115			
Zinc	0.0584	mg/L	0.0010	115	85	115			
Sample ID: C08061327-001KMS4	Post Digestion	Spike			Run: ICPM	S4-C_080721B		07/21	/08 22:59
Aluminum	0.0486	mg/L	0.10	90	70	130			
Antimony	0.0516	mg/L	0.050	100	70	130			
Arsenic	0.0500	mg/L	0.0010	98	70	130			
Barium	0.106	mg/L	0.10	100	70	130			
Beryllium	0.0442	mg/L	0.010	88	70	130			
Boron	0.208	mg/L	0.10	94	70	130			
Cadmium	0.0492	mg/L	0.010	96	70	130			
Calcium	141	mg/L	1.0		70	130			Α
Chromium	0.0478	mg/L	0.050	95	70	130			
Cobalt	0.0468	mg/L	0.010	93	70	130			
Copper	0.0536	mg/L	0.010	92	70	130			
Iron	0.293	mg/L	0.030	92	70	130			
Lead	0.0494	mg/L	0.050	98	70	130			
Magnesium	45.4	mg/L	1.0		70	130			Α
Manganese	0.171	mg/L	0.010	92	70	130			
Molybdenum	0.0498	mg/L	0.10	96	70	130			
Nickel	0.0528	mg/L	0.050	91	70	130			
Potassium	14.1	mg/L	1.0	70	70	130			
Selenium	0.0489	mg/L	0.0010	98	70	130			
Silver	0.0119	mg/L	0.010	60	70	130			S
Sodium	62.6	mg/L	1.0		70	130			Α
Strontium	2.23	mg/L	0.10		70	130			Α

Qualifiers:

RL - Analyte reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.



Client: Altela Inc
Project: Not Indicated

Report Date: 07/31/08
Work Order: C08070223

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8				· · · · · · · · · · · · · · · · · · ·				Batch	R104609
Sample ID: C08061327-001	KMS4 Post Digestic	n Spike			Run: ICPM	S4-C_080721B		07/21	/08 22:59
Thallium	0.0495	mg/L	0.10	99	70	130			
Tin	0.0502	mg/L	0.10	100	70	130			
Titanium	0.0484	mg/L	0.10	95	70	130			
Uranium	0.152	mg/L	0.00030	133	70	130			S
Vanadium	0.0484	mg/L	0.10	96	70	130			
Zinc	0.497	mg/L	0.010		70	130			Α
Sample ID: C08061327-001	KMSD4 Post Digestic	n Spike Dup	olicate		Run: ICPM	S4-C_080721B		07/21	/08 23:06
Aluminum	0.0470	mg/L	0.10	87	70	130	0.0	20	
Antimony	0.0515	mg/L	0.050	100	70	130	0.2	20	
Arsenic	0.0511	mg/L	0.0010	100	70	130	2.1	20	
Barium	0.106	mg/L	0.10	99	70	130	0.3	20	
Beryllium	0.0437	mg/L	0.010	87	70	130	1.1	20	
Boron	0.211	mg/L	0.10	100	70	130	1.4	20	
Cadmium	0.0496	mg/L	0.010	97	70	130	0.7	20	
Calcium	143	mg/L	1.0		70	130	0.9	20	Α
Chromium .	0.0488	mg/L	0.050	97	70	130	0.0	20	
Cobalt	0.0466	mg/L	0.010	93	70	130	0.3	20	
Copper	0.0550	mg/L	0.010	95	70	130	2.5	20	
Iron	0.301	mg/L	0.030	95	70	130	2.7	20	
Lead	0.0496	mg/L	0.050	99	70	130	0.0	20	
Magnesium	45.0	mg/L	1.0		70	130	0.9	20	Α
Manganese	0.170	mg/L	0.010	91	70	130	0.5	20	
Molybdenum	0.0508	mg/L	0.10	98	70	130	0.0	20	
Nickel	0.0539	mg/L	0.050	93	70	130	2.0	20	
Potassium	14.2	mg/L	1.0	73	70	130	0.7	20	
Selenium	0.0504	mg/L	0.0010	101	70	130	3.0	20	
Silver	0.0125	mg/L	0.010	63	70	130	5.0	20	S
Sodium	61.4	mg/L	1.0		70	130	2.0	20	A
Strontium	2.24	mg/L	0.10		70	130	0.4	20	Α
Thallium	0.0501	mg/L	0.10	100	70	130	0.0	20	
Tin	0.0502	mg/L	0.10	100	70	130	0.0	20	
Titanium	0.0489	mg/L	0.10	96	70	130	0.0	20	
Uranium	0.151	mg/L	0.00030	131	70	130	0.5	20	S
Vanadium	0.0492	mg/L·	0.10	97	70	130	0.0	20	
Zinc	0.497	mg/L	0.010		70	130	0.1	20	Α

Qualifiers:

RL - Analyte reporting limit.

 $^{{\}bf A}$ - The analyte level was greater than four times the spike level. In accordance with the method ${\bf \%}$ recovery is not calculated.

S - Spike recovery outside of advisory limits.



Client: Altela Inc Project: Not Indicated Report Date: 07/31/08

Work Order: C08070223

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E350.1								Batch: B	R114023
Sample ID: MBLK	Method Blank				Run: SUB-	B114023		07/14	/08 14:19
Nitrogen, Ammonia as N	ND	mg/L	0.02						
Sample ID: LFB	Laboratory For	rtified Blank			Run: SUB-	B114023		07/14	/08 14:20
Nitrogen, Ammonia as N	1.05	mg/L	0.10	106	90	110			
Sample ID: B08070664-001EMS	Sample Matrix	Spike			Run: SUB-	B114023		07/14	/08 14:26
Nitrogen, Ammonia as N	5.47	mg/L	0.10	90	90	110			
Sample ID: B08070664-001EMSD	Sample Matrix	Spike Duplicate			Run: SUB-	B114023		07/14	/08 14:27
Nitrogen, Ammonia as N	5.47	mg/L	0.10	89	90	110	0.1	10	s
Method: E351.2		·····						Batch: B	R113744
Sample ID: MBLK	Method Blank				Run: SUB-	B113744		07/09	/08 14:27
Nitrogen, Kjeldahl, Total as N	ND	mg/L	0.03						
Sample ID: LFB	Laboratory For	rtified Blank			Run: SUB-	B113744		07/09	/08 14:27
Nitrogen, Kjeldahl, Total as N	5.27	mg/L	0.50	105	90	110			
Sample ID: B08070669-001BMS	Sample Matrix	Spike			Run: SUB-	B113744		07/09	/08 14:39
Nitrogen, Kjeldahl, Total as N	5.79	mg/L	0.50	112	90	110			S
Sample ID: B08070669-001BMSD	Sample Matrix	Spike Duplicate			Run: SUB-	B113744		07/09	0/08 14:40
Nitrogen, Kjeldahl, Total as N	5.71	mg/L	0.50	111	90	110	1.4	10	S
Method: E353.2								Batch	R104395
Sample ID: MBLK-1	Method Blank				Run: TEC	HNICON_08071	7A	07/17	/08 11:30
Nitrogen, Nitrate+Nitrite as N	ND	mg/L	0.03						
Sample ID: LCS-2	Laboratory Co	ntrol Sample			Run: TEC	HNICON_08071	7A	07/17	7/08 11:32
Nitrogen, Nitrate+Nitrite as N	2.59	mg/L	0.10	104	90	110			
Sample ID: C08070560-001DMS	Sample Matrix	Spike			Run: TECI	HNICON_08071	7A	07/17	7/08 11:47
Nitrogen, Nitrate+Nitrite as N	2.28	mg/L	0.10	101	90	110			
Sample ID: C08070560-001DMSD	Sample Matrix	Spike Duplicate			Run: TECI	HNICON_08071	7A	07/17	7/08 11:50
Nitrogen, Nitrate+Nitrite as N	2.30	mg/L	0.10	102	90	110	0.9	10	

Qualifiers:

RL - Analyte reporting limit.

S - Spike recovery outside of advisory limits.



Client: Altela Inc

Project: Not Indicated

Report Date: 07/31/08

Work Order: C08070223

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015B						····		Batch:	B_33452
Sample ID: LCS-33452	Laboratory Co	ntrol Sample			Run: SUB-	B113819		07/10	/08 09:52
Methanol	52	mg/L	1.0	103	70	130			
Surr: sec-Butyl Alcohol			1.0	101	80	120			
Sample ID: MB-33452	Method Blank				Run: SUB-	B113819		07/10	/08 10:16
Methanol	ND	mg/L	1.0						
Surr: sec-Butyl Alcohol			1.0	98	80	120			
Sample ID: B08070670-001JMS	Sample Matrix	Spike			Run: SUB-	B113819		07/10	/08 11:49
Methanol	51	mg/L	1.1	103	70	130			
Surr: sec-Butyl Alcohol			1.1	102	80	120			
Sample ID: B08070670-001JMSD	Sample Matrix	Spike Duplica	te		Run: SUB-	B113819		07/10	/08 12:12
Methanol	50	mg/L	1.1	99	70	130	3.6	20	
Surr: sec-Butyl Alcohol			1.1	101	80	120			
Method: SW8015M as D								Bato	ch: 19047
Sample ID: MB-19047	Method Blank				Run: FID2-	C_080709A		07/08	/08 13:54
Diesel Range Organics (DRO)	ND	mg/L	0.03						
Surr: o-Terphenyl			0.002	94	60	120			
Sample ID: LCS-19047	Laboratory Co	ntrol Sample			Run: FID2-	C_080709A		07/08	/08 14:40
Diesel Range Organics (DRO)	1.8	mg/L	1.0	90	57	112			
Surr: o-Terphenyl			0.020	90	67	117			
Sample ID: LCSD-19047	Laboratory Co	ntrol Sample D	uplicate		Run: FID2-	C_080709A		07/08	/08 17:40
Diesel Range Organics (DRO)	1.6	mg/L	1.0	79	57	112	12	20	
Surr: o-Terphenyl			0.020	84	67	117	0.0	20	
Sample ID: C08070223-001FMS	Sample Matrix	Spike			Run: FID2-	C_080709A		07/08	/08 19:14
Diesel Range Organics (DRO)	2.3	mg/L	1.0	74	50	115			
Surr: o-Terphenyl			0.020	73	60	120			
Sample ID: C08070223-001FMSD	Sample Matrix	Spike Duplica	te		Run: FID2-	C_080709A		07/08	/08 20:00
Diesel Range Organics (DRO)	2.4	mg/L	1.0	76	50	115	1.3	20	
Surr: o-Terphenyl			0.020	84	60	120			

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc
Project: Not Indicated

Report Date: 07/31/08

Work Order: C08070223

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015M as G			•				•	Batch:	R103852
Sample ID: LCS_0707HP207r	Laboratory Cor	ntrol Sample			Run: PIDF	ID1-C_080707B		07/07	7/08 14:58
Gasoline Range Organics (GRO)	0.205	mg/L	0.040	103	82	120			
Surr: Trifluorotoluene			0.0020	104	80	120			
Sample ID: MBLK_0707HP208r	Method Blank				Run: PIDF	ID1-C_080707B		07/07	7/08 15:33
Gasoline Range Organics (GRO)	ND	mg/L	0.02						
Surr: Trifluorotoluene				100	80	120			
Sample ID: C08070237-001IMS	Sample Matrix	Spike			Run: PIDF	ID1-C_080707B		07/08	3/08 06:54
Gasoline Range Organics (GRO)	3.98	mg/L	0.36	100	70	130			
Surr: Trifluorotoluene			0.0020	96	80	120			
Sample ID: C08070237-001IMSD	Sample Matrix	Spike Duplica	te		Run: PIDF	ID1-C_080707B		07/08	3/08 07:30
Gasoline Range Organics (GRO)	4.07	mg/L	0.36	102	70	130	2.2	20	
Surr: Trifluorotoluene			0.0020	99	80	120	0.0	10	



Client: Altela Inc
Project: Not Indicated

Report Date: 07/31/08

Work Order: C08070223

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B								Batch:	R103848
Sample ID: LCS_0707HP206r	Laboratory Co	ntrol Sample			Run: PIDF	ID1-C_080707A		07/07	7/08 14:22
Benzene	10	ug/L	0.50	103	80	120			
Ethylbenzene	11	ug/L	0.50	105	80	120			
m+p-Xylenes	21	ug/L	0.50	103	80	120			
o-Xylene	10	ug/L	0.50	102	80	120			
Toluene	11	ug/L	0.50	104	80	120			
Surr: Trifluorotoluene			0.50	103	80	120			
Sample ID: MBLK_0707HP208r	Method Blank				Run: PIDF	ID1-C_080707A		07/07	7/08 15:33
Benzene	ND	ug/L	0.05						
Ethylbenzene	ND	ug/L	0.05						
m+p-Xylenes	ND	ug/L	0.1						
o-Xylene	0.1	ug/L	0.05						
Toluene	0.1	ug/L	0.05						
Surr: Trifluorotoluene				102	80	120			
Sample ID: C08070237-001HMS	Sample Matrix	Spike			Run: PIDF	ID1-C_080707A		07/08	3/08 05: 43
Benzene	220	ug/L	1.0	103	80	120			
Ethylbenzene	210	ug/L	1.0	104	80	120			
m+p-Xylenes	420	ug/L	2.0	101	80	120			
o-Xylene	210	ug/L	1.0	102	80	120			
Toluene	240	ug/L	1.0	102	80	120			
Surr: Trifluorotoluene			0.50	99	80	120			
Sample ID: C08070237-001HMSD	Sample Matrix	Spike Duplicate			Run: PIDF	ID1-C_080707A		07/08	3/08 06:19
Benzene	220	ug/L	1.0	102	80	120	0.4	20	
Ethylbenzene	210	ug/L	1.0	103	80	120	1.2	20	
m+p-Xylenes	420	ug/L	2.0	100	80	120	1.2	20	
o-Xylene	210	ug/L	1.0	101	80	120	0.9	20	
Toluene	230	ug/L	1.0	101	80	120	1.1	20	
Surr: Trifluorotoluene			0.50	105	80	120	0.0	10	



Client: Altela Inc

Report Date: 07/31/08

Project: Not Indicated

Work Order: C08070223

Analyte	Result I	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW9020B							-	Bat	ch: 19104
Sample ID: MB-19104	Method Blank				Run: TOXE	3OX_080712A		07/11	/08 10:22
Organic Halides, Total	N D m	g CI/L	0.03						
Sample ID: LCS-19104	Laboratory Contr	ol Sample			Run: TOX	3OX_080712A		07/11	/08 10:38
Organic Halides, Total	0.950 m	g CI/L	0.10	95	80	120			
Sample ID: C08070223-001GMS	Sample Matrix Sp	pike			Run: TOXE	3OX_080712A		07/11	/08 11:34
Organic Halides, Total	1.03 m	g CI/L	0.10	103	80	120			
Sample ID: C08070223-001GMSD	Sample Matrix Sp	pike Duplicate			Run: TOXE	3OX_080712A		07/11	/08 12:03
Organic Halides, Total	1.09 m	g CI/L	0.10	109	80	120	5.7	20	

) (L	(6.5)
12	80
	M
	201
W	16/1

Chain of Custody and Analytical Request Record

Page ____ of _______

										ပ		z (c) z	z									7		7	_	
FPA/State Compliance		2	Sampler: (Please Print)	3 (Drder:	123570	Shipped by:	Cooler ID(s):	61831	ا ْ يَو	× 88	Custody Seal (Y) Bottles/ Bottles/ B		(S)									FERNIOSO		nsa		
State C			pler: (Pl	からそので	Quote/Bottle Order	20/2			C	Rece	8	Custody Bottles/	Intact	Signature Match	1	7/0	0 2		12	<u>40</u>	Τ[₽/	40 40		7			Signature:
FPA	i >	l res ⊔	Sam	3	Quot	28601	or to		92 a																3.38 Single	•	Signs
			(9)		er:		Contact ELI prior to	for charges and	scheduling – See Instruction Page	ents:					٤								ם)	8 13		
Sample Origin		State: NW	Email: Methhew. broft @	5	Purchase Order:		Contact	for char	schedul Instructi	Comments					رعمه							->	Grab		13-08		
Samo	1 0	State.	Email:	~151910c. Com	Purcha		C	Y)	IJ	1	•												Date/Time:	_	Date/Time:
			A DEA	2								ormal	N												3		EG
sible.			O			Q	<u>J</u>					SEE	14.2 14.3	·w									×	×	M		βυχ:
as pos			1930			-416	WEST			<i>→</i> 74	harbe		K J								×	×			Seived by (prime)		Received by Laboratory:
ormatio			Phone/Fax: 53) 953-1		 \	1923	REQ	153	lun g	7O *	1 7	Trus	447 195-	W M						×					Received by (prin		Received
much in	: !		Phon (5×5) جنجمرة	ļ		6414-866(505)	ANIALYSIS REQUESTED		·· 24	ادر د	יוט ^{יב}	ماد ، د. ماد ، د						×	×						X		
VS. Per		20) (Phone		UNIAL		H 642	d"=	دوار	AP	سلاد.	ري. ري		×	×					_			الد		
ame PV		7	~		ontact &	Hv,44		<u> </u>	्राप्ट.		7 5 (ר ולם	636	סי	×										Signature:		sal:
PLEASE PRINT: Provide as much information as possible. Project Name, PWS, Permit, Etc.	. (ÖX	Contact Name:		Invoice Contact & Phone:	8,11	(Typei qa B C eus	ontaine V S W S Solid	n Of Co A :eq Soi Bios:	mbei ple Ty it Wal etatio	Nu ms2 <u>A</u> ege⊻		MATRIX	W1L	W11-	W 250ml	9:44em WasomL	9:49am WYOML	W YomL	W 40mL	WSOOLL	1250m	į			Lab Disposal:
							ified			A2LA EDD/EDT(Electronic Data)			Collection	Time	9:30em W11	9:33am W11	9:40cm W	9:44em	9:49cm	9:56 am	10:03cm W	10:13cm V	10:15cm		8/4:3pm		
			8	36			Special Report/Formats – ELI must be notified	General G		A /EDT(Elex	at:	AC V	Collection	Date	7/2/58	7/2/08	7/2/58	7/2/08	712/08	7/2/08	20/0/	86	80		7/2 /5 8 / Date/Time:		Return to Client:
			Suite dos	87/26			ELI mu	ב ב ב	1	A2LA EDD/I	Format:	NELAC	-	,	7/6	7/6	7/2	7/3	712	7/2	2/2	7/2/58	7/2/08		dista	ļ	Return
				2			nats – I	ב ב	4	لالنا	L		NOLLA	/al, etc.)													sposal:
äi	ŀ	100	dress:	1	:4		ort/Form	ממפ טוו			WTP		SAMPLE IDENTIFICATION	(Name, Location, Interval, etc.)	D.								g	10.00	Reinquished by (print):		Sample Disposal:
Company Name:		41616	Maii Ad P	H Dynaman	Address	Y C	al Repo	- B		>	POTW/WWTP	Other:	I I I	3, Locati	Š	>δ	+	+	+	+	-	4	O KXO			e e	
Compa	<u>-</u>	#	Report Mail Address:	4	Invoice	Same	Specie	<u>.</u>	[88 □□		₹]□	SAM	(Nam	-	5		4	ا م	ا و	,		7	و	Custody Record	MUST be	Signed

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

76	10.5
ERC	NATOR
EN EN	ABOL

Chain of Custody and Analytical Request Record

Page 12 of Q.

Company Name:		Project Na	Project Name, PWS, Permit, Etc.	C	Sam	Sample Origin	EPA/State Compliance:	iance:
A1401, 120,		- -	30		State:	52	Yes 🗌 No 📙	
777		Contact		Phone/Fax:	Email	=	Sampler: (Please Print)	Print)
2450 Alomo 35 Suite	te 200	Matthe	Matthew Bross (3)	(303) 973-1950	TATT	methon brothe	Michael	
5	90/18				दार्महाद व	altelaine, com	いうちのこれ	
		Invoice Co	nvoice Contact & Phone:		Purc	Purchase Order:	Quote/Bottle Order:	er:
Sem		± 0 0	Huit (505)	6414-568(808)			2860/23S	८८ऽ
Special Report/Formats - ELI must be notified	ELI must be notified	1		ANALYSIS REQUESTED	6	Contact ELI prior to RUSH sample submittal	r to Shipped by:	•
prior to sample submittal for the following:	or the following:	itper Is B C I ts			Y	_		
		enistr V S V ViloS\		IED		scheduling – See Instruction Page		.c
<u>8</u> 6	A2LA EDDÆDT		שטו פ	.VCH	ncound	Comments:	Receipt Temp	ပ
D POTWWWTP	Format:			ΤΤA	()		on Iç	0
State:	☐ LEVEL IV ☐ NELAC	nuN Iqms2 ìi <u>A</u> tege⊻		?EE \	T lemio		Custody Seal Bottles/	
			, Se.	3			Intact	Š
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Collection Date Time	ion MATRIX	#1CA				Signature Match	3
Ox O	7/2158	D:18cm W30um	*			(grab	_A\	
2								
3							0 5	
4							S	
5							D A	
9							Y()	
7							<u>\</u> \\	
۵							Y(C	
O.								KIND
10					· ·		רק	
	Date/Time: 72/58 /	14.80m 97.10	Signature:	Received by (print); fer MSAx	Date/Time	2.81 80.87	0	MSPEL
MIST be	Date/Time:		diure	Received by (print):	/ Date/Time	Ü	Signature	
Signed Sample Disposal:	Return to Client:	Lab Disposal:	sal:	Received by Laboratory:	Date/Time		Signature:	
1					:			

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Energy Laboratories Inc Workorder Receipt Checklist



Altela Inc

Reviewed by:

Login completed by: Edith McPike

Date and Time Received: 7/3/2008 1:30 PM

Received by: jm

Reviewed Date: Carrier name: FedEx

Shipping container/cooler in good condition?	Yes 🗹	No 🗌	Not Present
Custody seals intact on shipping container/cooler?	Yes 🗹	No 🖂	Not Present
Custody seals intact on sample bottles?	Yes [No 🗌	Not Present ☑
Chain of custody present?	Yes 🗹	No 🗌	
Chain of custody signed when relinquished and received?	Yes ✓	No 🗀	
Chain of custody agrees with sample labels?	Yes 🗹	No 🗌	
Samples in proper container/bottle?	Yes 🗸	No 🗌	
Sample containers intact?	Yes 🗌	No 🔽	
Sufficient sample volume for indicated test?	Yes 🔽	No 🗌	
All samples received within holding time?	Yes ☑	No 🗌	
Container/Temp Blank temperature in compliance?	Yes 🔽	No 🗌	5°C On Ice
Water - VOA vials have zero headspace?	Yes 🗹	No 🗌	No VOA vials submitted
Water - pH acceptable upon receipt?	Yes ☑	No 📋	Not Applicable

Contact and Corrective Action Comments:

¹ Vial for BTEX received broken



Date: 31-Jul-08

CLIENT:

Altela Inc

Project:

Not Indicated

Sample Delivery Group: C08070223

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

ORIGINAL SAMPLE SUBMITTAL(S)

All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS

Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

RADON IN AIR ANALYSIS

The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

SOIL/SOLID SAMPLES

All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS USING EPA 505

Data for Atrazine and Simazine are reported from EPA 525.2, not from EPA 505. Data reported by ELI using EPA method 505 reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT

eli-g - Energy Laboratories, Inc. - Gillette, WY

eli-h - Energy Laboratories, Inc. - Helena, MT

eli-r - Energy Laboratories, Inc. - Rapid City, SD

eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:

USEPA: WY00002; FL-DOH NELAC: E87641; Arizona: AZ0699; California: 02118CA

Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:

The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.



