BW - ____8

ANNUAL REPORT (2020)



April 9, 2021

Mr. Carl Chavez New Mexico Oil Conservation Division Environmental Bureau 1220 South St. Francis Drive Santa Fe, New Mexico 87505-4225

Re: 2020 Annual Class III Well Report Salty Dog Brine Station, Lea County, New Mexico DP-BW-8, API No. 30-025-26307

Dear Mr. Chavez:

On behalf of PAB Services, Inc., Daniel B. Stephens & Associates, Inc. (DBS&A) is submitting the enclosed annual Class III well report for the Salty Dog brine station located in Lea County, New Mexico. The report includes the annual certification by the site operator (Appendix A).

Please call us at (505) 822-9400 if you have any questions or require additional information.

Sincerely,

DANIEL B. STEPHENS & ASSOCIATES, INC.

John Ayarbe, P.G. Senior Hydrogeologist

Michael Zbrozek Geologist

JA/rpf Enclosure cc: Pieter Bergstein, PAB Services, Inc.

Daniel B. Stephens & Associates, Inc.

6020 Academy NE, Suite 100 505-822-9400 Albuquerque, NM 87109 FAX 505-822-8877

2020 Annual Class III Well Report Salty Dog Brine Station Lea County, New Mexico DP-BW-8, API No. 30-025-26307

Prepared for New Mexico Energy, Minerals and Natural Resources Department, Oil Conservation Division

Prepared by



6020 Academy NE, Suite 100 Albuquerque, New Mexico 87109 www.dbstephens.com DB19.1198

April 9, 2021



Table of Contents

1.	Intro	duction	1
2.	Brine	Well Operational Activities	2
	2.1	Fluid Injection and Brine Production	2
	2.2	Injection Pressure	4
	2.3	Chemical and Physical Analyses	4
	2.4	Deviations from Normal Operations	5
		Leaks and Spills	
	2.6	Area of Review	5
	2.7	Mechanical Integrity Test	5
3.	Othe	r Facility Activities	6
4.	Subsi	dence Monitoring and Cavern Characterization	6
5.	Grou	ndwater Conditions	7
Refer	ences		8

List of Figures

- 1 Site Location and Facilities
- 2 2020 Aerial Photograph of Salty Dog Brine Station
- 3 Generalized Brine Well Schematic
- 4 Monitor and Extraction Well Locations
- 5 Land Subsidence Survey Monitoring Point Locations



List of Tables

1	Monthly Water Injection and Brine Production Volumes, 2020	.3
2	Injection Water and Produced Brine Chemical and Physical Characteristics	.4
3	Semiannual Surface Subsidence Monitoring, 2020	.7

List of Appendices

- A Annual Certification
- B 2020 Monthly Fresh Water and Brine Report Forms
- C Laboratory Analytical Reports
- D Area of Review Evaluation
- E 2020 Survey Data for Land Surface Subsidence Monitoring



1. Introduction

Daniel B. Stephens & Associates, Inc. (DBS&A) has prepared this annual Class III well report for submission to the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division (OCD) Environmental Bureau on behalf of PAB Services, Inc. (PAB) for operation of a brine well (Brine Supply Well #1 [API No. 30-025-26307]) at the Salty Dog Brine Station (the site). The site is located in Lea County, New Mexico, approximately 11 miles west of Hobbs, New Mexico along U.S. Highway 62/180 (US 62/80) (Figure 1). This report summarizes operational and monitoring activities conducted at the site in 2020, and was prepared in accordance with the requirements of discharge permit (DP) BW-8, last renewed on May 17, 2019 (NMEMNRD, 2019). Submittal of this report meets Condition 2.J of the permit.

Appendix A provides an annual certification signed by Mr. Pieter Bergstein stating that continued salt solution mining will not cause cavern collapse, surface subsidence, or property damage, and will not otherwise threaten public health and the environment, based on geologic and engineering data.

Salty Dog is a brine water production and loading station, consisting of fresh water supply wells, a brine production well, and a concrete truck loading pad with two brine filling stations. Fresh water is stored in two 1,000-barrel (bbl) aboveground storage tanks (ASTs). Produced brine is pumped from the brine well to a bermed tank battery consisting of six 750-bbl ASTs, where the brine is stored for sale. The brine well is located approximately 0.5 mile southwest of the brine filling station (Figure 1). Figure 2 presents a 2020 aerial photograph of the brine station showing the layout of the current facility infrastructure.

Brine is produced from the in situ extraction of salt at the brine well, a UIC Class III well (Brine Supply Well #1 [API No. 30-025-26307]). The brine well is approximately 3,000 feet deep and has been in operation since the early 1980s. The Salty Dog brine well is configured for reverse circulation brine recovery, where fresh water is circulated down the casing annulus into the Salado Formation—a Permian Age sedimentary rock unit composed of halite (salt) and other evaporative beds. Fresh water dissolves the salt, and the brine is extracted through the center tubing of the well. Figure 3 provides a generalized schematic of the brine well showing its construction, current tubing depth, and the penetrated geologic units.

The physical location of the brine well is 1,980 feet from south line (FSL) and 1,980 feet from east line (FEL) (NW/4 SE/4, Unit Letter J) in Section 5, Township 19 South, Range 36 East, New



Mexico Principal Meridian (NMPM). The brine well was installed in June 1979. The original discharge permit for the brine well (GWB-2) appears to have been issued on December 18, 1982 (OCD, 1994). The discharge permit was last renewed on May 17, 2019 (NMEMNRD, 2019).

Injection water used in brine production is obtained from the Ogallala Aquifer by pumping from two fresh water supply wells (FWS-1 and FWS-2) and groundwater remediation well RW-2. Well FWS-1 is the main fresh water supply well. Well FWS-2, located near the brine well, is used as an auxiliary fresh water well during periods of high brine demand. Well RW-2 is used to remove and provide hydraulic containment of chloride-impacted groundwater in the brine well area; groundwater extracted from this well is also used for brine production. Chloride-impacted groundwater in the former brine pond area is contained and removed by pumping from FWS-1. Depth to regional groundwater is approximately 60 feet below ground surface (bgs). Figure 4 shows the well locations.

2. Brine Well Operational Activities

The following subsections report fluid injection/brine production volumes and well maintenance activities.

2.1 Fluid Injection and Brine Production

Except for an approximately 2-year shutdown between 2011 and 2013 and temporary interruptions for routine maintenance and testing (e.g., February 2009 sonar survey [SOCON, 2009]), the brine well has been in continuous operation since 1980, producing an average of approximately 10,500 barrels per month (bbl/mo) of brine between 1980 and 2009. This production rate is based on 1987, 1996–1999, and 2009 brine production and sales records (Salty Dog, 1988, 1999, and Undated).

Both fluid injection and brine production volumes are metered, and daily volumes are recorded on monthly fresh and brine water report forms (Appendix B). Table 1 summarizes monthly injection and production volumes for the reporting period. Injection water for the brine well comes from two fresh water wells (FWS-1 and FWS-2) and a groundwater remediation well (RW-2) (Figure 4). In 2020, average monthly ratios of injected water to produced brine ranged from 0.98 to 1.02.



	Volu	me (bbl)	Ratio
Month	Water Injection	Brine Production	(injection:production)
January	46,235	45,425	1.02
February	35,543	35,006	1.02
March	50,928	49,686	1.02
April	14,736	14,586	1.01
Мау	16,595	16,363	1.01
June	9,662	9,533	1.01
July	12,780	12,705	1.01
August	9,425	9,430	1.00
September	6,650	6,650	1.00
October	6,137	6,137	1.00
November ^a		5,901	—
December	20,008	20,428	0.98
Annual total	228,699	231,850	_

Table 1. Monthly Water Injection and Brine Production Volumes, 2020

^a Fresh water injection data not available for November 2020; brine production reported from brine sales. bbl = Barrels

Based on the data reported in Table 1 and previously reported production records (Salty Dog, 1988, 1999, and Undated; DBS&A, 2014), the estimated cumulative volume of brine production is 7,020,919 bbl.

In 2020, brine production activities at the site dissolved an estimated 34,828 bbl of Salado Formation. This estimate is based on the brine production data reported in Table 1, the average total dissolved solids (TDS) concentrations of the produced brine and injection water reported in Table 2, and an assumed density of the Salado Formation of 2.17 grams per cubic centimeter (g/cm³). Based on the historical and current brine production data, the total estimated size of the brine solution cavern is approximately 1,015,889 bbl. In 2012, OCD estimated a volume of 1,022,196 bbl for the Salty Dog solution cavern (NMEMNRD, 2012).



Table 2.Injection Water and Produced Brine
Chemical and Physical Characteristics

	Average Concentration (mg/L ^a)		
Constituent	Injection Water	Produced Brine	
pH (s.u.)	7.98	7.17	
Specific gravity (unitless)	1.006	1.198	
Chloride	715	205,000	
Sodium	420	80,000	
TDS	1,525	327,500	

^a Unless otherwise noted

mg/L = Milligram per liter

NM = Not measured

s.u. = Standard units

TDS = Total dissolved solids

2.2 Injection Pressure

Pressure is monitored on the well tubing and on the annulus between the inner tubing and outer casing. These measurements are recorded on the monthly fresh and brine water report forms (Appendix B). In 2020, recorded daily tubing pressure remained steady at 125 pounds per square inch (psi), while annulus pressure was generally 375 psi.

2.3 Chemical and Physical Analyses

Condition 2.A of DP-BW-8 requires semiannual monitoring of the chemical and physical characteristics of the injection water and produced brine, including pH, density, and TDS and chloride concentrations. The permit also requires that the sodium concentration of the produced brine be analyzed.

Table 2 reports average constituent concentrations calculated from the 2020 semiannual monitoring data. Samples of the injection water and produced brine were collected in June and November 2020. Dissolution of the Salado Formation increases the constituent concentrations and specific gravity of the produced brine relative to the injection water. The average TDS concentration and average specific gravity of the injection water are 1,525 milligrams per liter (mg/L) and 1.006, respectively, while the same properties of the produced brine are 327,500 mg/L and 1.198, respectively. Appendix C provides the laboratory analytical reports associated with the semiannual monitoring events.



Historical water quality analyses show TDS concentrations of the fresh water and produced brine to be approximately 600 mg/L and 320,000 to 350,000 mg/L, respectively (Martin, 1982; Unichem, 1987).

2.4 Deviations from Normal Operations

There were no deviations from normal operations in 2020.

2.5 Leaks and Spills

There were no leaks or spills in 2020.

2.6 Area of Review

Condition 3.G of DP BW-8 requires Salty Dog to report within 72 hours the discovery of any new wells, conduits, or other devices that (1) are within a 1-mile radius and (2) may penetrate to the injection zone of the brine well.

The brine station is located on private property in rural southeastern New Mexico, approximately 11 miles west of Hobbs. The majority of the area surrounding the site is undeveloped and owned by the State of New Mexico.

On March 18, 2021, DBS&A conducted an area of review evaluation using the OCD online oil and gas maps application. This application is accessible through the OCD website (http://www.emnrd.state.nm.us/OCD/ocdgis.html). Appendix D provides a map produced from the area of review evaluation. The map shows that there are two previously plugged and abandoned wells (API 30-025-03989 and API 30-025-42773) southwest of the Salty Dog brine well. However, no new brine wells or other penetrations that may penetrate into the injection zone of the Salty Dog brine well are present within a 1-mile radius of the brine well.

2.7 Mechanical Integrity Test

A mechanical integrity test (MIT) was not conducted on the brine well in 2020. The last MIT was performed in 2018.

In December 2017, the brine well was damaged because anhydrite had collapsed the well tubing. The well was subsequently repaired, and was operational again in February 2018. On February 9, 2018, before placing the well back in operation, PAB conducted an MIT on the well;



it passed the test. Gary Robinson of OCD was present during the MIT. A record of the MIT was provided in the 2017 annual Class III well report (DBS&A, 2018a).

Prior to the February 2018 MIT, the last MIT was performed on October 31, 2013, when Salty Dog conducted a Bradenhead test on the brine well. The test showed no problems with the integrity of the well casing. Results of this test were reported to OCD on November 15, 2013.

Pursuant to 20.6.2.5204 New Mexico Administrative Code (NMAC), PAB is required to demonstrate mechanical integrity of the brine well at least once every five years.

3. Other Facility Activities

There were no other facility activities in 2020 outside of normal operations.

4. Subsidence Monitoring and Cavern Characterization

Condition 2.B.1 of DP BW-08 requires Salty Dog to monitor for potential land subsidence in the area of the brine well (OCD, 2019). To meet this condition, PAB contracted Peterson Drilling and Testing, Inc. and DBS&A to install five subsidence survey monitoring points at the site in March 2018 (DBS&A, 2018b). The five subsidence survey monitoring points include three points located approximately 200 feet from the brine well, one point located approximately 60 feet from the brine well, and one point that is a metal tab welded to the brine well casing (Figure 5). Construction and placement of the monitoring points were conducted in accordance with DBS&A (2014). Basin Surveys of Hobbs, New Mexico surveyed the monitoring points after their installation (Appendix E). The initial survey was conducted on March 23, 2018 using the nearest U.S. Geological Survey (USGS) benchmark referenced to NMSPCE (NAD 83).

In accordance with Condition 2.B.1 of DP-BW-8, Salty Dog has each monitoring point surveyed semiannually to at least the nearest 0.10 foot (OCD, 2019). Basin Surveys conducted the 2020 semiannual surveys on July 20 and November 24, 2020. The survey data are reported in Table 3, and show no indication of land subsidence. The semiannually surveyed elevations are within ± 0.02 foot of the initial survey. Appendix E provides the survey reports.



		Elevation (feet ms	51)
Survey Monitoring Point	Initial 3/23/2018	First Semiannual 7/20/2020	Second Semiannual 11/24/2020
SMP-01	3,810.11	3,810.10	3,810.10
SMP-02	3,809.01	3,809.00	3,809.00
SMP-03	3,808.80	3,808.81	3,808.81
SMP-04	3,806.32	3,806.32	3,806.32
SMP-05 (brine well)	3,811.72	3,811.72	3,811.72

Table 3. Semiannual Surface Subsidence Monitoring, 2020

msl = Above mean sea level

Condition 2.B.2 of DP BW-08 requires solution cavern characterization using geophysical methods to estimate the size and shape of the solution cavern. During a December 9, 2016 phone call between DBS&A (on behalf of PAB) and OCD (Jim Griswold and Carl Chavez), it was agreed that solution cavern characterization using geophysical methods would be conducted only if surface subsidence was detected during semiannual surveying of the monitoring points. Section 2.1 of this report presents an estimated size for the solution cavern.

5. Groundwater Conditions

Salty Dog is addressing groundwater impacts resulting from releases at the brine well and a former brine pond. A hole in the casing of the brine well at 250 feet bgs was discovered in 1999 (Salty Dog, 1999). The hole released brine, impacting groundwater, and was repaired in August 1999 by installing a casing liner (Salty Dog, 1999). In October 2008, the brine pond was removed and impacted soil was excavated and disposed of (DBS&A, 2008). The area of the former brine pond is shown in Figures 1 and 2.

Two chloride plumes currently exist at the site: one in the area of the brine station (i.e., the former brine pond area) and a second near the brine well. In 2009, PAB initiated groundwater extraction to remove and provide hydraulic containment of brine-impacted groundwater at the brine station and near the brine well (DBS&A, 2009). Groundwater abatement and monitoring activities are being conducted to satisfy an administrative compliance order issued by OCD (ACO 2008-02) and settlement agreement and stipulated revised final order (NM-OCD 2008-2A) between OCD and Mr. Bergstein.



Groundwater monitoring and extraction data are reported and evaluated in reports submitted to OCD (e.g., DBS&A, 2021). The data include water levels and water quality at the site monitor wells. Site monitor wells are shown in Figure 4.

