



30-025-40420

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

October 22, 2012

RUSSELL BENTLEY

P B ENERGY

16285 PARK TEN PLACE, SUITE 400

HOUSTON, TX 77084

RE: MALJAMAR AGI #1

Unit 8, 24-175-32e, 130/s + 1813/e

Enclosed are the results of analyses for samples received by the laboratory on 10/03/12 16:55.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-11-3. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (*). For a complete list on accredited analytes and matrices visit the TCEQ website at www.tceq.texas.gov/field/qa/lab_accred_certif.html.

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

- Method EPA 552.2 Haloacetic Acids (HAA-5)
- Method EPA 524.2 Total Trihalomethanes (TTHM)
- Method EPA 524.4 Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Celey D. Keene

Lab Director/Quality Manager

FOR RECORD ONLY

ELG 1-7-2013

Analytical Results For:

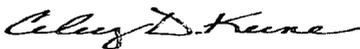
P B ENERGY 16285 PARK TEN PLACE, SUITE 400 HOUSTON TX, 77084	Project: MALJAMAR AGI #1 Project Number: NONE GIVEN Project Manager: RUSSELL BENTLEY Fax To: (281) 589-5865	Reported: 22-Oct-12 12:07
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Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
#1	H202416-01	Water	03-Oct-12 00:00	03-Oct-12 16:55
#2	H202416-02	Water	03-Oct-12 00:00	03-Oct-12 16:55

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

P B ENERGY 16285 PARK TEN PLACE, SUITE 400 HOUSTON TX, 77084	Project: MALJAMAR AGI #1 Project Number: NONE GIVEN Project Manager: RUSSELL BENTLEY Fax To: (281) 589-5865	Reported: 22-Oct-12 12:07
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 #1
 H202416-01 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
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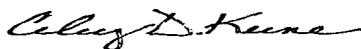
Cardinal Laboratories
Inorganic Compounds

Alkalinity, Bicarbonate	195	5.00	mg/L	1	2091506	HM	17-Oct-12	310.1	
Calcium	1560	1.60	mg/L	1	2091504	HM	17-Oct-12	SM3500Ca-D	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2091506	HM	17-Oct-12	310.1	
Chloride*	132000	4.00	mg/L	1	2100807	CK	17-Oct-12	4500-Cl-B	
Conductivity*	376000	1.00	uS/cm	1	2101702	HM	16-Oct-12	120.1	
Density	1.145		g/mL	4	2101719	HM	17-Oct-12	SM 2710F	
Magnesium	401	1.00	mg/L	1	2091504	HM	17-Oct-12	SM3500Mg-E	
pH*	7.70	0.100	pH Units	1	2101702	HM	16-Oct-12	150.1	
Potassium	325	1.00	mg/L	1	2091504	HM	17-Oct-12	HACH 8049	
Sodium	84400	1.00	mg/L	1	2091504	HM	17-Oct-12	Calculation	
Sulfate*	3340	10.0	mg/L	1	2101204	AP	12-Oct-12	375.4	
TDS*	225000	5.00	mg/L	1	2101003	HM	10-Oct-12	160.1	
Alkalinity, Total*	160	4.00	mg/L	1	2091506	HM	24-Sep-12	310.1	

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

 P B ENERGY
 16285 PARK TEN PLACE, SUITE 400
 HOUSTON TX, 77084

 Project: MALJAMAR AGI #1
 Project Number: NONE GIVEN
 Project Manager: RUSSELL BENTLEY
 Fax To: (281) 589-5865

 Reported:
 22-Oct-12 12:07

#2

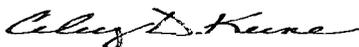
H202416-02 (Water)