ANALYTICAL SUMMARY REPORT

August 02, 2008

Altela Inc

5350 S Roslyn St Ste 430 Englewood, CO 80111

Workorder No.: C08070232

Quote ID: C2860

Project Name:

Not Indicated

Energy Laboratories, Inc. received the following 1 sample from Altela Inc on 7/3/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C08070232-001	Oxy PW	07/01/08 13:0	5 07/03/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Chloride Conductivity Sample Filtering Liquid-Liquid Extraction SW8021B, BTEX Diesel Range Organics Gasoline Range Organics Methanol Prep for TOX SW9020B Total Organic Halogens Hardness Nitrogen, Ammonia Nitrogen, Nitrite Dissolved Nitrogen, Nitrate + Nitrite Dissolved Nitrogen, Nitrate Dissolved Nitrogen, Total Kjeldahl pH Services Provided by Lab Solids, Total Dissolved Solids, Total Suspended Sulfate

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By: Kin Brankly



Client:

Altela Inc

Project:

Not Indicated

Lab ID:

C08070232-001

Client Sample ID: Oxy PW

Report Date: 08/02/08

Collection Date: 07/01/08 13:05 DateReceived: 07/03/08

Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Alkalinity, Phenolphthalein as CaCO3	ND	mg/L		1		A2320 B	07/08/08 12:46 / IjI
Alkalinity, Total as CaCO3	624	mg/L		1		A2320 B	07/08/08 12:46 / ljl
Carbonate as CO3	ND	mg/L		1		A2320 B	07/08/08 12:46 / Iji
Bicarbonate as HCO3	761	mg/L		1		A2320 B	07/08/08 12:46 / ljl
Hydroxide as OH	ND	mg/L		1		A2320 B	07/08/08 12:46 / Iji
Calcium	284	mg/L	D	5		E200.7	07/25/08 15:49 / cp
Chloride	11300	mg/L		1		A4500-CI B	07/10/08 15:49 /
Magnesium	41	mg/L	D	2		E200.7	07/25/08 15:49 / cp
Nitrogen, Ammonia as N	11.9	mg/L	D	0.1		E350.1	07/15/08 11:13 / eli-b
Nitrogen, Kjeldahl, Total as N	15.0	mg/L	_	0.5		E351.2	07/14/08 08:56 / eli-b
Phosphorus	ND	mg/L	D	1		E200.7	07/25/08 15:49 / cp
Potassium	264	mg/L	J	1		E200.7	07/25/08 15:49 / cp
Silica	27.8	mg/L		0.1		E200.7	07/25/08 15:49 / cp
Sodium	6780	mg/L	D	40		E200.7 E200.7	07/25/08 15:49 / cp
Sulfate	22	_	U	1			•
Sunate	22	mg/L		1		A4500-SO4 E	07/08/08 16:45 / jal
MAJOR IONS - DISSOLVED							
Nitrogen, Nitrate as N	ND	mg/L		0.1		E353.2	07/18/08 11:31 / sec
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/17/08 11:37 / jal
Nitrogen, Nitrite as N	ND	mg/L		0.1		A4500-NO2 B	07/03/08 17:16 / jal
PHYSICAL PROPERTIES							
Conductivity	32100	umhos/cm		1		A2510 B	07/07/08 11:55 / dd
Hardness as CaCO3	878	mg/L		1		A2340 B	07/25/08 15:49 / lab
На	6.96	s.u.		0.01		A4500-H B	07/07/08 11:55 / dd
Solids, Total Dissolved TDS @ 180 C	18500	mg/L		10		A2540 C	07/07/08 09:17 / dd
Solids, Total Suspended TSS @ 105 C	50	mg/L		1		A2540 D	07/07/08 11:20 / sp
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	07/21/08 22:01 / smi
Antimony	ND	mg/L		0.05		E200.8	07/21/08 22:01 / sml
Arsenic	0.015	mg/L		0.001		E200.8	07/21/08 22:01 / sml
Barium	46.7	mg/L	D	0.001		E200.6 E200.7	07/25/08 15:49 / cp
Beryllium	ND	mg/L	U	0.01		E200.7 E200.8	07/21/08 22:01 / sml
Boron	2.5	mg/L	D	0.8		E200.8 E200.7	07/24/08 17:07 / cp
Cadmium	ND	mg/L	U	0.01		E200.7 E200.8	07/24/08 17:07 / cp 07/21/08 22:01 / sml
Chromium	0.12	mg/L		0.01		E200.8	07/21/08 22:01 / sml
Cobalt	0.12	mg/L		0.03		E200.8	07/21/08 22:01 / sml
Copper Copper	ND	-		0.01		E200.8	
Copper Iron	7.3	mg/L	D				07/21/08 22:01 / sml
		mg/L ma/l	U	0.2		E200.7	07/25/08 15:49 / cp
Lead	ND 3.6	mg/L		0.05		E200.8	07/21/08 22:01 / sml
Lithium	2.6	mg/L		0.1		E200.7	07/25/08 15:49 / cp

Report

RL - Analyte reporting limit.

Definitions:

QCL - Quality control limit.

MCL - Maximum contaminant level.

D - RL increased due to sample matrix interference.



Client:

Altela Inc

Project: Lab ID:

Not Indicated

Client Sample ID: Oxy PW

C08070232-001

Report Date: 08/02/08

Collection Date: 07/01/08 13:05

DateReceived: 07/03/08

Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - DISSOLVED							
Manganese	0.81	mg/L		0.01		E200.8	07/21/08 22:01 / sml
Molybdenum	ND	mg/L		0.1		E200.8	07/21/08 22:01 / sml
Nickel	ND	mg/L		0.05		E200.8	07/21/08 22:01 / sml
Selenium	ND	mg/L		0.001		E200.8	07/21/08 22:01 / sml
Silicon	14.2	mg/L	D	0.9		E200.7	07/24/08 17:07 / cp
Silver	ND	mg/L		0.01		E200.8	07/21/08 22:01 / sml
Strontium	29.2	mg/L		0.1		E200.7	07/25/08 15:49 / cp
Thallium	ND	mg/L		0.1		E200.8	07/21/08 22:01 / sml
Tin	ND	mg/L		0.1		E200.8	07/21/08 22:01 / sml
Titanium	ND	mg/L		0.1		E200.8	07/21/08 22:01 / sml
Uranium	0.0011	mg/L		0.0003		E200.8	07/21/08 22:01 / sml
Vanadium	ND	mg/L		0.1		E200.8	07/21/08 22:01 / sml
Zinc	0.05	mg/L		0.01		E200.8	07/21/08 22:01 / sml
DATA QUALITY							
A/C Balance (± 5)	-1.79	%				Calculation	07/29/08 17:00 / lab
Anions	332	meg/L				Calculation	07/29/08 17:00 / lab
Cations	320	meg/L				Calculation	07/29/08 17:00 / lab
Solids, Total Dissolved Calculated	19100	mg/L				Calculation	07/29/08 17:00 / lab
TDS Balance (0.80 - 1.20)	0.970	ŭ				Calculation	07/29/08 17:00 / lab
VOLATILE ORGANIC COMPOUNDS							
Benzene	5900	ug/L	D	10		SW8021B	07/12/08 05:02 / dkh
Ethylbenzene	46	ug/L	D	1.0		SW8021B	07/12/08 04:26 / dkh
m+p-Xylenes	1800	ug/L	D	2.0		SW8021B	
o-Xylene	470	ug/L ug/L	D	1.0		SW8021B	07/12/08 04:26 / dkh
Toluene	5500	ug/L	D	1.0		SW8021B	07/12/08 04:26 / dkh
Surr: Trifluorotoluene	95.0	%REC	J	80-120		SW8021B	07/12/08 05:02 / dkh 07/12/08 04:26 / dkh
NON-HALOGENATED VOLATILES							
Methanol	ND	mg/L		1.0		SW8015B	07/40/00 44 00 4 51
Surr: sec-Butyl Alcohol	101	%REC		80-120		SW8015B	07/10/08 11:02 / eli-b 07/10/08 11:02 / eli-b
ORGANIC CHARACTERISTICS							
Diesel Range Organics (DRO)	2.0	mg/L		1.0		SW901EM 00	07/08/09 20:47 / -:-
Surr: o-Terphenyl	25.0	%REC	s	60-120		SW8015M as	07/08/08 20:47 / cjs 07/08/08 20:47 / cjs
Gasoline Range Organics (GRO)	29.6	mg/L	D	0.36		SW8015M as	07/12/08 04:26 / dkh
Surr: Trifluorotoluene	89.0	%REC		80-120			07/12/08 04:26 / dkh

Report Definitions:

RL - Analyte reporting limit.

QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



ENERGY LABORATORIES, INC. • 2393 Salt Creek Highway (82601) • P.O. Box 3258 • Casper, WY 82602 Toll Free 888.235.0515 • 307.235.0515 • Fax 307.234.1639 • casper@energylab.com • www.energylab.com

LABORATORY ANALYTICAL REPORT

Client:

Altela Inc

Project:

Not Indicated

Lab ID:

C08070232-001

Client Sample ID: Oxy PW

Report Date: 08/02/08

Collection Date: 07/01/08 13:05

DateReceived: 07/03/08

Matrix: Aqueous

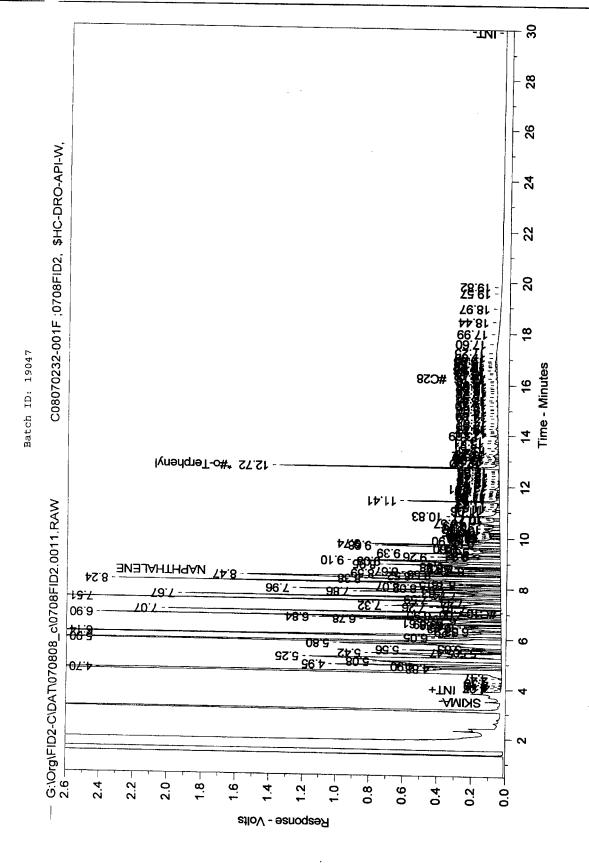
Analyses	Result	Units	Qualifiers	RL	MCL/	Method	Analysis Date / By
ORGANIC CHARACTERISTICS Organic Halides, Total	0.2	mg Cl/L		0.1		SW9020B	07/11/08 12:17 / wen

Report

RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.





Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08

Work Order: C08070232

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2320 B			-,-					Batch	R103884
Sample ID: MBLK-1	Method Blank				Run: MAN	TECH_080708A		07/08	3/08 10:46
Alkalinity, Phenolphthalein as CaCO3	ND	mg/L	1						
Alkalinity, Total as CaCO3	ND	mg/L	0.2						~
Carbonate as CO3	ND	mg/L	1						
Bicarbonate as HCO3	ND	mg/L	1						
lydroxide as OH	ND	mg/L	1						
Sample ID: LCS-1	Laboratory Cor	itrol Sample			Run: MAN	FECH_080708A		07/08	3/08 10:53
Alkalinity, Total as CaCO3	200	mg/L	1.0	100	90	110			
Sample ID: C08070223-001AMS	Sample Matrix	Spike			Run: MAN	FECH_080708A		07/08	3/08 12:05
Alkalinity, Total as CaCO3	138	mg/L	1.0	104	80	120			
Sample ID: C08070223-001AMSD	Sample Matrix	Spike Duplicate			Run: MAN	ΓΕCH_080708A		07/0	8/08 12:12
Alkalinity, Total as CaCO3	138	mg/L	1.0	105	80	120	0.4	10	
Method: A2510 B				•		Analytica	l Run: (ORION555A	_080707
Sample ID: ICV2_080707_1	Initial Calibration	on Verification Star	ndard					07/0	7/08 11:0
Conductivity	1380 u	mhos/cm	1.0	98	90	110			
Method: A2510 B						Bat	ch: 080	707_1_PH-\	N_555A-1
Sample ID: MBLK1_080707_1	Method Blank				Run: ORIO	N555A_080707A		07/0	7/08 10:58
Conductivity	0.7 u	mhos/cm	0.2						
Sample ID: C08070220-001FDUP	Sample Duplic	ate			Run: ORIO	N555A_080707A		07/0	7/08 11:41
Conductivity	756 u	mhos/cm	1.0				0.0	10	
Method: A2540 C		· · · · · · · · · · · · · · · · · · ·				Ва	tch: 080	0707_1_SLE	S-TDS-W
Sample ID: MBLK1_080707	Method Blank				Run: BAL-1	1_080707A		07/0	7/08 09:10
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	6						
Sample ID: LCS1_080707	Laboratory Cor	ntrol Sample			Run: BAL-	1_080707A		07/0	7/08 09:1
Solids, Total Dissolved TDS @ 180 C	1010	mg/L	10	101	90	110			
Sample ID: C08070238-001CMS	Sample Matrix	Spike			Run: BAL-	1_080707A		07/0	7/08 09:18
olids, Total Dissolved TDS @ 180 C	2140	mg/L	10	99	90	110			
folids, Total Dissolved 103 @ 160 C									
Sample ID: C08070238-001CMSD	Sample Matrix	Spike Duplicate			Run: BAL-	1_080707A		07/0	7/08 09:18

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc

Report Date: 08/02/08

Project: Not Indicated

Work Order: C08070232

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: A2540 D						E	Batch: 0	80707A-SLD	S-TSS-V
Sample ID: MBLK1_080707A	Method Blank				Run: BAL-1	1 080707B		07/07	/08 11:20
Solids, Total Suspended TSS @ 105 C	ND	mg/L	0.7					• • • • • • • • • • • • • • • • • • • •	
Sample ID: C08070242-002ADUP	Sample Duplic	ate			Run: BAL-1	1_080707B		07/07	/08 11:22
Solids, Total Suspended TSS @ 105 C	3.00	mg/L	1.0			_		25	
Method: A4500-CI B	· · · · · · · · · · · · · · · · · · ·						Batch	: 080710A-C	L-TTR-W
Sample ID: MBLK9-080710A	Method Blank				Run: TITRA	ATION_080710A		07/10	/08 13:33
Chloride	ND	mg/L	0.4						
Sample ID: C08070237-001BMS	Sample Matrix	Spike			Run: TITRA	ATION_080710A		07/10	/08 15:57
Chloride	32700	mg/L	1.0	101	90	110			
Sample ID: C08070237-001BMSD	Sample Matrix	Spike Duplicate			Run: TITRA	ATION_080710A		07/10	/08 15:58
Chloride	32700	mg/L	1.0	101	90	110	0.0	10	
Sample ID: LCS35-080710A	Laboratory Cor	trol Sample			Run: TITRA	ATION_080710A		07/10	/08 16:03
Chloride	3550	mg/L	1.0	100	90	110			
Method: A4500-H B						Analytica	l Run: 0	DRION555A_	080707
Sample ID: ICV1_080707_1	Initial Calibratio	n Verification Sta	andard					07/07	/08 1 1:00
рН	6.89	s.u.	0.010	100	98	102			
Method: A4500-H B						Bat	ch: 080	707_1_PH-V	V_555A-1
Sample ID: C08070220-001FDUP	Sample Duplica	ate			Run: ORIO	N555A_080707A		07/07	/08 11:41
pH	7.64	s.u.	0.010			_	0.0	10	
Method: A4500-NO2 B		· · · · · · · · · · · · · · · · · · ·				Analytical R	un: HA	CH DR3000_	0807030
Sample ID: ICV-2	Initial Calibratio	n Verification Sta	andard					07/03	/08 16:04
Nitrogen, Nitrite as N	0.969	mg/L	0.10	97	90	110		0,100	
Method: A4500-NO2 B						Ba	tch: A2	008-07-03_6	 _NO2_02
Sample ID: MBLK-1	Method Blank				Run: HACH	DR3000_08070	3C	07/03/	/08 16:04
Nitrogen, Nitrite as N	ND	mg/L	0.003						
Sample ID: C08070231-001FMS	Sample Matrix	•			Run: HACH	DR3000_08070	3C	07/03/	/08 16:05
Nitrogen, Nitrite as N	0.0490	mg/L	0.10	103	80	120			
Sample ID: C08070231-001FMSD	Sample Matrix					DR3000_08070	3C	07/03/	08 16:05
Nitrogen, Nitrite as N	0.0497	mg/L	0.10	105	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08

Work Order: C08070232

Analyte		Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method:	A4500-SO4 E							Batch: 080	708_1_SO4	-TURB-W
Sample ID:	LCS-1_080708	Laboratory Cor	ntrol Sample			Run: TURE	3-2_080708A		07/08	/08 10:56
Sulfate	_	5010	mg/L	59	104	90	110			
Sample ID:	MBLK-1_080708	Method Blank				Run: TURE	3-2_080708A		07/08	3/08 10:56
Sulfate		ND	mg/L	0.6						
Sample ID:	C08070231-001CMS	Sample Matrix	Spike			Run: TURE	3-2_080708A		07/08	3/08 16:42
Sulfate		356	mg/L	5.9	108	90	110			
Sample ID:	C08070231-001CMSD	Sample Matrix	Spike Duplicate			Run: TURE	3-2_080708A		07/08	3/08 16:44
Sulfate		353	mg/L	5.9	106	90	110	1.1	10	
Method:	E200.7								Batch:	R104799
Sample ID:	MB-080724A	Method Blank				Run: ICP2	-C_080724A		07/24	1/08 13:13
Boron		0.02	mg/L	0.008						
Silica		ND	mg/L	0.02						
Sample ID:	LFB-080724A	Laboratory For	rtified Blank			Run: ICP2	-C_080724A		07/2	4/08 13:17
Boron		1.06	mg/L	0.10	105	85	125			
Silica		0.395	mg/L	0.10	99	85	125			
Sample ID:	C08070339-001JMS2	Sample Matrix	Spike			Run: ICP2	-C_080724A		07/2	4/08 17:19
Boron		2.25	mg/L	0.10	103	70	130			
Silica		7.85	mg/L	0.10		70	130			Α
Sample ID:	C08070339-001JMSD2	Sample Matrix	Spike Duplicate			Run: ICP2	-C_080724A		07/2	4/08 17:23
Boron		2.23	mg/L	0.10	102	70	130	0.9	20	
Silica		7.77	mg/L	0.10		70	130	1.0	20	Α

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.



Client: Altela Inc Project: Not Indicated **Report Date: 08/02/08**

Work Order: C08070232

Analyte		Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E	E200.7								Batch:	R104879
Sample ID:	MB-080725A	Method Blank				Run: ICP2-	C_080725A		07/25	5/08 13:29
Barium		ND	mg/L	0.006						
Calcium		ND	mg/L	0.1						
Iron		ND	mg/L	0.005						
Lithium		ND	mg/L	0.0001						
Magnesium		ND	mg/L	0.04						
Phosphorus		ND	mg/L	0.02						
Potassium		ND	mg/L	0.02						
Silica		ND	mg/L	0.02						
Sodium		ND	mg/L	0.8						
Strontium		ND	mg/L	0.0002						
Sample ID:	LFB-080725A	Laboratory For	tified Blank			Run: ICP2-	C_080725A		07/2	5/08 13:3:
Barium		0.988	mg/L	0.10	99	85	125			
Calcium		51.9	mg/L	0.50	104	85	125			
Iron		1.04	mg/L	0.030	104	85	125			
Lithium		0.948	mg/L	0.10	95	85	125			
Magnesium		51.5	mg/L	0.50	103	85	125			
Phosphorus		2.07	mg/L	0.10	103	85	125			
Potassium		45.9	mg/L	0.50	92	85	125			
Silica		0.373	mg/L	0.10	93	85	125			
Sodium		47.5	mg/L	0.77	95	85	125			
Strontium		0.968	mg/L	0.10	97	85	125			
Sample ID:	C08071144-001BMS2	Sample Matrix	Spike			Run: ICP2-	C_080725A		07/2	5/08 13:5 ⁻
Barium		2.06	mg/L	0.10	103	70	130			
Calcium	•	125	mg/L	1.0	109	70	130			
Iron		2.27	mg/L	0.030	108	70	130			
Lithium		1.86	mg/L	0.10	90	70	130			
Magnesium		118	mg/L	1.0	107	70	130			
Phosphorus		4.41	mg/L	0.10	110	70	130			
Potassium		94.9	mg/L	1.0	92	70	130			
Silica		7.28	mg/L	0.10		70	130			Α
Sodium		408	mg/L	1.5	102	70	130			
Strontium		2.52	mg/L	0.10	100	70	130			
=	C08071144-001BMSD2	Sample Matrix	Spike Duplicate				C_080725A			5/08 13:5
Barium		2.09	mg/L	0.10	105	70	130	1.6	20	
Calcium		129	mg/L	1.0	112	70	130	2.4	20	
Iron		2.31	mg/L	0.030	110	70	130	1.8	20	
Lithium		1.86	mġ/L	0.10	90	70	130	0.2	20	
Magnesium		121	mg/L	1.0	110	70	130	2.4	20	

Qualifiers:

RL - Analyte reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.



Strontium

QA/QC Summary Report

Client: Altela Inc

Report Date: 08/02/08
Work Order: C08070232

20

Project: Not Indicated

Analyte	Result Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7	<u> </u>				·		Batch:	R104879
Sample ID: C08071144-001BMSD2	Sample Matrix Spike Duplicate			Run: ICP2-	C_080725A	07/25/08 13:55		
Phosphorus	4.45 mg/L	0.10	111	70	130	1.0	20	
Potassium	96.2 mg/L	1.0	93	70	130	1.4	20	
Silica	7.37 mg/L	0.10		70	130	1.2	20	Α
Sodium	417 mg/L	1.5	111	70	130	2.2	20	

0.10

102

70

130

mg/L

2.57

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08 **Work Order:** C08070232

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Batch:	R104609
Sample ID: LRB	Method Blank		•		Run: ICPM	S4-C_080721B		07/21	/08 16:56
Aluminum	0.0006	mg/L	0.0001						
Antimony	9E-06	mg/L	4E-06						
Arsenic	ND	mg/L	4E-05						
Beryllium	ND	mg/L	4E-06						
Cadmium	ND	mg/L	3E-06						
Chromium	ND	mg/L	4E-05						
Cobalt	ND	mg/L	5E-06						
Copper	ND	mg/L	3E-05						
Lead	ND	mg/L	3E-06						
Manganese	ND	mg/L	6E-06						
Molybdenum	ND	mg/L	9E-06						
Nickel	0.0003	mg/L	3E-05						
Selenium	ND	mg/L	0.0001						
Silver	9E-06	mg/L	7E-06						
Thallium	ND	mg/L	4E-06						
Tin	1.0E-05	mg/L	8E-06						
Titanium	ND	mg/L	6E-05						
Uranium	ND	mg/L	2E-06						
	ND ND		3E-05						
Vanadium	0.0007	mg/L							
Zinc	0.0007	mg/L	3E-05						
Sample ID: LFB	Laboratory For	tified Blank			Run: ICPM	S4-C_080721B		07/21	/08 17:02
Aluminum	0.0472	mg/L	0.0010	93	85	115			
Antimony	0.0508	mg/L	0.0010	102	85	115			
Arsenic	0.0503	mg/L	0.0010	101	85	115			
Beryllium	0.0491	mg/L	0.0010	98	85	115			
Cadmium	0.0510	mg/L	0.0010	102	85	115			
Chromium	0.0498	mg/L	0.0010	100	85	115			
Cobalt	0.0489	mg/L	0.0010	98	85	115			
Copper	0.0506	mg/L	0.0010	101	85	115			
Lead	0.0494	mg/L	0.0010	99	85	115			
Manganese	0.0463	mg/L	0.0010	93	85	115			
Molybdenum	0.0488	mg/L	0.0010	98	85	115			
Nickel	0.0501	mg/L	0.0010	100	85	115			
Selenium	0.0518	mg/L	0.0010	104	85	115			
Silver	0.0196	mg/L	0.0010	98	85	115			
Thallium	0.0490	mg/L	0.0010	98	85	115			
Tin	0.0510	mg/L	0.0010	102	85	115			
Titanium	0.0481	mg/L	0.0010	96	85	115			
	0.0483	mg/L	0.00010	97	85	115			
Uranium	0.0488	mg/L	0.00030	98	85	115			

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08
Work Order: C08070232

Analyte		Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E	E200.8								Batch:	R104609
Sample ID:	LFB	Laboratory Fo	rtified Blank			Run: ICPM	S4-C_080721B		07/21	/08 17:02
Zinc		0.0584	mg/L	0.0010	115	85	115			
Sample ID:	C08061327-001KMS4	Post Digestion	Spike			Run: ICPM	S4-C_080721B		07/21	/08 22:59
Aluminum		0.0486	mg/L	0.10	90	70	130			
Antimony		0.0516	mg/L	0.050	100	70	130			
Arsenic		0.0500	mg/L	0.0010	98	70	130			
Beryllium		0.0442	mg/L	0.010	88	70	130			
Cadmium		0.0492	mg/L	0.010	96	70	130			
Chromium		0.0478	mg/L	0.050	95	70	130			
Cobait		0.0468	mg/L	0.010	93	70	130			
Copper		0.0536	mg/L	0.010	92	70	130			
Lead		0.0494	mg/L	0.050	98	70	130			
Manganese		0.171	mg/L	0.010	92	70	130			
Molybdenum		0.0498	mg/L	0.10	96	70	130			
Nickel		0.0528	mg/L	0.050	91	70	130			
Selenium		0.0489	mg/L	0.0010	98	70	130			
Silver		0.0119	mg/L	0.010	60	70	130			S
Thallium		0.0495	mg/L	0.10	99	70	130			
Tin		0.0502	mg/L	0.10	100	70	130			
Titanium		0.0484	mg/L	0.10	95	70	130			
Uranium		0.152	mg/L	0.00030	133	70	130			s
Vanadium		0.0484	mg/L	0.10	96	70	130			
Zinc		0.497	mg/L	0.010		70	130			Α
Sample ID:	C08061327-001KMSD4	Post Digestion	Spike Duplic	ate		Run: ICPM	S4-C_080721B		07/21	/08 23:06
Aluminum		0.0470	mg/L	0.10	87	70	130	0.0	20	
Antimony		0.0515	mg/L	0.050	100	70	130	0.2	20	
Arsenic		0.0511	mg/L	0.0010	100	70	130	2.1	20	
Beryllium		0.0437	mg/L	0.010	87	70	130	1.1	20	
Cadmium		0.0496	mg/L	0.010	97	70	130	0.7	20	
Chromium		0.0488	mg/L	0.050	97	70	130	0.0	20	
Cobalt		0.0466	mg/L	0.010	93	70	130	0.3	20	
Copper		0.0550	mg/L	0.010	95	70	130	2.5	20	
Lead		0.0496	mg/L	0.050	99	70	130	0.0	20	
Manganese		0.170	mg/L	0.010	91	70	130	0.5	20	
Molybdenum		0.0508	mg/L	0.10	98	70	130	0.0	20	
Nickel		0.0539	mg/L	0.050	93	70	130	2.0	20	
Selenium		0.0504	mg/L	0.0010	101	70	130	3.0	20	
Silver		0.0125	mg/L	0.010	63	70	130	5.0	20	S
Thallium		0.0501	mg/L	0.10	100	70	130	0.0	20	
Tin		0.0502	mg/L	0.10	100	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.