References

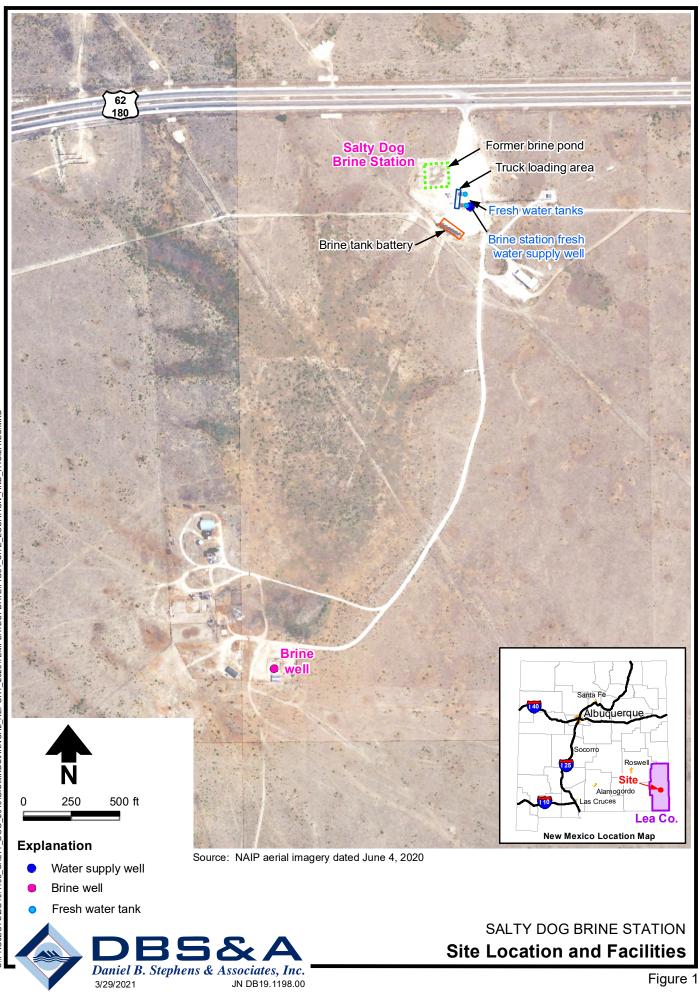
- Daniel B. Stephens & Associates, Inc. (DBS&A). 2008. Closure report, brine pond and loading area, Salty Dog Brine Station, Lea County, New Mexico. Prepared for the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, Environmental Bureau, Santa Fe, New Mexico. December 3, 2008.
- DBS&A. 2009. *Recovery well installation and pump test report, Salty Dog Brine Station, Lea County, New Mexico*. Prepared for the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, Environmental Bureau, Santa Fe, New Mexico. November 20, 2009.
- DBS&A. 2014. Work plan for surface subsidence monitoring and solution cavern characterization, Salty Dog Brine Station. Prepared for the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, Environmental Bureau, Santa Fe, New Mexico. September 17, 2014.
- DBS&A. 2018a. 2017 annual Class III well report, Salty Dog Brine Station, DP BW-8, API No. 30-025-26307, Lea County, New Mexico. Prepared for the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division. May 1, 2018.
- DBS&A. 2018b. Letter report from John Ayarbe and Michael D. McVey to Carl Chavez, OCD, regarding Installation of monitor well and subsidence survey monitoring points, Salty Dog Brine Station (API No. 30-025-26307). June 25, 2018.
- DBS&A. 2021. Second semiannual 2020 groundwater monitoring and operation and maintenance report, Salty Dog Brine Station, Lea County, New Mexico. Prepared for the New Mexico Energy, Minerals and Natural Resources Department Oil Conservation Division, Santa Fe, New Mexico. April 7, 2021.
- Martin Water Laboratories, Inc. (Martin). 1982. Result of water analyses for raw water and brine water samples collected November 1, 1982. Prepared for Natural Resources Engineering Inc. November 1, 1982.



- New Mexico Energy, Minerals and Natural Resources Department (NMEMNRD). 2012. Presentation from pre-proposal conference, Request for professional & technical services, I&W Brine Cavern project, Carlsbad, New Mexico. May 9, 2012.
- NMEMNRD. 2019. Letter from Adrienne Sandoval to Pieter Bergstein, PAB Services, Inc., regarding Renewal of discharge permit (BW-8) PAB Services, Inc., UIC Class III Brine Well "Brine Supply Well No.1" (API No. 30-025-26307) UL: J Section 5 Township 19 South, Range 36 East, 1980 FSL, 1980 FEL, Lat. N 32.68847°, Long. W 103.37445°, NMPM, Lea County, New Mexico. May 17, 2019.
- Oil Conservation Division, New Mexico Energy, Minerals and Natural Resources Department (OCD). 1994. Letter from Roger C. Anderson to Larry Squires, Salty Dog, regarding Discharge plan BW-08 renewal, Salty Dog Inc. water station, Lea County, New Mexico. March 4, 1994.
- Salty Dog, Inc. (Salty Dog). 1988. Letter report outlining facility data for quarter ending September 1987. February 25, 1988.
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- Unichem International (Unichem). 1987. Laboratory results for water samples collected on November 25, 1987. Prepared for Larry Squires. December 1, 1987.

Figures



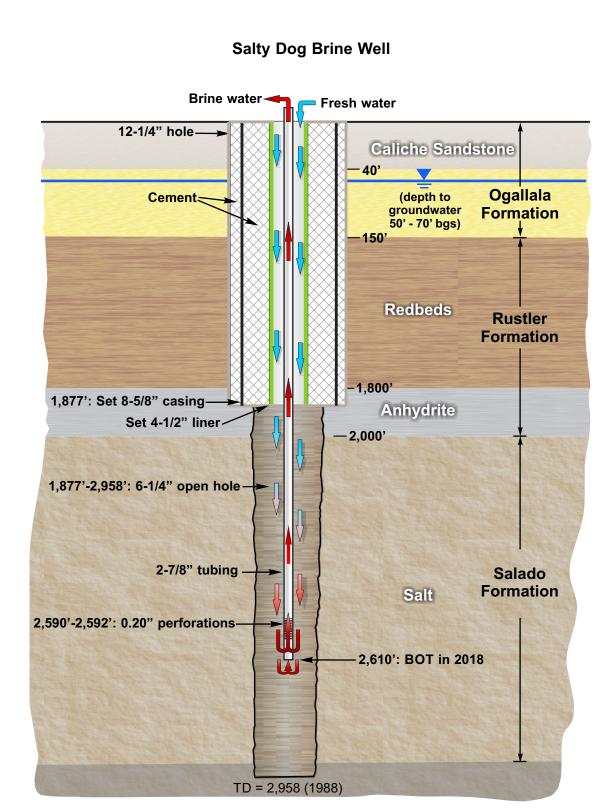


S:\PROJECTS\DB19.1198_SALTY_DOG_2019\GIS\MXDS\ANNUAL_REPORT_2020\TEMPLATEUPDATE\FIG02_SITE_2020_AERIAL_PHOTO.MXD





SALTY DOG BRINE STATION 2020 Aerial Photograph of Salty Dog Brine Station



Notes:

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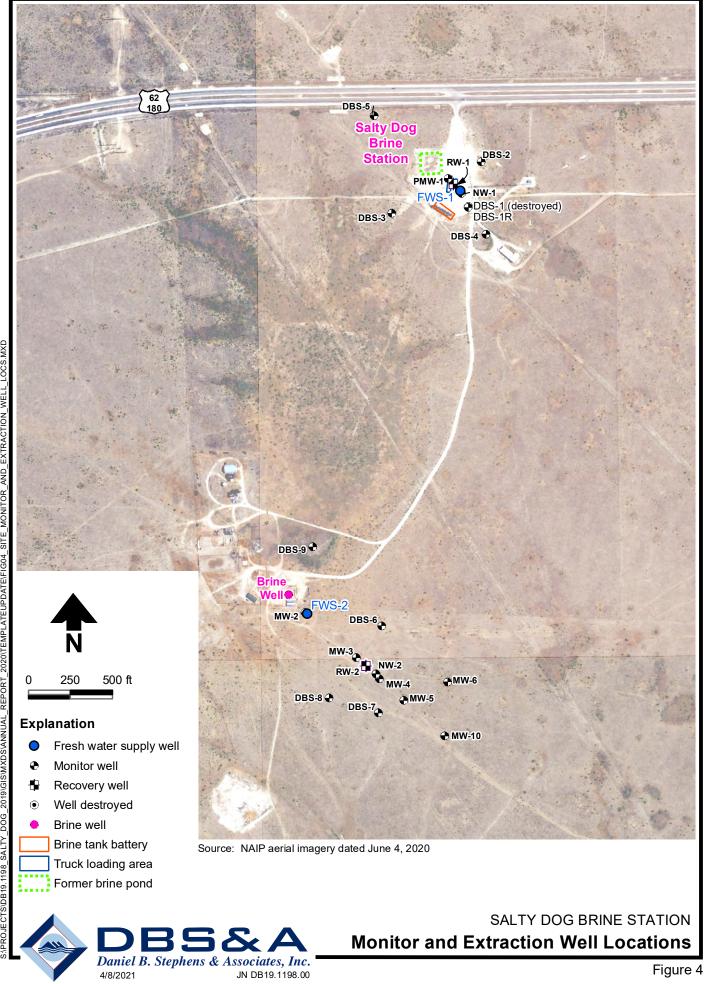
- 1. BOT = Bottom of tubing
- 2. Figure not to scale

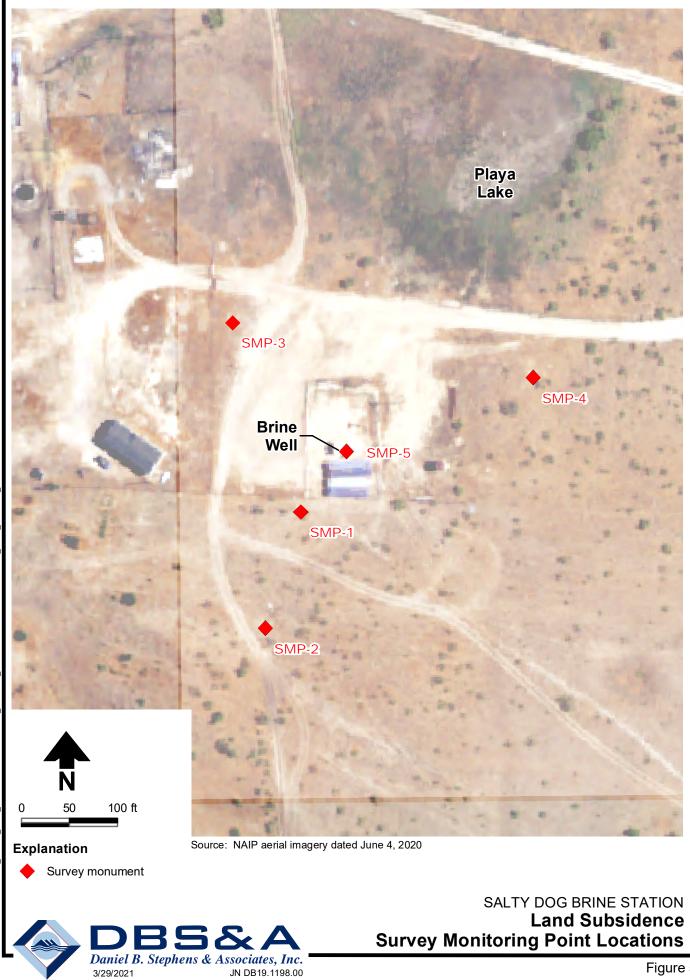
Sources:

- 1. Completion data based on OCD well reports
 - 2. Lithology from Salty Dog (1988)



SALTY DOG BRINE STATION Generalized Brine Well Schematic





SAPROJECTS/DB19.1198_SALTY_DOG_2019/GISI/MXDS/ANNUAL_REPORT_2020/TEMPLATEUPDATE/FIG05_LTTR_REPORT_MXD

Appendix A

Annual Certification



Annual Certification

PAB Services, Inc. certifies that continued salt solution mining will not cause cavern collapse, surface subsidence, property damage, or otherwise threaten public health and the environment based on geologic and engineering data.

PIETIEN ISENGS Name Pros. アモレレ Title

4/8/21

Signature

Date

Appendix B

2020 Monthly Fresh Water and Brine Report Forms



		C'ALLLE A)		
	FACILITY/LOCATIO		09		\mathcal{T}
	MONTH/YEAR	JAN 2020			
	AMOUNT OF FRESH	AMOUNT OF			
	WATER PUMPED	BRINE WATER	DAILY TUBING	DAILY CASING	FRESH
	DOWN HOLE	OUT OF HOLE	PRESSURES	PRESSURES	WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	410	400	125	375	
2	1200	1183	125	375	120
3	41.5 200	400	125	375.	
4	915	900 too	125	375	
5	1590	1580 that	125	375	
6	2170	2155 +	125	375	
7	965	950 At 50	125	325	
8	1655	1645 Histor	125	375	
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12	710	700	125	375	
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8 615 600 125 375 9 1310 1300 1300 125 375 125 10 1300 123373 212 375 125 375 120 11 715 710 125 375 120 12 905 799 123 125 375 120 13 725° 715 523 125° 375 28^{-5} 14 240 235 125° 375° 28^{-5} 15 695 485 125° 375° 28^{-5} 17 200 190^{-96} 125° 375° 240° 18 1925 190° 125° 375° 120° 20 2.350 2345 125° 375° 120° 21 910° 192° 125° 375° 120° 22		7		1785 555		375	130	
9 (310) (300) 730 725 7125 375 737 11 715 710 125 375 120 12 905 799 83 125 375 120 13 725° 719 83 125° 375 120° 14 240 235 125° 375 225° 14 240° 235° 125° 375° 230° 15 $C95^\circ$ 285° 125° 375° 790° 16 815° 900° 125° 375° 220° 18 1925° 190° 125° 375° 120° 20 2350° 2345° 125° 375° 120° 21 210° 800° 125° 375° 120° 23 20° 1420° 125° 375° 120° <		8	615	600				
10 1280^0 1283^{373} 125 525 13 11 715 710 125 375 120 12 905 799 125 375 120 13 725 715 53 125 375 120 14 240 235 125 325 230 15 695 285 125 375 240 16 915 800^{-10} 125^{-375} 240 18 1925 1905 125^{-375} 240 18 1925 1905 125^{-375} 140^{-20} 20 2350 2345 125^{-375} 140^{-20} 21 910^{-10} 500^{-11} 125^{-375} 326^{-20} 23 -0^{-10} 125^{-375} 326^{-20} 120^{-11} 24 1525^{-5} 120^{-11} 125^{-375} 326^{-20} 25 900^{-11} 125^{-375} 326^{-20} 375^{-20} 22		9	1310		125			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		10	1300	1283973 580		375	128	
12 905 799 43 125 375 12^{0} 13 725° 715 125 325 25° 14 240 235 125° 325° 25° 14 240 235 125° 325° 25° 15 695° 285° 125° 375° 240° 16 815° 900° 125° 375° 240° 18 1925 190° 125° 375° 120° 20 2350 2345° 900° 125° 375° 120° 40° 21° 910° 800° 125° 375° 120° 40° 235° 125° 375° 120° 325° 120° 40° 235° 125° 375° 120° 325° 320° 40° 125° 375° 320° 325° 325° <th< td=""><td></td><td>11</td><td></td><td>110</td><td>125</td><td>375</td><td>120</td></th<>		11		110	125	375	120	
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		12	305	799 123	125		120	
14 240 235 125 325 230 15 695 285 125 375 190 16 915 900 125 375 240 17 200 190^{46} 125^{-} 375 240 18 1925 190^{5} 125 375 240 18 1925 190^{5} 125 375 220 20 2350 345 125 375 120 20 2350 345 125^{-} 375 120 21 910^{-} 800^{-66^{-} 125^{-} 375^{-} 290^{-} 405^{-} 1730^{-} 125^{-} 375^{-} 290^{-} 23^{-} -1430^{-} 1425^{-} 375^{-} 326^{-} 24^{-} 1525^{-} 1015^{-} 375^{-} 326^{-} 125^{-} 375^{-} 326^{-} 25^{-} 900^{-} 780^{-} 712^{-} 375^{-} 320^{-} 375^{-}		13	725	215 5	125	375	25	
16 $9/5$ 900 125 375 240 17 200 190 46 125 375 240 18 1925 1905 125 375 240 19 1515 1570 467 125 375 100 20 2350 2345 1985 125 375 120 21 910 300 125 375 120 325 1430 1420 325 290 325 1730 1420 375 120 323 27 1430 1420 375 120 3245 1920 325 375 320 23 27 1430 1420 375 320 24 1525 1515 532 125 375 200 25 900 780 125 375 320 20 27 1220 125 375 30		14	240				2.30	
10 $\sqrt{15}$ $\sqrt{90}$ 175 375 240 17 200 190 46 125 375 240 18 1925 1905 125 375 220 19 1515 1500 4905 125 375 120 20 2350 345 125 375 120 21 910 300 125 315 290 $\sqrt{52}$ 710^{10} 1420 315^{5} 290 $\sqrt{52}$ 710^{10} 1920^{1420} 125^{5} 315^{5} 290 $\sqrt{52}$ 710^{10} 1920^{1420} 125^{5} 375^{5} 120 $\sqrt{52}$ 710^{12} 1920^{1420} 125^{5} 375^{5} 326^{5} 23 100^{-11} 710^{10} 710^{12} 375^{5} 326^{5} 24 152^{5} 1515^{15} 328^{12} 125^{5} 375^{5} 326^{5} 25 800^{-11} 125^{-5} 375^{5} 326^{5}		15			125	375	190	
If $\lambda 00$ $ 70^{\circ} $ 12° 275° $\lambda70^{\circ}$ 18 192° 12° 375° 220° 19 151° 151° 150° 125° 375° 220° 20 235° 234° 150° 125° 375° 120° 21 910° 300° 125° 375° 290° $\sqrt{52}^{\circ}$ 710° 1430° 142° 375° 290° $\sqrt{52}^{\circ}$ 710° 1430° 142° 375° 316° 23 -2° -2° 125° 375° 36° 24 1525° 1515° 32° 125° 375° 326° 25 900° 780° 125° 375° 326° 20° 22° 375° 326° 20° 22° 375° 326° 20° 25° 375° 326° 375° 326° $375^$		16		300	17.5			
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		17		190 40			240	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$		18					220	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	fut.	19	1515	1500 400	125		110	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Q.			345 17785 1980220	125			
23 0 120 125 375 120 24 1525 1515 529 125 325 25 900 780 125 375 325 26 1180 1166 566 125 375 325 26 1180 1166 566 125 375 325 26 1180 1166 566 125 375 325 27 1220 1210 125 375 8 28 2035 2070 456 125 375 320 29 (10) 000 125 375 126 30 31 $35,006$ 375 126 31 $35,006$ $35,006$ 375 375 375 6000 $925,006$ $926,006$ $375,006$ $375,006$ $375,006$		21	810	300 m	125		290	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $			27600 1430	1420				
$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$		23		-0	125	375	120	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		24		1515 523	125			
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		25	800	7.80	125		365	
28 2095 2070 4250 125 375 320 29 10 000 125 375 126 30 31 35,006 35,006 36 36 375 126 30 35,006 35,006 36 36 375 126 31 35,006 36 375 375 126 Company Performing Descritipon of 36 375 375			1180	1166 566	125	375	20	
29 L10 L00 125 375 126 30 31				1210		375	8	
30 31 TOTALS 35,000 REPAIRS 2000/08 = API INSEST 00000000000000000000000000000000000			2.0 %5		125		320	
31 35,000 TOTALS 35,000 Company Performing Descritpion of			610	600	125	375	1.20	
TOTALS 35,000 Company REPATRS OND/OR EXTENSES OF ACCESSION ACCESS								
Company Performing Descritpion of	1							
Company Performing Descritpion of	. [TOTALS						
Performing Descritpion of			weather handlin war it and again to see a see have been a bar and a set of the second second second second second		S PARENA SO			
		Date	Performing	Descritpion of Work/Repairs	Estimated Cost	Work Authori	zed by	