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Analyst	Analyzed	Method	Notes
Cardinal Laboratories									
Inorganic Compounds									
Alkalinity, Bicarbonate	317	5.00	mg/L	1	2091506	HM	17-Oct-12	310.1	
Calcium	1440	1.60	mg/L	1	2091504	HM	17-Oct-12	SM3500Ca-D	
Alkalinity, Carbonate	ND	0.00	mg/L	1	2091506	HM	17-Oct-12	310.1	
Chloride*	126000	4.00	mg/L	1	2100807	CK	17-Oct-12	4500-Cl-B	
Conductivity*	365000	1.00	uS/cm	1	2101702	HM	16-Oct-12	120.1	
Density	1.135		g/mL	4	2101719	HM	17-Oct-12	SM 2710F	
Magnesium	510	1.00	mg/L	1	2091504	HM	17-Oct-12	SM3500Mg-E	
pH*	7.51	0.100	pH Units	1	2101702	HM	16-Oct-12	150.1	
Potassium	340	1.00	mg/L	1	2091504	HM	17-Oct-12	HACH 8049	
Sodium	80700	1.00	mg/L	1	2091504	HM	17-Oct-12	Calculation	
Sulfate*	3710	10.0	mg/L	1	2101204	AP	12-Oct-12	375.4	
TDS*	213000	5.00	mg/L	1	2101003	HM	10-Oct-12	160.1	
Alkalinity, Total*	260	4.00	mg/L	1	2091506	HM	17-Oct-12	310.1	

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* = Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

Analytical Results For:

P B ENERGY 16285 PARK TEN PLACE, SUITE 400 HOUSTON TX, 77084	Project: MALJAMAR AGI #1	Reported:
	Project Number: NONE GIVEN	22-Oct-12 12:07
	Project Manager: RUSSELL BENTLEY	
	Fax To: (281) 589-5865	

Inorganic Compounds - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC %REC	Limit	RPD	RPD Limit	Notes
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Batch 2091504 - * DEFAULT PREP *****

Blank (2091504-BLK1)		Prepared: 13-Sep-12 Analyzed: 15-Sep-12								
Calcium	ND	1.60	mg/L							
Magnesium	ND	1.00	mg/L							
Potassium	ND	1.00	mg/L							
LCS (2091504-BS1)		Prepared: 13-Sep-12 Analyzed: 15-Sep-12								
Calcium	20.8		mg/L	20.0		104	80-120			
Magnesium	53.5		mg/L	50.0		107	80-120			
Potassium	3.10		mg/L	3.00		103	80-120			
Duplicate (2091504-DUP1)		Source: H202190-01		Prepared: 13-Sep-12 Analyzed: 15-Sep-12						
Magnesium	486	1.00	mg/L		583			18.1	20	
Potassium	800	1.00	mg/L		825			3.08	20	
Calcium	2770	1.60	mg/L		2640			4.81	20	

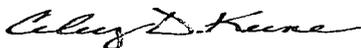
Batch 2091506 - General Prep - Wet Chem

Blank (2091506-BLK1)		Prepared & Analyzed: 12-Sep-12								
Alkalinity, Carbonate	ND	0.00	mg/L							
Alkalinity, Bicarbonate	ND	5.00	mg/L							
Alkalinity, Total	ND	4.00	mg/L							
LCS (2091506-BS1)		Prepared & Analyzed: 12-Sep-12								
Alkalinity, Carbonate	ND	0.00	mg/L				80-120			
Alkalinity, Bicarbonate	132	5.00	mg/L				80-120			
Alkalinity, Total	108	4.00	mg/L	100		108	80-120			
LCS Dup (2091506-BSD1)		Prepared & Analyzed: 12-Sep-12								
Alkalinity, Carbonate	ND	0.00	mg/L				80-120		20	
Alkalinity, Bicarbonate	137	5.00	mg/L				80-120	3.72	20	
Alkalinity, Total	112	4.00	mg/L	100		112	80-120	3.64	20	

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	Project Number: NONE GIVEN	
	Project Manager: RUSSELL BENTLEY	
	Fax To: (281) 589-5865	