Client: Altela Inc

Report Date: 08/02/08

Project: Not Indicated

Work Order: C08070232

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8						. '.		Batch:	R104609
Sample ID: C08061327-001KMSD4	Post Digestion	Spike Duplica	te		Run: ICPM	S4-C_080721B		07/21	/08 23:06
Titanium	0.0489	mg/L	0.10	96	70	130	0.0	20	
Uranium	0.151	mg/L	0.00030	131	70	130	0.5	20	S
Vanadium	0.0492	mg/L	0.10	97	70	130	0.0	20	
Zinc	0.497	mg/L	0.010		70	130	0.1	20	Α
Method: E350.1	· · · · · · · · · · · · · · · · · · ·							Batch: B	R114068
Sample ID: MBLK	Method Blank				Run: SUB-	B114068		07/15	/08 10:58
Nitrogen, Ammonia as N	ND	mg/L	0.02						
Sample ID: LFB	Laboratory Fo	rtified Blank			Run: SUB-	B114068		07/15	6/08 10:59
Nitrogen, Ammonia as N	1.02	mg/L	0.10	103	90	110			
Sample ID: C08061359-007B	Sample Matrix	Spike			Run: SUB-	B114068		07/15	5/08 11:04
Nitrogen, Ammonia as N	0.630	mg/L	0.10	50	90	110			S
Sample ID: C08061359-007B	Sample Matrix	Spike Duplicat	te		Run: SUB-	B114068		07/15	6/08 11:05
Nitrogen, Ammonia as N	0.624	mg/L	0.10	50	90	110	1.0	10	S
Method: E351.2								Batch: B	_R113960
Sample ID: MBLK	Method Blank				Run: SUB-	B113960		07/14	/08 08:40
Nitrogen, Kjeldahl, Total as N	0.1	mg/L	0.03						
Sample ID: LFB	Laboratory Fo	rtified Blank			Run: SUB-	B113960		07/14	1/08 08:41
Nitrogen, Kjeldahl, Total as N	5.33	mg/L	0.50	104	90	110			
Sample ID: B08070864-001CMS	Sample Matrix	Spike			Run: SUB-	B113960		07/14	1/08 08:53
Nitrogen, Kjeldahl, Total as N	5.89	mg/L	0.50	113	90	110			S
Sample ID: B08070864-001CMSD	Sample Matrix	Spike Duplica	te		Run: SUB-	B113960		07/14	1/08 08:53
Nitrogen, Kjeldahl, Total as N	5.94	mg/L	0.50	114	90	110	0.9	10	s

Qualifiers:

RL - Analyte reporting limit.

 $^{{\}bf A}$ - The analyte level was greater than four times the spike level. In accordance with the method ${\bf \%}$ recovery is not calculated.

S - Spike recovery outside of advisory limits.



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08

Work Order: C08070232

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2								Batch:	R104395
Sample ID: MBLK-1	Method Blank				Run: TECH	HNICON_080717/	4	07/17	/08 11:30
Nitrogen, Nitrate+Nitrite as N	ND	mg/L	0.03						
Sample ID: LCS-2	Laboratory Co	ntrol Sample			Run: TECH	HNICON_080717/	4	07/17	7/08 11:32
Nitrogen, Nitrate+Nitrite as N	2.59	mg/L	0.10	104	90	110			
Sample ID: C08070560-001DMS	Sample Matrix	Spike			Run: TEC	HNICON_080717/	4	07/17	7/08 11:47
Nitrogen, Nitrate+Nitrite as N	2.28	mg/L	0.10	1,01	90	110			
Sample ID: C08070560-001DMSD	Sample Matrix	Spike Duplicate			Run: TEC	HNICON_080717/	Ą	07/17	7/08 11:50
Nitrogen, Nitrate+Nitrite as N	2.30	mg/L	0.10	102	90	110	0.9	10	
Method: SW8015B								Batch:	B_33452
Sample ID: LCS-33452	Laboratory Co	ntrol Sample			Run: SUB-	·B113819		07/10	/08 09:52
Methanol	52	mg/L	1.0	103	70	130			
Surr: sec-Butyl Alcohol			1.0	101	80	120			
Sample ID: MB-33452	Method Blank				Run: SUB-	·B113819		07/10)/08 10:16
Methanol	ND	mg/L	1.0						
Surr: sec-Butyl Alcohol			1.0	98	80	120			
Sample ID: B08070670-001JMS	Sample Matrix	Spike			Run: SUB-	-B113819		07/10	0/08 11:49
Methanol	51	mg/L	1.1	103	70	130			
Surr: sec-Butyl Alcohol			1.1	102	80	120			
Sample ID: B08070670-001JMSD	Sample Matrix	Spike Duplicate			Run: SUB	·B113819		07/10	0/08 12:12
Methanol	50	mg/L	1.1	99	70	130	3.6	20	
Surr: sec-Butyl Alcohol			1.1	101	80	120			



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08
Work Order: C08070232

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8015M as D				· · · · ·	······································		······································	Bat	ch: 19047
Sample ID: MB-19047	Method Blank				Run: FID2-	C_080709A		07/08	3/08 13:54
Diesel Range Organics (DRO)	ND	mg/L	0.03			_			
Surr: o-Terphenyl			0.002	94	60	120			
Sample ID: LCS-19047	Laboratory Co	ntroi Sample			Run: FID2-	-C_080709A		07/08	3/08 14:40
Diesel Range Organics (DRO)	1.8	mg/L	1.0	90	57	112			
Surr: o-Terphenyl			0.020	90	67	117			
Sample ID: LCSD-19047	Laboratory Co	ntrol Sample Dup	olicate		Run: FID2-	-C_080709A		07/08	3/08 17:40
Diesel Range Organics (DRO)	1.6	mg/L	1.0	79	57	112	12	20	
Surr: o-Terphenyl			0.020	84	67	117	0.0	20	
Sample ID: C08070223-001FMS	Sample Matrix	Spike			Run: FID2-	-C_080709A		07/08	8/08 19:14
Diesel Range Organics (DRO)	2.3	mg/L	1.0	74	50	115			
Surr: o-Terphenyl		-	0.020	73	60	120			
Sample ID: C08070223-001FMSD	Sample Matrix	Spike Duplicate			Run: FID2	-C_080709A		07/0	8/08 20:00
Diesel Range Organics (DRO)	2.4	mg/L	1.0	76	50	115	1.3	20	
Surr: o-Terphenyl			0.020	84	60	120			
Method: SW8015M as G								Batch	: R104115
Sample ID: LCS 0711HP207r	Laboratory Co	ntrol Sample			Run: PIDF	ID1-C_080711C		07/1	1/08 12:26
Gasoline Range Organics (GRO)	0.202	mg/L	0.040	101	82	120			
Surr: Trifluorotoluene			0.0020	102	80	120			
Sample ID: MBLK_0711HP208r	Method Blank				Run: PIDF	ID1-C_080711C		07/1	1/08 13:01
Gasoline Range Organics (GRO)	ND	mg/L	0.02						
Surr: Trifluorotoluene				98	80	120			
Sample ID: C08070261-001BMS	Sample Matrix	c Spike			Run: PIDF	TD1-C_080711C		07/1	1/08 18:21
Gasoline Range Organics (GRO)	4.27	mg/L	0.36	107		130			
Surr: Trifluorotoluene			0.0020	98	80	120			
Sample ID: C08070261-001BMSD	Sample Matrix	Spike Duplicate			Run: PIDF	ID1-C_080711C		07/1	1/08 18:56
Gasoline Range Organics (GRO)	4.24	mg/L	0.36	106		130	0.6		
Surr: Trifluorotoluene			0.0020	97	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08
Work Order: C08070232

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B		<u></u>	***************************************		***************************************			Batch:	R104113
Sample ID: LCS_0711HP206r	Laboratory Co	ntrol Sample			Run: PIDF	D1-C_080711A		07/11	/08 11:50
Benzene	10	ug/L	0.50	101	80	120			
Ethylbenzene	10	ug/L	0.50	102	80	120			
m+p-Xylenes	20	ug/L	0.50	100	80	120			
o-Xylene	10	ug/L	0.50	100	80	120			
Toluene	10	ug/L	0.50	102	80	120			
Surr: Trifluorotoluene			0.50	99	80	120			
Sample ID: MBLK_0711HP208r	Method Blank				Run: PIDFI	D1-C 080711A		07/11	/08 13:01
Benzene	ND	ug/L	0.05			_			
Ethylbenzene	ND	ug/L	0.05						
m+p-Xylenes	ND	ug/L	0.1						
o-Xylene	ND	ug/L	0.05						
Toluene	ND	ug/L	0.05						
Surr: Trifluorotoluene				100	80	120			
Sample ID: C08070261-001BMS	Sample Matrix	Spike			Run: PIDFI	D1-C_080711A		07/11	/08 17:10
Benzene	200	ug/L	1.0	102	80	120			
Ethylbenzene	200	ug/L	1.0	102	80	120			
m+p-Xylenes	400	ug/L	2.0	100	80	120			
o-Xylene	200	ug/L	1.0	101	80	120			
Toluene	210	ug/L	1.0	101	80	120			
Surr: Trifluorotoluene			0.50	102	80	120			
Sample ID: C08070261-001BMSD	Sample Matrix	Spike Duplicate			Run: PIDFI	D1-C_080711A		07/11	/08 17:45
Benzene	200	ug/L	1.0	102	80	120	0.0	20	
Ethylbenzene	210	ug/L	1.0	103	80	120	0.8	20	
m+p-Xylenes	400	ug/L	2.0	101	80	120	0.7	20	
o-Xylene	200	ug/L	1.0	101	80	120	0.3	20	
Toluene	210	ug/L	1.0	101	80	120	0.2	20	
Surr: Trifluorotoluene			0.50	98	80	120	0.0	10	



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08 **Work Order:** C08070232

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW9020B								Bate	ch: 19104
Sample ID: MB-19104	Method Blank				Run: TOXE	3OX_080712A		07/11	/08 10:22
Organic Halides, Total	ND	mg Cl/L	0.03						
Sample ID: LCS-19104	Laboratory Co	ontrol Sample			Run: TOXE	3OX_080712A		07/11	/08 10:38
Organic Halides, Total	0.950	mg CI/L	0.10	95	80	120			
Sample ID: C08070223-001GMS	Sample Matrix	x Spike			Run: TOX	3OX_080712A		07/11	/08 11:34
Organic Halides, Total	1.03	mg Cl/L	0.10	103	80	120			
Sample ID: C08070223-001GMSD	Sample Matri	x Spike Duplicate			Run: TOX	3OX_080712A		07/11	/08 12:03
Organic Halides, Total	1.09	mg CI/L	0.10	109	80	120	5.7	20	

10	SIN
E	101
>	71.7
	ABC
	ZI.

Chain of Custody and Analytical Request Record

Page 1 of 2

			PLEASE PRIM	PLEASE PRINT - Provide as much information as possible.	information as po	ssible.				•
Company Name:			Project Nan	Project Name, PWS, Permit, Etc.	itc.	i i	Samp	Sample Origin	EPA/Sta	EPA/State Compliance:
Altela Inc.			OXX	39			State	State: NM	Yes□	□ %
Report Mail Address: 2455 Alems SE Sure 200	Surte 2000		Contact Name		Phone/Fax:	٤	Email:	a. bruefe	Sampler: (Ple	Sampler: (Please Print)
Albuquesque, 1	20178 MM		Matthen	en Broth	(33) 993-1950	_	alteleme.com	c.com	Windowy	71-26
Invoice Address:			Invoice Con	Invoice Contact & Phone:			Purch	Purchase Order:	Quote/Bo	Quote/Bottle Order:
Same			Bill He	Hu, H (505)	(50S) 933-4140	۵			2001	12869
Special Report/Formats – ELI must be notified prior to sample submittal for the following:	s – ELI must be noti tal for the following:	ified	C	AMALYSI	analysis requested	STED ST	6	Contact ELI prior to RUSH sample submittel		Shipped by:
			5tµ6 qa 6u 8	याः इत	3		Ľ	for charges and	<u> </u>	Cooler ID(s):
[1		o ntain W S W Is/Solid Ssay <u>C</u>	.8em .8em .8em. e4e.	ક્રજ્	HED		scheduling – See Instruction Page	<u> </u>	-2702
DW □ GSA	☐ A2LA ☐ EDD/EDT(Electronic Data)	tronic Data)	O 10 1 A :9q\ lio <u>2</u> 19i soi <u>B</u> n	<u>, </u>	د کون)	Comments:	<u> </u>	Receipt Temp ° C
POTWWWTP	Format:		mben T elq r Wal otatio	محور رهان ساود	Sv-o	ΓTΑ	Ø		<u> </u>	On Artic
Other:	LEVEL IV		u N Įms2 i <u>A</u> ege⊻	80 L) one 18	SEE ?	3		O M	Custody Seal (Y) N Bottles/
TACIDITIAN OF THE PROPERTY OF	-	:		252 .4. , .6. , .6. ,	37	احداج ر ، ع:			<u> </u>	
(Name, Location, Interval, etc.)	on Collection etc.) Date	Collection Time	MATRIX	40 40 40 40 40	-8	ta PM			Ø₹	>
دیام پیم	2/1/08	12:030	12:030 W 1L	×				Grab		,
	2/1/08	12:15m	w1r	×				€	7110	=700
3	21.108	12:21an	Wassal	*					O E	
4	21/108	18:35 m	18:85m WasomL	×						
6	21.68	12:31pm	Jmc/ M mole: 01		×					
ω I	2/1/08	12 Sen	W Yome		×				<u>40</u>	
	71,108	19:48an	7web M wow. 61		×				<u>₽</u> Ľ®	an.
· ·	80116	12:57pm	12:57pm N500mL		x			->		
Day PLS	7/1/58	1:8pm	Fapor NSson			X		Grah) <i>8</i>	MENTERS
					4-	×			(ť
Custody Reinquished by (print) Record Reinquished by (print)	Relinquished by (print): Date/Time: Micheel Wingbook 7/2 Relinquished by (rejut):	168/3/19pm	Signature	المراكبة المراكبة	Received by (print)	y May		8.0818.50	Signar	wan
<u>(1)</u>			- 1	ie.	кесегиед by (ритт)	`	Date/Time:	•	Signature:	9
Signed Sample Disposal:	sal: Return to Client:		Lab Disposal:	÷	Received by Laboratory:		Date/Time:		Signature.	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

	_
(5)	5.7/2
	101
5	RA
	4BC
	100

Chain of Custody and Analytical Request Record

Page 2 of 2

Company Name:	.e.			Project Nan	Project Name, PWS, Permit, Etc.	mit, Etc.	i		Sample Origin	rigin	EPA/Sta	EPA/State Compliance:
Altela	10 The			ð	AS				State:	23	∖es □	□ 2
Report Mail Ac	:: S. C.	Surte Res		Contact Name	ne:	Phone/Fax	×	matther.		broff@	Sampler	Sampler: (Please Print) Michael Win benky
Albass	5	87/36		Matthews	Desch Co		(323) 193-150		}			•
Invoice Address:				Invoice Con	Invoice Contact & Phone				Purchase Order:	Order:	Ouote/B	Ouote/Bottle Order:
Same	_1			13,11 H	Horth C	(505) 923-4140	4140				2860	183569
Special Rep	Special Report/Formats - ELI must be notified	I must be notif	Jed		ARIAN	Weis Ri	analysos requestied	(Co.	Contact ELI prior to RUSH sample submittal	to ibmittal	Shipped by:
pnor to sam	pnor to sample submittal for the following:	ine rollowing:		tainers Solids Solids Sy <u>O</u> ther						for charges and scheduling – See Instruction Page	۰	Cooler ID(s):
MO C		A2LA	(no O to N A :eo Sioass Bioass	*1				\ <u>\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\</u>	Comments:		Receipt Temp
BOTWWTP]	Format:	ronic Data)	r ber 1yT el <u>W</u> ate noûsi	····				Ŋ		ı	On per (Yes)
State: Other:		LEVEL IV		nuM qms2 il <u>A</u> ege⊻	* A ,			SEE 7	I		1	Seal
SAMPLE	SAMPLE IDENTIFICATION	Collection	Collection	MATRIX	Bath C		_	N				Intact N Signature N N
(Name, Loc	(Name, Location, Interval, etc.)	71, lo &		Mana	, ×				5	71ch		
2 0									}			את
3							!					(O) =
4												
5											224	n &
9												H(O
7												<i>∐[\</i>
8												¥0
o) <i>8</i> /v
10											<u>.</u>	F BSORES
Custody	Relinquished by (print): Date/Time:	Date/Time:		3:10 on M	ture.		ceived by (print)	Myay		308 18:80	ie Z	melan
MIST be		⊘ Date/Time:	ļ	Signature	rlure:	Rec	aved by (print):	<u>ٽ</u>	(Date/Time:		Signatu	
Signed	Semple Disposal:	Return to Client:		l ab Disnosal:	<u></u>	Rec	Received by Laboratory:	Ö	Date/Time:		Signature:	į į
•			The state of the s	1								

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Energy Laboratories Inc Workorder Receipt Checklist



Altela Inc

Reviewed Date:

Login completed by: Edith McPike

Date and Time Received: 7/3/2008 1:30 PM

Carrier name: FedEx

Reviewed by: Received by: jm

Shipping container/cooler in good condition?	Yes [✓]	No 🗌	Not Present
Custody seals intact on shipping container/cooler?	Yes 🗹	No 🗌	Not Present
Custody seals intact on sample bottles?	Yes 🗌	No 🗌	Not Present ✓
Chain of custody present?	Yes 🗹	No 🔲	
Chain of custody signed when relinquished and received?	Yes 🗹	No 🗌	
Chain of custody agrees with sample labels?	Yes ✓	No 🗌	
Samples in proper container/bottle?	Yes 🗹	No 🗌	
Sample containers intact?	Yes 🗹	No 🗌	
Sufficient sample volume for indicated test?	Yes ☑	No 🗌	
All samples received within holding time?	Yes 🗌	No 📝	
Container/Temp Blank temperature in compliance?	Yes ☑	No 🗌	5°C On Ice
Water - VOA vials have zero headspace?	Yes ✓	No 🗌	No VOA vials submitted
Water - pH acceptable upon receipt?	Yes ✓	No 🗌	Not Applicable

Contact and Corrective Action Comments:

Nitrite received out of hold. Per phone conversation with Matthew Bruff on 7-3-08 @ 16:00; run nitrite analysis out of hold



Date: 02-Aug-08

CLIENT:

Altela Inc

Project:

Not Indicated

Sample Delivery Group: C08070232

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

ORIGINAL SAMPLE SUBMITTAL(S)

All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS

Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

RADON IN AIR ANALYSIS

The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

SOIL/SOLID SAMPLES

All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS USING EPA 505

Data for Atrazine and Simazine are reported from EPA 525.2, not from EPA 505. Data reported by ELI using EPA method 505 reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT

eli-g - Energy Laboratories, Inc. - Gillette, WY

eli-h - Energy Laboratories, Inc. - Helena, MT

eli-r - Energy Laboratories, Inc. - Rapid City, SD

eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:

USEPA: WY00002; FL-DOH NELAC: E87641; Arizona: AZ0699; California: 02118CA

Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:

The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.



ANALYTICAL SUMMARY REPORT

August 02, 2008

Altela Inc

5350 S Roslyn St Ste 430 Englewood, CO 80111

Workorder No.: C08070237

Quote ID: C2860

Project Name:

Not Indicated

Energy Laboratories, Inc. received the following 1 sample from Altela Inc on 7/3/2008 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C08070237-001	Oxy CW	07/01/08 17:11	07/03/08	Aqueous	Metals by ICP/ICPMS, Dissolved Alkalinity QA Calculations Chloride Conductivity Sample Filtering Liquid-Liquid Extraction SW8021B, BTEX Diesel Range Organics Gasoline Range Organics Methanol Prep for TOX SW9020B Total Organic Halogens Hardness Nitrogen, Ammonia Nitrogen, Nitrite Dissolved Nitrogen, Nitrate + Nitrite Dissolved Nitrogen, Nitrate Dissolved Nitrogen, Total Kjeldahl pH Services Provided by Lab Solids, Total Dissolved Solids, Total Dissolved Solids, Total Suspended Sulfate

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By: Kin Brailly



Client:

Altela inc

Project:

Not Indicated

Lab ID:

C08070237-001

Client Sample ID: Oxy CW

Report Date: 07/30/08 Collection Date: 07/01/08 17:11

DateReceived: 07/03/08 Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS						· ·	
Alkalinity, Phenolphthalein as CaCO3	4	mg/L		1		A2320 B	07/08/08 12:54 / Iji
Alkalinity, Total as CaCO3	208	mg/L		1		A2320 B	07/08/08 12:54 / ljl
Carbonate as CO3	5	mg/L		1		A2320 B	07/08/08 12:54 / ljl
Bicarbonate as HCO3	244	mg/L		1		A2320 B	07/08/08 12:54 / Iji
Hydroxide as OH	ND	mg/L		1		A2320 B	07/08/08 12:54 / Ijl
Calcium	193	mg/L	D	5		E200.7	07/25/08 15:53 / cp
Chloride	14700	mg/L	J	1		A4500-CI B	07/10/08 15:53 / lil
	42	mg/L	D	2		E200.7	07/25/08 15:53 / cp
Magnesium	3.51	mg/L	b	0.05		E350.1	07/15/08 11:14 / eli-b
Nitrogen, Ammonia as N	5.0	mg/L		0.5		E351.2	07/14/08 08:56 / eli-b
Nitrogen, Kjeldahl, Total as N	ND	mg/L	D	2		E200.7	07/24/08 17:11 / cp
Phosphorus	327	•	U	1		E200.7	07/25/08 15:53 / cp
Potassium		mg/L		0.1		E200.7	07/25/08 15:53 / cp
Silica	28.0	mg/L	_			E200.7	•
Sodium	8600	mg/L	D	40			07/25/08 15:53 / cp
Sulfate	3	mg/L		1		A4500-SO4 E	07/08/08 16:48 / jal
MAJOR IONS - DISSOLVED							
Nitrogen, Nitrate as N	ND	mg/L		0.1		E353.2	07/18/08 11:31 / sec
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	07/17/08 11:40 / jal
Nitrogen, Nitrite as N	ND	mg/L		0.1		A4500-NO2 B	07/03/08 17:16 / jal
PHYSICAL PROPERTIES							
Conductivity	40400	umhos/cm		1		A2510 B	07/07/08 11:58 / dd
Hardness as CaCO3	655	mg/L		1		A2340 B	07/25/08 15:53 / lab
На	8.64	s.u.		0.01		A4500-H B	07/07/08 11:58 / dd
Solids, Total Dissolved TDS @ 180 C	23700	mg/L		10		A2540 C	07/07/08 09:17 / dd
Solids, Total Suspended TSS @ 105 C	27	mg/L		1		A2540 D	07/03/08 17:37 / sp
METALS - DISSOLVED							
Aluminum	ND	mg/L		0.1		E200.8	07/21/08 22:33 / sml
Antimony	NĎ	mg/L		0.05		E200.8	07/21/08 22:33 / sm
Arsenic	0.036	mg/L		0.001		E200.8	07/21/08 22:33 / sm
Barium	53.8	mg/L	D	0.3		E200.7	07/25/08 15:53 / cp
Beryllium	ND	mg/L		0.01		E200.8	07/21/08 22:33 / sm
Boron	2.6	mg/L	D	0.8		E200.7	07/24/08 17:11 / cp
Cadmium	ND	mg/L		0.01		E200.8	07/21/08 22:33 / sm
Chromium	0.15	mg/L		0.05		E200.8	07/21/08 22:33 / sm
Cobalt	0.04	mg/L		0.01		E200.8	07/21/08 22:33 / sm
Copper	0.01	mg/L		0.01		E200.8	07/21/08 22:33 / sm
Iron	ND	mg/L	D	0.2		E200.7	07/25/08 15:53 / cp
Lead	ND	mg/L	J	0.2		E200.8	07/21/08 22:33 / sm
	3.2	•		0.03		E200.7	07/25/08 15:53 / cp
Lithium	3.2	mg/L		U. I		E200./	07723700 13.337 C

Report

RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.