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Date 1 2 3 4 5 6 7	AMOUNT OF FRESH WATER PUMPED DOWN HOLE BBLS 940 2145 2055 (35 1750	3-2020		DAILY CASING PRESSURES PSI	FRESH
1 2 3 4 5 6	AMOUNT OF FRESH WATER PUMPED DOWN HOLE BBLS 940 2145 2055 (35) 1750	AMOUNT OF BRINE WATER OUT OF HOLE BBLS SOLD 920	DAILY TUBING PRESSURES PSI	DAILY CASING PRESSURES	WATER
1 2 3 4 5 6	WATER PUMPED DOWN HOLE BBLS 940 2145 2055 (35 1750	BRINE WATER OUT OF HOLE BBLS SOLD 920 2/30	PRESSURES PSI	PRESSURES	WATE
1 2 3 4 5 6	WATER PUMPED DOWN HOLE BBLS 940 2145 2055 (35 1750	BRINE WATER OUT OF HOLE BBLS SOLD 920 2/30	PRESSURES PSI	PRESSURES	WATE
1 2 3 4 5 6	BBLS 940 2145 2055 135 1750	BBLS SOLD 920 2/30	PSI		
1 2 3 4 5 6	940 2145 2055 135 1750	920		PSI	
2 3 4 5 6	2145 2055 6 ³⁵ 1750	2130	100		SOLD
3 4 5 6	2055 13 ⁵ 1750		122	375	
4 5 6	135 1750	2 040	125	375	125
5 6			125	375	
6	1.	1725 +	125	375	
	650	640 7	125	323	240
7	825	815 mit	125	373	
	2010	1090 : *	125	375	
8	1310	1290 3	125	375	
9	2800	2775 :	125	375	
10	1280	1260	125	375	
11	1625	1610	125	375	160
12	\$2.0 3	4240	125	375	80
13	1585	1375	125	375	250
14	1325	1310	125	375	2.40
15	790	780	125	373	40
16	1540	1525	125	375	
1,1497	27965 2345	2235 . =	12.5	375	
<u> 18 </u>	2590	2370	125	375	
19	14 70	1455 -	125	375	
20	1540	1525	125	375	40
21	205	200	125	375	
22	410	4100	125	375	260
23	337.5	.3350	125	375	.40
24	2 9.38	283 5	12.5	. 325	
25	4005 520	1260	125	375	
26	5.00	JAS	125	375	. 7 .
27	<u>1453</u> : 3095	1443 43	12.5	375	130
28	0010	30 80	125	375	210
29	1200	12.20	125	325	
30 31	100	900	125	375	
TOTALS	840	<u>855</u> 49648	12.5	375	
		REPAIRS AND/O			
			A CAN OF MALL CALLS		A STATE OF
	Company Performing	Decoritaion of			
Date	Work/Repairs	Descritpion of Work/Repairs	Estimated Cost	Mark Author	and he
Dale	TOIMTepalls	TUNNepairs	Louindleu Cost	Work Authori	zeu by

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		MONTHLY F	RESH & BRI	NE WATER F		
		FACILITY/LOCATIO	N SALTY L			
		MONTH/YEAR	eril 2020			
		an an that a strain and a strain				
. •		AMOUNT OF FRESH	AMOUNT OF			
		WATER PUMPED	BRINE WATER	DAILY TUBING	DAILY CASING	FRESH
		DOWN HOLE	OUT OF HOLE	PRESSURES	PRESSURES	WATER
	Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
	1	180 +80	7.80	125	350	10.95
	2	760	745	125	325	960
	3	1/1	110	125	325	1820500
	4	305	300	125	375	1110
	5	790	780	125	375	0
	6	280	275	125	375	112.5 750
	7	946	930	125	375	2210
		710	710 200	125	375	1125
	9	905	905	125	375	1645
	10	300	300	125	325	0
	11	1600	1600	125	37.5	D
	12	1360	1338 200	125	375	1160
	13	120	120	125	375	0
	14	53n	525 500	12.5	.375	15.80
	15	605	600	18.5	375	1605
	16	320	315 18	125	375	1570
	17	410	400	12.5	375	2450
	18	B	B	12.5	375	610
	19	0	Ø	125	37.5	Q
	20	148	148 150	125	375	1560
	21	718	218	125	375	1625 13-95
	22	218	218	125	37.5	1275
	23	48	48	125	375	1440 240
	24	120	100	125	325	ð
	25	210	200	12.5	37.5	730
	26	100	100 100	125	375	1830
	27	265	260	125	375	2050
13343	28	A 1328	1318	125	375	1720
	29	250	243	125	375	1835 40
	30	1010	1000	125	375	1440
\mathbf{N}	31					
	TOTALS		14586			36550
			NEPATRACAND/O	234218[55]#		
		Company				
		Performing	Descritpion of			
	Date	Work/Repairs	Work/Repairs	Estimated Cost	Work Author	rized by
	i					
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	MONIHLY	RESH & BRI	NE WATER F	REPORT			
	FACILITY/LOCATIO	N SALTY DO	29				
	MONTH/YEAR MAY						
			n service and service F				
	AMOUNT OF FRESH	AMOUNT OF					
	WATER PUMPED	BRINE WATER	DAILY TUBING	DAILY CASING	FRESH		
	DOWN HOLE	OUT OF HOLE	PRESSURES	PRESSURES	WATER		
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD		
1	/00	/00	125	375	1860		
2	710	700	12.5	375	2245		
3	Ð	Ď	12.5	375	4		
4	2.15	210 200	125	375	1715		
5	270	268	125	375	1460		
6	820 ***	810	125	375	2005 1005		
7	435	420 100	125	375	575		
8	695	695 620	125	375	180		
9	D	Ó	125	·375			
10	210 200	200	125	375	240		
11	20	70 70	125	375			
12	500	490	125	375			
13	1/35	1120 +000	125	375			
14	100	100	125	375			
15	345	340 \$00	125	375			
16	4.30	4217	125	375			
17	205	200 100	125	375			
18	6993 870	350	125	375	20		
19	1320	1300 000	125	375			
20	205	200 00	125	37.5			
21	1615	1600 1300	12.5	375			
22	810	800	125	375	V		
23	1220	1200	125	375			
24	- A		125	375	375		
25	205	200	125	375			
26	1520	1500 1300	125	375	10		
27	1630	1620	125	375	125		
28	: 355	850 410	125	375	120		
29	0		125	375	75		
30	0	D	125	375			
31	105	100	125	.373			
TOTALS		16363	a il na su span a su				
	AND AND THE A MALERIE COMPARISON AND AN ADDRESS TO PLATE A DRESS TO AN ADDRESS AND ADDRESS AND ADDRESS ADDRE	REPARCHANDIO	SEVINER (SEDALE				
	Company						
Det	Performing	Descritpion of					
Date	Work/Repairs	Work/Repairs	Estimated Cost	Work Author	ized by		

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	FACILITY/LOCATIO	A A + + + 2	n.		
		UNE 2020	<u>//og</u>		
	AMOUNT OF FRESH	AMOUNT OF			
	WATER PUMPED	BRINE WATER	DAILY TUBING	DAILY CASING	FRESH
	DOWN HOLE	OUT OF HOLE	PRESSURES	PRESSURES	WATER
Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
1	D	18	125	375	
2	415	410	125	375	
3	605	606	125	373	130
4	570	5/10 400	125	375	
5	220	215	125	375	
6	205	200	125	375	
7	205	200	125	375	
8	510	,00 200	125	375	
9	521	520 480	125	375	80
10	AL55	.450	125	375	25
11	765	755 505	125	375	
12	410	400	125	375	
13	221	220 220	125	375	
14	715	700	125	325	
15	220	220	125	375	
16	185	180	125	375	125
17	215	2.15	125	375	
18	305	300 150	125	375	
19	100	100	125	375	490
20	410	400	125	375	
21	æ		125	315	
22	415	HOD	125	375	
23	510	500 400	125	375	
24	250	250	125	375	
25	0	15	125	315	
26	210	200	525	375	70
27	510	500	125	315	30
28	: 0	0	125	375	
29	210	205	the second se	325	50
30			125	375	7506
31	205	200			/300
TOTALS					
dle set et set		REPAIRS AND/O	(1920): NISES		
Date	Company Performing Work/Repairs	Descritpion of Work/Repairs	Estimated Cost	Work Authori	
		and a second sec	_ounation vool	TURAUIUN	LUG UY
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35.						
100.00		FACILITY/LOCATION				5. S
1000		MONTH/YEAR	14 2020			
ĥ						
		AMOUNT OF FRESH	AMOUNT OF			
		WATER PUMPED	BRINE WATER	DAILY TUBING	DAILY CASING	FRESH
		DOWN HOLE	OUT OF HOLE	PRESSURES	PRESSURES	WATER
F	Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
F	1	420	415	125	375	
F	2	0	0	125	375	780
F	3	1640	16.30	125	375	
Γ	4	0	0	125	375	
Γ	5	D	100	125	375	
Γ	6	615	600	125	375	
Γ	7	100	100	125	.375	
Γ	8	301	300	125	375	120
	9	515	515	125	375	257
	10	540	530 400	125	375	125 4
	11	210	200 000	125	375	120
	12	715	700 ***	125	375	100
	13	1230	1210 900	12.5	375	
	14	1975	196 D + + + + + + + + + + + + + + + + + +	12.5	375	60
Γ	15	85	80	125	375	510
	16	840	830 530	125	375	
١Ľ	17	65	65	125	375	130
	18	315	310	125	375	120
L	19	D	0	125	375	
	20	475	470	125	375	90
	21	4.55	450	125	375	100
	22	230	2.30	125	375	
	23	210	210	125	375	380
L	24	230	220	125	375	
	25	200	200	125	375	
L	26	310	300	125	375	
	27	125	220	125	375	120
	28	480	460	125	375	130
	29			125	375	240
	30	300	300	125	375	
	31	100	100	125	375	
	TOTALS					•
			REPAIRSANDIQ	S BY DENSESSION		
		Company				
		Performing	Descritpion of			
	Date	Work/Repairs	Work/Repairs	Estimated Cost	Work Author	ized by
Vincent						

	FACILITY/LOCATIO				
	MONTH/YEAR AU	ALL ST 2020			
	AMOUNT OF FRESH	AMOUNT OF		DAILY CASING	FRESH
	WATER PUMPED	BRINE WATER	DAILY TUBING PRESSURES	PRESSURES	WATER
Data	DOWN HOLE	OUT OF HOLE BBLS SOLD	PRESSURES	PRESSORES	SOLD
Date	BBLS	100	F31	772	0020
1		100	122-	275	170
2 3	1 115	020	12	275	110
4	240	341	125	-75	
	200	000	125	375	
<u>5</u>	0	0	125	375	
7	200	100	125	375	
8	600.	600	125	375	
9	120	120	125	375	
10	100		125	375	100
11	495	200	125	375	60
12		\wedge	175	176	
13	Ð	<u> </u>	125	375	
14	0	0	125	275	
15	X I		125	375	
16	Ő	V	102	274	
17	200	200	125	375	30-
18	\$00	500	12	370	100
19	310	310	105	376	B
20	630	530	125	276	250
21	390	360	17.5	375	625
22	7.00	205	176	275	
23	100	100	123	375	50
24	910	910	175	375	0
25	500	500	12	325	120
26	800	800	12.5	372	0
27	215	215	.75	375	- Pr
28	: 600	600	inc	375	-40
29	720	720	122	375	er er
30	200	200	124	374	250
31	770	770	125	376	N
TOTALS	9,425	9,425			1,705
		REPAIRS AND/O	(DEMENSES)		
	Company				
	Performing	Descritpion of			
Date	Work/Repairs	Work/Repairs	Estimated Cost	Work Authori	zed bv

	FACILITY/LOCATIO	d	Dog		
	FACILITILUCATIC	ON JALTY	Dog		
	MONTH/YEAR	JEPTEMB.	ER ZOZO		
Contraction of the second	······································				
	AMOUNT OF FRESH		DAILY TUBING	DAILY CASING	FRESH
	WATER PUMPED	BRINE WATER	PRESSURES	PRESSURES	WATER
	DOWN HOLE	OUT OF HOLE		PRESSORES	SOLD
Date	BBLS	BBLS SOLD	PSI	375	0000
1	1055	1 POO	125		1.20
2	310 3		125	375	620
3	300	300 300	and the second designed in the second designe	375	10
4	+175	135	125	375	
5	100	100	125	375	
6	700	700	125	375	
7	215	215	125	375	
8	150	150	125	375	
9	80	80	125	375	
10	240	240	125	37.5	
11	510	510	125	375	40
12	400	400	125	375	
13	135	135	125	375	
14			123	375	
15	*		125	375	
16	iO	0	125	375	
17	415	425	125	375	
18	15	13	125	375	200
19	115	115	125	375	
20	600	600	125	375	
21	4,45	485	125	375	
22	200	200	125	375	100
23	330	330	125	375	115
24	T	- 200	125	375	10-5
25					11 0
26			125	375	40
27				376	موافقي ويستباد المراكب المراجع والعرب العا
28	· 50	50	123	375	100
29	60	60		375	190
30			125	<u>375</u> 375	() ()
31			125	515	260
TOTALS	6.150	1.10			1110
125 12 7 10 4		CISO REPAIRS AND/O			1,665
2.1 C	T	an-Ghunoraniji/3	MENTEROPORT		
	Company				
Deta	Performing	Descritpion of			
Date	Work/Repairs	Work/Repairs	Estimated Cost	Work Authori	
9-26	J'J pumping	replace plungers	0-514.19	Adam Sitt	01
		· · · · ·			

		MONTHLY	FRESH & BRI	NE WATER F	REPORT	
	· · · · · · · · · · · · · · · · · · ·	FACILITY/LOCATIC	IN Salty D	09.		
		MONTH/YEAR	rtober 20	20		
	<u> </u>		New Construction of the second	2.19070.997	no film Houstard as 125	
3		AMOUNT OF FRESH	AMOUNT OF			
		WATER PUMPED	BRINE WATER	DAILY TUBING	DAILY CASING	FRESH
		DOWN HOLE	OUT OF HOLE	PRESSURES	PRESSURES	WATER
	Date	BBLS	BBLS SOLD	PSI	PSI	SOLD
	1	- 300	300	125	375	130
	2		I laD	125	375	<u> </u>
	3	60	50	123	373	10
	4	515	215	125	375	120
	5	751	751	125	375	195
	6	110	110	123	373	20
	7		1			
	8				070	
	9	1-108	405	125	313	100
	10	1-215	1215	125	30	· pv
	11	- 115	15-	125	3/5	
	12	- 62	25	120	345	155
	<u>13</u> 14	+	$\mu \eta 0$	1-122-	375	133
	14	100	00	1-195-	372	
	15	200	400	1-192	240	105
	17		- 230-	125-	242	-100
	18	.275	240	113	272	2151
	19	205-213		100	375	<u> </u>
	20	655	-005		37	120
	21		-690	-1 a	-3-6	- 7 0
	22			125	275	. 70
	23	120	130	10	3.75	1:20
	24	100	200	125	3.02	
	25	100	100	125	370	
	26		85	175	202	
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	29					
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-			REPAIRS AND/O	REXPENSES		
		Company				
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	Date	Work/Repairs	Work/Repairs	Estimated Cost	Work Authori	zed by
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4		VF Petroleum		-000	H-	
	9					

C Woournents and Settings/Jimit ocal Settings/Temporary Internet Files/OLK6AMonthly FW-BW Report - Origina

FACILITY/LOCATION Salty Dog						
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4		1560	125-	345		
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	115	115	12.5	1775		
LS					and the second	
		REPARTANE/®	New Company			
	Company Performing Work/Repairs	Descritpion of Work/Repairs	Estimated Co	st Work Au	thorized by	

Appendix C

Laboratory Analytical Reports





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

July 09, 2020

John Ayarbe Daniel B. Stephens & Assoc. 6020 Academy NE Suite 100 Albuquerque, NM 87109 TEL: FAX:

OrderNo.: 2006E69

RE: Salty Dog

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 14 sample(s) on 6/26/2020 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. In order to properly interpret your results, it is imperative that you review this report in its entirety. 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. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. 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.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis	s Laboratory, Inc.		Date Reported: 7/9/20	020
CLIENT: Daniel B. Stephens & Assoc.		Client Sample I	D:DBS-1R	
Project: Salty Dog		Collection Da	te: 6/23/2020 5:38:00 PM	
Lab ID: 2006E69-001	Matrix: GROUNDWA Received Date: 6/26/2020 11:15:00 AM			
Analyses	Result R	Qual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS			Analy	st: MRA
Chloride	220 5	0 mg/L	100 7/1/2020 9:56:11 PM	A70083

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- JAnalyte detected below quantitation limitsPSample pH Not In Range
- P Sample pH Not In RL Reporting Limit

Page 1 of 20

Hall Environmental Analysis Laboratory, Inc.				Date Reported: 7/9/2020			
CLIENT: Daniel B. Stephens & Assoc.		Client	Sample I	D: DE	38-2		
Project: Salty Dog		Colle	ection Dat	te: 6/2	4/2020 8:55:00 AM		
Lab ID: 2006E69-002	Matrix: GROUND	WA Rec	ceived Dat	t e: 6/2	26/2020 11:15:00 AM	I	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS					Analys	st: MRA	
Chloride	66	5.0	mg/L	10	7/1/2020 10:09:02 PM	1 A70083	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- JAnalyte detected below quantitation limitsPSample pH Not In Range
- P Sample pH Not In RL Reporting Limit

Page 2 of 20

Hall Environmental Analysis Laboratory, Inc.				Date Reported: 7/9/2020			
CLIENT: Daniel B. Stephens & Assoc.		Client	Sample I	D: DI	3S-3		
Project: Salty Dog		Colle	ection Dat	te: 6/2	24/2020 10:16:00 AM		
Lab ID: 2006E69-003	Matrix: GROUND	WA Rec	eived Dat	te: 6/2	26/2020 11:15:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS					Analys	t: MRA	
Chloride	50	5.0	mg/L	10	7/1/2020 10:34:47 PM	A70083	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range

RL Reporting Limit

S % Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.				Date Reported: 7/9/2020			
CLIENT: Daniel B. Stephens & Assoc.		Client	Sample I	D: DE	3S-4		
Project: Salty Dog		Coll	ection Dat	:e: 6/2	3/2020 6:50:00 PM		
Lab ID: 2006E69-004	Matrix: GROUNDW	A Ree	ceived Dat	:e: 6/2	6/2020 11:15:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS					Analys	t: MRA	
Chloride	35	5.0	mg/L	10	7/1/2020 11:00:31 PM	A70083	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 4 of 20

Hall Environmental Analysis	Laboratory, In	с.			Date Reported: 7/9/202	0
CLIENT: Daniel B. Stephens & Assoc.		Client	Sample I	D: DE	3 S-5	
Project: Salty Dog		Coll	ection Dat	t e: 6/2	23/2020 5:10:00 PM	
Lab ID: 2006E69-005	Matrix: GROUND	WA Re	ceived Dat	t e: 6/2	26/2020 11:15:00 AM	
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	: MRA
Chloride	190	5.0	mg/L	10	7/1/2020 11:52:00 PM	A70083

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

* **Qualifiers:**

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 5 of 20

Hall Environmental Analysis Laboratory Inc.