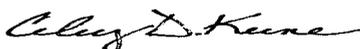
Inorganic Compounds - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 2100807 - General Prep - Wet Chem										
Blank (2100807-BLK1)										
Chloride	ND	4.00	mg/L							Prepared & Analyzed: 08-Oct-12
LCS (2100807-BS1)										
Chloride	100	4.00	mg/L	100		100	80-120			Prepared & Analyzed: 08-Oct-12
LCS Dup (2100807-BSD1)										
Chloride	104	4.00	mg/L	100		104	80-120	3.92	20	Prepared & Analyzed: 08-Oct-12
Batch 2101003 - Filtration										
Blank (2101003-BLK1)										
TDS	ND	5.00	mg/L							Prepared & Analyzed: 09-Oct-12
LCS (2101003-BS1)										
TDS	251		mg/L	240		105	80-120			Prepared & Analyzed: 09-Oct-12
Duplicate (2101003-DUP1)										
TDS	5320	5.00	mg/L		5380			1.12	20	Source: H202447-01 Prepared & Analyzed: 09-Oct-12
Batch 2101204 - General Prep - Wet Chem										
Blank (2101204-BLK1)										
Sulfate	ND	10.0	mg/L							Prepared & Analyzed: 12-Oct-12
LCS (2101204-BS1)										
Sulfate	16.7	10.0	mg/L	20.0		83.6	80-120			Prepared & Analyzed: 12-Oct-12

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Analytical Results For:

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	Project Number: NONE GIVEN	22-Oct-12 12:07
	Project Manager: RUSSELL BENTLEY	
	Fax To: (281) 589-5865	

Inorganic Compounds - Quality Control
Cardinal Laboratories

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 2101204 - General Prep - Wet Chem

LCS Dup (2101204-BSD1)		Prepared & Analyzed: 12-Oct-12								
Sulfate	19.3	10.0	mg/L	20.0		96.6	80-120	14.4	20	

Batch 2101702 - General Prep - Wet Chem

LCS (2101702-BS1)		Prepared & Analyzed: 16-Oct-12								
Conductivity	496		uS/cm	500		99.2	80-120			
pH	7.08		pH Units	7.00		101	90-110			

Duplicate (2101702-DUP1)		Source: H202484-01		Prepared & Analyzed: 16-Oct-12						
pH	7.27	0.100	pH Units	7.23				0.552	20	
Conductivity	5460	1.00	uS/cm	5450				0.183	20	

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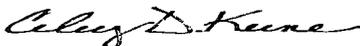
Notes and Definitions

ND Analyte NOT DETECTED at or above the reporting limit
RPD Relative Percent Difference
** Samples not received at proper temperature of 6°C or below.
*** Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C
Samples reported on an as received basis (wet) unless otherwise noted on report

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Celey D. Keene, Lab Director/Quality Manager

CHAIN-OF-CUSTODY AND ANALYSIS REQUEST

101 East Marland, Hobbs, NM 88240
(575) 393-2326 FAX (575) 393-2476

Company Name: Parsons PB Energy		BILL TO		ANALYSIS REQUEST										
Project Manager: Russell Bentley		P.O. #:		Carson/Amier NH4 * Not enough sample NO3 * Not enough sample TDS Density										
Address:		Company:												
City:	State:	Zip:	Attn:											
Phone #:	Fax #:		Address:											
Project #:	Project Owner:		City:											
Project Name: Maljamar AGI # 1	State:		Zip:											
Project Location: Maljamar, NM	Phone #:													
Sampler Name: Russell Bentley	Fax #:													
FOR LAB USE ONLY														
Lab I.D.	Sample I.D.	(GRAB OR C/COMP)	# CONTAINERS	GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER:	ACID/BASE:	ICE / COOL	OTHER:	DATE	TIME
H202416	#1 #2												10/3/12	1

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Relinquished By: [Signature]	Date: 10/3/12	Received By: [Signature]	Phone Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Phone #:
	Time: 4:55		Fax Result: <input type="checkbox"/> Yes <input type="checkbox"/> No	Add'l Fax #:
Relinquished By:	Date:	Received By:	REMARKS: email invoice Bentley RE @ pbworld.com	
	Time:			
Delivered By: (Circle One)	Sample Condition	CHECKED BY:		
Sampler - UPS - Bus - Other:	Cool <input checked="" type="checkbox"/> Intact <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/>	[Signature]		

† Cardinal cannot accept verbal changes. Please fax written changes to (575) 393-2326

#26