Client:

Altela Inc

Project:

Not Indicated

Lab ID:

C08070237-001

Client Sample ID: Oxy CW

Report Date: 07/30/08

Collection Date: 07/01/08 17:11 DateReceived: 07/03/08

Matrix: Aqueous

Analyses	Result	Únits	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
METALS - DISSOLVED							
Manganese	0.03	mg/L		0.01		E200.8	07/21/08 22:33 / sml
Molybdenum	ND	mg/L		0.1		E200.8	07/21/08 22:33 / sml
Nickel	ND	mg/L		0.05		E200.8	07/21/08 22:33 / sml
Selenium	ND	mg/L		0.001		E200.8	07/21/08 22:33 / sml
Silicon	16.1	mg/L	D	0.9		E200.7	07/24/08 17:11 / cp
Silver	ND	mg/L		0.01		E200.8	07/21/08 22:33 / sml
Strontium	32.4	mg/L		0.1		E200.7	07/25/08 15:53 / cp
Thallium	ND	mg/L		0.1		E200.8	07/21/08 22:33 / sml
Tin	ND	mg/L		0.1		E200.8	07/21/08 22:33 / sml
Titanium	ND	mg/L		0.1		E200.8	07/21/08 22:33 / sml
Uranium	0.0006	mg/L		0.0003		E200.8	07/21/08 22:33 / sml
Vanadium	ND	mg/L		0.1		E200.8	07/21/08 22:33 / sml
Zinc	0.06	mg/L		0.01		E200.8	07/21/08 22:33 / sml
DATA QUALITY							
A/C Balance (± 5)	-2.78	%				Calculation	07/29/08 17:05 / lab
Anions	418	meg/L				Calculation	07/29/08 17:05 / lab
Cations	396	meg/L				Calculation	07/29/08 17:05 / lab
Solids, Total Dissolved Calculated	24000	mg/L				Calculation	07/29/08 17:05 / lab
TDS Balance (0.80 - 1.20)	0.990	J				Calculation	07/29/08 17:05 / lab
VOLATILE ORGANIC COMPOUNDS							
Benzene	12	ug/L		0.50		SW8021B	07/08/08 02:46 / dkh
Ethylbenzene	ND	ug/L		0.50		SW8021B	07/08/08 02:46 / dkh
m+p-Xylenes	15	ug/L		0.50		SW8021B	07/08/08 02:46 / dkh
o-Xylene	3.5	ug/L		0.50		SW8021B	07/08/08 02:46 / dkh
Toluene	29	ug/L		0.50		SW8021B	07/08/08 02:46 / dkh
Surr: Trifluorotoluene	100	%REC		80-120		SW8021B	07/08/08 02:46 / dkh
NON-HALOGENATED VOLATILES							
Methanol	ND	mg/L		1.0		SW8015B	07/10/08 11:26 / eli-b
Surr: sec-Butyl Alcohol	102	%REC		80-120		SW8015B	07/10/08 11:26 / eli-b
ORGANIC CHARACTERISTICS							
Diesel Range Organics (DRO)	1.6	mg/L		1.0		SW8015M as	07/08/08 21:33 / cjs
Surr: o-Terphenyl	32.0	%REC	S	60-120		SW8015M as	07/08/08 21:33 / cjs
Gasoline Range Organics (GRO)	0.143	mg/L		0.040			07/08/08 02:46 / dkh
Surr: Trifluorotoluene	96.0	%REC		80-120		SW8015M as	07/08/08 02:46 / dkh

Report

RL - Analyte reporting limit.

Definitions:

QCL - Quality control limit.

D - RL increased due to sample matrix interference.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

S - Spike recovery outside of advisory limits.



Client:

Altela Inc

Project:

Not Indicated

Lab ID:

C08070237-001

Client Sample ID: Oxy CW

Report Date: 07/30/08

Collection Date: 07/01/08 17:11

DateReceived: 07/03/08

Matrix: Aqueous

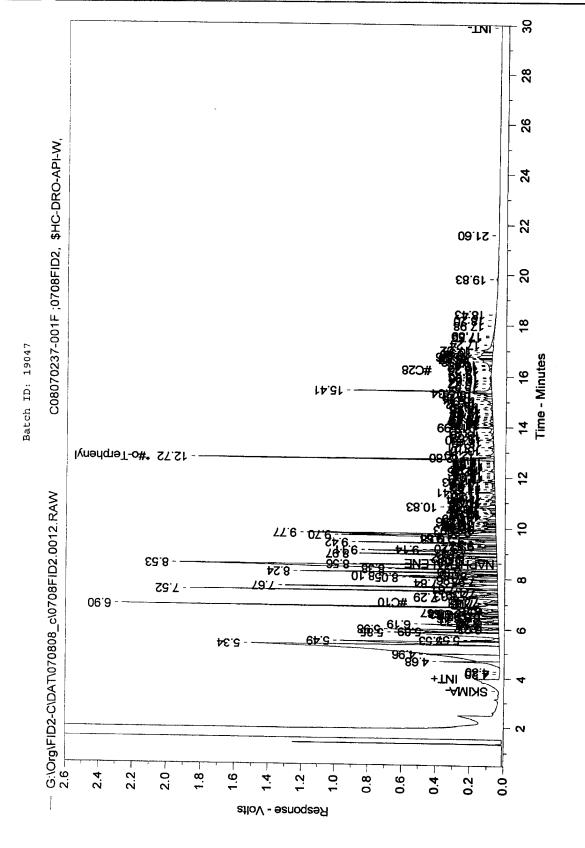
Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
ORGANIC CHARACTERISTICS Organic Halides, Total	0.2	mg Cl/L		0.1		SW9020B	07/11/08 13:47 / wen

Report

RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.





Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08 **Work Order:** C08070237

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLImit	Qual
Method: A2320 B		,						Batch:	R103884
Sample ID: MBLK-1	Method Blank				Run: MAN	TECH_080708A		07/08	3/08 10:46
Alkalinity, Phenolphthalein as CaCO3	ND	mg/L	1		* 1011, 1111 114	. 2011_0007,007		07700	700 TU.40
Alkalinity, Total as CaCO3	ND	mg/L	0.2						
Carbonate as CO3	ND	mg/L	1						
Bicarbonate as HCO3	ND	mg/L	1						
Hydroxide as OH	ND	mg/L	1						
Sample ID: LCS-1	Laboratory Cor	ntrol Sample			Run: MAN	TECH_080708A		07/08	/08 10:53
Alkalinity, Total as CaCO3	200	mg/L	1.0	100	90	110			
Sample ID: C08070240-003AMS	Sample Matrix	Spike			Run: MAN1	ECH_080708A		07/08	/08 13:39
Alkalinity, Total as CaCO3	185	mg/L	1.0	103	80	120			
Sample ID: C08070240-003AMSD	Sample Matrix	Spike Duplicate			Run: MANT	ECH_080708A		07/08	/08 13:46
Alkalinity, Total as CaCO3	185	mg/L	1.0	103	80	120	0.2	10	
Method: A2510 B				-		Analytical	Run: C	PRION555A_	080707A
Sample ID: ICV2_080707_1	Initial Calibratio	on Verification Star	ndard						- /08 11:03
Conductivity	1380 u	mhos/cm	1.0	98	90	110		37737	700 11.00
Method: A2510 B	- · · · · · · · · · · · · · · · · · · ·					Bato	h: 080	707_1_PH-W	/_555A-1
Sample ID: MBLK1_080707_1	Method Blank				Run: ORIO	N555A_080707A			- /08 10:58
Conductivity	0.7 u	mhos/cm	0.2					0,707.	700 10.00
Sample ID: C08070220-001FDUP	Sample Duplica	ite			Run: ORIOI	N555A_080707A		07/07/	/08 11:41
Conductivity	756 ui	mhos/cm	1.0			_	0.0	10	
Method: A2540 C						Bato	h: 080	707_1_SLD	S-TDS-W
Sample ID: MBLK1_080707	Method Blank				Run: BAL-1	080707A		07/07/	08 09:10
Solids, Total Dissolved TDS @ 180 C	ND	mg/L	6					0,,0,,	00 00.10
Sample ID: LCS1_080707	Laboratory Con	trol Sample			Run: BAL-1	.080707A		07/07/	08 09:11
Solids, Total Dissolved TDS @ 180 C	1010	mg/L	10	101	90	110			
Sample ID: C08070238-001CMS	Sample Matrix S	Spike			Run: BAL-1	_080707A		07/07/	08 09:18
Solids, Total Dissolved TDS @ 180 C	2140	mg/L	10	99	90	110			
Sample ID: C08070238-001CMSD	Sample Matrix S	Spike Duplicate			Run: BAL-1	_080707A		07/07/	08 09:18
Solids, Total Dissolved TDS @ 180 C	2150	mg/L	10	99	90	110	0.4	10	-

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc

Report Date: 08/02/08 **Work Order:** C08070237

Project: Not Indicated

Method: A2540 D Sample ID: MBLK1_ Solids, Total Suspende Sample ID: C080702 Solids, Total Suspende Method: A4500-CI Sample ID: MBLK9-Chloride Sample ID: C080702 Chloride	ed TSS @ 105 C 223-001ADUP ed TSS @ 105 C B 080710A	Method Blank ND Sample Duplic ND Method Blank ND	mg/L cate mg/L	0.7		Run: BAL-1 Run: BAL-1	_	Batch: 0		DS-TSS-W 3/08 15:39 3/08 15:41
Solids, Total Suspendon Sample ID: C080702 Solids, Total Suspendon Method: A4500-CI Sample ID: MBLK9-Chloride Sample ID: C080702	ed TSS @ 105 C 223-001ADUP ed TSS @ 105 C B 080710A	ND Sample Duplic ND Method Blank	mg/L cate mg/L				_	0.0	07/0	
Solids, Total Suspender Method: A4500-CI Sample ID: MBLK9-Chloride Sample ID: C080702	ed TSS @ 105 C B 080710A	ND Method Blank	mg/L	1.0		Run: BAL-1	_080703B	0.0		3/08 15:41
Sample ID: MBLK9-Chloride Sample ID: C080702	080710A									
Chloride Sample ID: C080702			_					Batch	n: 080710A-0	CL-TTR-W
	237-001BMS		mg/L	0.4		Run: TITRA	TION_080710)A	07/10	0/08 13:33
Cinorido		Sample Matrix 32700	Spike mg/L	1.0	101	Run: TITRA 90	TION_080710 110	PΑ	07/10	0/08 15:57
Sample ID: C080702 Chloride	37-001BMSD	Sample Matrix 32700	Spike Duplicate mg/L	1.0	101	Run: TITRA 90	TION_080710 110	A 0.0	07/10 10	0/08 15:58
Sample ID: LCS35-0 Chloride	80710A	Laboratory Co 3550	ntrol Sample mg/L	1.0	100	Run: TITRA 90	TION_080710 110	Α	07/16	0/08 16:03
Method: A4500-H	В						Analytic	cal Run: 0	DRION555A	080707A
Sample ID: ICV1_08 pH	0707_1	Initial Calibration 6.89	on Verification Si s.u.	tandard 0.010	100	98	102		07/07	7/08 11:00
Method: A4500-H	В						В	atch: 080	707_1_PH-\	N_555A-1
Sample ID: C080702 pH	20-001FDUP	Sample Duplic 7.64	ate s.u.	0.010		Run: ORIO	N555A_080707	7A 0.0	07/07 10	7/08 11:41
Method: A4500-NC)2 B						Analytical	Run: HA	CH DR3000	080703C
Sample ID: ICV-2 Nitrogen, Nitrite as N		Initial Calibration	on Verification St mg/L	andard 0.10	97	90	110		07/03	3/08 16:04
Method: A4500-NC)2 B						E	Batch: A20	008-07-03_6	 _NO2_02
Sample ID: MBLK-1 Nitrogen, Nitrite as N		Method Blank ND	mg/L	0.003		Run: HACH	DR3000_0807	703C	07/03	3/08 16:04
Sample ID: C080702 Nitrogen, Nitrite as N	31-001FMS	Sample Matrix 0.0490	Spike mg/L	0.10	103	Run: HACH 80	DR3000_0807 120	703C	07/03	/08 16:05
Sample ID: C080702 Nitrogen, Nitrite as N	31-001F M SD	Sample Matrix 0.0497	Spike Duplicate mg/L	0.10	105	Run: HACH 80	DR3000_0807 120	703C 0.0	07/03 10	/08 16:05

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08
Work Order: C08070237

Analyte		Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Quai
Method: A4500-Se	04 E							Batch: 080	708_1_SO4	-TURB-W
Sample ID: LCS-1_0	80708	Laboratory Co	ntrol Sample			Run: TURE	3-2 080708A		07/08	3/08 10:56
Sulfate		5010	mg/L	59	104	90	110			
Sample ID: MBLK-1	_080708	Method Blank			•	Run: TURE	3-2_080708A		07/08	3/08 10:56
Sulfate		ND	mg/L	0.6			_			
Sample ID: C080702	231-001CMS	Sample Matrix	Spike			Run: TURE	3-2_080708A		07/08	3/08 16:42
Sulfate		356	mg/L	5.9	108	90	110			
Sample ID: C080702	31-001CMSD	Sample Matrix	Spike Duplicate			Run: TURE	3-2_080708A		07/08	3/08 16:44
Sulfate		353	mg/L	5.9	106	90	110	1.1	10	
Method: E200.7									Batch:	R104799
Sample ID: MB-0807	'24A	Method Blank				Run: ICP2-	C_080724A		07/24	1/08 13:13
Boron		0.02	mg/L	0.008						
Phosphorus		ND	mg/L	0.02						
Silica		ND	mg/L	0.02						
Sample ID: LFB-080	724A	Laboratory For	tified Blank			Run: ICP2-	C_080724A		07/24	I/08 13:17
Boron		1.06	mg/L	0.10	105	85	125			
Phosphorus		2.14	mg/L	0.10	107	85	125			
Silica		0.395	mg/L	0.10	99	85	125			
Sample ID: C080703	39-001JMS2	Sample Matrix	Spike			Run: ICP2-	C_080724A		07/24	/08 17:19
Boron		2.25	mg/L	0.10	103	70	130			
Phosphorus		4.27	mg/L	0.10	107	70	130			
Silica		7.85	mg/L	0.10		70	130			Α
Sample ID: C080703	39-001JMSD2	Sample Matrix	Spike Duplicate			Run: ICP2-0	C_080724A		07/24	/08 17:23
Boron		2.23	mg/L	0.10	102	70	130	0.9	20	
Phosphorus		4.20	mg/L	0.10	105	70	130	1.8	20	
Silica		7.77	mg/L	0.10		70	130	1.0	20	Α

Qualifiers:

RL - Analyte reporting limit.



Client: Altela inc

Report Date: 08/02/08

Project: Not Indicated Work Order: C08070237

Analyte		Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Quai
Method:	E200.7	· · · · · · · · · · · · · · · · · · ·			<u> </u>				Batch:	R104879
Sample ID:	MB-080725A	Method Blank				Run: ICP2-	C_080725A		07/25	/08 13:29
Barium		ND	mg/L	0.006			_			
Calcium		ND	mg/L	0.1						
Iron		ND	mg/L	0.005						
Lithium		ND	mg/L	0.0001						
Magnesium		ND	mg/L	0.04						
Potassium		ND	mg/L	0.02						
Silica		ND	mg/L	0.02						
Sodium		ND	mg/L	0.8						
Strontium		ND	mg/L	0.0002						
Sample ID:	LFB-080725A	Laboratory For	tified Blank			Run: ICP2-	C_080725A		07/25	/08 13:33
Barium		0.988	mg/L	0.10	99	85	125			
Calcium		51.9	mg/L	0.50	104	85	125			
Iron		1.04	mg/L	0.030	104	85	125			
Lithium		0.948	mg/L	0.10	95	85	125			
Magnesium		51.5	mg/L	0.50	103	85	125			
Potassium		45.9	mg/L	0.50	92	85	125			
Silica		0.373	mg/L	0.10	93	85	125			
Sodium		47.5	mg/L	0.77-	95	85	125			
Strontium		0.968	mg/L	0.10	97	85	125			
Sample ID:	C08071144-001BMS2	Sample Matrix	Spike			Run: ICP2-	C_080725A		07/25	/08 13:51
Barium		2.06	mg/L	0.10	103	70	130			
Calcium		125	mg/L	1.0	109	70	130			
Iron		2.27	mg/L	0.030	108	70	130			
Lithium		1.86	mg/L	0.10	90	70	130			
Magnesium		118	mg/L	1.0	107	70	130			
Potassium		94.9	mg/L	1.0	92	70	130			
Silica		7.28	mg/L	0.10		70	130			Α
Sodium		408	mg/L	1.5	102	70	130			
Strontium		2.52	mg/L	0.10	100	70	130			
Sample ID:	C08071144-001BMSD2	Sample Matrix	Spike Duplic	ate		Run: ICP2-	C_080725A		07/25	/08 13:55
Barium		2.09	mg/L	0.10	105	70	130	1.6	20	
Calcium		129	mg/L	1.0	112	70	130	2.4	20	
Iron		2.31	mg/L	0.030	110	70	130	1.8	20	
Lithium		1.86	mg/L	0.10	90	70	130	0.2	20	
Magnesium		121	mg/L	1.0	110	70	130	2.4	20	
Potassium		96.2	mg/L	1.0	93	70	130	1.4	20	
Silica		7.37	mg/L	0.10		70	130	1.2	20	Α
Omca			-							, ,

Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.

 ${\sf A}$ - The analyte level was greater than four times the spike level. In accordance with the method ${\sf \%}$ recovery is not calculated.



Client: Altela Inc

Report Date: 08/02/08

Project: Not Indicated

Work Order: C08070237

Analyte	Result Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7							Batch: I	R104879
Sample ID: C08071144-001BMSD2 Strontium	Sample Matrix Spike Duplicate 2.57 mg/L	0.10	102	Run: ICP2- 70	C_080725A 130	1.8	07/25/ 20	08 13:55

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08 **Work Order:** C08070237

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Batch:	R104609
Sample ID: LRB	Method Blank				Run: ICPM	S4-C_080721B		07/21	1/08 16:56
Aluminum	0.0006	mg/L	0.0001			_			
Antimony	9E-06	mg/L	4E-06						
Arsenic	ND	mg/L	4E-05						
Beryllium	ND	mg/L	4E-06						
Cadmium	ND	mg/L	3E-06						
Chromium	ND	mg/L	4E-05						
Cobalt	ND	mg/L	5E-06						
Copper	ND	mg/L	3E-05						
Lead	ND	mg/L	3E-06						
Manganese	ND	mg/L	6E-06						
Molybdenum	ND	mg/L	9E-06						
Nickel	0.0003	mg/L	3E-05						
Selenium	ND	mg/L	0.0001						
Silver	9E-06	mg/L	7E-06						
Thallium	ND	mg/L	4E-06						
Tin	1.0E-05	mg/L	8E-06						
Titanium	ND	mg/L	6E-05						
Uranium	ND	mg/L	2E-06						
Vanadium	ND	mg/L	3E-05						
Zinc	0.0007	mg/L	3E-05						
Sample ID: LFB	Laboratory For	ified Blank			Run: ICPM	S4-C_080721B		07/21	/08 17:02
Aluminum	0.0472	mg/L	0.0010	93	85	115			
Antimony	0.0508	mg/L	0.0010	102	85	115			
Arsenic	0.0503	mg/L	0.0010	101	85	115			
Beryllium	0.0491	mg/L	0.0010	98	85	115			
Cadmium	0.0510	mg/L	0.0010	102	85	115			
Chromium	0.0498	mg/L	0.0010	100	85	115			
Cobalt	0.0489	mg/L	0.0010	98	85	115			
Copper	0.0506	mg/L	0.0010	101	85	115			
Lead	0.0494	mg/L	0.0010	99	85	115			
Manganese	0.0463	mg/L	0.0010	93	85	115			
M olybdenum	0.0488	mg/L	0.0010	98	85	115			
Nickel	0.0501	mg/L	0.0010	100	85	115			
Selenium	0.0518	mg/L	0.0010	104	85	115			
Silver	0.0196	mg/L	0.0010	98	85	115			
Thallium	0.0490	mg/L	0.0010	98	85	115			
Tin	0.0510	mg/L	0.0010	102	85	115			
Titanium	0.0481	mg/L	0.0010	96	85	115			
Uranium	0.0483	mg/L	0.00030	97	85	115			
Vanadium	0.0488	mg/L	0.0010	98	85	115			

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc

Report Date: 08/02/08
Work Order: C08070237

Project: Not Indicated

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8					······································		-	Batch:	R104609
Sample ID: LFB	Laboratory Fo	rtified Blank			Run: ICPM	S4-C_080721B		07/21	1/08 17:02
Zinc	0.0584	mg/L	0.0010	115	85	115			
Sample ID: C08061327-001KMS4	Post Digestion	Spike			Run: ICPM	S4-C_080721B		07/21	1/08 22:59
Aluminum	0.0486	mg/L	0.10	90	70	130			
Antimony	0.0516	mg/L	0.050	100	70	130			
Arsenic	0.0500	mg/L	0.0010	98	70	130			
Beryllium	0.0442	mg/L	0.010	88	70	130			
Cadmium	0.0492	mg/L	0.010	96	70	130			
Chromium	0.0478	mg/L	0.050	95	70	130			
Cobalt	0.0468	mg/L	0.010	93	70	130			
Copper	0.0536	mg/L	0.010	92	70	130			
Lead	0.0494	mg/L	0.050	98	70	130			
Manganese	0.171	mg/L	0.010	92	70	130			
Molybdenum	0.0498	mg/L	0.10	96	70	130			
Nickel	0.0528	mg/L	0.050	91	70	130			
Selenium	0.0489	mg/L	0.0010	98	70	130			
Silver	0.0119	mg/L	0.010	60	70	130			s
Thallium	0.0495	mg/L	0.10	99	70	130			
Tin	0.0502	mg/L	0.10	100	70	130			
Titanium	0.0484	mg/L	0.10	95	70	130			
Uranium	0.152	mg/L	0.00030	133	70	130			s
Vanadium	0.0484	mg/L	0.10	96	70	130			-
Zinc	0.497	mg/L	0.010		70	130			Α
Sample ID: C08061327-001KMSD4	Post Digestion	Spike Duplica	ate		Run: ICPM	S4-C_080721B		07/21	/08 23:06
Aluminum	0.0470	mg/L	0.10	87	70	130	0.0	20	
Antimony	0.0515	mg/L	0.050	100	70	130	0.2	20	
Arsenic	0.0511	mg/L	0.0010	100	70	130	2.1	20	
Beryllium	0.0437	mg/L	0.010	87	70	130	1.1	20	
Cadmium	0.0496	mg/L	0.010	97	70	130	0.7	20	
Chromium	0.0488	mg/L	0.050	97	70	130	0.0	20	
Cobalt	0.0466	mg/L	0.010	93	70	130	0.3	20	
Copper	0.0550	mg/L	0.010	95	70	130	2.5	20	
Lead	0.0496	mg/L	0.050	99	70	130	0.0	20	
Manganese	0.170	mg/L	0.010	91	70	130	0.5	20	
Molybdenum	0.0508	mg/L	0.10	98	70	130	0.0	20	
Nickel	0.0539	mg/L	0.050	93	70	130	2.0	20	
Selenium	0.0504	mg/L	0.0010	101	70	130	3.0	20	
Silver	0.0125	mg/L	0.010	63	70	130	5.0	20	s
Thallium	0.0501	mg/L	0.10	100	70	130	0.0	20	
Tin	0.0502	mg/L	0.10	100	70	130	0.0	20	

Qualifiers:

RL - Analyte reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08

Work Order: C08070237

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.8								Batch:	R104609
Sample ID: C08061327-001KMSD4	Post Digestion	Spike Duplicat	8		Run: ICPM	S4-C_080721B		07/21	/08 23:06
Titanium	0.0489	mg/L	0.10	96	70	130	0.0	20	
Uranium	0.151	mg/L	0.00030	131	70	130	0.5	20	S
Vanadium	0.0492	mg/L	0.10	97	70	130	0.0	20	
Zinc	0.497	mg/L	0.010		70	130	0.1	20	Α
Method: E350.1		·						Batch: B_	R114068
Sample ID: MBLK	Method Blank				Run: SUB-	B114068		07/15	/08 10:58
Nitrogen, Ammonia as N	ND	mg/L	0.02					5.,,,	
Sample ID: LFB	Laboratory For	rtified Blank			Run: SUB-	B114068		07/15	/08 10:59
Nitrogen, Ammonia as N	1.02	mg/L	0.10	103	90	110			
Sample ID: B08070675-001BMS	Sample Matrix	: Spike			Run: SUB-	B114068		07/15	/08 11:19
Nitrogen, Ammonia as N	0.987	mg/L	0.10	99	90	110			
Sample ID: B08070675-001BMSD	Sample Matrix	Spike Duplicate	;		Run: SUB-	B114068		07/15	/08 11:21
Nitrogen, Ammonia as N	1.01	mg/L	0.10	101	90	110	2.0	10	
Method: E351.2								Batch: B_	R113960
Sample ID: MBLK	Method Blank				Run: SUB-I	B113960		07/14	/08 08:40
Nitrogen, Kjeldahl, Total as N	0.1	mg/L	0.03	,					
Sample ID: LFB	Laboratory For	tified Blank			Run: SUB-I	3113960		07/14	/08 08:41
Nitrogen, Kjeldahl, Total as N	5.33	mg/L	0.50	104	90	110			
Sample ID: B08070864-001CMS	Sample Matrix	Spike			Run: SUB-I	3113960		07/14	/08 08:53
Nitrogen, Kjeldahl, Total as N	5.89	mg/L	0.50	113	90	110			S
Sample ID: B08070864-001CMSD	Sample Matrix	Spike Duplicate)		Run: SUB-I	3113960		07/14	/08 08:53
Nitrogen, Kjeldahl, Total as N	5.94	mg/L	0.50	114	90	110	0.9	10	s

Qualifiers:

RL - Analyte reporting limit.