Hall Environmental Analysis Laboratory, Inc.			Date Reported: 7/9/2020			
CLIENT: Daniel B. Stephens & Assoc.		Client Sample 1	D: DBS-6			
Project: Salty Dog		Collection Da	te: 6/24/2020 3:00:00 PM			
Lab ID: 2006E69-006	Matrix: GROUNDWA	Received Da	te: 6/26/2020 11:15:00 AM	1		
Analyses	Result R	L Qual Units	DF Date Analyzed	Batch		
EPA METHOD 300.0: ANIONS			Analys	st: MRA		
Chloride	230 5	50 mg/L	100 7/2/2020 12:30:37 AN	1 A70083		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 6 of 20

Hall Environmental Analysis Laboratory, Inc.				Date Reported: 7/9/2020			
CLIENT: Daniel B. Stephens & Assoc.		Client	Sample I	D: DI	3S-8		
Project: Salty Dog		Colle	ection Dat	:e: 6/2	24/2020 12:45:00 PM		
Lab ID: 2006E69-007	Matrix: GROUND	WA Rec	eived Dat	:e: 6/2	26/2020 11:15:00 AM		
Analyses	Result	RL Qu	al Units	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS					Analys	t: MRA	
Chloride	34	5.0	mg/L	10	7/2/2020 12:43:29 AM	A70083	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 7 of 20

Hall Environmental Analysis	Laboratory, I	nc.			Date Reported: 7/9/2	020
CLIENT: Daniel B. Stephens & Assoc.		Cli	ent Sa	ample I	D: DBS-9	
Project: Salty Dog		C	Collect	ion Dat	e: 6/24/2020 10:55:00 AN	Ν
Lab ID: 2006E69-008	Matrix: GROUNI	OWA	Recei	ved Dat	e: 6/26/2020 11:15:00 AN	Ν
Analyses	Result	RL	Qual	Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analy	/st: MRA
Chloride	360	50	*	mg/L	100 7/2/2020 1:22:08 AM	A70083

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 8 of 20

Hall Environmental Analysis Laboratory Inc.

Iall Environmental Analysis Laboratory, Inc.				Date Reported: 7/9/2020			
CLIENT: Daniel B. Stephens & Assoc.		Cl	ient Sa	mple I	D: DBS-10		
Project: Salty Dog			Collect	ion Dat	te: 6/24/2020 11:26:00 AM		
Lab ID: 2006E69-009	Matrix: GROUNDWA Received Date: 6/26/2020 11:15:00 AM				te: 6/26/2020 11:15:00 AM		
Analyses	Result	RL	Qual	Units	DF Date Analyzed Batch		
EPA METHOD 300.0: ANIONS					Analyst: MRA		
Chloride	560	50	*	mg/L	100 7/2/2020 1:47:51 AM A7008		

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
 ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Sample pH Not In Range
- Р RL Reporting Limit

Page 9 of 20

1E+ 7/2/2020 2:26:26 AM

Analyst: MRA

A70083

Hall Environmental Analysis	Laboratory, Inc.	Date Reported: 7/9/2020
CLIENT: Daniel B. Stephens & Assoc.	Client Samp	le ID: PWM-1
Project: Salty Dog	Collection	Date: 6/23/2020 6:21:00 PM
Lab ID: 2006E69-010	Matrix: GROUNDWA Received	Date: 6/26/2020 11:15:00 AM
Analyses	Result RL Qual Un	its DF Date Analyzed Batch

11000

*

mg/L

500

Hall Environmental Analysis Laboratory Inc

EPA METHOD 300.0: ANIONS

Chloride

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 10 of 20

Hall Environmental Analysis	Laboratory, Inc.				Date Reported: 7/9/2020	0
CLIENT: Daniel B. Stephens & Assoc.		Cli	ent Sa	mple I	D: MW-5	
Project: Salty Dog		С	ollect	ion Dat	e: 6/24/2020 2:35:00 PM	
Lab ID: 2006E69-011	Matrix: GROUNDW	A I	Receiv	ved Dat	e: 6/26/2020 11:15:00 AM	
Analyses	Result	RL	Qual	Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst	MRA
Chloride	660	50	*	mg/L	100 7/2/2020 3:30:44 AM	A70083

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

* **Qualifiers:**

- Value exceeds Maximum Contaminant Level. D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 11 of 20

Hall Environmental Analysis Laboratory Inc.

Analytical Report

Lab Order 2006E69

Date Reported: 7/9/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT	Daniel B. Stephens & Assoc.	(Client Sample ID: MW-3
Project:	Salty Dog		Collection Date: 6/24/2020 4:38:00 PM
Lab ID:	2006E69-012	Matrix: GROUNDWA	Received Date: 6/26/2020 11:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY						Analyst	CAS
Specific Gravity	0.9969	0			1	7/1/2020 2:10:00 PM	R70056
EPA METHOD 300.0: ANIONS						Analyst	CJS
Fluoride	ND	1.0		mg/L	10	7/2/2020 12:31:13 PM	R70134
Chloride	6400	250	*	mg/L	500	7/8/2020 12:53:31 AM	A70164
Bromide	1.6	1.0		mg/L	10	7/2/2020 12:31:13 PM	R70134
Phosphorus, Orthophosphate (As P)	ND	5.0	Н	mg/L	10	7/2/2020 12:31:13 PM	R70134
Sulfate	350	5.0	*	mg/L	10	7/2/2020 12:31:13 PM	R70134
Nitrate+Nitrite as N	ND	4.0		mg/L	20	7/8/2020 1:43:08 AM	A70164
SM2510B: SPECIFIC CONDUCTANCE						Analyst	JRR
Conductivity	19000	50		µmhos/c	5	6/30/2020 11:57:39 AM	R70035
SM2320B: ALKALINITY						Analyst	JRR
Bicarbonate (As CaCO3)	292.3	20.00		mg/L Ca	1	6/30/2020 11:13:19 AM	R70035
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	6/30/2020 11:13:19 AM	R70035
Total Alkalinity (as CaCO3)	292.3	20.00		mg/L Ca	1	6/30/2020 11:13:19 AM	R70035
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst	KS
Total Dissolved Solids	11200	20.0	*H	mg/L	1	7/6/2020 6:07:00 PM	53476
SM4500-H+B / 9040C: PH						Analyst	JRR
рН	7.44		н	pH units	1	6/29/2020 4:27:55 PM	R69980
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst	ELS
Calcium	970	10		mg/L	10	6/30/2020 1:41:26 PM	53392
Magnesium	160	10		mg/L	10	6/30/2020 1:41:26 PM	53392
Potassium	16	1.0		mg/L	1	6/30/2020 12:41:42 PM	53392
Sodium	2700	50		mg/L	50	7/1/2020 12:09:54 PM	53392

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers: * Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 12 of 20

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

Lab Order 2006E69

Date Reported: 7/9/2020

CLIENT: Project: Lab ID:	Daniel B. Stephens & Assoc. Salty Dog 2006E69-013	Client Sample ID: BrineCollection Date: 6/24/2020 5:20:00 PMMatrix: GROUNDWAReceived Date: 6/26/2020 11:15:00 AM									
Analyses		Re	sult	RL	Qual	Units	DF	Date Analyz	ed	Batch	
SPECIFIC	CGRAVITY								Analyst:	CAS	
Specific	Gravity	1	.191	0			1	7/1/2020 2:10	:00 PM	R70056	
EPA MET	HOD 300.0: ANIONS								Analyst:	JMT	
Chloride		210	0000	10000	*	mg/L	2E-	+ 7/8/2020 1:30	:44 AM	A70164	
SM2540C	MOD: TOTAL DISSOLVED SOLI	DS							Analyst:	KS	
Total Dis	solved Solids	279	9000	2000	*HD	mg/L	1	7/6/2020 6:07	:00 PM	53476	
SM4500-I	H+B / 9040C: PH								Analyst:	JRR	
pН			7.17		Н	pH units	1	6/29/2020 4:4	2:22 PM	R69980	
EPA 6010	B: TOTAL RECOVERABLE MET	ALS							Analyst:	ELS	
Sodium		78	8000	2000		mg/L	2E-	+ 7/1/2020 12:1	2:44 PM	53392	

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers: *	Value exceeds Maximum Contaminant Level.
---------------	--

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit PQL Practical Quanitative Limit

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Sample pH Not In Range
- Р RL
 - Reporting Limit

Page 13 of 20

S % Recovery outside of range due to dilution or matrix

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

Lab Order **2006E69**

Date Reported: 7/9/2020

CLIENT: Project: Lab ID:	Daniel B. Stephens & Assoc. Salty Dog 2006E69-014	Client Sample ID: Injection Collection Date: 6/24/2020 5:00:00 PM Matrix: GROUNDWA Received Date: 6/26/2020 11:15:00 AM										
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch				
SPECIFIC	C GRAVITY						Analyst	CAS				
Specific	Gravity	0.9900	0			1	7/1/2020 2:10:00 PM	R70056				
EPA MET	THOD 300.0: ANIONS						Analyst	CJS				
Chloride		500	50	*	mg/L	100	7/2/2020 1:58:05 PM	R70134				
SM25400	MOD: TOTAL DISSOLVED SOL	IDS					Analyst	KS				
Total Dis	solved Solids	1210	20.0	*H	mg/L	1	7/6/2020 6:07:00 PM	53476				
SM4500-	H+B / 9040C: PH						Analyst	JRR				
pН		7.96		н	pH units	1	6/29/2020 4:46:16 PM	R69980				
EPA 6010	DB: TOTAL RECOVERABLE MET	ALS					Analyst	ELS				
Sodium		310	5.0		mg/L	5	7/1/2020 12:15:24 PM	53392				

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers: *

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 14 of 20



ANALYTICAL REPORT

Hall Environmental Analysis Laboratory

Sample Delivery Group:

Samples Received:

L1234733 06/30/2020

Project Number: Description:

Report To:

Jackie Bolte 4901 Hawkins NE Albuquerque, NM 87109



Jason Romer Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

PROJECT:

SDG: L1234733 DATE/TIME: 07/07/20 10:44

TABLE OF CONTENTS

*	
¹ Cp	

Ss

Cn

Sr

Qc

GI

ΆI

Sc

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
2006E69-012C MW-3 L1234733-01	5
Qc: Quality Control Summary	6
Wet Chemistry by Method 2580	6
GI: Glossary of Terms	7
Al: Accreditations & Locations	8
Sc: Sample Chain of Custody	9

SDG: L1234733 DATE/TIME:

07/07/20 10:44

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

			Collected by	Collected date/time	ed date/time Received date/time			
2006E69-012C MW-3 L1234733-01 GW		06/24/20 16:38	06/30/20 08:4	5				
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location		
			date/time	date/time				
Wet Chemistry by Method 2580	WG1504198	1	07/06/20 06:00	07/06/20 06:00	AKA	Mt. Juliet, TN		

² Tc
³ Ss
⁴ Cn
⁵Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

*

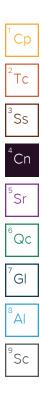
Ср

CASE NARRATIVE

*

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

Jason Romer Project Manager



SDG: L1234733 DATE/TIME: 07/07/20 10:44

PAGE:

4 of 10

SAMPLE RESULTS - 01 L1234733



Wet Chemistry by Method 2580

	 Result	Qualifier	Dilution	Analysis	Batch	Ср
Analyte	mV			date / time		2
ORP	289		1	07/06/2020 06:00	WG1504198	¯Тс



WG1504198

Wet Chemistry by Method 2580

QUALITY CONTROL SUMMARY

L1234733-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1234733-01 07/	/06/20 06:00 • (DU	P) R3546210-	3 07/06/2	0 06:00			
	Original Result	DUP Result	Dilution	DUP Diff	DUP Qualifier	DUP Diff Limits	
Analyte	mV	mV		mV		mV	
ORP	289	289	1	0.400		20	

L1235746-05 Original Sample (OS) • Duplicate (DUP)

(OS) L1235746-05 0	7/06/20 06:00 • (DL	JP) R3546210-	4 07/06/2	20 06:00			
	Original Result	DUP Result	Dilution	DUP Diff	DUP Qualifier	DUP Diff Limits	
Analyte	mV	mV		mV		mV	
ORP	229	228	1	1.00		20	

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3546210-1 07/06/20 06:00 • (LCSD) R3546210-2 07/06/20 06:00											
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	Diff	Diff Limits	
Analyte	mV	mV	mV	%	%	%			mV	mV	
ORP	228	224	226	98.4	99.3	86.0-105			1.90	20	

SDG: L1234733 DATE/TIME: 07/07/20 10:44 Â

Sc

GLOSSARY OF TERMS

*

Τс

Ss

Cn

Sr

Qc

GI

AI

Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

SDG: L1234733

ACCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebras
Alaska	17-026	Nevada
Arizona	AZ0612	New Ha
Arkansas	88-0469	New Je
California	2932	New Me
Colorado	TN00003	New Yo
Connecticut	PH-0197	North C
Florida	E87487	North C
Georgia	NELAP	North C
Georgia ¹	923	North D
ldaho	TN00003	Ohio-V
Illinois	200008	Oklaho
Indiana	C-TN-01	Oregon
lowa	364	Pennsy
Kansas	E-10277	Rhode I
Kentucky ¹⁶	90010	South C
Kentucky ²	16	South D
Louisiana	AI30792	Tennes
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas ⁵
Maryland	324	Utah
Massachusetts	M-TN003	Vermon
Michigan	9958	Virginia
Minnesota	047-999-395	Washin
Mississippi	TN00003	West Vi
Missouri	340	Wiscons
Montana	CERT0086	Wyomir

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee 14	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 5	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



ACCOUNT: Hall Environmental Analysis Laboratory PROJECT:

SDG: L1234733

DATE/TIME: 07/07/20 10:44

CHAIN OF CUSTODY RECOR	D PAGE: 1
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Hall Environmental Analysis Laboratory 4901 Hawkins NE Albuquerque, NM 87109 TEL: 505-345-3975 FAX: 505-345-4107 Website: clients.hallenvironmental.com

4234733

SUB CO	NTRATOR Pace	TN COMPANY:	PACE TN		PHONE:	(800) 767-5	859 FAX:	(615) 758-5859	
ADDRE	ss: 12065	Lebanon Rd			ACCOUNT #:		EMAIL.		
CITY, ST	TATE, ZIP: Mt. J	uliet, TN 37122						D021	_
ГТЕМ	SAMPLE	CLIENT SAMPLE ID	BOTTLE TYPE	MATRIX	COLLECTION DATE	# CONTAINERS	ANALYTICA	AL COMMENTS	
1	2006E69-012C	MW-3	125HDP	Groundw	6/24/2020 4:38:00 PM	1 ORP			.01

OF:

1

SPECIAL INSTRUCTIONS / COMMENTS:

Relinquished By:	Date: 6/29/2020		Received By:	Date:	Time:	REPORT TRANSMITTAL DESIRED:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	☐ HARDCOPY (extra cost) ☐ FAX ☐ EMAIL ☐ ONLINE
Relinquished By:	Date: Time: Beterved By: Bats Date Bats Date		JAK STAN	FOR LAB USE ONLY Temp of samples 4.2±04,2 Martitempt to Cool?		

