

west virginia department of environmental protection

Office of Oil and Gas 601 57th Street, S.E. Charleston, WV 25304 (304) 926-0450 fax: (304) 926-0452

Harold D. Ward, Cabinet Secretary www.dep.wv.gov

Friday, February 5, 2021 WELL WORK PLUGGING PERMIT Vertical Plugging

EAGLE NATRIUM LLC POST OFFICE BOX 191 NEW MARTINSVILLE, WV 26155

Re: Permit approval for 11 47-051-00523-00-00

This well work permit is evidence of permission granted to perform the specified well work at the location described on the attached pages and located on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to any additional specific conditions and provisions outlined in the pages attached hereto. Notification shall be given by the operator to the Oil and Gas Inspector at least 24 hours prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be promptly reported by the operator to 1-800-642-3074 and to the Oil and Gas Inspector.

Upon completion of the plugging well work, the above named operator will reclaim the site according to the provisions of WV Code 22-6-30. Please be advised that form WR-38, Affidavit of Plugging and Filling Well, is to be submitted to this office within 90 days of completion of permitted well work, as should form WR-34 Discharge Monitoring Report within 30 days of discharge of pits, if applicable. Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and, in addition, may result in civil and/or criminal penalties being imposed upon the operators.

Per 35 CSR 4-5.2.g this permit will expire in two (2) years from the issue date unless permitted well work is commenced. If there are any questions, please feel free to contact me at (304) 926-0450.

James A. Martin Chief

Operator's Well Number:11Farm Name:EAGLE NATRIUM LLC/AXIAIU.S. WELL NUMBER:47-051-00523-00-00VerticalPluggingDate Issued:2/5/2021

Promoting a healthy environment.

PERMIT CONDITIONS

West Virginia Code § 22-6-11 allows the Office of Oil and Gas to place specific conditions upon this permit. Permit conditions have the same effect as law. <u>Failure to adhere to the specified</u> permit conditions may result in enforcement action.

CONDITIONS

- 1. All pits must be lined with a minimum of 20 mil thickness synthetic liner.
- 2. In the event of an accident or explosion causing loss of life or serious personal injury in or about the well or while working on the well, the well operator or its contractor shall give notice, stating the particulars of the accident or explosion, to the oil and gas inspector and the Chief within twenty-four (24) hours.
- 3. Well work activities shall not constitute a hazard to the safety of persons.

47-051-00523P

STATE OF W DEPARTMENT OF ENVIR OFFICE OF APPLICATION FOR A PERM Oil/ Gas/ Liquid If "Gas, Production or Und	1) Date <u>11/9</u> , 20 <u>20</u> 2) Operator's Well No. <u>11 Brine Well</u> 3) API Well No. <u>47-051</u> - 00523 EST VIRGINIA RONMENTAL PROTECTION OIL AND GAS MIT TO PLUG AND ABANDON d injection <u>Brine</u> / Waste disposal/ derground storage) Deep/ Shallow
STATE OF WI DEPARTMENT OF ENVIR OFFICE OF APPLICATION FOR A PERM : Oil/ Gas/ Liquid If "Gas, Production or Und	2) Operator's Well No. <u>11 Brine Well</u> 3) API Well No. <u>47-051 -00523</u> EST VIRGINIA RONMENTAL PROTECTION OIL AND GAS MIT TO PLUG AND ABANDON d injection <u>Brine</u> / Waste disposal/ derground storage) Deep/ Shallow
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If "Gas, Production or Uno	derground storage) Deep/ Shallow
Elevation 636 ft	Watershed Ohio River
District Franklin	County Marshall Quadrangle New Martinsville, WV
ator Eagle Natrium, LLC	7)Designated Agent J. Thomas Horan
ress P.O. Box 191	Address P.O. Box 191
New Martinsville, WV 26155	New Martinsville, WV 26155
as Inspector to be notified	9)Plugging Contractor
mes Nicholson	Name
₃ P.O. Box 44	Address
Moundsville, WV 26041	
	Elevation 636 ft District Franklin ator Eagle Natrium, LLC ress P.O. Box 191 New Martinsville, WV 26155 as Inspector to be notified mes Nicholson s P.O. Box 44 Moundsville, WV 26041

10) Work Order: The work order for the manner of plugging this well is as follows:

(See enclosed Plugging & Abandonment Workover Procedure)

- · CEMENT PLUCS CLASS A CEMENT W/ NU MORE THAN 32 Calle.
- · GEL SPACEAS FRESH WARRA W/ MINIMUM OF 6% DENTONLITE (BUWELLITT)
- & FOR ANY BRIDGE PLUG TO SATISFY OUR PLUCEING REQUIREMENTS, IT MOST HAVE A MINIMUM OF 100' OF CLASS A CEMENT PLACED UPON ST.
- 8455' OF 7" CASING LEFT IN IT CONGRESS TO 2120' SPOT GOL TO ATTAINABLE BOTTOM, & 7390' TO K 6750' IT APPEARS THAT THIS WELL . THIS WELL HAS RECEIVED Office of Oil and Gas 14AS A CAST IRON BRIDGE PLUE @ 73901, AWA YOU WILL BE NOV 1 2 2020 SETTING 2 CIBRO 6750 + 6700' RESPECTIVELY. WV Department of Environmental Protection PROCERD WITH WORK PLAN. JAN M

Notification must be given to the district oil and gas inspector 24 hours before permitted work can commence.