A - The analyte level was greater than four times the spike level. In accordance with the method % recovery is not calculated.

S - Spike recovery outside of advisory limits.



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08
Work Order: C08070237

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E353.2						-		Batch:	R104395
Sample ID: MBLK-1	Method Blank				Run: TECH	HNICON_080717	Α	07/17	7/08 11:30
Nitrogen, Nitrate+Nitrite as N	ND	mg/L	0.03					-7	, , , , , , , , , , , , , , , , , , , ,
Sample ID: LCS-2	Laboratory Cor	ntrol Sample			Run: TECH	INICON_080717	Α	07/17	7/08 1 1:32
Nitrogen, Nitrate+Nitrite as N	2.59	mg/L	0.10	104	90	110			
Sample ID: C08070560-001DMS	Sample Matrix	Spike			Run: TECH	INICON_080717	A	07/17	/08 11:47
Nitrogen, Nitrate+Nitrite as N	2.28	mg/L	0.10	101	90	110			
Sample ID: C08070560-001DMSD	Sample Matrix	Spike Duplicate			Run: TECH	INICON_080717	Α	07/17	/08 11:50
Nitrogen, Nitrate+Nitrite as N	2.30	mg/L	0.10	102	90	110	0.9	10	
Method: SW8015B					 			Batch:	B_33452
Sample ID: LCS-33452	Laboratory Cor	ntrol Sample			Run: SUB-	B113819		07/10	/08 09:52
Methanol	52	mg/L	1.0	103	70	130			
Surr: sec-Butyl Alcohol			1.0	101	80	120			
Sample ID: MB-33452	Method Blank				Run: SUB-	B113819		07/10	/08 10:16
Methanol	ND	mg/L	1.0						
Surr: sec-Butyl Alcohol			1.0	98	80	120			
Sample ID: B08070670-001JMS	Sample Matrix	Spike			Run: SUB-I	B113819		07/10	/08 11:49
Methanol	51	mg/L	1.1	103	70	130			
Surr: sec-Butyl Alcohol			1.1	102	80	120			
Sample ID: B08070670-001JMSD	Sample Matrix	Spike Duplicate			Run: SUB-I	3113819		07/10/	/08 12:12
Methanol	50	mg/L	1.1	99	70	130	3.6	20	
Surr: sec-Butyl Alcohol			1.1	101	80	120			

Qualifiers:

RL - Analyte reporting limit.



Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08 **Work Order**: C08070237

Analyte	Result	Units	D)	9/ DE^	1 1	111-1-17-14			
- Alkalyte	Result	Units		%KEC	LOW LIMIT	High Limit	RPD	RPDLimit	Qual
Method: SW8015M as D								Bat	ch: 19047
Sample ID: MB-19047	Method Blank				Run: FID2-	-C_080709A		07/08	/08 13:54
Diesel Range Organics (DRO)	ND	mg/L	0.03						
Surr: o-Terphenyl			0.002	94	60	120			
Sample ID: LCS-19047	Laboratory Co	ntrol Sample			Run: FID2-	·C_080709A		07/08	/08 14:40
Diesel Range Organics (DRO)	1.8	mg/L	1.0	90	57	112			
Surr: o-Terphenyl			0.020	90	67	117			
Sample ID: LCSD-19047	Laboratory Cor	ntrol Sample Du	plicate		Run: FID2-	C_080709A		07/08	/08 17:40
Diesel Range Organics (DRO)	1.6	mg/L	1.0	79	57	112	12	20	
Surr: o-Terphenyl			0.020	84	67	117	0.0	20	
Sample ID: C08070223-001FMS	Sample Matrix	Spike			Run: FID2-	C_080709A		07/08	/08 19:14
Diesel Range Organics (DRO)	2.3	mg/L	1.0	74	50	115			
Surr: o-Terphenyl			0.020	73	60	120			
Sample ID: C08070223-001FMSD	Sample Matrix	Spike Duplicate			Run: FID2-	C_080709A		07/08	/08 20:00
Diesel Range Organics (DRO)	2.4	mg/L	1.0	76	50	115	1.3	20	
Surr: o-Terphenyl			0.020	84	60	120			
Method: SW8015M as G								Batch:	R103852
Sample ID: LCS_0707HP207r	Laboratory Cor	ntrol Sample			Run: PIDFI	D1-C_080707B		07/07	/08 14:58
Gasoline Range Organics (GRO)	0.205	mg/L	0.040	103	82	120			
Surr: Trifluorotoluene			0.0020	104	80	120			
Sample ID: MBLK_0707HP208r	Method Blank				Run: PIDFI	D1-C_080707B		07/07	/08 15:33
Gasoline Range Organics (GRO)	ND	mg/L	0.02						
Surr: Trifluorotoluene				100	80	120			
Sample ID: C08070237-001IMS	Sample Matrix	Spike			Run: PIDFI	D1-C_080707B		07/08	/08 06:54
Gasoline Range Organics (GRO)	3.98	mg/L	0.36	100	70	130			
Surr: Trifluorotoluene			0.0020	96	80	120			
Sample ID: C08070237-001IMSD	Sample Matrix	Spike Duplicate			Run: PIDFI	D1-C_080707B		07/08	/08 07:30
Gasoline Range Organics (GRO)	4.07	mg/L	0.36	102	70	130	2.2	20	
Surr: Trifluorotoluene			0.0020	99	80	120	0.0	10	

Qualifiers:

RL - Analyte reporting limit.



QA/QC Summary Report

Client: Altela Inc
Project: Not Indicated

Report Date: 08/02/08 **Work Order:** C08070237

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B					, <u></u>			Batch:	R103848
Sample ID: LCS_0707HP206r	Laboratory Co	ntrol Sample			Run: PIDF	D1-C_080707A		07/07	7/08 14:22
Benzene	10	ug/L	0.50	103	80	120			
Ethylbenzene	11	ug/L	0.50	105	80	120			
m+p-Xylenes	21	ug/L	0.50	103	80	120			
o-Xylene	10	ug/L	0.50	102	80	120			
Toluene	11	ug/L	0.50	104	80	120			
Surr: Trifluorotoluene			0.50	103	80	120			
Sample ID: MBLK_0707HP208r	Method Blank				Run: PIDF	D1-C_080707A		07/07	7/08 15:33
Benzene	ND	ug/L	0.05			_			
Ethylbenzene	ND	ug/L	0.05						
m+p-Xylenes	ND	ug/L	0.1						
o-Xylene	0.1	ug/L	0.05						
Toluene	0.1	ug/L	0.05						
Surr: Trifluorotoluene		_		102	80	120			
Sample ID: C08070237-001HMS	Sample Matrix	Spike			Run: PIDFI	D1-C_080707A		07/08	/08 05:43
Benzene	220	ug/L	1.0	103	80	120			
Ethylbenzene	210	ug/L	1.0	104	80	120			
m+p-Xylenes	420	ug/L	2.0	101	80	120			
o-Xylene	210	ug/L	1.0	102	80	120			
Toluene	240	ug/L	1.0	102	80	120			
Surr: Trifluorotoluene			0.50	99	80	120			
Sample ID: C08070237-001HMSD	Sample Matrix	Spike Duplicate			Run: PIDFI	D1-C_080707A		07/08	/08 06:19
Benzene	220	ug/L	1.0	102	80	120	0.4	20	
Ethylbenzene	210	ug/L	1.0	103	80	120	1.2	20	
m+p-Xylenes	420	ug/L	2.0	100	80	120	1.2	20	
o-Xylene	210	ug/L	1.0	101	80	120	0.9	20	
Toluene	230	ug/L	1.0	101	80	120	1.1	20	
Surr: Trifluorotoluene			0.50	105	80	120	0.0	10	



QA/QC Summary Report

Client: Altela Inc

Report Date: 08/02/08 **Work Order:** C08070237

Project: Not Indicated

Analyte	Result Units	RL %REC Low Limit High Limit RPD RPDLimit Qual
Method: SW9020B		Batch: 1910
Sample ID: MB-19104	Method Blank	Run: TOXBOX_080712A 07/11/08 10:2
Organic Halides, Total	ND mg CI/L	0.03
Sample ID: LCS-19104	Laboratory Control Sample	Run: TOXBOX_080712A 07/11/08 10:3
Organic Halides, Total	0.950 mg Cl/L	0.10 95 80 120
Sample ID: C08070223-001GMS	Sample Matrix Spike	Run: TOXBOX_080712A 07/11/08 11:3
Organic Halides, Total	1.03 mg Cl/L	0.10 103 80 120
Sample ID: C08070223-001GMSD	Sample Matrix Spike Duplicate	Run: TOXBOX_080712A 07/11/08 12:0
Organic Halides, Total	1.09 mg Cl/L	0.10 109 80 120 5.7 20

Ì		
	(2)	331
I	8	Y01
ı	5	RA
I	E	4 <i>E</i> C
-	~	Ø,

Chain of Custody and Analytical Request Record

B

ᢐ

			PLEASE PRINT- Provide as much information as possible	NT. Provide.	as much is	nformati	on as p	ossible.					
Company Name:			Project Name, PWS, Permit, Etc.	ne, PWS, P	ermit, Etc				!	es	Sample Origin	EPA/Sta	EPA/State Compliance:
Altele Inc	٠.		Ô	3 ×	_					ਲੌ	State: NW	Yes 🛚	□ ∾
Report Mail Address:			Contact Name:	ı		Phone/Fax:				ᄪ	Email:	Sampler	Sampler: (Please Print)
ā	200		Matthens	2 Broft		(303) 973-1950	-195	<u>n</u>	F 4	44	matthen boat	The Page	Michael Wimberly
Albiquege, NM 81	X / X O. P.								'	; \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
Invoice Address:			Invoice Contact & Phone:	ntact & Pho	ле: -					<u>_</u>	Furchase Order:	Quote/B	Quote/Bottle Order:
Same			B,11 H	0414-(SoS) 493-4140	55) 9 <i>9</i>	3-4	041					98co/	1,83571
Special Report/Formats - ELI must be notified	I must be noti			AINA	analysis requested) BBE(SEI ME	अराद्धि			Contact ELI prior to		Shipped by:
prior to sample submittal for the following:	the following:		рец 2 В О 1 2	8	-	F,			Ţ		for charges and		Cooler ID(s):
			eniat r V S W JO yes J <u>O</u> yes	one;	Jery.	7100				TAT)	scheduling – See Instruction Page		C-3004
~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~	A2LA Francentia		16 Cor 19 <u>S</u> oils 16 <u>S</u> ioss	101	19251			.4د دلم	HDA:	round	Comments:		Receipt Temp ° C
N/WWTP	Format:	tronic Data)	n ber e Typ Wate on	ر داد .	ار 0	(S	<u> </u>	On Ide
	LEVEL IV		nuN Iqms ni <u>A</u> təgə	ッて) जिल्ह	الا 10		1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1	/ 3			10	Seal
Other:	NELAC	• • • • •	√ S	יי סי	ऽ र, ट	יויי סרום		100 × 2	as		I	шо .	Bottles/ Coolers
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)	Collection Date	Collection Time	MATRIX	2010 Con	1740 <u>1</u> 2919	**** *147	กก	BTE Postics					Signature NATCH N
راک رکام	71.158	4:00 mm W 11	W1L	×							(orch	20	Л
²	7/1/08	4:13am W 1.	W1L	×							+	aa d	אנד
3	8911/2	4:30 m VIII	M1L		×							9 5	∂ 5
4	21/18	4:38pm Wassom	W350mL		×							100	ISA
S	30/1/2	4:33am W350ml	W250mL			×	_					<i>u</i> 20	n A
9	2/1/08	4:36m N42m	NYOM!			×							yo.
7	7/1/08	4:40pm W 40mL	W 40mc				×					-50	n (=)
>	7/1/08	4:53pm	4:53 m W 48mL	·			×				->		שע
, Ow CL	711/08	5:01 am	5:01,000 NJSosul					X			(orcb		型00×20
		-		_					-				1

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energylab.com for additional information, downloadable fee schedule, forms, and links.

Lab Disposal:

Return to Client:

Sample Disposal:

MUST be Signed

14:15am Dare/14:15am

Custody Relinquished by (print) Record Michael (print) Date/Time:

Received by Laboratory:

SGY	ORIES
ENE	ABORAI

Chain of Custody and Analytical Request Record

Page 2 of 2.

	2	ASE PRIN	 I- Provide as much 	PLEASE PRINT - Provide as much information as possible.				
Company Name:	<u>q</u>	oject Nam	Project Name, PWS, Permit, Etc.	tc.	San	Sample Origin	EPA/State	EPA/State Compliance:
Altele Inc		Ö	(2)		State:	E 2	Yes	, □
Report Mail Address: 2450 Alcmo SE Suite 200	8	Contact Name		Phone/Fax:	Email:	Email:	Sampler: (Sampler: (Please Print)
Albuman , am 878 87106		natthers	s Broad ((303)983-1950	alteleine, com	ne. com	S. March	المح
Invoice Address:	<u>≧</u>	voice Cont	-		Pur	Purchase Order:	Quote/Bottle Order	tle Order:
Same	B	11 Ho	(505) 44	Bill Houtt (505) 903-4140			2860/2357	1357
Special Report/Formats - ELI must be notified			ANIALYSI	ANALYSIS REQUESTED		Contact ELI prior to		Shipped by:
אווס נס פמוויים פתחווונים וסו נוום וסווסאווים.	ers	V B C		<u> </u>				Cooler ID(s):
Ĺ		9 W / 02\2li (6226	٠	3H		1		C-3024
UV AZIA GSA EDD/EDT(Electronic Data)	O to	.er <u>S</u> os n <u>B</u> ios	Selection of the select		roun	Comments:	<u> </u>	O O
WWWTP	ıəqwi	T əlq ir Wat lolistə	T. SK	ΠA			ŏ	ON Ce:
	nN	ms2 A ge⊻	م م	338	ormal -		3 8	Custody Seal N Bottles/
	3		Z Seri		PN		<u> </u>	Coolers N
5	Collection M/	MATRIX	47 43				Sig	Signature Y N
Oxy CL 7/1/08	Sw mpsc: 2	MSasmL	*			くぶつ	<i>_</i>	
OKY CW 7/1/08	5:11pm WS	WS COML	*			(Jane)	7/N	
							0 =	
4							<i>]\$(</i>	
5	-	-					D 28	
9								
7							<u>L</u> \⊌	
80								
6) <i>8</i> (
				_			77	(bronn-
Custody Relinquished by (print): Date/Time:	4:15pm	Signature	iti	Fee	M Profile	7-8-68 1	3.30 mc	mera
Kelinquished by (print): Date/Time:	•	Signature	÷	Received by (print):	Date/Time		Signature.	
Signed Sample Disposal: Return to Client:	ני	Lab Disposal:		Received by Laboratory:	Date/Time		Signature:	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested.

This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report.

Visit our web site at www.energyjab.com for additional information, downloadable fee schedule, forms, and links.

Energy Laboratories Inc Workorder Receipt Checklist

C08070237

Altela Inc

Login completed by: Edith McPike		Date and Time	Received: 7/3/2008 1:30 PM	
Reviewed by:		Re	ceived by: jm	
Reviewed Date:		Car	rier name: FedEx	
Shipping container/cooler in good condition?	Yes 🗹	No 🗀	Not Present	
Custody seals intact on shipping container/cooler?	Yes 🗹	No 🗀	Not Present	
Custody seals intact on sample bottles?	Yes 🗌	No 🗌	Not Present ✓	
Chain of custody present?	Yes 🗸	No 🗌		
Chain of custody signed when relinquished and received?	Yes 🗸	No 🗌		
Chain of custody agrees with sample labels?	Yes 🗹	No 🗌		
Samples in proper container/bottle?	Yes 🗸	No 🗌		
Sample containers intact?	Yes 🗹	No 🔲		
Sufficient sample volume for indicated test?	Yes 🗹	No 🗀		
All samples received within holding time?	Yes 🗹	No 🔲		
Container/Temp Blank temperature in compliance?	Yes 🗹	No 🗌	5°C On Ice	
Water - VOA vials have zero headspace?	Yes 🗹	No 🗀	No VOA vials submitted	
Water - pH acceptable upon receipt?	Yes 🗸	No □	Not Applicable	

Contact and Corrective Action Comments:

None



Date: 02-Aug-08

CLIENT:

Altela Inc

Project:

Not Indicated

Sample Delivery Group: C08070237

CASE NARRATIVE

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

ORIGINAL SAMPLE SUBMITTAL(S)

All original sample submittals have been returned with the data package.

SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

GROSS ALPHA ANALYSIS

Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

RADON IN AIR ANALYSIS

The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

SOIL/SOLID SAMPLES

All samples reported on an as received basis unless otherwise indicated.

ATRAZINE, SIMAZINE AND PCB ANALYSIS USING EPA 505

Data for Atrazine and Simazine are reported from EPA 525.2, not from EPA 505. Data reported by ELI using EPA method 505 reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT

eli-g - Energy Laboratories, Inc. - Gillette, WY

eli-h - Energy Laboratories, Inc. - Helena, MT

eli-r - Energy Laboratories, Inc. - Rapid City, SD

eli-t - Energy Laboratories, Inc. - College Station, TX

CERTFICATIONS:

USEPA: WY00002; FL-DOH NELAC: E87641; Arizona: AZ0699; California: 02118CA

Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

ISO 17025 DISCLAIMER:

The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting www.energylab.com

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page www.energylab.com.

		Test Conditions / Notes	Test Station:
		Start Date/Time	
		End/Date/Time	Tower:
		DW Tank Height Delta	
		BW Tank Height Delta [inches] PW Tank Height Delta [inches]	
		CW Tank Height Delta [inches]	
		BW Rate [gal/hr] 'PW Rate [gal/hr]	
		CW Rate [gal/hr] (PW-CW) Rate [gal/hr] VW [gal/hr] Calculated	
######################################	H HILLIAN HOV/OI	phi (dim) VW/BW Treatment Rate (per	
		Energy Reuse' Factor, f Stripping Rate (%) PW & GW/ Equalized?	
		PW:Flow [gal/min] Air Velocity [ft/min]	
		Air Temperature [⁰ F]	
		Air Pressure [in H2O] Boiler NG Pressure [in H2O]	

							٠.						
1	Steam Pressure [psig]			و د دی سور د دو م									- 523
	ĪDS of DW [μS]	in the second									in in the second	A Park	6. 70 6. 70 70 70 70 70 70 70 70 70 70 70 70 70 7
	TDS of CW [µS]	1.5						75.0	地震			A 16 18	
	TDS of DW, Left [µS]		54										
	TDŞ of DW, Right [µS]					14.5							3. L
	Reading Date/Time												
	1 Gallon DW Time [min]										100		
1	1 Gallon DW Time [sec]		4.0										λ, 0.η ,,,,,,,,
di .	DW gal/hr	#DIV/01	#DIV/0	#DIV/oi	#DIV/o		DIV/01	#DIV/0!	ĐĮV/oi	iDIV/01		DIV/o	DIV/0I
-	Tower Top Temp [F]												
	PWT Right (°F)	indian ma madi	have both from the last										
	PWTLeft (°F)							4	A. A.			i de la constante de la consta	
l	COND Channel Right (F)												
	COND Channel Left (F)												
١	DWT Right (°F)						i						
A september of the control of	DWT Left (°F).						To No.		2 Km. J.				
	DW Exit (°F)												
	CW)Exit (°F)												
	Ambient Temp, Air In												
	Relative Humidity (%)												



NEWS RELEASE

Altela, Inc.
One Technology Center
2450 Alarmo Avenue SE, Ste. 200
Albuquerque, NM 87106
(505) 923-4140
www.altelainc.com

16 July 2008 For Immediate Release Contact: Shelley Barratt, (505) 923-4142

Altela, Inc. Turns Energy Industry Waste into New Water Source in the Arid West Treating Oilfield Produced Water and Discharging Pure Water into Colorado River

Rifle, Colorado – **Altela, Inc.**, in cooperation with Laramie Energy II, LLC, produced and released clean distilled water, purer than drinking water, from their treatment system into the Colorado River for the first time on July 3rd 2008. This new water source comes from Altela's ability to treat oilfield fluids directly at the wellhead.

Altela's ARS-4000 system removes all contaminates from the water co-produced with natural gas production. Altela and Laramie Energy received precedent-setting environmental regulatory approval to discharge and beneficially re-use clean, treated frac and produced water from the patented AltelaRainSM system for irrigation, commercial and industrial uses, including discharging into the Colorado River Basin for valuable in-stream flow rights.

Across the western United States alone, more than five billion gallons per day of brackish water is brought to the surface during oil and gas production. This waste water has historically been reinjected deep back into the ground where it came from, never to be used again. Turning this waste water into usable water benefits farmers, ranchers, and communities across the water-starved western United States and helps address the country's water and energy security.

Laramie Energy's President, Bruce Payne, states, "Our collaboration with the Altela team and its revolutionary technology represents a unique and compelling opportunity to lower our costs of produced water handling and disposal while creating a new source of clean water in the arid west in support of responsible energy production." Bob Hea, V.P. of Laramie Energy, said, "Altela has demonstrated its ability to turn frac water and brackish produced water into clean distilled water. This clean water meets standards for re-use, which increases environmental efficiency of natural gas production by limiting the amount of produced water having to be disposed of as waste. In addition, by treating our water at the well-site, we are able to reduce the amount of trucking typically associated with hauling this waste product away, which is a huge benefit to area residents."

"We are excited about our successful venture with Laramie Energy," said Ned Godshall, CEO of Altela. "Laramie Energy is visionary in its commitment to environmentally sustainable energy production and we are honored to be their partner in reducing production waste handling costs while creating a valuable water asset in the over-appropriated Colorado River Basin. Rarely does such a win-win solution exist."

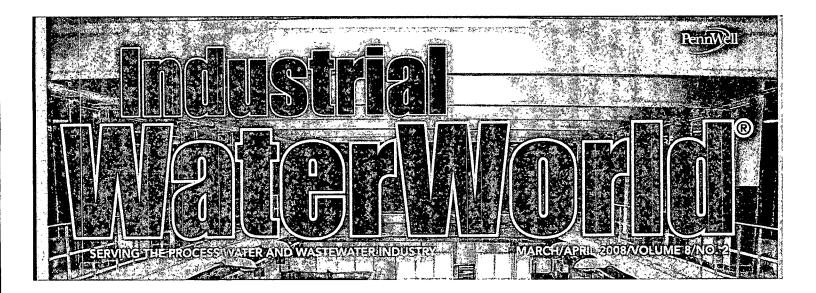
About Laramie Energy II, LLC www.laramie-energy.com

Laramie Energy II, LLC is a Denver-based company primarily focused on finding and developing natural gas reserves from unconventional gas reservoirs within the U.S. Rockies. Laramie Energy is backed by over \$300 million of equity capital commitments funded by the Company's management team, EnCap Investments, Avista Capital, and DLJ Merchant Banking Partners (an affiliate of Credit Suisse Securities). In addition, Laramie Energy is debt financed by JPMorgan Chase Bank, BNP Paribas, and Wells Fargo Bank.