	r Receipt Form	(Iz	34733
Client: HallEWArm Cooler Received/Opened On: 6 130	/ 20 Temperature		
Received By: joey brent	1		
Signature:		ALL PROPERTY	
a stanger and some stand and the			
Receipt Check List	NP	Yes	No
COC Seal Present / Intact?	1		
COC Signed / Accurate?			a series and a series of the
Bottles arrive intact?			a descenden
Correct bottles used?			A CONTRACT OF
Sufficient volume sent?		6	() statistics (statistics)
If Applicable			
VOA Zero headspace?		the public surfaces	and the second second

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client:Daniel BProject:Salty Do	. Stephens	& Asso	oc.							
Sample ID: MB	SampT	ype: m k	olk	Tes	tCode: El	PA Method	300.0: Anions	6		
Client ID: PBW	Batch	ID: A7	0083	F	RunNo: 7	0083				
Prep Date:	Analysis D	ate: 7/	1/2020	S	SeqNo: 24	434998	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sample ID: LCS	SampT	ype: Ics	;	Tes	tCode: El	PA Method	300.0: Anions	6		
Client ID: LCSW	Batch	ID: A7	0083	F	RunNo: 7	0083				
Prep Date:	Analysis D	ate: 7/	1/2020	5	SeqNo: 24	434999	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.8	90	110			
Sample ID: MB	SampT	ype: m t	olk	Tes	tCode: El	PA Method	300.0: Anions	6		
Client ID: PBW	Batch	ID: R7	0134	F	RunNo: 7	0134				
Prep Date:	Analysis D	ate: 7/	2/2020	5	SeqNo: 24	437168	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Bromide	ND	0.10								
Phosphorus, Orthophosphate (As P	ND	0.50								
Sulfate	ND	0.50								
Sample ID: LCS	SampT	ype: Ics	5	Tes	tCode: El	PA Method	300.0: Anions	6		
Client ID: LCSW	Batch	ID: R7	0134	RunNo: 70134						
Prep Date:	Analysis D	ate: 7/	2/2020	S	SeqNo: 24	437169	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.51	0.10	0.5000	0	103	90	110			
Chloride	4.9	0.50	5.000	0	98.4	90	110			
Bromide	2.5	0.10	2.500	0	102	90	110			
Phosphorus, Orthophosphate (As P	4.8	0.50	5.000	0	96.9	90	110			
Sulfate	9.8	0.50	10.00	0	98.3	90	110			
Sample ID: 2006E69-012AMS	SampT	ype: ms	5	Tes	tCode: El	PA Method	300.0: Anions	5		
Client ID: MW-3	Batch	ID: R7	0134	F	RunNo: 7	0134				
Prep Date:	Analysis D	ate: 7/	2/2020	S	SeqNo: 24	437180	Units: mg/L			
Analyte	Result	PQL		SPK Ref Val		LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	4.4	1.0	5.000	0	87.3	70.2	118			
Bromide	27	1.0	25.00	1.588	101	87.5	104			
Sulfate	480	5.0	100.0	354.7	121	91.2	105			S

Qualifiers:

Value exceeds Maximum Contaminant Level. *

D Sample Diluted Due to Matrix

Н Holding times for preparation or analysis exceeded Not Detected at the Reporting Limit

ND PQL Practical Quanitative Limit

- % Recovery outside of range due to dilution or matrix S

В Analyte detected in the associated Method Blank

Е Value above quantitation range

J Analyte detected below quantitation limits

Р Sample pH Not In Range

RL Reporting Limit

WO#: 2006E69 09-Jul-20

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#:

2006E69

09-Jul-20

Client:Daniel B. Stephens & Assoc.Project:Salty Dog

Sample ID: 2006E69-012AMS	D SampT	ype: ms	d	TestCode: EPA Method 300.0: Anions						
Client ID: MW-3	Batch	n ID: R7	0134	F	RunNo: 7	0134				
Prep Date:	Analysis D	ate: 7/	2/2020	S	SeqNo: 24	437181	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	4.4	1.0	5.000	0	87.5	70.2	118	0.229	20	
Bromide	26	1.0	25.00	1.588	99.5	87.5	104	1.31	20	
Sulfate	460	5.0	100.0	354.7	106	91.2	105	3.26	20	S
Sample ID: MB	e ID: MB SampType: mblk				tCode: El	PA Method	300.0: Anions	;		
Client ID: PBW	Batch ID: A70164			RunNo: 70164						
Prep Date:	Analysis D	ate: 7/	8/2020	S	SeqNo: 24	438254	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Nitrate+Nitrite as N	ND	0.20								
Sample ID: LCS	SampT	ype: Ics	;	Tes	tCode: El	PA Method	300.0: Anions	;		
Client ID: LCSW	Batch	n ID: A7	0164	F	RunNo: 7	0164				
Prep Date:	Analysis D	ate: 7/	8/2020	S	SeqNo: 24	438255	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.9	0.50	5.000	0	97.3	90	110			
Nitrate+Nitrite as N	3.5	0.20	3.500	0	98.6	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 16 of 20

Daniel B. Stephens & Assoc.

WO#: 2006E69 09-Jul-20

Project:	Salty Dog	5									
Sample ID:	lcs-1 99.5uS eC	SampT	ype: Ics	;	Tes						
Client ID:	LCSW	Batch	n ID: R7	0035	F	RunNo: 7	0035				
Prep Date:		Analysis D	0ate: 6/	30/2020	S	SeqNo: 2	433192	Units: µmh	os/cm		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Conductivity		99	10	99.50	0	99.7	85	115			

Qualifiers:

Client:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 17 of 20

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

WO#:	2006E69
	00 7 1 00

09-Jul-20

Client: Project:	Daniel B. Salty Dog	-	s & Asso	ж.										
Sample ID:	MB-53392	Samp	Туре: М	BLK	Tes	tCode: El	PA 6010B: 1	Total Recover	rable Meta	als				
Client ID:	PBW	Bato	ch ID: 53	392	F	RunNo: 70033								
Prep Date:	6/29/2020	Analysis	Date: 6/	/30/2020	S	SeqNo: 24	432951	Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Calcium		ND	1.0											
Magnesium		ND ND	1.0											
Potassium		ND	1.0											
Sample ID:	LCS-53392	Samp	Type: LC	;s	Tes	tCode: EF	PA 6010B: 7	Total Recover	able Meta	als				
Client ID:	LCSW		ch ID: 53		R	RunNo: 7	0033							
Prep Date:	6/29/2020	Analysis	Date: 6/	30/2020	S	SeqNo: 24	432952	Units: mg/L						
Analyte		Result	PQL		SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Calcium		52	1.0	50.00	0	104	80	120						
Magnesium Potassium		53 51	1.0 1.0	50.00 50.00	0 0	106 102	80 80	120 120						
		-												
-	ample ID: MB-53392 SampType: MBLK							Total Recover	able Meta	ls				
Client ID:			ch ID: 53		RunNo: 70048									
Prep Date:	6/29/2020	Analysis	Date: 7/	1/2020	S	SeqNo: 24	433650	Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Sodium		ND	1.0											
Sample ID:	LCS-53392	Samp	Type: LC	;s	Tes	tCode: El	PA 6010B: 1	Total Recover	rable Meta	als				
Client ID:	LCSW	Bato	ch ID: 53	392	R	RunNo: 7 (0048							
Prep Date:	6/29/2020	Analysis	Date: 7/	1/2020	S	SeqNo: 24	433651	Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Sodium		50	1.0	50.00	0	100	80	120						
Sample ID:	2006E69-014BMS	Samp	Type: MS	S	Tes	tCode: El	PA 6010B: 1	Total Recover	rable Meta	als				
Client ID:	Injection	Bato	ch ID: 53	392	F	RunNo: 70	0048							
Prep Date:	6/29/2020	Analysis	Date: 7/	1/2020	S	SeqNo: 24	433659	Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Sodium		340	5.0	50.00	309.5	58.5	75	125			S			
Sample ID:	2006E69-014BMSI) Samp	Type: MS	SD	Tes	tCode: El	PA 6010B: 1	Total Recover	rable Meta	als				
•	Injection	•	ch ID: 53			RunNo: 7								
Prep Date:	-	Analysis				SeqNo: 24		Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
		rtooun				/01.10		- ingriculture	, or a - D		aua			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

QC SUMMARY REPORT Hall Environmental Analysis Laboratory, Inc.

Client: Project:	Daniel B. Stephens & Salty Dog	Assoc.							
Sample ID: mb-1	Tes	tCode: SM2							
Client ID: PBW	Batch I	D: R70035	F	RunNo: 700 3	35				
Prep Date:	Analysis Date	e: 6/30/2020	S	SeqNo: 243	3180	Units: mg/L	CaCO3		
Analyte	Result	PQL SPK value	e SPK Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaC	03) ND 2	20.00							
Sample ID: Ics-1 a	lk SampTyp	be: Ics	TestCode: SM2320B: Alkalinity						
Client ID: LCSW	Batch II	D: R70035	F	RunNo: 700 3	35				
Prep Date:	ep Date: Analysis Date: 6/30/2020			SeqNo: 2433	3181	Units: mg/L	CaCO3		
Analyte	Result	PQL SPK value	e SPK Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaC	03) 76.16 2	20.00 80.00) 0	95.2	90	110			

Qualifiers:

- Value exceeds Maximum Contaminant Level. *
- D Sample Diluted Due to Matrix
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- Analyte detected in the associated Method Blank В
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

Page 19 of 20

WO#:	2006E69

09-Jul-20

Client: Project:	Daniel Salty D	B. Stephens Oog	& Asso	oc.										
Sample ID: MI	B-53476	SampT	ype: ME	BLK	TestCode: SM2540C MOD: Total Dissolved Solids									
Client ID: PE	BW	Batch	1D: 53	476	F	RunNo: 7(0120							
Prep Date: 7	/2/2020	Analysis D	ate: 7/	6/2020	S	SeqNo: 24	136557	Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Total Dissolved So	lids	ND	20.0											
Sample ID: LC	S-53476	SampT	ype: LC	S	Tes	tCode: SN	12540C MC	D: Total Diss	olved So	lids				
Client ID: LC	sw	Batch	1D: 53	476	RunNo: 70120									
Prep Date: 7	/2/2020	Analysis D	ate: 7/	6/2020	S	SeqNo: 24	136558	Units: mg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual			
Total Dissolved So	lids	1010	20.0	1000	0	101	80	120						

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 20 of 20

ANAL	RONMENTAL Ysis Ratory	Hall Environme TEL: 505-345-3 Website: client	490 Albuquero 1975 FAX:	1 Hawkins ue, NM 87 505-345-4	NE 109 S 107	an	nple Log-In Che	eck List
Client Name:	Daniel B. Stephens & Assoc.	Work Order Num	ber: 200	6E69			RcptNo: 1	-
Received By:	Juan Rojas	6/26/2020 11:15:00) AM		Hears	9		
Completed By:	Emily Mocho	6/29/2020 9:13:31	AM					
Reviewed By:	DAD 11/29/20 6/29/20							
Chain of Cus	stody							
1. Is Chain of C	sustody complete?		Yes	V	No [Not Present	
2. How was the	sample delivered?		UPS	É T				
Log In								
3. Was an atter	npt made to cool the sample	5?	Yes		No		NA 🗌	
4. Were all samples received at a temperature of >0° C to 6.0°C					No 🗄	/		
5. Sample(s) in	proper container(s)?		Yes	Not froze				
6. Sufficient san	nple volume for indicated tes	(s)?	Yes		No [
7. Are samples	7. Are samples (except VOA and ONG) properly preserved?				No []		
8. Was preserva	ative added to bottles?		Yes		No 💽		NA 🗆	
9. Received at le	east 1 vial with headspace <1	/4" for AQ VOA?	Yes		No [NA 🗹	
10. Were any sa	mple containers received bro	ken?	Yes		No B			
and the second	ork match bottle labels? ancies on chain of custody)		Yes		No [# of preserved bottles checked (for pH: (<2)or >12	2 unless noted)
12. Are matrices	correctly identified on Chain	of Custody?	Yes	~	No [Adjusted?	10
13. Is it clear wha	at analyses were requested?		Yes		No			Links
	ing times able to be met? sustomer for authorization.)		Yes	V	No [Checked by:	to alar
Special Hand	ling (if applicable)							
15. Was client no	otified of all discrepancies wit	h this order?	Yes		No [NA 🗹	
Person	Notified:	Date				-		
By Wh	om:	Via:	eM	ail 🗌 Pl	hone 🗌 I	ax	In Person	
Regard	ling:					-		
Client I	nstructions:							
16. Additional re	emarks:							
17. Cooler Info								
Cooler No		Seal Intact Seal No	Seal D	ate	Signed By	y		
1	-0.7 Good M	lot Present				_		

C	hain	-of-Cu	ustody Reco	rd	Turn	Around	I Time:					1							0	BIB			
Client:	Minie	16-	Stephens		Ks	Standard		Rush		HALL ENVIRONMENT													
-	- Series			1	Proje	ect Nam	e:																
Mailing	Address	: Abo	Office	-		Sal	to N	na		4901 Hawkins NE - Albuquerque, NM 87109													
		10			Proje	ect #:	1.	py ,									1.5	1.5					
Phone	#: 5	505-8	302-9400		DE	319.11	98.0	0 F	213 TI	Tel. 505-345-3975 Fax 505-345-4107 Analysis Request													
email o	r Fax#: -	JAYO	she e geo-logic.	on	Proje	ect Mana	ager:			21) 20, 20, 20, 20, 20, 20, 20, 20, 20, 20,													
QA/QC	Package:	0	0)		-	Joh.	A	yard	ne	's (8021) O / MRO) PCB's SIMS PO4, SO4 t/Absent)			1										
Star	ndard		□ Level 4 (Full Vali	dation)		<u> </u>	1	2		S	DRO /			8270SIMS		, PO4,			ent/P	0			
Accred			ompliance		Sam		YOK	MOR	an	/ TMB' / TMB' s/8082 s/8082 or 8270 or 8270 or 8270 or 8270 or 8270 or 8270 or 8270													
		□ Othe	r		On lo					E/	RO	les/	1504	0 or	als	NO ₃ ,		AO/	n (P	3			
) (Type) <u> </u>		T	-	and the second second	Coolers: er Temr	-	F):	.7-02-0.7(°C)	MTBE	D)O	Pesticides/8082	thoc	831	8 Metals		(A)	(Semi-VOA)	Coliform (Present/Absent)	14	5		
					0001	or romp			Not Frozen		TPH:8015D(GRO	Pes	EDB (Method 504.1)	PAHs by 8310 or	A 8	Br,	8260 (VOA)	(Se	Col	plug	1		
D	T .		Comple Name		Cont		Prese	vative	HEAL No.	BTEX /	Hd	8081	DB	AH	RCRA	CI, F,	260	8270	Total	CI			
Date 6.23-20		Matrix	Sample Name	/		and #	Туре	٨	2006E69	ш	<u> </u>	00		۵.	Ľ	0	00	00	F	V	-	+	++
0		GW	UD5-TA	r		Poly	N	A	-001					-						5	_		
6-24-20	1		DBS-2	V					-002	_			-	_		_	1	_		X		+	++
1	1016		065-3	V,					-003				_	_				5		X		_	
6-23-20			065-4	r	-				-004	1.000		_						= 0	-	X			+
n	1710		NB5- 5	1	1				-005						4L),			()		X			
6.24.20	1500		DRS-6	~					-006						11.1	34	11	ú		X			1.3
v	1245		085-8	V,					-007											X			
U	1055		NBS-9	V					-008											X			
Ŵ	11,26		NBS-10	V					-009								0.1			X			
6-23.21	1821		PMW-1	V					-010											X			
6-24-20		V	mw-5	/		V		ł	-011						1					X			
-	-	-									_	-			1								
Date:	Time:	Relinquist	ned by:		Receiv	ved by:	Via:		Date Time	Ren	narks	s:		1	1	0							
P.92.2	1250	4	re Morgan			WS				1	P	og	e	10	40	5							
Date:	Time:	Relinquis	hed by: U	- 1	Receiv	ved by:	Via:		Date Time			U											
					1	m	7 U	PS	6/26/20 11:15									÷					

Chain-of-Custody Record	Turn-Around Time:												
Client: DBS A A	- ∇∕ Standard □ Rush	ANALYSIS LABORATORY											
	Project Name:												
Mailing Address:	Satty Dog	www.hallenvironmental.com 4901 Hawkins NE - Albuquerque, NM 87109											
	Project #:	Tel. 505-345-3975 Fax 505-345-4107											
Phone #: 505 - 522 - 9400	DB19.1198.00 PAI TZ	Analysis Request											
email or Fax#:	Project Manager:	S SO4 SSO4											
QA/QC Package:	5. Augrite												
□ Standard □ Level 4 (Full Validation)	1 1 2 2	TMB's (80 082 PCB's (80 082 PCB) (80 082 PCB's (80 082 PCB) (80 082											
Accreditation: Az Compliance	Sampler: 9.169	 I MTBE / TMB's (8) 8015D(GRO / DRO / N 8015D (003, 002, PO4 81, NO3, NO2, PO4 											
NELAC Other	On Ice: Ves INO	A C C C C C C C C C C C C C C C C C C C											
□ EDD (Type)	# of Coolers: Cooler Temp(including CF): -0.7-0=-0.7(°C)	MTBE / 1 ISD(GRO / 1 Seticides/80 ethod 504, 8 Metals Metals Metals emi-VOA) emi-VOA)											
	Not Forth	BTEX / MTBE / TM TPH:8015D(GRO / D 8081 Pesticides/808 8081 Pesticides/808 BDB (Method 504.1) PAHS by 8310 or 82 RCRA 8 Metals RCRA 8 Metals CI, F, Br, NO3, NO3 RCRA 8 Metals RCRA 8 Metals RCRA 8 Metals CI, F, Br, NO3, NO3 Sector NO3, NO3 Sector Control (Prese Sector (Prese) (Prese Sector (Prese) (Pre											
	Container Preservative HEAL No.	EDB (Me BTEX / I BTEX / I BOB1 Pes BOB1											
Date Time Matrix Sample Name	Type and # Type												
63470 1638 GW MW-3 V	4 Poly Varies - 012												
1120 Brine V	2 Poly -013												
V 1700 V Injection ~	2 Poly -014												
	De Mon												
Date: Time: Relinquished by:	Received by: Via: Date Time	Remarks:											
were wood apply	at ups 6/20/20 11:15	Remarks: Voyl 2 of 2											
Date: Time: Relinquished by:	Received by Via: Date Time												



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

December 09, 2020

John Ayarbe Daniel B. Stephens & Assoc. 6020 Academy NE Suite 100 Albuquerque, NM 87109 TEL: FAX:

OrderNo.: 2011C63

RE: Salty Dog

Dear John Ayarbe:

Hall Environmental Analysis Laboratory received 14 sample(s) on 11/25/2020 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. In order to properly interpret your results, it is imperative that you review this report in its entirety. 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. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. 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.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

andy

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report Lab Order 2011C63 D, ta Dama ad. 10/0/2020

Hall Environmental Analysis	Date Reported: 12/9/2020								
CLIENT: Daniel B. Stephens & Assoc. Client Sample ID: DBS-1R									
Project: Salty Dog Collection Date: 11/21/2020 10:31:00 AM									
Lab ID: 2011C63-001 Matrix: GROUNDWA Received Date: 11/25/2020 9:08:00 AM									
Analyses	Result	RL Qual Units	DF Date Analyzed	Batch					
EPA METHOD 300.0: ANIONS			Analy	st: JMT					
Chloride	530	50 * mg/L	100 12/3/2020 11:58:03 A	M R73788					

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Limit

Page 1 of 20

Analytical Report Lab Order 2011C63 a Da d. 10/0/2020 D.