About Altela, Inc. www.altelainc.com

Altela, Inc. manufactures and services water treatment systems for the oil & gas industry based on a fundamentally different water desalination/decontamination solution inspired by nature itself. Through the use of its proprietary, patented AltelaRainSM technology, Altela desalinates and decontaminates highly challenged water without the energy intensive equipment, pressure or high temperatures of other water desalination technologies – representing the first new low-cost water desalination technology in the last 50 years. The company has assembled a strong intellectual property position, experienced management team, and strategic partners. By removing all contaminants from highly challenged E&P waste water and brackish water, Altela converts these contaminated water <u>liabilities</u> into clean water <u>assets</u>, thereby removing our customer's environmental liability and high treatment/disposal costs. Altela turns waste into water, naturally.



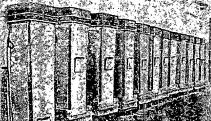


CASE

Positive Results

Altela's first product is in the field with five commercial, revenue-generating sys tems in operation at natural gas wells in the San Juan Basin of northwestern New Mexico. Extensive independent laboratory testing over multiple months in the field have shown that TDS levels of these systems' distillate water is very low (typically about 20 ppm - more than 10 times less than drinking water), and the levels of organics, metals, and radioactive compounds are either undetectable or several orders of magnitude below even the strictest drinking water standards. Because the systems continuously monitor the TDS level of both influent and treated effluent streams, there's a high degree of control and certainty over the clean water that's discharged or utilized by the customer.

The technology is designed to minimize maintenance and operation costs. Use of plastics cuts many maintenance issues related to scaling; fouling or corrosion of metal systems. Moving parts are few, and consist of proven, robust; off-the-shelf components, such as low-pressure water pumps and air blowers. The

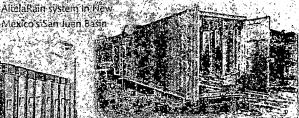


AlteiaRain towers at Altela's Albuquerque manufacturing facility

system operates at ambient pressures and modest temperatures, and as such, has few mechanical failures in plumbing and related systems. A remote monitoring ability also allows field operators to detect system problems early and take remedial action before major failures take place.

Conclusion

Because of Altelas successful track record in the oil & gas industry to date, the company is now unveiling this technology for other uses, such as mineral extraction, concentrate "tail-water," from large-scale desalination systems, industrial wastewa-



ter treatment in the semiconductor and manufacturing industries, food and beverage industries, cleaning water used at power plants, and for production of potable water from seawater. This technology offers the ability and affordability to help address the world's water shortages. The AltelaRain process offers another solution to water desalination, brackish water treatment and wastewater remediation.

About the Authors: Ned Godshall, Ph.D., is the CEO of Altela inc. Matthew Bruff is general counsel and chief development officer (CDO) of the company With offices in Albuquerque, NM, and Englewood, CO, Altela desalinates and decontaminates highly challenged water without the energy intensive equipment, high temperatures or high pressures of other water desalination technologies. Contact: 505-923-4140, info@altelainc.com.or www.altelainc.com.

Circle No. 122 on Reader Service Card



Santa Fe/Northern NM US/World Business Religion Health/Science Obituaries Archives Weather News for Santa Fe and New Mexico

Friday, May 9, 2008:



RSS | Share

Select Directory

SIGN IN

30 01 02 03 07 08 09 10 14 15 16 17 21 22 23 24 28 29 30 31

SEARCH

CENTEX

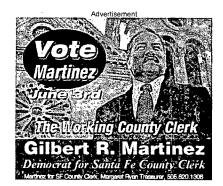
REGISTER: to comment or receive newsletters.

Bush signs bill to clean up 'produced water'

More on this site

The Associated Press 5/8/2008 - 5/9/08

 ${\tt DENVER-Federal\ legislation\ to\ explore\ putting\ groundwater\ pumped\ out}$ during oil and gas production to use was signed into law Thursday.



The bill signed by President Bush directs the Interior Department to assess the feasibility of recovering and cleaning up the millions of gallons of water that are reinjected into the ground or disposed of during oil and gas development.

The water's fate has become contentious as natural gas development has increased in the Rockies. Large volumes of water are pumped out during coal-bed methane production. Pumping groundwater relieves the pressure that traps the gas in the coal seams.

"Every day, 2 million gallons of 'produced water' are wasted in this nation, unfit for any use," said Sen. Ken Salazar, D-Colo., one of the bill's

New Mexico Sens. Jeff Bingaman, a Democrat, and Pete Domenici, a Republican, and Sen. Mike Enzi, R-Wyo., were the other

The House version of the bill was approved last year.

"This bill will change an energy-industry problem into an opportunity, not just for oil and gas producers but for everyone else who would benefit from increased supplies of useable water," said Rep. Mark Udall, D-Colo., the bill's House

The bill authorizes federal grants for pilot projects to test technology that could make the water usable for irrigation, industry or municipal use. It calls for providing federal funds, which would match up to 50 percent of the total cost, for at least one project each in Colorado, New Mexico, Utah and Wyoming with other projects possible in Arizona, California and Nevada,

A recent report by the Colorado Geological Survey found that coal-bed methane production in the southern part of the state was depleting area water by an estimated 2,500 acre feet a year. That amounted to roughly 815 million gallons of water that aren't returned to streams and rivers in the Raton Basin.

The agency has said the current total is likely quite a bit lower because of wells temporarily shut down in the northern part of the basin.

In Montana, state officials and landowners worry that Wyoming's coal-bed methane development is harming water quality and depleting streams and groundwater. The state of Wyoming and the energy industry are suing to overturn Montana's water-quality standards aimed at preventing pollution from Wyoming's natural gas production.

I want to read and/or post comments on this story.





- Newspaper in Education: A partnership between The New Mexican and local schools. Teachers, call 995-3851 for more information.
- Community groups: Want to volunteer? Need help? Looking for your niche?
- Santa Fe Youth Connect: A resource guide for youth and their families seeking help or
- Generation: Next: News by
- eNewMexican.com: An online replica of the print edition. Free

May 29, 2008 4:00 AM PDT

Squeezing water out of oil

Posted by Stefanie Olsen

4 comments

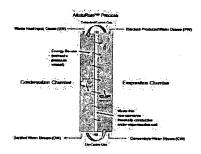
Excavating oil and gas has a little-known byproduct that costs the energy industry billions of dollars annually in removal--smelly sludge water.

A New Mexico start-up is trying to deal with the problem. Privately held Altela has developed a hydrothermal system that aims to turn the ancient groundwater extracted in oil or gas production into clean drinking water. The company calls its system "clean technology" because it can produce potable water with less energy than other desalinization methods, such as carbon filtration, without the use of pumps. Its technology can also be considered more energy efficient than hiring 18-wheel trucks to port the water away for burial in specialized wells, according to company CEO Ned Godshall

"There's a great need for cleaning up this water rather than putting it back three miles underground, which is what's happening," Godshall said in an interview with CNET News.com.

So-called produced water is the oil and gas industry's dirty big secret. In the United States, an average of 9 out of every 10 gallons of liquid extracted in oil or gas production is salty, mineralized water that's thought to be between 30 million and 60 million years old. (In the Middle East, the ratio is more like three to one.) In 1993, for example, the energy industry generated 1.09 trillion gallons of produced water-enough to flow over Niagara Falls for nine days, according to the scientific group Produced Water Society.

After production, the onus is on the energy



A schematic of Altela's desalinization process. Click the image to see an enlarged view.

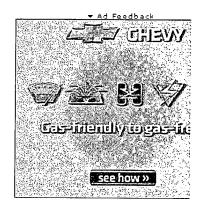
companies to separate the water from oil, and treat the water before it can be reused, or otherwise truck it away for disposal "down hole." That's because it typically contains oil and metals that can be harmful to the environment. Offshore oil rigs, for example, must ensure that they dilute produced water to 29 parts per million, or something like the equivalent of an eyedropper of oil (produced water) in a five-gallon bucket, before it can put it back into the Gulf of Mexico. Anything higher will cause a sheen on the ocean.

For that reason, the energy industry must invest in equipment like reverse osmosis systems to clean the water. Reverse osmosis separates silt or salt from freshwater by moving it through a semipermeable membrane with applied pressure, but it can be expensive because of the energy needed to produce large amounts of pressure. At land excavation sites, energy companies will also spend as much as \$63 a barrel to truck away the water for removal, according to Altela's estimations.

"It's kind of a black magic industry," said Brad Tinder, president of Maverick Energy Services, an oil and gas consultant who's on the board of the Produced Water Society. "There are so many different technologies that aid in the removal of oil from water. And all have professed over the years to do it the best. But it is a million-dollar piece of equipment that does not produce the energy industry any money."

That's where Altela hopes to be of some use. The three-year-old company, which first unveiled its technology in March 2007, said it can take 90 percent of produced water and turn it into clean water.

The standard system, which is about the size of a residential water heater, includes boilers, holding tanks, water treatment towers, and a satellite-based communications system for remote monitoring.



About Green Tech

Innovation in energy and environmental technolous overdue. But it's here now--and growing fast. To everything from water to wind turbines, CNET N Martin LaMonica and other CNET writers serve green tech news and commentary.



Subscribe to this blog Click this link to view this blog as XML.

Add this feed to your online news reader

Green Tech topics

Batteries Global warming Biofuels Green buildings Biomass Green IT Carbon Trading In the home Deals and investments Policy Energy efficiency Solar Environment Transportation Food and drink Waste and Recvo Fuel Cells and Hydrogen Water Wind

Most popular stories

Images: Secrets of Stonehenge unearthe Photos: Top 10 reviews of the week Microsoft's Robbie Bach 'thought about I Surface Vertical-axis wind turbine spins into busi Exploited bug doesn't exist in latest vers Flash

I stact tach name haadlings

"Our system goes out to a well site, and instead of it venting methane into the atmosphere, we use it to make steam, and that steam is what drives our process of desalinization."

Beyond that detail, Godshall wouldn't divulge how the patent-pending technology works. But he said key to Altela's system is that it's made with a low-cost plastic. It's light enough to be ported to excavation sites in shipping containers.

What's unclear is exactly how much the system costs, and how it differs from the cost of other technologies. Godshall said that he doesn't sell or lease his system. Rather, Altela charges the energy company per gallon to convert produced water into reusable water. Without disclosing the per-gallon conversion fee, he said it's as much as "120 times less money than trucking away the water." And it's less environmentally damaging.

"The liability of produced water is converted into an asset of clean water," Godshall said.

What happens to that water? Godshall said the company deals with the clean water in one of two ways for its four current customers, which include New Mexico-based Yates Petroleum. (It has seven systems installed in areas around New Mexico, Colorado, and Canada.) One is to give away the water to local ranchers to feed cattle or green their land.

The other is to reuse the water for so-called frac jobs, short for fracturing. Fracturing is a process in which energy companies use huge amounts of clean water to exert energy on a rock underground in order to release new gas and oil.

It's a fairly new and growing method of finding natural resources. Tinder said, for example, that his company has worked with Siemans Water Technology in Arkansas and in the Black Hills of Wyoming on recovery of produced water for frac jobs. He said the industry often takes freshwater from lakes, rivers, and streams for frac jobs, but because water is such a precious commodity, it's trying to reuse produced water several times over.

"We're using carbon filtration, but that takes a lot of power because you're running pumps and filters," said Tinder, who wasn't familiar with Altela's technology.

Still, the technology helps out in a high-need field. Tinder said Shell, for example, was sending 30 trucks in each day to an excavation site in Wyoming to haul out 3,000 gallons of produced water per truck, 300 miles away for disposal. With desalinization technology, it cut down the process to three trucks per day, Tinder said.

For its part, Altela is in talks with investors to raise \$26 million in a series B round of funding to expand its manufacturing facility in Albuquerque. It has already raised about \$10 million from venture capitalists, including EnerTech Ventures in Philadelphia.

After oil and gas, Altela hopes to tackle the treatment of industrial wastewater, such as the semiconductor industry or the food and beverage business.

"The industry has huge needs to get rid of and reuse dirty water," Godshall said.

TOPICS: Waste and Recycling, Water
TAGS: green tech, water desalinization
BOOKMARK: Diqq Del.icio.us Reddit

Recent posts from Green Tech

SunEthanol seeks funding for fuel-making bug
Vertical-axis wind turbine spins into business
Plant power to fight toxic tech
Stupid hybrid tax incentive quotas
Hybrid-electric carmaker readies 220 mpg 'super car'

Posted in News Blog by Greg Sandoval June 2, 2008 12:55 PM PDT

All News.com headlines »

Featured blogs

Beyond Binary by Ina Fried
Coop's Corner by Charles Cooper
Defense in Depth by Robert Vamosi
Geek Gestalt by Daniel Terdiman
One More Thing by Tom Krazit
Outside the Lines by Dan Farber
The Iconoclast by Declan McCullagh
The Social by Caroline McCarthy
Underexposed by Stephen Shankland



≡ greentechmedia:



Keyword(s)



HOME

CONTENTS

SECTORS

BLOGS

RESEARCH

EVENTS

LOGIN

JOIN NOW

Today's Date: Tuesday, May 27, 2008

Det.icio.us ∰ Email

Altela Cleans Up Dirty Water's Act

The water- purifying and desalination company looks to raise a second round of funding to expand the use of its technology that curbs the harsh water disposal methods used by companies that drill for oil and gas.

INTERESTS

by: Rachel Barron

May 21, 2008

Altela, a company that claims it can make the water extracted during oil and gas drilling drinkable, is seeking \$26 million in a second round of funding.

At the Dow Jones Environmental Ventures conference in San Mateo, Calif., this week, CEO Ned Godshall said the Albuquerque, N.M.-based company hopes to close the round in the third quarter.

In May, the company announced that it had snagged \$7.1 million from CCS Income Trust and other investors (see Investors High on Water). The company has raised a total of \$10 million in funding so far.

Altela plans to use the new financial infusion to expand its manufacturing capacity and to grow its sales beyond the United States and Canada.

SATCON Technology, Corporation, Inc., Appoints Charles S. Rhoades as Chief Executive Officer
SatCon Expands Operations in Spain to Serve Mediterranean Countries
SatCon Technology Reports Financial Results for the Year Ended December 31, 2007

Founded in 2005, Altela has developed a water-purifying and desalination system that uses thermal distillation, an energy-intensive process of heating dirty or salty water and then capturing fresh water as vapor rises from the mixture.

Thermal distillation isn't new. "It's what I call a 10th-grade science experiment," Godshall said.

But the company claims it has figured out how to make the process more energy efficient, making three gallons of water using the energy it normally would take to make one.

Godshall wouldn't reveal how the company does it. But he said the technology is made of a cheap plastic material, which helps keep costs down, and the whole system fits into a single shipping container that is trucked in and dropped off at a drilling site.

Today, oil and gas companies have to use big rigs to haul away the salty polluted water from drilling. The companies then have a few ways in which they can dispose of the water, including injecting it into specially created wells.

By using Altela's technology, oil and gas companies can cut nine out of 10 truck trips, Godshall said, making the company's approach cheaper and more environmentally friendly.

In spite of a rapidly growing demand for water, a market in the billions of dollars and venture capitalists calling water-treatment technologies the Next Big Thing, water investments have been scarce for years (see Parched for VC Funding, VCs Say Water Industry Should Take Lessons From Energy and Hedge Fund Picks: Solar, Energy Storage, Water ... and Biofuels).

But those tides are starting to change (see Water Investment Picks Up and Water Investment Drought Over?). Among the water-purification companies that have scored funding in the last year are Ioteq, Purfresh and Cascade EcoSolutions. Desalination companies Seven Seas Water, Advanced Desalination Technologies, Tampa Bay Water and Stonybrook Purification also have raised cash

Most of those desalination technologies use membranes to filter out impurities.

But Godshall claims membrane technology can't handle high levels of salt. "Reverse osmosis pretty

COMMENTS

See what other people think about this article or leave your comments.

COMMENTS

RELATED CONTENT

VCs Say Water Industry Should Take Lessons From Energy Hedge Fund Picks: Solar, Energy Storage, Water ... and Biofuels Water Investment Picks Up Water-Investment Drought Over? Investors High on Water Toner Tech Cleans Water Q&A: From Waterworld to the World's Water Power Plant Goes On Water Diet



much peters out at the level of sea water," he said, adding the brackish water that surfaces when drilling for oil and gas is saltier than the oceans.	
Quos, which counts Vinod Khosla among its backers, also uses no membrane. Ioteq and Purfres also don't use membranes, but are targeting a different market - food.	sh
Godshall claims that Altela-treated water has 20 times less salt then a glass of tap water and is p enough to drink, something he said he has done many times.	sure
comments (0)	<u> </u>
Email Address Password	
post comment? (Your e-mail address will never be displayed.)	
Join Now to Post a Comment >	
	在此時間不然中學生是自己的學學,不可能是一個學問題的學學的學學,可以不可以學學可以是一個學問題。
GREENTECH MEDIA NEWSLETTER SIGN-UP Email Address	submit
Advertise with Us About Greentech Media Contact Greentech Media Editorial Policy Priva	acy Policy Terms of Use Edil Your Profile

Copyright @ 2007 Greentech Media, Inc. All rights reserved.



TREATING WATER NATURALLY.

AltelaRainSM System ARS-4000

Providing integrated water treatment solutions.

The AltelaRain System is a transportable, containerized, fully integrated water desalination/decontamination system that is built and contained in standard 45' shipping containers: Each container holds all the equipment necessary to treat contaminated water including boilers, holding tanks, water. treatment towers, and power generation if. needed... Individual AltelaRain towers are approximately the size of a residential water heater. The AltelaRain M. System treats 4,000 gallons per day (100 BPD) of produced water, and can reduce effluent disposal volumes by as much as 90%. Since the treated water stream. is distilled water, the quality of water from the AltelaRainSM Process (Figure 1) is extremely

Water quality test results received from independent water quality labs demonstrate the

AltelaRainSM Process

Saturated Carrier Gas

Waste Heat Input, Steam (BW)

Energy Re-use (without a pressure vessel)

Condensation Chamber

Evaporation Chamber

Micro-thin non-corrosive thermally-conductive water-impermeable wall

Distilled Water Stream (DW)

Dry Carner Gas

Concentrate Water Stream (CW)

Figure 1: AltelaRainSM Process

very high quality of treated water obtained from this simple technology for the treatment of highly-challenged produced water. Total dissolved solids were reduced 99.8% from 41,700 mg/L to 106 mg/L. Chloride was reduced 99.8% from 25,300 mg/L to 59 mg/L. Similarly, benzene levels were reduced from 450 μg/L to non-detectable following: AltelaRainSM treatment.

In summary, the key advantages of the AltelaRainSM technology include:

- · Reduces water hauling/trucking costs
- · High thermal efficiency
- Unattended operation
- No pre- or post-treatment required
- No membranes to replace
- Easily sized to location's need
- Extremely high quality of treated water
- No fouling or scaling
- Low operating cost
- Operates at ambient pressure
- Operates at low temperature
- Uses low-grade waste heat to operate

Dimensions: 45'x 8'x 9'6"

Weight: 8,000 lbs

Influent Stream: Capable of treating water

in excess of 100,000 ppm TDS

Electrical Requirements: Municipal or

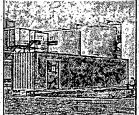
internal generation if required



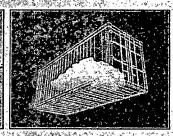
Houston Office: 363 N: Sam Houston Pkwy.E Suite 330 Houston, TX 77060 713:405.1390



Albuquerque Office One Technology Center 2450 Alamo Ave SE Suite 200 Albuquerque NM 87106 505 923 4140



Denver Office: Denver Technology Center 5350 South Roslyn St., Suite 430 Englewood, CO:80111 303:993 1950



www.altelainc.com



A water desalination/decontamination solution inspired by nature itself.

Altela has redefined the fundamentals of water purification, which has world-changing implications, yet the technology has entirely practical and realistic applications. In straightforward terms, it takes the simplest of nature's processes for purifying water (making rain) and through revolutionary technology, recreates that process using readily available materials and low energy compared with conventional thermal distillation. The treated water quality meets or exceeds even the strictest U.S. government environmental protection (EPA) standards.

ALTELARAINSM LOWERS OIL AND GAS PRODUCTION COSTS.

AltelaRainSM lowers the cost of oil and gas production while dramatically decreasing the volume of waste water that needs to be trucked away. It purifies the most highly challenged water using energy produced at the wellhead, in a simple, mobile and modular system located on-site. The system treats 100 barrels a day, decreasing disposal volumes and costs by 90% and extending the life of a well.

AN UNLIMITED POTENTIAL ACROSS MANY INDUSTRY SECTORS.

The AltelaRainsian system is an effective solution for the desalination and decontamination of highly challenged water including produced water in the oil, natural gas and mineral extraction industries, highly salinated concentrate "tail-water" from large-scale desalination systems, industrial waste water treatment such as in the semi-conductor, electroplating, food and beverage industries and more.

Other key advantages include:

- Extremely high quality of treated water Operates at ambient pressure
- · Unattended operation
- No fouling or scaling

- · Low operating cost
- Operates at low temperature
- Uses low-grade waste heat to operate
- No pre- or post-treatment required
- · No membranes to replace

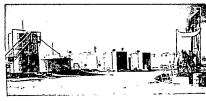
PLEASE CONTACT US TO LEARN MORE ABOUT HOW WE CAN TURN CONTAMINATED WATER LIABILITIES INTO CLEAN WATER ASSETS.

HOUSTON OFFICE: 363 N. Sam Houston Parkway E., Suite 330, Houston, TX 77060 PHONE: 713.405.1390 ALBUQUERQUE OFFICE: One Technology Center, 2450 Alamo Ave. SE, Suite 200, Albuquerque, NM 87106 PHONE: 505.923.4140 DENVER OFFICE: Denver Technology Center, 5350 South Roslyn St., Suite 430, Englewood, CO 80111 PHONE: 303.993.1950







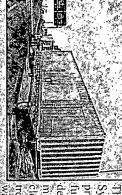




We set out to lower the cost of oil and gas production by treating the brackish water produced when drilling. We ended up with a breakthrough technology inspired by nature. Right now, our AltelaRainSM system is desalinating and decontaminating highly challenged water sources without the energy-intensive equipment, high temperature or pressure of other technologies. And it's all done in a simple, transportable shipping container located on-site. Today, we're helping the Oil & Gas industry increase efficiency and productivity in the Piceance Gas Basin of Colorado. Tomorrow, the sky's the limit. To learn more, call 505.923.4140 or visit altelainc.com.



ALTELARAINS SYSTEM ARS 4000

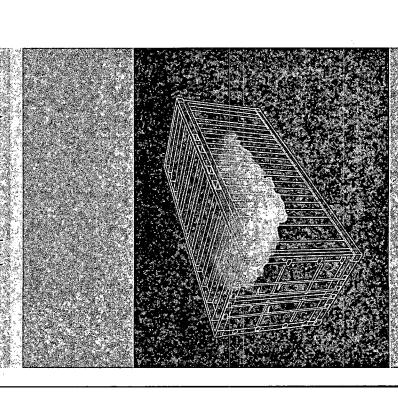


Condensation Chamber AltelaRainSM Process Evaporation Chamber rackish ProducedWater Stream (PW)

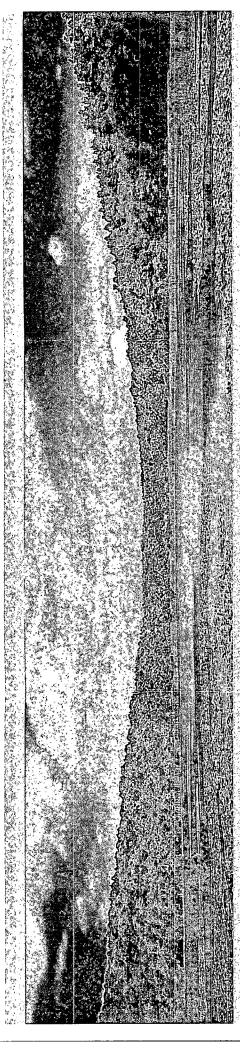
Concentrate Water Stream (CW)

EMAIL: info@altelainc.com WEB: www.altelainc.com PHONE: 505.923.4140 FAX: 505.923.4130 2450 Alamo Ave. SE, Suite 200, Albuquerque, NM 87106 One Technology Center

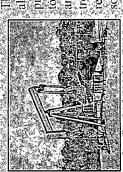








A NEW SOLUTION FOR AN OLD PROBLEM



to be economically treater allows highly-challenged treat concentrated brine regardless of total di rand cleaned on site,

customer's high disposal costs and environmental lia scaled according to treatment demand. This remove ity by the present official methods.

HIGH PERFORMANCE STANDARDS

associated with well operation must meet this perform week performance from their wells, and any equipmen ance standard. Allela's systems are designed to be one led unattended on a continuous basis in the harsh off as field environmental conditions and require in Jil and gas operators demand 24-hour-a-day nal maintenance

ALTELA IS DOING THIS TODAY ... AND IT WORKS!!

the Colorado River and is also being successfully re-used AltelaRains Systems are successfully treating produce been permitted by the State of Colorado for release into been commissioned in the Piceance Gas Basin of Golo-New Mexico, saving the people in the region from hav rado, the San Juan Basin of New Mexico; and Western Canada. Clean water from the AltelaRain^{so} System has by the Navajo Nation from a Well site in northwestern water and frac water. Multiple commercial sites have

THE TECHNOLOGY: TREATING WATER NATURALLY

process based on thermal distillation, which desalinates osmosis (RO) and other membrane-based desalination and decontaminates salty and polluted water in a fund: ruptive water desalination/decontamination technolog echnologies. In simple terms, the technology, mimics mentally different way than the more familiar reverse process that re-uses the heat of condensation over and n over 50 years, however, is a scientifically complex out mexpensively implemented, internal heat transfe nature's process of making pure rain water from seawater: What positions it as the first, truly new and di over again.



gallons of clean water from usually only make I gallon the heat energy that would

MAKING WATER FROM WASTE.

tures, fillers, or membranes - allowing it to be manufaccompeting high-pressure high-electricity-cost technolo gies such as RO and mechanical vacuum compression. The system is robust; using no pressure; high temperatured from mexpensive plastics rather than exotic and The AltelaRains System operates on low-grade was furthers lowering Altela's operating costs relative to neation waste well-head gas, free in many locations expensive metals.

resuse of treated; clean water in the Piceance Basin; the water right flows)—and provide it back to the custome include EPA-based approval to discharge treated, clear irrigation: livestock use; aquifer recharge and in-strear for frac and other well completion needs. These permi water into the Colorado River, approval for beneficial environmental permits to discharge cleaned water (fo Through Altela's professional services division, the company has successfully acquired precedent-setting first-ever approval in New Mexico to

approval for a centralized waste treatsurface discharge treated clean water. mental permit to surface discharge for requise; the first-ever EPA-based ment facility to treat produced water. charge through the publically owned first-ever Navajo Nation environ: for in-stream flow and aduifer refreatment works (POTW); and the

freated, clean water for the benefit of district grazing

WE CAN GROW WITH YOU AND TREAT HIGH VOLUMES

on our proven core technology, enables us to build sca able today, but Altela s productimigration path, based our technology allows us to build an AltelaRainsM Sys tem plant that can easily scale from 1,000 barrels-per-Not only is our AllelaRains System ARS-4000 avail able, dedicated plants that can grow along with your increasing treatment needs. A truly unique feature of day (BPD) up to over 5,000 BPD Let us help you convert contaminated water liabilities into clean water assets. For more information, please call, 505, 923, 4140, or visit, www.altelainc.com

Jones, Brad A., EMNRD

From:

Jones, Brad A., EMNRD

Sent:

Wednesday, January 14, 2009 10:12 AM

To:

'Matthew J. Bruff'

Subject:

RE: Altela, Inc. Renewal Approval to Store and Use Produced Water for R&D

Matt,

Since OCD received your request for renewal prior to its expiration date, Altela may continue operator under the existing temporary approval until OCD has the opportunity to review and make a determination the renewal request. If you have any questions regarding this matter, please contact me.

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

Office: (505) 476-3487 Fax: (505) 476-3462

From: Matthew J. Bruff [mailto:matthew.bruff@altelainc.com]

Sent: Wednesday, January 14, 2009 9:59 AM

To: Jones, Brad A., EMNRD

Subject: Altela, Inc. Renewal Approval to Store and Use Produced Water for R&D

Brad,

Good morning. I hope the New Year is starting off well for you!

I spoke with Glenn Vongonten this morning with respect to Altela's 4th quarter produced water treatment volumes in New Mexico. We are working on his urgent request and will get back with him yet today. Originally, I thought his call was regarding our pending request to renew Altela's approval to store and use produced water for R&D of the AltelaRainSM technology. He informed me that you were still the point of contact for this approval request and I should touch base with you directly. I understand you are very busy and are preparing for a hearing. We are not rushing you by any means - our current approval will expire this Friday, January 16, 2009 and we're just trying to stay on top of it. Thanks,

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

This inbound email has been scanned by the MessageLabs Email Security System.

Jones, Brad A., EMNRD

From:

Matthew J. Bruff [matthew.bruff@altelainc.com]

Sent:

Wednesday, January 14, 2009 9:59 AM

To:

Jones, Brad A., EMNRD

Subject:

Altela, Inc. Renewal Approval to Store and Use Produced Water for R&D

Brad,

Good morning. I hope the New Year is starting off well for you!

I spoke with Glenn Vongonten this morning with respect to Altela's 4th quarter produced water treatment volumes in New Mexico. We are working on his urgent request and will get back with him yet today. Originally, I thought his call was regarding our pending request to renew Altela's approval to store and use produced water for R&D of the AltelaRainSM technology. He informed me that you were still the point of contact for this approval request and I should touch base with you directly. I understand you are very busy and are preparing for a hearing. We are not rushing you by any means - our current approval will expire this Friday, January 16, 2009 and we're just trying to stay on top of it. Thanks,

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

This inbound email has been scanned by the MessageLabs Email Security System.

Jones, Brad A., EMNRD

From:

Matthew J. Bruff [matthew.bruff@altelainc.com]

Sent:

Wednesday, November 28, 2007 10:47 AM

To:

Price, Wayne, EMNRD; Jones, Brad A., EMNRD

Subject:

Altela, Inc. PW Use at Alamo

Attachments:

Alamo PW Renewal Request, 28 Nov 07.pdf; Alamo Produced Water Tracking Summary.pdf;

Alamo PW Water Quality Report.pdf

Wayne and Brad,

Please find attached Altela, Inc.'s written request to renew Altela's temporary approval to store and use produced water for R&D of the AltelaRainSM technology at our Alamo design, research, and manufacturing facilities. A hard copy will follow via USPS First Class Mail.

Thanks. Matt

Matthew Bruff Altela, Inc. Denver Technology Center 7887 E. Belleview Ave., Ste. 1100 Englewood, CØ 80111 T (303) 228-1605 F (303) 228-1655 www.altelainc.com

This inbound email has been scanned by the MessageLabs Email Security System.



November 28, 2007

Mr. Wayne Price Mr. Brad Jones Environmental Bureau Chief NM Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505 2454 Atomica (c. 05) - dr. 235 Altiagraphic New Merch (170) -1, u05 923 4146 1, 503 923 4730

Detect for the transfer for the former. From the Armin

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

VIA FIRST CLASS MAIL & ELECTRONIC MAIL

Dear Wayne and 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 AltelaRainSM technology. A copy of the original NM Oil Conservation Division (OCD) approval letter dated January 16, 2007 has been attached. Pursuant to the terms of the original approval letter, we hereby submit this renewal request forty-five (45) prior to the expiration date of the original approval.

Altela requests a one-year renewal to use real oilfield produced water for testing and development of the AltelaRainSM 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 of the produced water at Alamo:

- 1. The produced water approved for storage and the testing and development of the AltelaRainSM 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
- 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 Altela's Produced Water Tracking Summary used to ensure that all produced water is accounting for as well as delivered by approved C-133 permitted water haulers and removed by approved C-133 permitted water haulers for disposal. Please also find a copy of the water quality analytical report with respect to the produced water by Energy Laboratories. Inc.

Thank you in advance for your continued assistance and support of the AltelaRainSM 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

Balance	+300 gallons	0 gallons	+300 gallons								
	+30(-	+300	 -			 · · · · · · · · · · · · · · · · · · ·	* .			
Delivered / Taken Away	livered	300 Gallons Taken Away	livered							12.4	
livered / Away	300 Galtons Delivered	allons Ta	300 Gallons Delivered					• •	1 J		
2	300 G	300 G	300 G			 					-
	ē		ion								
Owner of Well	Corporat		Corporat								
Owner	and Gas		and Gas								
	errion Oil		errion Oil	٠							
	Blackshawf Com. #001 (San Juan Basin) Merrion Oil and Gas Corporation		Basin) Mi				 				
ing We	ın Juan E		ın Juan E					,			
Name of Originating Well (If Taken Away - NA)	#001 (Sa		#001 (Sa								
me of C If Take	wt Com.		w Com.						•		
EN	Blacksha	≨	Blackshawl Com. #001 (San Juan Basin) Merrion Oil and Gas Corporation								
it No.	(O	"	"0								
C133 Permit No.	C-133-66	C-133-66	C-133-66								
\perp						 	 				
Fax Number	(505) 326-6002	(505) 326-6002	26-6002								
Fax N	(202) 3	(505) 3	(505) 3							. *	
Phone Number	(505) 326-5541	(505) 326-5541	(505) 326-5541 (505) 326-6002					•			
를 P	(202) 3:	(202) 3:	(505) 3:						÷.		
	87499	87499	87499								
	pton, NM	non, NM	Jion, NM								
Address	, Farmine	, Farming	i, Farming						1.25		
	Box 600	Box 600	Box 600								
	Post Office Box 600, Farmington, NM 87499	Post Office Box 600, Farmington, NM 87499	Post Office Box 600, Farmington, NM 87499								
ct at				•						•	
Contact at Company	John Davis	John Davis	John Davis							5	
npany	•									5	
Transport Company Name	M&R Trucking, Inc.	11/19/07 M&R Trucking, Inc.	cking, In								
말	/&R T⊓	M&R Tru	11/19/07 M&R Trucking, Inc.		_	 				<u> </u>	
<u> </u>	~				_		 				
Date Tran	2/22/07	1/19/07	1/19/07						19 A	****	



Client:

Altela Inc

Project:

Alamo Lab P-38 DW from Blackshawl PW

Lab ID:

C07030114-001

Client Sample ID: P-38

Report Date: 03/13/07

Collection Date: 03/01/07 11:52

DateReceived: 03/02/07

Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
MAJOR IONS							
Calcium	ND	mg/L		0.5		E200.7	03/07/07 15:38 / ts
Chloride	ND	mg/L		1		A4500-CI B	03/06/07 14:17 / jl
Fluoride	1.0	mg/L		0 1		A4500-F C	03/05/07 15:23 / jaj
Magnesium	ND	mg/L		0.5		E200.7	03/07/07 15:38 / ts
Nitrogen, Ammonia as N	7.3	mg/L		0.1		E350.1	03/08/07 11:14 / eli-b
Nitrogen, Kjeldahl, Total as N	7.7	mg/L		0.5		E351.2	03/06/07 10:32 / eli-b
Nitrogen, Nitrite as N	ND	mg/L	Н	0.1		A4500-NO2 B	03/06/07 15:32 / jal
Phosphorus	ND	mg/L		0.1		E200.7	03/07/07 15:38 / ts
Phosphorus, Orthophosphate as P	ND	mg/L		0.010		E365.1	03/06/07 14:59 / eli-b
Sodium	ND	mg/L		0.5		E200.7	03/07/07 15:38 / ts
Sulfate	ND	mg/L		1		A4500-SO4 E	03/05/07 17:44 / ljl
NON-METALS							
Cyanide, Free	NA	mg/L		0.2		A4500-CN-F	03/07/07 12:00 / eli-b
Phenolics, Total Recoverable (Distilled)	0.105	mg/L		0.010		E420.1	03/05/07 14:43 / jl
Cyanide, Weak Acid Dissociable	ND	mg/L		0.005		D2036	03/06/07 10:42 / eli-b
Sulfide	ND	mg/L		0.50		E376.1	03/07/07 10:27 / jl
- The Total Automated Cyanide was analyzed,	and was < 200 u	g/L, the detectio	n limit for Free Cy	anide. Fre	e Cyanide	was not analyzed.	
PHYSICAL PROPERTIES							
Chlorine, Residual Total	ND	mg/L		0.01		H8021	03/05/07 16:09 / jl
Conductivity	35.3	umhos/cm		1.0		A2510 B	03/05/07 14:49 / lm
Hardness as CaCO3	ND	mg/L		6.5		A2340 B	03/08/07 11:15 / sec
pH	8.95	s.u.		0.01		A4500-H B	03/05/07 14:49 / lm
Solids, Total Dissolved TDS @ 180 C	ND	mg/L		10		A2540 C	03/05/07 13:51 / lm
Solids, Total Suspended TSS @ 105 C	ND	mg/L		1.0		E160.2	03/05/07 10:32 / lm
METALS - TOTAL							
Aluminum	ND	mg/L		0.01		E200.7	03/07/07 15:38 / ts
Antimony	ND	mg/L		0.05		E200.8	03/08/07 00:43 / sml
Arsenic	ND	mg/L		0.001		E200.8	03/08/07 00:43 / sml
3 arium	ND	mg/L		0.1		E200.8	03/08/07 00:43 / sml
3eryllium	ND	mg/L		0.01		E200.8	03/08/07 00:43 / sml
3 oron	ND	mg/L		0.1		E200.7	03/07/07 15:38 / ts
Cadmium	ND	mg/L		0.01		E200.8	03/08/07 00:43 / sml
Chromium	ND	mg/L		0.05		E200.8	03/08/07 00:43 / sml
Copper	ND	mg/L		0.01		E200.8	03/08/07 00:43 / sml
_ead	ND	mg/L		0.05		E200.8	03/08/07 00:43 / sml
Mercury	ND	mg/L	i	0.001		E200.8	03/08/07 00:43 / sml
Nickel	ND	mg/L		0.05		E200.8	03/08/07 00:43 / sml
Selenium	ND	mg/L	1	0.001		E200.8	03/08/07 00:43 / sml
Silver	ND	mg/L		0.01		E200.8	03/08/07 00:43 / sml
Thallium	ND	mg/L		0.1		E200.8	03/08/07 00:43 / sml
	ND	mg/L		0.01		E200.8	03/08/07 00:43 / sml

Report

RL - Analyte reporting limit.

Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

H - Analysis performed past recommended holding time.

·Track# C07030114 Page



Client:

Altela Inc

Project:

Alamo Lab P-38 DW from Blackshawl PW

Lab ID:

C07030114-001

Client Sample ID: P-38

Report Date: 03/13/07

Collection Date: 03/01/07 11:52

DateReceived: 03/02/07

Matrix: Aqueous

Analyses	Result	Unite	Qualifiers	RL	OCT.	Method	Analysis Date / By
RADIONUCLIDES - QUICK COUNT	TOTAL						
Redium 226	ND	pCI/L		02		E903.0	03/08/07 11:05 / trs
RADIONUCLIDES - TOTAL							
Radium 226	ND	pCi/L		0.2		E903.0	03/13/07 09:16 / trs
Radium 228	ND	pCi/L		1.0		RA-05	03/08/07 10:35 / plj
VOLATILE ORGANIC COMPOUNDS							
1 1 1,2-Tetrachloroethane	ND	ug/L		1 00		E624	03/07/07 04:36 / dkh
t, 1-1-Trichloroethane	DM	ug/L		1 00		E624	03/07/07 04:35 / dkh
1,1,2,2-Tetrachloroethane	ND	ug/L		1.00		E624	03/07/07 04.35 / dkh
1,1,2-Trichloroethane	ND	og/L		1.00		E624	03/07/07 04:35 / dkfr
),1-Dichloroethane	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
1,1-Dichloroathene	ND	ug/L		1 00		E624	03/07/07 04:35 / dkh
1 Dichloropropene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkir
2,3-Trichioropropane	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
.2-Dibromoethane	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
,2-Dichlorobenzene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
,2-Dichloroethane	ND	ug/L		1 00		E624	03/07/07 04:35 / dkh
.2-Dichloropropane	МĎ	ug/L		1.00		E624	03/07/07 04:35 / dkh
3-Dichlorobenzene	ND	uġ/L		1 00		E624	03/07/07 04:35 / dkh
.3-Dichloropropane	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
4-Dichlorobenzene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
,2-Dichloropropane	ND	ug/L		1.00		€624	03/07/07 04:35 / dkh
-Chloroethyl vinyl ether	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
-Chlorotoluene	ND	ug/L		1.00		E624	03/07/07 04.35 / dkh
l-Chloroloiuene	ND	ug/L		1 00		E624	03/07/07 04:35 / dkh
Acetone	433	⊔g/L		20.0		E624	03/07/07 04:35 / dkh
Acetonitrile	ND	ug/L		10.0		E624	03/07/07 04:35 / dkh
Acrolein	ND	ug/L		10.0		€624	03/07/07 04:35 / dkh
Acrylonitrie	ND	ug/L		100		E624	03/07/07 04:35 / dkh
Benzene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Bromobenzene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Bromochloromethane	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Promodichloromethene	ND	ug/L		1 00		E624	03/07/07 04:35 / akh
Bramoform	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
romometh ane	ND	ug/L		1.00		 €624	03/07/07 04:36 / dkh
arbon disulfide	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Carbon tetrachloride	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Chlorobenzere	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Chlorodibromomethane	ИD	ug/L		1.00		E624	03/07/07 04:35 / dkh
chloroethane	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Chloroform	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Chloromethane	ND	ug/L		1.00		E624	03/07/07 04.35 / dkh

RL Analyte reporting limit.

Report RL Analyte reporting limit Definitions: QCL - Quality control limit.

MCL Maximum contaminant level.

ND - Not detected at the reporting limit



Client:

Alteia Inc

Project: Lab ID:

Alamo Lab P-38 DW from Blackshawl PW

C07030114-001

Client Sample ID: P-38

Report Date: 03/13/07

Collection Date: 03/01/07 11:52

DateReceived: 03/02/07

Matrix: Aqueous

		 offers grade over 18 section on industries 					-
Analyses	Result	Units	Qualifiers	RL.	MCL/ QCL	Method	Analysis Date / By
<u> </u>							· · · · · · · · · · · · · · · · · · ·
VOLATILE ORGANIC COMPOUNDS		_					
cis-1,2-Dichloroethene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
cis-1,3-Dichloropropene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Dibromomethane	ND	ug/L		1,00		E624	03/07/07 04:35 / dkh
Dichlorodifluoromethane	ND	ug/L		1 00		E624	03/07/07 04:35 / dkh
Ethylbenzene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
m+p-Xylenes	ND	ug/ L		2.00		E624	03/07/07 04:35 / dkh
Methyl ethyl ketone	23.4	ug/L		20.0		E624	03/07/07 04:35 / dkh
Methyl Isobutyl ketone	ND	ug/L		20.0		E624	03/07/07 04:35 / dkh
Methyl tert-butyl ether (MTBE)	ND	ug/L		2.00		E624	03/07/07 04:35 / dkh
Methylene chloride	ND	ug/L		1.00		E624	03/07/07 04:35 i dkh
Naphthalene	ND	ug/L		1,00		E624	03/07/07 04:35 / dkh
o-Xylene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Styrene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Tetrachloroethene	ND	ug/L		1.00		E524	03/07/07 04:35 / dkh
Toluene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
rans-1,2-Dichloroethene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
rans-1.3-Dichtoropropene	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Trichloroethene	ND	ug/L		1 00		E624	03/07/07 04:35 / dkh
Trichlorofluoromethane	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Vinyi acetate	ND	ug/L		1.00		E624	03/07/07 04:35 / dkh
Vinyl chloride	ND	ug/L		1.00		E824	03/07/07 04:35 dkh
Xylenes, Total	ND	ua/L		1 00		E624	03/07/07 04:35 / dkh
Surr: 1,2-Dichtorobenzene-d4	102	%REC		,	80-120	E624	03/07/07 04.36 / dkh
Surr. Dibromofluoromethane	104	%REC			80-120	E624	03/07/07 04:35 / dkh
Surr: p-Bromofluorabenzene	99.0	%REC			80-120	E624	03/07/07 04:35 / dkh
Sum Toluene-d8	99.0	%REC			80-120	E624	03/07/07 04:35 / dkh
ORGANIC CHARACTERISTICS							
Organic Halides, Total	NĐ	rng CI/L		0.1		SW9020B	03/09/07 11:03 / cjs
Oli & Grease (HEM)	ND	mg/L		5.0	10	SW1664A	03/06/07 10.35 i bah
SYNTHETIC ORGANIC COMPOUNDS	3						
1,2,4-Trichlorobenzene	ND	ug/L		10		EG25	03/07/07 06:11 / eli-l
1,2-Dichlorobenzens	ND	⊔g/L		10		E625	03/07/07 CB:11 / eli-l
1.3-Dichlorobenzene	ďИ	ug/L		10		E625	03/07/07 C6:11 / eli-
1,4-Dichlorobenzene	МĎ	ug/L		10		E625	03/07/07 C6:11 / eli-
2,4.6-Trichlorophenai	ND	ug/L		10		E625	03/07/07 C6:11 / eli-l
2 4-Dichlarophenol	ND	ug/L		10		E625	03/07/07 C6:11 / pli-l
2,4-Dimethylphenol	ND	ug/L		10		E825	03/07/07 08:11 / ell-l
2.4-Dinitrophenol	NĐ	ug/L		50		E625	03/07/07 C6:11 / eli-
2,4-Dinitrotoluene	ND	ug/L		10		E625	03/07/07 66:11 / gli-l
2,6-Dinitrotoluene	ND	ug/L		10		E625	03/07/07 06:11 / ell-l
2-Chloronaohthalene	ND	ug/L		10		E625	03/07/07 06:11 / ell-l

RL Analyte reporting limit.

Report RL Analyte reporting limit. Definitions: QCL - Quality control limit.

MCL Maximum contaminant level.

ND Not detected at the reporting limit.



Client:

Altela Inc

Project:

Alamo Lab P-38 DW from Blackshawl PW

Lab ID:

C07030114-001

Client Sample ID: P-38

Report Date: 03/13/07

Collection Date: 03/01/07 11:52

DateReceived: 03/02/07

Matrix: Aqueous

ACCUPATION OF THE PARTY OF THE			7 100				
Analyses	Rosult	Units	Qualifiers	RL	GCF.	Method	Analysis Date / By
SYNTHETIC ORGANIC COMPOUNDS							
2-Chlorophenol	ND	u ç/ L		10		E625	03/07/07 06.11 / eli-
2-Nitrophenol	ND	ug/L		10		E625	03/07/07 06:11 / eli-l
3,3 -Dichlorobenzidine	ND	ug/L		20		E625	03/07/07 08:11 / eli-
4,6-Dinitro-2-methylphenol	ND	ug/L		50		E625	03/07/07 06:11 / ell-
4-Bromophenyl phenyl ether	ND	пēуГ		10		E625	03/07/07 05:11 / ell-
4-Chloro-3-methylphenal	ND	ug/L		10		E625	03/07/07 08:11 / eli-
4-Chlorophenyl phenyl ether	ND	ug/L		10		E625	03/07/07 06:11 / eli-
1-Nitrophenoi	ND	ug/L		50		E625	03/07/07 08:11 / ell-
Acenaphthene	ND	ug/L		10		E625	03/07/07 06:11 / eli-
Acenaphthylene	ND	ug/L		10		E625	03/07/07 06:11 / eli-
Anthracene	ND	ug/L		10		E625	03/07/07 06:11 / eli-
Azobenzene	ND	ug/L		10		E625	03/07/07 05:11 / eli-
Benzidine	ИD	ug/L		20		E625	03/07/07 06:11 / eli-
Benzo(a)anthracene	МD	µg/L		10		E625	03/07/07 06:11 / eli-
Benzo(a)pyrane	ND	ua/L		10		E625	03/07/07 06:11 / eii-
Benzo(b)fluoranthene	ND	ug/L		10		E625	03/07/07 06:11 / ell-
Benzo(g,h,i)perylene	ND	ug/L		10		E625	03/07/07 08:11 / ell-
Benzo(k)flucranthene	ND	ug/L		10		E625	03/07/07 06:11 / e/l-
ois(-2-chloroethoxy)Methane	ND	nayr agar		10		E625	03/07/07 06:11 / eli-
ois(-2-chioroethyl)Ether	ND	-					
* * * * * * * * * * * * * * * * * * * *	DN	ug/L		10		E625	03/07/07 06:11 / ell-
ois(2-chlorolsopropyl)Ether		ug/L		10		E625	03/07/07 06:11 / eli-
ois(2-ethylhexyl)Phthalate	190 ND	uu/L.		20		E625	03/07/07 20:05 / ell-l
Butylbenzylphthalate	ND ND	ug/L		10		E625	03/07/07 06:11 / eli-
Chrysene		ug/L		10		E625	03/07/07 06:11 / eIH
Dibenzo(a,h)anthracene	ND	nðy		10		E625	03/07/07 06:11 / eli-l
Diethyl phthalate	ND	υ g/L		10		E625	03/07/07 06:11 / e/I-I
Dimethyl phtholate	ND	nā/F		10		E625	03/07/07 06:11 / eli-l
Di-n-butyl phthalate	ND	∪g/L		10		E625	03/07/07 06:11 / eil-t
Di-n-octyl phthalate	ND	ug/L		10		E625	03/07/07 06:11 / ell-t
fuoranthene	ND	⊔g/L		10		E325	03/07/07 06:11 / eli-t
luorene	ND	∪g/L		10		E625	03/07/07 06:11 / eri-t
texachtorobenzene	ND	∪g/L		10		E625	03/07/07 06:11 / elkt
lexachlorobutadiene	ND	ug/L		10		E625	03/07/07 06:11 / e)i-t
fexachiorocyclopentadiene	ND	rov		20		E625	03/07/07 00:11 / ell-t
fexachloroethane	ND	∪ g /L		10		E625	03/07/07 DB:11 / e) -t
ndena(1,2,3-cd)pyrene	ND	εgΛ.		10		E625	03/07/07 06:11 / eli-l
sophorone	ND	ւցչև		10		E925	03/07/07 06:11 / Bil-L
laphthalene	ND	ra/r		10		Eĝ25	03/07/07 08:11 / e/i-t
litrobenzena	ND	r@/L		10		E625	03/07/07 06:11 / eli-t
-Nitrosodimetnylamine	ИD	∟g/L		10		E625	03/07/07 08:11 / ell-b
-Nitroso-di-n-propylamine	ND	rβ/L		10		E525	03/07/07 06:11 / eli-b
-Nitrosodiphenylamin a	ND	∟g/L		10		E625	03/07/07 06:11 / eli-b
entachlorophe nol	ND	υg/L		50		E525	03/07/07 06:11 / eli-b
henanthrene	ND	∪g/L		10		E525	03/07/07 06:11 / eli-b

Report

Definitions: QCL - Quality control limit.