Hall Environmental Analysis	nc.	Date Reported: 12/9/2020									
CLIENT: Daniel B. Stephens & Assoc.	Client Sample ID: DBS-2										
Project: Salty Dog Collection Date: 11/21/2020 9:54:00 A											
Lab ID: 2011C63-002	Matrix: GROUND	WA Re	ceived Dat	te: 11/25/2020 9:08:00 AM	1						
Analyses	Result	RL Qu	al Units	DF Date Analyzed	Batch						
EPA METHOD 300.0: ANIONS				Analy	st: JMT						
Chloride	81	5.0	mg/L	10 12/3/2020 12:10:55 P	M R73788						

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Limit

Page 2 of 20

Analytical Report Lab Order 2011C63 ha Da d. 10/0/2020 D.

Hall Environmental Analysis	s Laboratory, Inc	с.		Date Reported: 12/9/2	020
CLIENT: Daniel B. Stephens & Assoc.		Clien	t Sample I	D: DBS-3	
Project: Salty Dog		Col	lection Dat	te: 11/21/2020 9:33:00 AM	
Lab ID: 2011C63-003	Matrix: GROUND	VA Re	ceived Dat	te: 11/25/2020 9:08:00 AM	
Analyses	Result	RL Qu	ual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: JMT
Chloride	49	5.0	mg/L	10 12/3/2020 12:36:40 PI	M R73788

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Limit

Page 3 of 20

Analytical Report Lab Order 2011C63 D, a Da d. 10/0/2020

Hall Environmental Analysis	s Laboratory, In	nc.			Date Reported: 12/9/20	020
CLIENT: Daniel B. Stephens & Assoc.		Clien	t Sample I	D:DB	S-4	
Project: Salty Dog		Col	lection Dat	t e: 11/	21/2020 11:04:00 AN	1
Lab ID: 2011C63-004	Matrix: GROUND	WA Re	ceived Dat	t e: 11/	25/2020 9:08:00 AM	
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: JMT
Chloride	37	5.0	mg/L	10	12/3/2020 1:28:14 PM	R73788

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
 J Analyte detected below quantitation limits
 Sample pH Not In Range
 RL Reporting Limit

Page 4 of 20

Hall Environmental Analysis	a Laboratory, Inc.			Date Reported: 12/9/20)20
CLIENT: Daniel B. Stephens & Assoc.		Client Sam	ple ID: D	BS-5	
Project: Salty Dog	Collection Date: 11/21/2020 9:06:00 AM				
Lab ID: 2011C63-005	Matrix: GROUNDWA Received Date: 11/25/2020 9:08:00 AN				
Analyses	Result R	L Qual U	Inits DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	t: JMT
Chloride	190 5	5.0 m	ng/L 10	12/3/2020 1:53:59 PM	R73788

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Limit

Page 5 of 20

Hall Environmental Analysis	Laboratory, I	nc.		Date Reported: 12/9/2	020
CLIENT: Daniel B. Stephens & Assoc.		Client	t Sample I	D: DBS-6	
Project: Salty Dog		Coll	ection Dat	te: 11/21/2020 12:29:00 PM	Ν
Lab ID: 2011C63-006	Matrix: GROUN	DWA Re	ceived Dat	te: 11/25/2020 9:08:00 AM	[
Analyses	Result	RL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: JMT
Chloride	230	50	mg/L	100 12/3/2020 2:32:37 PM	I R73788

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Limit

Page 6 of 20

Hall Environmental Analysis	S Laboratory, I	nc.		Date Reported: 12/9/	2020
CLIENT: Daniel B. Stephens & Assoc.		Client	t Sample I	D: DBS-8	
Project: Salty Dog		Coll	ection Da	te: 11/21/2020 12:02:00 P	М
Lab ID: 2011C63-007	Matrix: GROUN	DWA Re	ceived Da	te: 11/25/2020 9:08:00 AN	М
Analyses	Result	RL Qu	al Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analy	/st: JMT
Chloride	34	5.0	mg/L	10 12/3/2020 2:45:29 P	M R73788

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
 J Analyte detected below quantitation limits
 Sample pH Not In Range
 RL Reporting Limit

Page 7 of 20

Hall Environmental Analysis	Laboratory, Inc.			Date Reported: 12/9/2	020
CLIENT: Daniel B. Stephens & Assoc.		Client S	ample I	D: DBS-9	
Project: Salty Dog		Collec	tion Da	te: 11/21/2020 11:35:00 Al	М
Lab ID: 2011C63-008	Matrix: GROUNDWA	Recei	ived Dat	te: 11/25/2020 9:08:00 AM	[
Analyses	Result	RL Qual	Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: JMT
Chloride	280	50 *	mg/L	100 12/3/2020 3:24:06 PM	R73788

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Limit

Page 8 of 20

Hall Environmental Analysis	Laboratory, Inc	•		Date Reported: 12/9/2	020
CLIENT: Daniel B. Stephens & Assoc.		Clie	nt Sample I	D: DBS-10	
Project: Salty Dog		Co	ollection Dat	te: 11/21/2020 1:03:00 PM	
Lab ID: 2011C63-009	Matrix: GROUNDW	A R	eceived Dat	te: 11/25/2020 9:08:00 AM	[
Analyses	Result	RL C	Qual Units	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS				Analys	st: JMT
Chloride	620	50	* mg/L	100 12/3/2020 4:15:37 PN	I R73788

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits P Sample pH Not In Range RL Reporting Limit

Page 9 of 20

Hall Environmental Analysis	s Laboratory, II	nc.			Date Reported: 12/9/20	20
CLIENT: Daniel B. Stephens & Assoc.		Cli	ent San	ple II	D:PMW-1	
Project: Salty Dog		C	ollectio	n Dat	e: 11/21/2020 3:10:00 PM	
Lab ID: 2011C63-010	Matrix: GROUNE	OWA 1	Receive	d Dat	e: 11/25/2020 9:08:00 AM	
Analyses	Result	RL	Qual U	J nits	DF Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: JMT
Chloride	8200	500	* n	ng/L	1E+ 12/3/2020 4:28:29 PM	R73788

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
 J Analyte detected below quantitation limits
 Sample pH Not In Range
 RL Reporting Limit

Page 10 of 20

Hall Environmental Analysis	Laboratory, Inc.				Date Reported: 12/9/2020
CLIENT: Daniel B. Stephens & Assoc.		Cli	ent Sa	mple I	D: MW-5
Project: Salty Dog		С	ollect	ion Dat	te: 11/21/2020 2:38:00 PM
Lab ID: 2011C63-011	Matrix: GROUNDW	A I	Receiv	ved Dat	te: 11/25/2020 9:08:00 AM
Analyses	Result	RL	Qual	Units	DF Date Analyzed Batch
EPA METHOD 300.0: ANIONS					Analyst: JMT
Chloride	710	50	*	mg/L	100 12/3/2020 5:07:06 PM R73788

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D
 Sample Diluted Due to Matrix

 H
 Holding times for preparation or analysis exceeded

 ND
 Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
 J Analyte detected below quantitation limits
 Sample pH Not In Range
 RL Reporting Limit

Page 11 of 20

Analytical Report
Lab Order 2011C63

Date Reported: 12/9/2020

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Daniel B. Stephens & Assoc. **Project:** Salty Dog

2011C63-012

Lab ID:

Client Sample ID: MW-3 Collection Date: 11/21/2020 5:20:00 PM

 Matrix: GROUNDWA
 Received Date: 11/25/2020 9:08:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY						Analyst	JRR
Specific Gravity	1.004	0			1	12/3/2020 11:34:00 AM	R73754
EPA METHOD 300.0: ANIONS						Analyst	JMT
Fluoride	ND	1.0		mg/L	10	12/3/2020 5:19:58 PM	R73788
Chloride	7100	250	*	mg/L	500) 12/4/2020 11:14:11 PM	A73821
Nitrogen, Nitrite (As N)	ND	1.0	Н	mg/L	10	12/3/2020 5:19:58 PM	R73788
Bromide	2.5	1.0		mg/L	10	12/3/2020 5:19:58 PM	R73788
Nitrogen, Nitrate (As N)	2.8	1.0	Н	mg/L	10	12/3/2020 5:19:58 PM	R73788
Phosphorus, Orthophosphate (As P)	ND	5.0	Н	mg/L	10	12/3/2020 5:19:58 PM	R73788
Sulfate	340	5.0	*	mg/L	10	12/3/2020 5:19:58 PM	R73788
SM2510B: SPECIFIC CONDUCTANCE						Analyst	МН
Conductivity	22000	50		µmhos/c	5	12/7/2020 10:37:53 AM	R73841
SM2320B: ALKALINITY						Analyst	МН
Bicarbonate (As CaCO3)	239.7	20.00		mg/L Ca	1	11/30/2020 1:58:20 PM	R73676
Carbonate (As CaCO3)	ND	2.000		mg/L Ca	1	11/30/2020 1:58:20 PM	R73676
Total Alkalinity (as CaCO3)	239.7	20.00		mg/L Ca	1	11/30/2020 1:58:20 PM	R73676
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst	KS
Total Dissolved Solids	12100	20.0	*	mg/L	1	11/30/2020 10:52:00 AN	1 56674
SM4500-H+B / 9040C: PH						Analyst	МН
рН	7.34		Н	pH units	1	11/30/2020 1:58:20 PM	R73676
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst	JLF
Calcium	1000	100		mg/L	100) 12/2/2020 2:50:15 PM	56708
Magnesium	160	5.0		mg/L	5	12/2/2020 2:19:00 PM	56708
Potassium	16	5.0		mg/L	5	12/2/2020 2:19:00 PM	56708
Sodium	3100	100		mg/L	100) 12/2/2020 2:50:15 PM	56708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

*

- Value exceeds Maximum Contaminant Level. Sample Diluted Due to Matrix
- D Sample Diluted Due to MatrixH Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 12 of 20

Analytical Report
Lab Order 2011C63

Date Reported: 12/9/2020

Hall Environmental Analysis Laboratory, Inc.

 CLIENT: Daniel B. Stephens & Assoc.
 Client Sample ID: Brine

 Project: Salty Dog
 Collection Date: 11/21/2020 3:30:00 PM

 Lab ID: 2011C63-013
 Matrix: GROUNDWA
 Received Date: 11/25/2020 9:08:00 AM

 Analyses
 Result
 RL
 Ougl Units
 DE
 Date Analyzed

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
SPECIFIC GRAVITY						Analyst	JRR
Specific Gravity	1.205	0			1	12/3/2020 11:34:00 AM	R73754
EPA METHOD 300.0: ANIONS						Analyst	: JMT
Chloride	200000	10000	*	mg/L	2E+	- 12/4/2020 11:27:04 PM	A73821
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst	KS
Total Dissolved Solids	376000	2000	*D	mg/L	1	11/30/2020 10:52:00 A	M 56674
SM4500-H+B / 9040C: PH						Analyst	: MH
рН	7.16		Н	pH units	1	11/30/2020 2:12:12 PM	R73676
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst	: JLF
Sodium	82000	1000		mg/L	1E+	- 12/2/2020 2:52:00 PM	56708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 13 of 20

Analytical Report
Lab Order 2011C63

Date Reported: 12/9/2020

Hall Environmental Analysis Laboratory, Inc.

 CLIENT: Daniel B. Stephens & Assoc.
 Client Sample ID: Injection

 Project: Salty Dog
 Collection Date: 11/21/2020 3:39:00 PM

 Lab ID: 2011C63-014
 Matrix: GROUNDWA
 Received Date: 11/25/2020 9:08:00 AM

 Analyses
 Result
 RL Qual Units
 DF Date Analyzed
 Batch

SPECIFIC GRAVITY						Analyst: JRR
Specific Gravity	1.022	0			1	12/3/2020 11:34:00 AM R73754
EPA METHOD 300.0: ANIONS						Analyst: JMT
Chloride	930	50	*	mg/L	100	12/3/2020 6:50:09 PM R73788
SM2540C MOD: TOTAL DISSOLVED SOLIDS						Analyst: KS
Total Dissolved Solids	1840	20.0	*	mg/L	1	11/30/2020 10:52:00 AM 56674
SM4500-H+B / 9040C: PH						Analyst: MH
рН	8.00		Н	pH units	1	11/30/2020 2:19:38 PM R73676
EPA 6010B: TOTAL RECOVERABLE METALS						Analyst: JLF
Sodium	530	10		mg/L	10	12/2/2020 2:38:20 PM 56708

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:

- * Value exceeds Maximum Contaminant Level.D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 14 of 20



ANALYTICAL REPORT

L1290945

December 07, 2020

Hall Environmental Analysis Laboratory

Sample Delivery Group:

Samples Received:

12/01/2020

Description:

Project Number:

Report To:

Jackie Bolte 4901 Hawkins NE Albuquerque, NM 87109

Тс Ss Cn Sr ʹQc Gl A Sc

Entire Report Reviewed By: John V Haulins

John Hawkins Project Manager

Results relate only to the items tested or calibrated and are reported as rounded values. This test report shall not be reproduced, except in full, without written approval of the laboratory. Where applicable, sampling conducted by Pace Analytical National is performed per guidance provided in laboratory standard operating procedures ENV-SOP-MTJL-0067 and ENV-SOP-MTJL-0068. Where sampling conducted by the customer, results relate to the accuracy of the information provided, and as the samples are received.

PROJECT:

SDG: L1290945

DATE/TIME: 12/07/20 11:24

TABLE OF CONTENTS

	*	
1	Cn	

Ss

Cn

Sr

Qc

GI

ΆI

Sc

Cp: Cover Page	1
Tc: Table of Contents	2
Ss: Sample Summary	3
Cn: Case Narrative	4
Sr: Sample Results	5
2011C63-012C MW-3 L1290945-01	5
Qc: Quality Control Summary	6
Wet Chemistry by Method 2580	6
GI: Glossary of Terms	7
Al: Accreditations & Locations	8
Sc: Sample Chain of Custody	9

PAGE: 2 of 9

SDG: L1290945 DATE/TIME: 12/07/20 11:24

F

SAMPLE SUMMARY

ONE LAB. NATIONWIDE.

			Collected by	Collected date/tim	e Received da	te/time
2011C63-012C MW-3 L1290945-01 GW				11/21/20 17:20	12/01/20 09:	30
Method	Batch	Dilution	Preparation	Analysis	Analyst	Location
			date/time	date/time		
Wet Chemistry by Method 2580	WG1585185	1	12/05/20 12:17	12/05/20 12:17	LRP	Mt. Juliet, TN

TC
³ Ss
⁴ Cn
⁵ Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

*

Ср

Тс

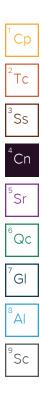
CASE NARRATIVE

*

All sample aliquots were received at the correct temperature, in the proper containers, with the appropriate preservatives, and within method specified holding times, unless qualified or notated within the report. Where applicable, all MDL (LOD) and RDL (LOQ) values reported for environmental samples have been corrected for the dilution factor used in the analysis. All Method and Batch Quality Control are within established criteria except where addressed in this case narrative, a non-conformance form or properly qualified within the sample results. By my digital signature below, I affirm to the best of my knowledge, all problems/anomalies observed by the laboratory as having the potential to affect the quality of the data have been identified by the laboratory, and no information or data have been knowingly withheld that would affect the quality of the data.

John V Hankins

John Hawkins Project Manager



SDG: L1290945 DATE/TIME: 12/07/20 11:24

SAMPLE RESULTS - 01

ONE LAB. NATIONWIDE.

*

Wet Chemistry by Method 2580

	- ,					_ [' c	~ 1
	Result	Qualifier	Dilution	Analysis	Batch	- \	- 4
Analyte	mV			date / time		2	
ORP	217		1	12/05/2020 12:17	<u>WG1585185</u>	T	Гс

³ Ss
⁴ Cn
⁵Sr
⁶ Qc
⁷ Gl
⁸ Al
⁹ Sc

WG1585185

QUALITY CONTROL SUMMARY

ONE LAB. NATIONWIDE.

Wet Chemistry by Method 2580

L1290945-01 Original Sample (OS) • Duplicate (DUP)

(OS) L1290945-01 12/05/2	(OS) L1290945-01 12/05/20 12:17 • (DUP) R3600635-3 12/05/20 12:17							
	Original Result DUP Result Dilution DUP Diff <u>DUP Qualifier</u> DUP Diff Limits							
Analyte	mV	mV		mV		mV		
ORP	217	205	1	12.2		20		

Laboratory Control Sample (LCS) • Laboratory Control Sample Duplicate (LCSD)

(LCS) R3600635-1 12/05/20 12:17 • (LCSD) R3600635-2 12/05/20 12:17										
	Spike Amount	LCS Result	LCSD Result	LCS Rec.	LCSD Rec.	Rec. Limits	LCS Qualifier	LCSD Qualifier	Diff	Diff Limits
Analyte	mV	mV	mV	%	%	%			mV	mV
ORP	228	225	225	98.8	98.5	86.0-105			0.700	20

DATE/TIME: 12/07/20 11:24

PAGE: 6 of 9

GLOSSARY OF TERMS

*

Τс

Ss

Cn

Sr

Qc

GI

AI

Sc

Guide to Reading and Understanding Your Laboratory Report

The information below is designed to better explain the various terms used in your report of analytical results from the Laboratory. This is not intended as a comprehensive explanation, and if you have additional questions please contact your project representative.

Results Disclaimer - Information that may be provided by the customer, and contained within this report, include Permit Limits, Project Name, Sample ID, Sample Matrix, Sample Preservation, Field Blanks, Field Spikes, Field Duplicates, On-Site Data, Sampling Collection Dates/Times, and Sampling Location. Results relate to the accuracy of this information provided, and as the samples are received.

Abbreviations and Definitions

Rec.	Recovery.
RPD	Relative Percent Difference.
SDG	Sample Delivery Group.
Analyte	The name of the particular compound or analysis performed. Some Analyses and Methods will have multiple analytes reported.
Dilution	If the sample matrix contains an interfering material, the sample preparation volume or weight values differ from the standard, or if concentrations of analytes in the sample are higher than the highest limit of concentration that the laboratory can accurately report, the sample may be diluted for analysis. If a value different than 1 is used in this field, the result reported has already been corrected for this factor.
Limits	These are the target % recovery ranges or % difference value that the laboratory has historically determined as normal for the method and analyte being reported. Successful QC Sample analysis will target all analytes recovered or duplicated within these ranges.
Original Sample	The non-spiked sample in the prep batch used to determine the Relative Percent Difference (RPD) from a quality control sample. The Original Sample may not be included within the reported SDG.
Qualifier	This column provides a letter and/or number designation that corresponds to additional information concerning the result reported. If a Qualifier is present, a definition per Qualifier is provided within the Glossary and Definitions page and potentially a discussion of possible implications of the Qualifier in the Case Narrative if applicable.
Result	The actual analytical final result (corrected for any sample specific characteristics) reported for your sample. If there was no measurable result returned for a specific analyte, the result in this column may state "ND" (Not Detected) or "BDL" (Below Detectable Levels). The information in the results column should always be accompanied by either an MDL (Method Detection Limit) or RDL (Reporting Detection Limit) that defines the lowest value that the laboratory could detect or report for this analyte.
Uncertainty (Radiochemistry)	Confidence level of 2 sigma.
Case Narrative (Cn)	A brief discussion about the included sample results, including a discussion of any non-conformances to protocol observed either at sample receipt by the laboratory from the field or during the analytical process. If present, there will be a section in the Case Narrative to discuss the meaning of any data qualifiers used in the report.
Quality Control Summary (Qc)	This section of the report includes the results of the laboratory quality control analyses required by procedure or analytical methods to assist in evaluating the validity of the results reported for your samples. These analyses are not being performed on your samples typically, but on laboratory generated material.
Sample Chain of Custody (Sc)	This is the document created in the field when your samples were initially collected. This is used to verify the time and date of collection, the person collecting the samples, and the analyses that the laboratory is requested to perform. This chain of custody also documents all persons (excluding commercial shippers) that have had control or possession of the samples from the time of collection until delivery to the laboratory for analysis.
Sample Results (Sr)	This section of your report will provide the results of all testing performed on your samples. These results are provided by sample ID and are separated by the analyses performed on each sample. The header line of each analysis section for each sample will provide the name and method number for the analysis reported.
Sample Summary (Ss)	This section of the Analytical Report defines the specific analyses performed for each sample ID, including the dates and times of preparation and/or analysis.
Qualifier	Description
	The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG

The remainder of this page intentionally left blank, there are no qualifiers applied to this SDG.

SDG: L1290945

ACCREDITATIONS & LOCATIONS

Pace National is the only environmental laboratory accredited/certified to support your work nationwide from one location. One phone call, one point of contact, one laboratory. No other lab is as accessible or prepared to handle your needs throughout the country. Our capacity and capability from our single location laboratory is comparable to the collective totals of the network laboratories in our industry. The most significant benefit to our one location design is the design of our laboratory campus. The model is conducive to accelerated productivity, decreasing turn-around time, and preventing cross contamination, thus protecting sample integrity. Our focus on premium quality and prompt service allows us to be YOUR LAB OF CHOICE.
* Not all certifications held by the laboratory are applicable to the results reported in the attached report.
* Accreditation is only applicable to the test methods specified on each scope of accreditation held by Pace National.

State Accreditations

Alabama	40660	Nebras
Alaska	17-026	Nevada
Arizona	AZ0612	New Ha
Arkansas	88-0469	New Je
California	2932	New Me
Colorado	TN00003	New Yo
Connecticut	PH-0197	North C
Florida	E87487	North C
Georgia	NELAP	North C
Georgia ¹	923	North D
Idaho	TN00003	Ohio-V
Illinois	200008	Oklaho
Indiana	C-TN-01	Oregon
lowa	364	Pennsy
Kansas	E-10277	Rhode
Kentucky ¹⁶	90010	South C
Kentucky ²	16	South D
Louisiana	AI30792	Tennes
Louisiana ¹	LA180010	Texas
Maine	TN0002	Texas ⁵
Maryland	324	Utah
Massachusetts	M-TN003	Vermon
Michigan	9958	Virginia
Minnesota	047-999-395	Washin
Mississippi	TN00003	West Vi
Missouri	340	Wiscons
Montana	CERT0086	Wyomir

Nebraska	NE-OS-15-05
Nevada	TN-03-2002-34
New Hampshire	2975
New Jersey–NELAP	TN002
New Mexico ¹	n/a
New York	11742
North Carolina	Env375
North Carolina ¹	DW21704
North Carolina ³	41
North Dakota	R-140
Ohio-VAP	CL0069
Oklahoma	9915
Oregon	TN200002
Pennsylvania	68-02979
Rhode Island	LAO00356
South Carolina	84004
South Dakota	n/a
Tennessee ¹⁴	2006
Texas	T104704245-18-15
Texas ⁵	LAB0152
Utah	TN00003
Vermont	VT2006
Virginia	460132
Washington	C847
West Virginia	233
Wisconsin	9980939910
Wyoming	A2LA

Third Party Federal Accreditations

A2LA – ISO 17025	1461.01	AIHA-LAP,LLC EMLAP	100789
A2LA – ISO 17025 5	1461.02	DOD	1461.01
Canada	1461.01	USDA	P330-15-00234
EPA-Crypto	TN00003		

¹ Drinking Water ² Underground Storage Tanks ³ Aquatic Toxicity ⁴ Chemical/Microbiological ⁵ Mold ⁶ Wastewater n/a Accreditation not applicable

Our Locations

Hall Environmental Analysis Laboratory

Pace National has sixty-four client support centers that provide sample pickup and/or the delivery of sampling supplies. If you would like assistance from one of our support offices, please contact our main office. Pace National performs all testing at our central laboratory.



L1290945

PAGE: 8 of 9

12/07/20 11:24

Τс Ss Cn Sr Qc Gl AI Sc

SUB CONTRATOR: Pace TN	COMPA	NY: PACE	TN		PI	HONE:	(800) 76	7-5859 FAX		(615) 758-58	859
ADDRESS: 12065 Leb:	anon Rd				A	ACCOUNT #:		EMA	JIL:		
CITY, STATE, ZIP: Mt. Juliet,	TN 37122					·注:《 · · · · · · · · · · · · · · · · · · ·			<u>.</u>		
ITEM SAMPLE	CLIENT SAMPLE ID		BOTTLE TYPE	MATRIX	D	ECTION DATE	# CONTAINERS	ANALY	TICAI	L COMMI	
1 2011C63-012C MW-	3	4	125HDP	Groundw 1	1/21/2020	5:20:00 PM	1 ORP			12	-90945-c1
											-10993 - 21
SPECIAL INSTRUCTIONS / COMM		a 999	8 64	128			COC Bot Cor Suf RAI	Seal Present/Intact Signed/Accurate: tles arrive intact: rect bottles used: ficient volume sent Screen <0.5 mR/hr:		ot Checklist I If Ap I VOA Zero He V Pres.Correc N	oplicable eadspace: _Y_N ct/Check: _Y_N
Please include the LAB ID a	nd the CLIENT SAMPLI			anna an anna an Tharainn an Anna		1	COC Bot Cor Suf RAI	Seal Present Intact Signed/Accurate: tiles arrive intact: rect bottles used: ficient volume sent Screen <0.5 mR/hr: return all coolers and blue	.: 97 77	ot <u>Checklist</u> I If Ap I VOA Zero He V Pres.Correc N N	oplicable padspace: _YN ct/Check: _Y_N
	nd the CLIENT SAMPLI	2 9999 Did final rep D:47 AM Received By Received By		anna an anna an Tharainn an Anna	1110	nvironmental	Coc Bot Cor Suf RAI .com. Please	Seal Present Intact Signed/Accurate: tiles arrive intact: rect bottles used: ficient volume sent Screen <0.5 mR/hr: return all coolers and blue	.: 97 77	ot Checklist I If Ap I VOA Zero He V Pres.Correc N N S you.	oplicable eadspace: _Y_N ct/Check: _Y_M

WO#:	2011C63
	09-Dec-20

Client: Daniel	B. Stephens	& Asso	NC .							
Project: Salty I	-	& A\$\$0	<i>.</i>							
	-									
Sample ID: MB	SampT	ype: mb	olk	Tes	tCode: E	PA Method	300.0: Anions	;		
Client ID: PBW	Batcl	n ID: R7	3788	F	RunNo: 73788					
Prep Date:	Analysis D	ate: 12	2/3/2020	\$	SeqNo: 2	601130	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	ND	0.10								
Chloride	ND	0.50								
Nitrogen, Nitrite (As N)	ND	0.10								
Bromide	ND	0.10								
Nitrogen, Nitrate (As N)	ND	0.10								
Phosphorus, Orthophosphate (As I	P ND	0.50								
Sulfate	ND	0.50								
Sample ID: LCS	SampT	ype: Ics	5	Tes	tCode: E	PA Method	300.0: Anions	5		
Client ID: LCSW	Batcl	n ID: R7	3788	F	RunNo: 7	3788				
Prep Date:	Analysis D	ate: 12	2/3/2020	Ş	SeqNo: 2	601131	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Fluoride	0.50	0.10	0.5000	0	101	90	110			
Chloride	4.7	0.50	5.000	0	94.9	90	110			
Nitrogen, Nitrite (As N)	0.97	0.10	1.000	0	96.7	90	110			
Bromide	2.5	0.10	2.500	0	99.3	90	110			
Nitrogen, Nitrate (As N)	2.5	0.10	2.500	0	99.6	90	110			
Phosphorus, Orthophosphate (As I	P 4.7	0.50	5.000	0	94.2	90	110			
Sulfate	9.7	0.50	10.00	0	97.3	90	110			
Sample ID: MB	SampT	ype: m t	olk	Tes	tCode: E	PA Method	300.0: Anions	5		
Client ID: PBW	Batcl	n ID: A7	3821	F	RunNo: 7	3821				
Prep Date:	Analysis D	ate: 12	2/4/2020	5	SeqNo: 2	602523	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								
Sample ID: LCS	SampT	ype: Ics	;	Tes	tCode: E	PA Method	300.0: Anions	5		
Client ID: LCSW	Batcl	n ID: A7	3821	F	RunNo: 7	3821				
Prep Date:	Analysis D	ate: 12	2/4/2020	Ş	SeqNo: 2	602524	Units: mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.8	0.50	5.000	0	95.5	90	110			

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 15 of 20

Analysis Date: 12/7/2020

10

99.20

Qual

Client:	Daniel B. Stephens & Assoc.					
Project:	t: Salty Dog					
Sample ID: Ics	-1 99.2uS eC	SampType: Ics				
Client ID: LC	SW	Batch ID: R73841				

Result

100

TestCode: SM2510B: Specific Conductance RunNo: 73841

85

Units: µmhos/cm

115

%RPD

RPDLimit

HighLimit

SeqNo: 2604113

102

PQL SPK value SPK Ref Val %REC LowLimit

0

Qualifiers:

Prep Date:

Analyte

Conductivity

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 16 of 20

WO#:	2011C63
	09-Dec-20

Client: Project:	Daniel B Salty Do	3. Stephens	& Asso	с.								
Sample ID:	MB-56708	SampT	ype: ME	BLK	Tes	TestCode: EPA 6010B: Total Recoverable Metals						
Client ID:	PBW	Batch	n ID: 56	708	F	RunNo: 7	3731					
Prep Date:	11/30/2020	Analysis D	ate: 12	2/2/2020	S	SeqNo: 2	598881	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Calcium		ND	1.0									
Magnesium		ND	1.0									
Potassium		ND	1.0									
Sodium		ND	1.0									
Sample ID:	LCS-56708	SampT	ype: LC	s	Tes	tCode: El	PA 6010B: "	Total Recover	able Meta	als		
Client ID:	LCSW	Batch	n ID: 567	708	F	RunNo: 7	3731					
Prep Date:	11/30/2020	Analysis D	ate: 12	2/2/2020	S	SeqNo: 2	598883	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Calcium		49	1.0	50.00	0	98.7	80	120				
Magnesium		49	1.0	50.00	0	97.3	80	120				
Potassium		48	1.0	50.00	0	96.7	80	120				
Sodium		48	1.0	50.00	0	96.0	80	120				
Sample ID:	2011C63-012BM	S SampT	ype: MS	;	Tes	tCode: El	PA 6010B: "	Total Recover	able Meta	als		
Client ID:	MW-3	Batch	n ID: 56	708	F	RunNo: 7	3731					
Prep Date:	11/30/2020	Analysis D	ate: 12	2/2/2020	S	SeqNo: 2	598895	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Magnesium		210	5.0	50.00	161.2	92.8	75	125				
Potassium		65	5.0	50.00	16.28	97.6	75	125				
Sample ID:	2011C63-012BMS	SD SampT	уре: МS	D	Tes	tCode: E	PA 6010B: "	Total Recover	able Meta	als		
Client ID:	MW-3	Batch	n ID: 56	708	F	RunNo: 7	3731					
Prep Date:	11/30/2020	Analysis D	ate: 12	2/2/2020	S	SeqNo: 2	598896	Units: mg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Magnesium		200	5.0	50.00	161.2	79.6	75	125	3.25	20		
Potassium		63	5.0	50.00	16.28	94.1	75	125	2.78	20		

Qualifiers:

* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quanitative Limit

S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Limit

Page 17 of 20

Tuge I/ (

WO#:	2011C63
	09-Dec-20

Client: Project:	Daniel B. Steph Salty Dog	ens & As	soc.							
Sample ID: mb-1	alk Sa	mpType: r	nblk	Tes	tCode: SM	2320B: Al	kalinity			
Client ID: PBW	E	atch ID: F	R73676	F	RunNo: 736	676				
Prep Date:	Analy	is Date:	11/30/2020	S	SeqNo: 259	96698	Units: mg/L	CaCO3		
Analyte	Res	lt PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaC	O3) N	D 20.0	0							
Sample ID: Ics-1	alk Sa	mpType: I	cs	Tes	tCode: SM	2320B: Al	kalinity			
Client ID: LCSW	<i>ı</i> 1	atch ID: F	R73676	F	RunNo: 736	676				
Prep Date:	Analy	is Date:	11/30/2020	5	SeqNo: 259	96699	Units: mg/L	CaCO3		
Analyte	Res	lt PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Alkalinity (as CaC	03) 77.2	8 20.0	0 80.00	0	96.6	90	110			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 18 of 20

Daniel B. Stephens & Assoc.