RL - Analyte reporting limit.

MCL. Maximum contaminant level.

ND - Not detected at the reporting limit



Client:

Altela Inc

Project: Lab ID:

Alamo Lab P-38 DW from Blackshawl PW

C07030114-001

Client Sample ID: P-38

Report Date: 03/13/07

Collection Date: 03/01/07 11:52

DateReceived: 03/02/07

Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	GCF WCF1	Method	Analysis Date / By
SYNTHETIC ORGANIC COMPOUNDS							
Phenol	ND	ug/L		10		E625	03/07/07 06:11 / eli-b
Pyrene	ND	ug/L		10		E625	03/07/07 05:11 / eli-b
Surr: 2,4,6-Tribromophenol	92.0	%REC			26-116	E625	03/07/07 06:11 / ell-b
Surr: 2-Fluorobiphenyl	82 0	%REC			25-94	E625	03/07/07 06.11 / eli-b
Surr: 2-Fluorophenol	28.0	%REC			11-67	E625	03/07/07 08:11 / eli-b
Surr. Nilrobenzene-d5	70.0	%REC			19-102	E625	03/07/07 06:11 / eli-b
Surc Phenoi-d5	19.0	%REC			15-54	E625	03/07/07 06:11 / eli-b
Surr: Terphenyl-d14	0.68	%REC			39-105	E625	03/07/07 06:11 / eli-b
PESTICIDES							
4,4"-DDD	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
4.4"-DDE	ND	աց/և		0.050		E608	03/06/07 14:45 / eli-b
4,4'-DDT	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
Aldrin	ND	սց/Ն		0.050		E €08	03/06/07 14:45 / eli-b
sipha-BHC	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
alpha-Chlorosne	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
beta-BHC	ND	ug/L	D	0.080		E608	03/06/07 14 45 / eli-b
Chlordane	ND	ug/L		0.50		E608	03/06/07 14:45 / eli-b
delta-BHC	ND	ug/L	D	0.085		E608	03/08/07 14:45 / eli-b
Dieldrin	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
Endosulfan i	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
Endosulfan II	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
Endosulfan sulfate	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
Endrin	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
Endrin aldehyde	ND	ug/L		0.050		E608	03/06/07 14 45 / eli-b
Endrin Ketone	ND	ug/L		0.050		E608	03/08/07 14:45 / eli-b
gamma-BHC (Lindane)	ND	ug/L	Ð	0.10		E608	03/06/07 14:45 / eli-b
gamma-Chicrdane	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
Heptachlor	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
Heptachlor epoxide	ND	ug/L		0.050		E608	03/06/07 14:45 / eli-b
Methoxychlor	מא	աց/Ն		3.050		E608	03/06/07 14:45 / eli-b
Toxaphene	ND	ug/L		5.0		E608	03/08/07 14:45 / eli-b
Arocior 1016	ND	ug/L		0.50		E608	03/06/07 14:45 / ell-b
Aroclor 1221	ND	ug/L		0.50		E608	03/06/07 14.45 / ell-b
Aroctor 1232	ND	ug/L		0.50		E608	03/06/07 14:45 / eli-b
Arocior 1242	ND	ug/L		0.50		E608	03/06/07 14:45 / ell-b
Aroclor 1248	ND	ug/L		0.50		E608	03/06/07 14:45 / ell-b
Arodior 1254	ND	ug/L		0.50		E608	03/06/07 14:45 / ell-b
Arocier 1260	ND	ug/L		0.50		E608	03/06/07 14:45 / ell-b
Aracior 1262	ИD	ug/L		0.50		2608	03/06/07 14:45 / eli-b
Aroclor 1268	ND	nB/F		0.50		E608	03/06/07 14:45 / eli-b
Surr: Decachlorobiphenyl	37.0	%REC	S		44-119	E608	03/06/07 14:45 fell-b
Surr Tetrachloro-m-xylene	57 0	%REC			40-120	E608	03/06/07 14:45 / ell-b

Report Definitions:

RL - Analyte reporting limit. QCL - Quality control limit

D. RL increased due to sample matrix interference.

MCL Maximum contaminant level.

ND - Not detected at the reporting limit. . .

S Spike recovery outside of advisory limits



Client:

Altela Inc

Project:

Alamo Lab P-38 DW from Blackshawl PW

Lab ID:

C07030114-002

Client Sample ID: Trip Blank

Report Date: 03/13/07

Collection Date: 03/01/07 11:52

DateReceived: 03/02/07

Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL Method	Analysis Date / B
VOLATILE ORGANIC COMPOUNDS						
1,1.1,2-1etrachioroethane	ND	ug/L		1 00	E624	03/06/07 18:09 / dk
1,1,1-Trichloroethane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
1.1.2.2-Tetrachloroethene	ND	ug/L		1.00	E624	03/06/07 18:D9 / dk
1.1.2-Trichloroethane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
[]-Dichlorosthane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
f,1-Dichloroethene	ND	ug/L		1,00	E624	03/06/07 18:09 / dk
1,1-Dichloropropene	ND	ug/L		1.00	E624	03/06/07 18:D9 / dk
1,2,3-Trichloropropane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
1,2-Dibromoethane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
1,2-Dichlorobenzene	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
1.2-Dichloroethane	ND	ug/L		1.00	€624	03/06/07 18:09 / dk
1,2-Dichloropropane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
1,3-Dichlorobenzene	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
1,3-Dichloropropane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
L4-Dichlarobenzene	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
•	NID	ug/L		1.00	E€24	03/06/07 18:09 / dk
2,2-Dichloropropane	ND	ug/L ug/L		1.00	E624	03/06/07 18:09 / dk
2 Chloroethyl vinyl ether	ND	ug/L ug/L		1.00	E624	03/06/07 18:09 / dk
2-Chlorotoluene	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
4-Chlorotoluene		-		20.0	E624	03/06/07 18:09 / dk
Acetone	ND	ug/L		10:0	E624	03/06/07 18:09 / dk
Acetonitrile	ND	ug/L		10.0	E624	03/06/07 18:09 / dk
Acrolein	ND	ug/L		10.0	E624	03/06/07 18:09 / dk
Acrylonitrile	ND	ug/L			E624	03/06/07 18:09 / dk
Benzene	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
Bromobenzene	ND	ng/L		1.00		03/06/07 18:09 / dk
Bromochloromethane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
Bromodichloramethaле	ND	ug/L		1.00	E624	
Bromoform	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
Bromomethane	ND	ug/L		1.00	E624	03/08/07 18:09 / dk
Carbon disulfide	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
Carbon tetrachloride	ND	up/L		1.00	E624	03/06/07 18:09 / dk
Chlorobenzene	ND	ug/L		1.00	E624	03/08/07 18:09 / dk
Chlorodibromomethane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
Chloroethane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
Chloroform	ND	ug/L		1.00	E624	03/05/07 18:09 / dk
Chloromethana	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
cis-1,2-Dichloroethene	ND	ug/L		1.00	E624	03/05/07 18:09 / dk
cis-1,3-Dichloropropene	ND	ug/L		1.00	E624	03/05/07 18:09 / dk
Dibromomethane	ND	ug/L		1 00	E624	03/08/07 18:09 / dk
Dichloradifluoromethane	ND	ug/L		1.00	E624	03/06/07 18:09 / dk
Ethylbenzene	ND	ug/L		1 00	E624	03/05/07 18:09 / dk
m+p-Xylenes	ND	ug/L		2.00	E624	03/06/07 18:09 / dk
Methyl ethyl ketone	ND	ug/L		20.0	E624	03/05/07 18:09 / dk
Methyl isobutyt ketone	ND	ug/L		20.0	E624	03/06/07 18:09 / dk

Report Definitions: QCL Quality control limit.

RL - Analyte reporting limit.

MCL , Maximum contaminant level.

ND - Not detected at the reporting limit.



Client:

Altela Inc

Project:

Alamo Lab P-38 DW from Blackshawl PW

Leb ID:

C07030114-002

Client Sample ID: Trip Blank

Report Date: 03/13/07

Collection Date: 03/01/07 11:52

DateReceived: 03/02/07

Matrix: Aqueous

Analyses	Result	Units	Qualifiers	RL.	MCL/ QCL	Method	Analysis Date / By
VOLATILE ORGANIC COMPOUNDS		,	-				
Methy) tert-butyl ether (MTBE)	ND	ug/L		2.00		E624	03/06/07 18:09 / dkh
Methylene chloride	ND	ug/L		1 00		E624	03/06/07 18:09 / dkh
Naphthalene	ND	ug/L		1.00		E624	03/06/07 18:09 / dkn
Xylene	ND	ug/L		1.00		E624	03/06/07 18:09 / dkh
Styrene	ND	ug/L		1.00		E624	03/06/07 18:09 / dkh
	ND	ug/L		1.00		E624	03/06/07 18:09 / dkh
Foluene	ND	ug/L		1.00		E624	03/06/07 18:09 / dkh
rans-1.2-Dichloroethene	ND	ug/L		1.00		E624	03/06/07 18:09 / dki
rans-1,3-Dichloropropene	ND	ug/L		1.00		E624	03/06/07 18:09 / dkh
Trichloroethene	ND	ug/L		1 00		E624	03/06/07 18:09 / dkh
Trichlorofluoromethane	ND	ug/L		1.00		E624	03/06/07 15:09 / dkr
Vinyl acetate	NĐ	ug/L		1.00		E624	03/06/07 19:09 / dkl
Vinyl chloride	ИÐ	ug/L		1.00		E624	03/06/07 19:09 / dkh
Xvienes, Total	NĐ	ug/L		1.00		E624	03/06/07 18:09 / dkh
Surr: 1.2-Dichtgrobenzene-d4	101	%REC			80-120	E624	03/06/07 18:09 / dkt
Surr: Dipromofluoromethane	97 .D	%REC			80-120	E624	03/06/07 18.09 / dkt
Surr. p-Bromofluorobenzene	98.0	%REC			80-120	E624	03/06/07 18:09 / dkl
Sur: Toluene-d8	97.0	%REC			80-120	E624	03/06/07 18:09 / dki

Report RL - Analyte reporting limit.
Definitions: QCL - Quality control limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.



Page 1 of 2 3/7/07

SUBMITTED TO:

Roger Garling Energy Laboratories P.O. Box 3258 Casper, WY 82602-3258

REFERENCE DATA:

Client Sample Nos.:

C07030114-001N

P.O. Number:

1770

Sample Location:

P38DW6

Sample Type:

Drinking Water

Method Reference:

Asbestos in Potable Water by TEM

EPA 600/4-83-043, Method 100.1

DCL Set ID No..

07-T-1167

DCL Sample ID Nos...

07-07053

The samples indicated on the following data sheet(s) were analyzed by Transmission Electron Microscopy (TEM) for asbestos using the method EPA 600/4-83-043, Method 100.1 Each sample was ultrasonically treated in its original container for 15 minutes to suspend the solids. An aliquot of this suspension was added to 100 mL of de-ionized water and filtered onto a 0.1 µm pore size polycarbonate filter. Portions of this filter were coated with carbon and mounted on grids for TEM analysis. Analysis was performed on a Philips CM-12 TEM with EDAX Genesis System providing energy dispersive X-tay analysis (EDXA) capabilities.

Results apply only to portions of samples analyzed and are tabulated on the following data sheet(s). Representative EDXA spectra and selected area electron diffraction (SAED) measurements of asbestos types detected (if any) are included and are referenced to the structure identification numbers listed on the count sheets. The limit of detection (LOD) for this method has been determined to be one asbestos fiber in the total number of grid openings analyzed. The number of openings analyzed is dependent on the sample volume filtered (4 minimum).

Afigela Sohn

Analyst

W. B.

Anna Marie Ristich Section Manager

This report shall not be reproduced except in full, without the written approval of DataChem Laboratories.

CINCINNATI OFFICE 4388 GLENDALE-MILFORD ROAD DINDINNATI, OHIQ 45242-3706 515 733-5336, FAX 513 733-8347 WEST COAST OFFICE 11 SANTA YORMA COURT NOVATO, CALIFORNIA 94945 800 280-8071, FAX 416 893-9469

Page 2 of 2 3/7/07

DataChem Laboratories Test Report Asbestos in Drinking Water by TEM

DCL Sample Set ID. 07-T-1167 Client: Energy Laboratories Sample Location: P38DW6

SAMPLE PREP DATA

ANALYSIS DATA

/2007
20 X
n ≈ 1.05 μm
9.9 cV
keV
97 mm-Å

Client ID:	C07030114-001N
DCL ID:	07-07053
Date Sampled:	3/1/2007
Time Sampled.	11:24
Volume (L):	0.100
No. Grid Openings Analyzed:	6
Average Grid Opening Arca.	0.0102
LOD (MFL):	0.18
Asbestos Fibers ≥ 10 microns	
Chrysotile:	0
Amosite:	0
Crocidalite:	0
Actinolite-Tremolite:	Ó
Anthophyllite.	0
TOTAL ASBESTOS	
Count:	0
Concentration (MFL):	<lod< td=""></lod<>

ND = None Detected LOD = Limit of Detection MFL = Millions of Fibers per Liter

Angela Sohi

اللالم

Anna Marie Ristich Section Manager

This report shall not be reproduced except in full, without the written approval of DataChem Laboratories.

10



ENERGY LABORATORIES, INC. * 2393 Salt Creek Highway (82601) * PO Box 3258 * Casper, WY 82602

LABORATORY ANALYTICAL REPORT

Client:

Attela Inc

Project:

Alamo Lab P-38 DW from Blackshawl PW

Lab ID:

C07030045-008

Client Sample ID: P-38

Report Date: 03/13/07

Collection Date: 02/28/07 15:20

DateReceived: 03/01/07

Matrix: Aqueous

Analyses	Result	Units	Qualifier	RL	ØCT WCT	Method	Analysis Date / By
MAJOR IONS			-				
Nitrogen, Nitrate+Nitrite as N	ND	mg/L		0.1		E353.2	03/05/07 15:11 / jat
NON-METALS							
Organic Carbon, Total (TOC)	26.4	mg/L		1.0		A5310 B	03/08/07 12:29 / jl
Suffite	ND	mg/L		2.0		E377.1	03/01/07 15:05 / ji
PHYSICAL PROPERTIES							
Oxygen Demand, Chemical (COD)	100	mg/L		1.0		HACH 8000	03/08/07 07:40 / jal
BOD, 5-Day	61	mg/L		2.0		A5210 B	03/01/07 15:46 / Jrf

Report Definitions: RL - Analyte reporting limit.

QCL - Quality control limit.

MCL - Maximum contaminant level.

ND - Not detected at the reporting limit.

Jones, Brad A., EMNRD

From:

Jones, Brad A., EMNRD

Sent:

Wednesday, January 17, 2007 7:37 AM

To: Subject: 'Matthew J. Bruff' RE: Altela, Inc.

Attachments:

PWapproval.pdf

Matt,

It was great meeting all of you in person and visiting the Alamo facility. Wayne and I are still reviewing the regulations to determine which permitting options are available for the placement and operation of your units. As for the approval to store and utilize for testing and development of the AltelaRain system, please see the attached document. A hardcopy is also being mailed. Wayne and I will contact you as soon as we determine the proper regulatory approach. Please keep us apprised of the status of your projects.

Brad A. Jones

Environmental Engineer Environmental Bureau NM Oil Conservation Division 1220 S. St. Francis Drive Santa Fe, New Mexico 87505

E-mail: <u>brad.a.jones@state.nm.us</u>

Office: (505) 476-3487 Fax: (505) 476-3462

From: Matthew J. Bruff [mailto:matthew.bruff@altelainc.com]

Sent: Tuesday, January 16, 2007 9:18 PM

To: Price, Wayne, EMNRD; Jones, Brad A., EMNRD; Hansen, Edward J., EMNRD

Cc: Ned Godshall; Tom Neustedter

Subject: Altela, Inc.

Gentlemen.

Thank you for your valued time today. Ned, Tom, and I enjoyed our meeting this morning and the opportunity to share the Altela story with you all first-hand.

We are all excited about furthering our unique technology aimed at turning produced water into a valuable resource.

Thanks again,

Matt

Matthew Bruff Altela, Inc. Denver Technology Center (DTC) 7887 East Belleview Ave., Suite 1100 Englewood, Colorado 80111

w: 303.228.1605 c: 303.960.9105 f: 303.228.1655 THE INFORMATION CONTAINED IN THIS E-MAIL IS CONFIDENTIAL INFORMATION INTENDED ONLY FOR THE USE OF THE INDIVIDUAL OR ENTITY NAMED. IF THE READER OF THIS MESSAGE IS NOT THE INTENDED RECIPIENT, YOU ARE HEREBY NOTIFIED THAT ANY DISCLOSURE, DISSEMINATION, DISTRIBUTION, COPYING OR TAKING OF ANY ACTION IN RELIANCE ON THE CONTENTS OF THIS INFORMATION IS STRICTLY PROHIBITED. IF YOU HAVE RECEIVED THIS TRANSMISSION IN ERROR, PLEASE NOTIFY US AT ONCE BY TELEPHONE, (303) 228-1605, FOR INSTRUCTIONS ON THE RETURN OF THIS E-MAIL AND ITS CONTENTS. THIS EMAIL AND ANY ATTACHMENT IS BELIEVED TO BE FREE OF ANY VIRUS HOWEVER ALTELA, INC. TAKES NO RESPONSIBILITY FOR ANY LOSS OR DAMAGE AS A RESULT OF ITS USE.



December 5, 2006

Mr. Wayne Price Environmental Bureau Chief NM Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

RE: Altela, Inc.

VIA FIRST CLASS MAIL

Dear Mr. Price,

Following our recent discussion, this letter serves as written request to use real oilfield produced water for testing and development of the AltelaRainTM technology at Altela, Inc.'s ("Altela") design, research, and manufacturing facilities. These facilities are located at 2450 Alamo SE, Albuquerque, New Mexico 87106 ("Alamo"). Altela agrees to the following conditions with respect to use of the produced water at Alamo:

- 1. The produced water transported to Alamo will be done using New Mexico Oil Conservation Division approved C-133 permitted water haulers.
- 2. No produced water will be disposed of at Alamo using the municipal drain/sewer system. All produced water at Alamo will be taken away by an approved C-133 permitted water hauler for disposal.
- 3. All incoming produced water brought to Alamo will be accounted for to ensure the same amount of produced water is removed.
- 4. Altela will report any unauthorized discharges of the produced water at Alamo to the Oil Conservation Division.
- 5. Altela will provide the Oil Conservation Division with a copy of water quality test results received from third party water quality laboratories with respect to tests using the produced water at Alamo.

Thank you for your assistance. Please do not hesitate to contact me if the need arises.

Sincerely,

ALTELA, INC.

Matthew Bruff

Chief Development Officer

4.

cc: Altela Day File

Mangaerga Office

One Technology Center 1155 University Blvd. SE Albuquerque, New Mexico 87106 T: 505.843.4197

F: 505.843.4197

Derever Office

Denver Technology Center Belleview Tower 7887 E. Belleview Ave., Suite 1100 Englewood, Colorado 80111 T: 303.228.1605

F: 303.228.1655

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, April 21, 2009 5:50 PM

To:

'jgolob@maralexinc.com'; 'gwendolynne.frost@conocophillips.com'; 'monica.johnson@conocophillips.com'; 'karen.evans@altelainc.com'

Subject:

RE: Produced Water Diversion Quarterly Report (Jan 1 - March 31, 2009)

Ladies and Gentlemen:

I am writing to request that you mark your calendars to report your diversion numbers (gallons) to me the day after each quarter ends, since the numbers must be reported to OCD Management by the 6th day after each quarter or period ends.

Please contact me if you have questions. Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm (Pollution Prevention Guidance is under "Publications")

From: Chavez, Carl J, EMNRD

Sent: Tuesday, April 14, 2009 8:48 AM

To: 'jgolob@maralexinc.com'; 'gwendolynne.frost@conocophillips.com'; 'monica.johnson@conocophillips.com';

'karen.evans@altelainc.com' Cc: Prouty, Jane, EMNRD

Subject: Produced Water Diversion Quarterly Report (Jan 1 - March 31, 2009)

Ladies and gentlemen:

Could you please send me your numbers for treated and diverted produced for the quarter listed above ASAP? Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/index.htm (Pollution Prevention Guidance is under "Publications")

From: Jones, Brad A., EMNRD

Sent: Wednesday, February 18, 2009 2:04 PM

To: Chavez, Carl J, EMNRD

Subject: RE: Request to Give Presentation, meet with OCD

These are the numbers for treated and diverted produced for the last quarter of 2008.

D. Jeremy Golob

Sr. Engineer

Maralex Resources, Inc. Office: (970) 563-4000 Cell: (970) 799-4278 Fax: (970) 563-4116

Maralex:

672,000 gallons/ 16,000 bbls

Matt Bruff Vice President or Karen K. Evans **Executive Administrator**

ALTELA, INC.

DENVER TECHNOLOGY CENTER 5350 South Roslyn Street, Suite 430 Englewood, CO 80111

PHONE: (303) 993-1952 FAX: (303) 993-1955 EMAIL: karen.evans@altelainc.com WEB: altelainc.com

Altela, Inc.:

4,480 gallons/ 107 bbls

Monica D. Johnson

Sr. Environmental Scientist ConocoPhillips Company 3401 East 30th Street Farmington, NM 87402 Office: (505) 326-9829

Cell: (505) 320-9056

Direct Fax: (918) 662-1826 Office Fax: (505) 599-4005

ConocoPhillips/Burlington Resources/BLM/Sandia Labs/NM Tech Project:

7,560 gallons/ 180 bbls

The total volume of treated and diverted produced for the last quarter of 2008 is 684,040 gallons or 16,287 barrels.

Chavez, Carl J, EMNRD

From:

Chavez, Carl J, EMNRD

Sent:

Tuesday, April 14, 2009 8:48 AM

To:

'jgolob@maralexinc.com'; 'gwendolynne.frost@conocophillips.com'; 'monica.johnson@conocophillips.com'; 'karen.evans@altelainc.com'

routy, Jane, EMNRD

Cc: Subject:

Produced Water Diversion Quarterly Report (Jan 1 - March 31, 2009)

Ladies and gentlemen:

Could you please send me your numbers for treated and diverted produced for the quarter listed above ASAP? Thank you.

Carl J. Chavez, CHMM

New Mexico Energy, Minerals & Natural Resources Dept.

Oil Conservation Division, Environmental Bureau

1220 South St. Francis Dr., Santa Fe, New Mexico 87505

Office: (505) 476-3490 Fax: (505) 476-3462

E-mail: CarlJ.Chavez@state.nm.us

Website: http://www.emnrd.state.nm.us/ocd/ index.htm (Pollution Prevention Guidance is under "Publications")

From: Jones, Brad A., EMNRD

Sent: Wednesday, February 18, 2009 2:04 PM

To: Chavez, Carl J, EMNRD

Subject: RE: Request to Give Presentation, meet with OCD

These are the numbers for treated and diverted produced for the last quarter of 2008.

D. Jeremy Golob

Sr. Engineer

Maralex Resources, Inc. Office: (970) 563-4000 Cell: (970) 799-4278 Fax: (970) 563-4116

Maralex:

672,000 gallons/ 16,000 bbls

Matt Bruff

Vice President or

Karen K. Evans

Executive Administrator

ALTELA, INC.

DENVER TECHNOLOGY CENTER
5350 South Roslyn Street, Suite 430
Englewood, CO 80111

PHONE: (303) 993-1952

FAX: (303) 993-1955

EMAIL: karen.evans@altelainc.com WEB: altelainc.com

Altela, Inc.:

4,480 gallons/ 107 bbls

Monica D. Johnson

Sr. Environmental Scientist ConocoPhillips Company 3401 East 30th Street Farmington, NM 87402

Office: (505) 326-9829 Cell: (505) 320-9056

Direct Fax: (918) 662-1826 Office Fax: (505) 599-4005

<u>ConocoPhillips/Burlington Resources/BLM/Sandia Labs/NM Tech Project:</u> 7,560 gallons/ 180 bbls

The total volume of treated and diverted produced for the last quarter of 2008 is **684,040 gallons** or **16,287 barrels.**