WO#: 2011C63 09-Dec-20

Project:	Salty Dog										
Sample ID:	2011C63-014ADUF	SampType	e: Dl	JP	Tes	tCode: S	pecific Grav	vity			
Client ID:	Injection	Batch ID): R7	3754	F	RunNo: 7	3754				
Prep Date:		Analysis Date	e: 12	2/3/2020	5	SeqNo: 2	599795	Units:			
Analyte		Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Specific Gravit	у	0.9954	0						2.64	20	

Qualifiers:

Client:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 19 of 20

WO#:	2011C63
	09-Dec-20

Client: Project:	Daniel B. Ste Salty Dog	ephens &	Asso	ю.							
Sample ID: MB-566					TestCode: SM2540C MOD: Total Dissolved Solids						
Client ID: PBW		Batch I	D: 56	674	F	RunNo: 73	3663				
Prep Date: 11/26/	'2020 An	alysis Dat	te: 11	/30/2020	5	SeqNo: 2	596407	Units: mg/L			
Analyte	R	lesult	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids		ND	20.0								
Sample ID: LCS-56	674	SampTyp	be: LC	S	Tes	tCode: SN	12540C MC	D: Total Diss	olved So	lids	
Client ID: LCSW		Batch I	D: 56	674	F	RunNo: 73	3663				
Prep Date: 11/26/	2020 An	alysis Dat	te: 11	1/30/2020	5	SeqNo: 25	596408	Units: mg/L			
Analyte	R	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Total Dissolved Solids		1010	20.0	1000	0	101	80	120			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

Page 20 of 20

ANAL	RONMENTAL	Hall Environm TEL: 505-345- Website: clien	490 Albuquero 3975 FAX:	01 Hawkins pue, NM 87 505-345-4	NE 109 San 107	nple Log-In Check List
Client Name:	Daniel B. Stephens & Assoc.	Work Order Nun	nber: 201	1C63		RcptNo: 1
Received By:	Juan Rojas	11/25/2020 9:08:0	0 AM		flans g	
Completed By:	Emily Mocho	11/25/2020 10:32:	04 AM			
Reviewed By:	SPA 11.25.20					
Chain of Cus	stody					
1. Is Chain of C	sustody complete?		Yes		No 🗌	Not Present
2. How was the	sample delivered?		UPS			
Log In						
3. Was an atter	npt made to cool the sample	s?	Yes		No 🗌	
4. Were all sam	ples received at a temperatu	re of >0° C to 6.0°C	Yes	~	No 🗌	
5. Sample(s) in	proper container(s)?		Yes		No 🗌	
6. Sufficient san	nple volume for indicated tes	t(s)?	Yes		No 🗌	
7. Are samples	(except VOA and ONG) prop	erly preserved?	Yes		No 🗌	
8. Was preserva	ative added to bottles?		Yes		No 🗹	NA 🗌
9. Received at le	east 1 vial with headspace <1	1/4" for AQ VOA?	Yes		No 🗌	NA 🗹
10. Were any sar	mple containers received bro	ken?	Yes		No 🔽	# of preserved bottles checked
	ork match bottle labels? ancies on chain of custody)		Yes		No 🗌	for pH:
2. Are matrices	correctly identified on Chain	of Custody?	Yes		No 🗌	Adjusted? NO
	t analyses were requested?		Yes	\checkmark	No 🗌	
	ing times able to be met? ustomer for authorization.)		Yes	\checkmark	No 🗌	Checked by: SGL 11/25/20
Special Handl	ling (if applicable)					
15. Was client no	otified of all discrepancies wit	h this order?	Yes		No 🗌	NA 🔽
Person	Notified:	Date	e [
By Who	om:	Via:	🗌 eM	ail 🗌 Ph	one 🗌 Fax	In Person
Regard						
	nstructions:					
16. Additional re	marks:					
17. Cooler Infor		Cool Intent Cool II	0			
Cooler No	Temp °C Condition	Seal Intact Seal No	Seal D	ate S	Signed By	

Client: Daniel B Stephers + Associat	Turn-Around Time: Standard	HALL ENVIRONMENTAL ANALYSIS LABORATORY
Mailing Address: ARD Office	Salty Dog	www.hallenvironmental.com
	Project #:	4901 Hawkins NE - Albuquerque, NM 87109 Tel. 505-345-3975 Fax 505-345-4107
Phone #: 505-822-9400	DBA. 1198.00	Analysis Request
email or Fax#: <u>SAystec</u> , <u>gfor lagic</u> , <u>Co</u> QA/QC Package: Standard Level 4 (Full Validation)	John Ayasbe	BTEX / MTBE / TMB's (8021) TPH:8015D(GRO / DRO / MRO) 8081 Pesticides/8082 PCB's EDB (Method 504.1) PAHs by 8310 or 8270SIMS RCRA 8 Metals CI, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄ 8260 (VOA) 8270 (Semi-VOA) Total Coliform (Present/Absent) OI or I O 300. O
Accreditation:	Sampler: Work Morgan	TMB's 7 DR0 8082 P(8082 P(8082 P(8082 P(8082 P(1) 1) 1) 102, P(1) 102, P(1) 102, P(1)
□ NELAC □ Other □ EDD (Type)	On Ice: Ves C I No # of Coolers:	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
	Cooler Temp(including CF): 1, 1-+6-1=1. Z (°C)	1 MTB 8015D(G Method Br, NC (VOA) (VOA) (Semi-V Coliform
Date Time Matrix Sample Name	Container Preservative HEAL No. Type and # Type 2011Cu3	BTEX / MTBE / TMB TPH:8015D(GRO / DR 8081 Pesticides/8082 8081 Pesticides/8082 EDB (Method 504.1) PAHs by 8310 or 827(RCRA 8 Metals CI, F, Br, NO ₃ , NO ₂ , 8260 (VOA) 8270 (Semi-VOA) 10tal Coliform (Presen
11:21-20 1031 GW DB5-1R.	1 Poly N/A 001	
10954 1 DB5-2 -	002	
0933 DB5-3	003	
104 DB5-4	004	
0906 NBS-5	005	
1229 DB5 - 6 V	006	
1202 DB5-8 1	007	
1135 DB5-9	008	X X
1303 005-10	009	
1510 PMW-1	010	
V 1438 V MW-5	× × 011	
Date: Time: Relinguished by	Beceived by: Via: Date Time	Remarks: Dage 10F2
Date: Time: Relinduished by:	Received by: Via: Date Time	

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

C	Chain	-of-C	ustody Record	Turn-Around	d Time:		1															
Client: DBS+A			Standard				ANALYSIS LABORATORY															
	U	<u></u>		Project Nam														R	A I (OF	٤Y	
Mailing	Address	3:		Salt	y Dog			40	04.1			/.hall						1400				
				Project #:		2)5-34		IE -			1							
Phone	#:			DB19.	1198.0	0	1		91. 50	JJ-34	10-38	-	-		-	uest	-410 1	1		÷		
email c	or Fax#:			Project Mana			-	Ô				0	4			lt)	F			0	丹.	8
QA/QC	Package:			5	Ayube	2	TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	PCB's		MS	-				Total Coliform (Present/Absent)	50	0	8	Conduction	arbonet arbonet	SOMB
□ Star	ndard		□ Level 4 (Full Validation)				3's (102			8270SIMS	M	PO C	2		nt/A	R	30.	\sim	le	P	0
	itation:		ompliance	Sampler:	V.Morga		TME	/ DF	Pesticides/8082	504.1)	827		NO ₂ ,	X	(rese	2	5	6010	auc	Ybon	X
	D (Type)	□ Othe	r	On Ice: # of Coolers:	'P-Yes	□ No	E/	GRC	les/	1 50	0 or	als	03,	0	VOA	n (P	-Port	7		3	Bica	3
				 A sub-contraction of the sub-sub-sub-sub-sub-sub-sub-sub-sub-sub-	· (D(including CF): \ \	1+0.1=1.2 (°C)	/ MTBE	5D(0	sticio	EDB (Method	PAHs by 8310	RCRA 8 Metals	Cl, F, Br, NO ₃ ,	T	8270 (Semi-VOA)	liforr	Spechte Genik	only	Sedium	5	RK/	L'X
				Container	Dressmustice	HEAL No.	X	:801	1 Pe	(Me	ls by	KA 8	Ē	8280 (VOA)) (Se	Co	Æ	-	dil	Specific	_ <	mg
Date	Time	Matrix	Sample Name	Type and #	Preservative Type	Zo11063-	BTEX /	TPH	8081	EDE	PAH	RCF	с, т	920	827(Tota	Spe	0	Sa	50	Total	3
11-21-2	1720	GW	mw-3	3 Poly	Varres	UIZ						1	X	X		İ	X	-		X	X	X
1	1530		Brine r	2 Poly		013	-					ľ	*	-	11		X	X	V	P		
V	1539		Injection r	2 Poly	J.	014											X	X	X			
/			0														1	1				-
1			11										T				1.1					-
		2	A	C M																		
			0	10.	q.																	
				(1				
							/	/														
											/	-				-						
														1	/				-			
Date:	Time: 1325	Relinquish	ed by:	Received by:	Via: Store	Date Time	Ren	narks	5: 00			2	0	4	6	2		1				
Date:	Time:	Relinquish	ed by: V	Received by:	Via:	Date Time		1	u	je		0										
				200	tups 1	1/25/20 9:08																

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

Appendix D

Area of Review Evaluation



30-025-26307 - BW-8 Area of Review

SENW (F)	SWNE (G)	SENE (H)	SWNW (E)	SENW (F)	SWNE (G)	SENE (H)	SWNW (E)	SENW (F)	SWNE 30-025-2808	SENE (H)
A <mark>80-025-0397/</mark> A(K) (NWSW (L)	NESW (K) 3	NWSE (J) 2 18S 36E	NESE (L)	NWSW (L)	NESW (K) 33	NWSE (J)	NESE (1)
SESW (N)	SWSE (0)	SESE (P)	SWSW (M)	SESW (N)	SWSE (0)	SESE (P)	SWSW (M)	SESW (N)	SWSE (O)	SESE (P)
L 3 1	L2	L1		L3	L2		L.4	L3	30-025-0	3988 L 1
SENW 1 (F)	SWNE (G)	SENE (H)	SWNW (E)	SENW (F)	SWINE (G)	SENE (H)	SWNW (E)	SENW (F)	SWNE (G)	SENE (H)
NESW (K)	NWSE (J)	NESE (1)	NWSW (L)	NESW (K)	NV 30-02.5+2	6307 NESE (1)	NWSW (L)	NESW (K)	NWSE (J)	NESE (1)
SESW (N)	SWSE (0)	SE:80-025-0 (P) 80-025-4	(M)	SESW (N)	SWSE (0)	SESE (P)	SWSW (M)	SESW (N)	SWSE (0)	80- <u>025-</u> 03987 (P)
NENW (C)	NWNE (B)	NENE (A)	NWNW (D)	NENW (C)	19S 36E NWNE (B)	NENE (A)	NWNW (D)	NENW (C)	NWNE (B)	NENE (A)
SENW (F)	SWINE (G)	SENE (H.)	ŚWNW (E)	SENW (F)	SWNE (G)	SENE (H)	SWNW (E)	(F)	6-23267///NE (G)	SENE (H)
NESW (K)	07 NWSE (J)	NESE (1)	NWSW (L)	NESW (K)	8 NWSE (J)	NESE (1)	NWSW (L)	NESW (K)	NWSE (J)	NESE (1)
SESW (N) 80-025-1) NETW	SWSE (0) JSU0 NWNE (8) 18	SESE (P) NENE	SWSW (M) NWNW	SESW (N) NENW	SWSE (0) NWNE	SESE (P) NENE	SWSW (M) NWNW	SESW. (N) NENW	SWSE (O) NWNE	SESE (P) NENE

3/18/2021, 2:12:02 PM

Wells - Large Scale

- ? undefined
- 0 Miscellaneous
- ¥ CO2, Active
- ⋇ CO2, Cancelled
- ¥ CO2, New
- ¥ CO2, Plugged
- ¥ CO2, Temporarily Abandoned
- ☆ Gas, Active
- 崇 Gas, Cancelled
- ☆ Gas, New
- ☆ Gas, Plugged
- 杂 Gas, Temporarily Abandoned

Injection, Active

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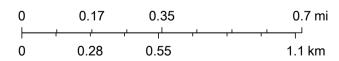
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- Injection, Cancelled
- Injection, New
- ø Injection, Plugged
 - Injection, Temporarily Abandoned 6
 - Oil, Active
 - Oil, Cancelled
- ٠ Oil, New
- Oil, Plugged
- Oil, Temporarily Abandoned
- ۵ Salt Water Injection, Active
- \triangle Salt Water Injection, Cancelled

- ۵ Salt Water Injection, New
- Δ Salt Water Injection, Plugged
- Salt Water Injection, Temporarily Abandoned
- ۵ Water, Active
- Water, Cancelled

٠

- ۵ Water, New
- Water, Plugged
- Water, Temporarily Abandoned ٠
- ★ **OCD** District Offices
- PLSS First Division
- PLSS Second Division 12.2
- PLSS Townships



Oil Conservation Division of the New Mexico Energy, Minerals and Natural Resources Department., USDA FSA, GeoEye, Maxar, OCD, Esri, HERE, Garmin, iPC, BLM

New Mexico Oil Conservation Division

NM OCD Oil and Gas Map. http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=4d017f2306164de29fd2fb9f8f35ca75: New Mexico Oil Conservation Division

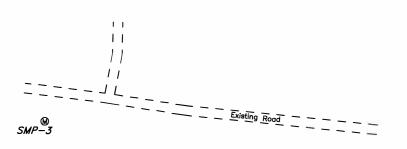
Appendix E

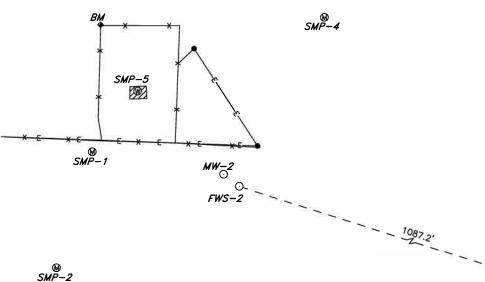
2020 Survey Data for Land Surface Subsidence Monitoring



SECTION 5, TOWNSHIP 19 SOUTH, RANGE 36 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.







		ALL	COORDINATES /	ALL DAGED ON IN			
NAME	SECTION CALLS	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION TOP CASING	ELEVATION CONCRETE
SMP-1	2153' FSL & 2020' FEL	615475.977	836301.437	N32°41'17.960"	W103 ° 22'28.520"	3810.10'	3810.38'
SMP-2	2032' FSL & 2058' FEL	615354.850	836264.338	N32*41'16.795"	W103°22'28.966"	3809.00'	3809.41'
SMP-3	2350' FSL & 2089' FEL	615673.004	836230.083	N32*41'19.945"	W103 ° 22'29.334"	3808.81'	3809.18'
SMP-4	2291' FSL & 1776' FEL	615615.830	836543.487	N32*41'19.352"	W103*22'25.673"	3806.32'	3806.72'
SMP-5	2216' FSL & 1972' FEL	615539.029	836348.733	N32*41'18.609"	W103°22'27.960"	3811.72'	
DBS-9	2520' FSL & 1831' FEL	615844.539	836485.906	N32*41'21.593"	W103°22'26.317"	3805.66'	3802.94'
DBS-10	1389' FSL & 1060' FEL	614720.368	837270.028	N32*41'10.428"	W103*22'17.269"	3807.48'	3805.44'
BENCH MARK		615608.14	836310.07	N32°41'19.27"	W103*22'28.40"	3808.62'	
		9		6			1

ALL COORDINATES ARE BASED ON NMSPCE (NAD83)

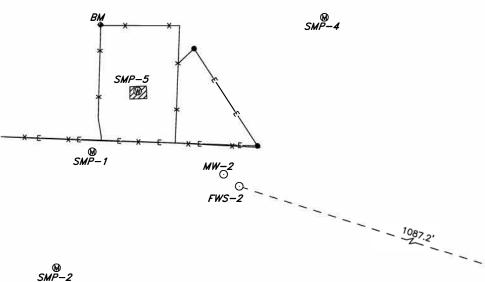
`____ DBS−10

I HEREBY CERTIC MAT THIS PLAT WAS PREPARED	200 0 200 400 FEET
MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.	DANIEL B. STEPHENS & ASSOCIATES, INC
	REF: SALTY DOG BRINE FACILITY
GARY L. JONES	MONITOR WELLS AND SUBSIDENCE MONITORING POINTS LOCATED IN SECTION 5, TOWNSHIP 19 SOUTH, RANGE 36 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.
in the olifield Hobbs, New Mexico 88241 basinsurveys.com W.O. Number: 35139 Drawn By: K. GOAD Date: 07-	-22-2020 Survey Date: 07-20-2020 Sheet 1 of 1 Sheets

SECTION 5, TOWNSHIP 19 SOUTH, RANGE 36 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.







		ALL	COORDINATES /	ALL DAGED ON IN			
NAME	SECTION CALLS	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEVATION TOP CASING	ELEVATION CONCRETE
SMP-1	2153' FSL & 2020' FEL	615475.977	836301.437	N32°41'17.960"	W103 ° 22'28.520"	3810.10'	3810.38'
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		9		6			1

ALL COORDINATES ARE BASED ON NMSPCE (NAD83)

`____ DBS−10

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED	200 0 200 400 FEET
MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.	DANIEL B. STEPHENS & ASSOCIATES, INC
THE CAL	REF: SALTY DOG BRINE FACILITY
GARY L. JONE GARY L. JONE FOCUSED ON EXCEPTION OF THE STATE OF THE S	MONITOR WELLS AND SUBSIDENCE MONITORING POINTS LOCATED IN SECTION 5, TOWNSHIP 19 SOUTH, RANGE 36 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.
W.O. Number: 35229 Drawn By: K. GOAD Date: 11-	25-2020 Survey Date: 11-24-2020 Sheet 1 of 1 Sheets