Work order approved by inspector King Unlabor	Date	n/	1/2020	
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BRINE WELL NO. 11 NATRIUM FACILITY

SPECIFICATION FOR PLUGGING AND ABANDONMENT WORKOVER OF BRINE WELL No. 11



LONQUIST		1	Westlake Chemical Natrium Facility	Project No: F1552		
		Pluggi	Brine Well No. 11 ng and Abandonment Procedure	Date: November 09, 2020		
FIELD SE	ERVICE		Rev 2	Page: 2 of 20		
Well No: 11 State: West Virginia		Virginia	County: Marshall	Field: Marshall County		
District: Franklin	Location: TBD		Quadrangle: New Martinsville	Operator: Eagle Natrium, LLC		
API No: 47-051-00523	Estimated T	D: 6,816'	Target Geology: Salina Formation	Status: Inactive Solution Mining		

INTRODUCTION:

Westlake Chemical Company ("Eagle Natrium, LLC") contracted Lonquist Field Service, LLC ("LFS") to develop a plugging and abandonment workover prognosis and cost estimate for an existing brine well ("Brine Well No. 11") at their Marshall County, West Virginia Natrium Facility. Brine Well No. 11 had an unsuccessful MIT back in January 2019, and has been inactive ever since. The existing Class III Solution Mine Well ("Brine Well No. 11") workover will consist of running a Segmented Bond Log on the existing 7" production casing , and setting two (2) 7" CIBPs on wireline at the bottom of the 7" production casing. After setting the CIBP's the wellsite will be prepared via setting a fluid containment liner and mats to enable a workover rig to be able to mobilize onto location. Once the workover rig has rigged up, a 2-7/8" cement string will be run into the well, allowing 500 ft cement plugs to be placed. The cement plugs will be placed from the top of the second 7" CIBP up to 4,700' which is above the perforations in the 7" @ 4,950' and the Marcellus shale formation. Each plug will be Bradenhead squeezed to act as a pressure test and to ensure that isolation has been established from the damaged 7" casing and Marcellus shale formation fractures. The 7" casing will be cut and removed from its free point to surface. Gel plugs will be used to fill the cemented 7" casing. Additional cement plugs will be placed across the 10-3/4" intermediate casing shoe. A cement bond log will be run on the 10-3/4" casing to surface to verify cementing. The 10-3/4" intermediate casing will be cemented closed. The wellhead will be cut below ground level and a marker installed.

The plugging and abandonment procedure and well configuration are based off of the attached proposed wellbore schematic. The following points outline main goals of the workover operations:

Phase 1 - Wireline set plugs

- Westlake Chemical to fill 7" casing with freshwater down to the casing shoe
- Move in and rig up wireline, and nipple up the wireline pressure control equipment and 7-1/16" 5M lubricator
- Open wellhead master valve
- Run WL Junk Basket and CCL from surface to 6,800'
- Run Segmented Bond Log from 6,800' to surface
- Make up the 1st 7" CIBP and setting tool, and set at 6,750' on wireline, tag and test plug
- Make up the 2nd 7" CIBP and setting tool, and set at 6,700' on wireline, tag and test plug
- POOH and ND 7-1/16" 5M lubricator, RDMO Wireline, Packer Hand and Torque Crew

Phase 2 - Site Prep

- Install fluid primary containment, and laydown location Mats
 - Unload and Spot the following equipment:
 - o Tanks and Berms, Manifold
 - o Unload Auxiliary Equipment, BOP

Phase 3 - Cementing Plugs with Workover Rig

- MIRU Workover Rig and Cementers, and unload workstring
- Place four (4) cement plugs (1 4) from 6,550' to 4700', and performing a Bradenhead squeeze on each plug.
- · Run free point on 7" casing, split shot cut and pull free 7" casing out of the well.
- Fill 7" casing with 6% gel spacer up to 2,490'

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT	DATE	Client Signature
JRW	11/09/2020	RSC	11/09/2020			

LONQUIST FIELD SERVICE Well No: 11 State: West			Westlake Chemical Natrium Facility	Project No: F1552 Date: November 09, 2020			
		Pluggi	Brine Well No. 11 ng and Abandonment Procedure				
			Rev 2	Page: 3 of 20			
		Virginia County: Marshall		Field: Marshall County			
District: Franklin		Location: TE	BD	Quadrangle: New Martinsville	Operator: Eagle Natrium, LLC		
API No: 47-051-00523 Estimated T		D: 6,816' Target Geology: Salina Formation		Status: Inactive Solution Mining			

- intervals of un-cemented casing
- Run WL Junk Basket and CCL from surface to 1,600'
- Run Segmented Bond Log from 1,600' to surface on the 10-3/4" intermediate casing string
 - o If there are any un-cemented sections of 10-3/4" casing that cannot not be pulled out of the well, those sections of casing will be perforated with 6 spf for 1ft spaced out every 50ft and cement will be placed across those intervals of un-cemented casing
- Place cement plug (5) from 2,490' to 1920', and perform a Bradenhead squeeze
- Place three (3) cement plugs (6 8) from below the 10-3/4" intermediate casing shoe, and up to 420' from surface. Pressure Test
- Place final cement plug (9) from top of cement plug (8) to surface
- Rig down workover rig and related equipment

Phase 4 - Cleanup and Civil Work

- Clean and load out mats, and remove containment
- MIRU Cementers, Cement well to surface if the cement is not at surface, RDMO
- Excavate around the wellhead, and remove cement around the wellhead
- Cut and pull all the casings and wellhead a minimum of 5 feet below ground level
- Weld a 1/2 inch steel plate across the casings with the well's closure date and well API number inscribed on top
- Install a well marker that is at least 30" above grade and 6" wide that details well's closure date and well API number inscribed on top
- Fill in excavation

REGULATORY INFORMATION:

Brine Well No. 11 is regulated by the West Virginia Department of Environmental Protection (WV DEP) Office of Oil and Gas (OOG). The WV DEP Office of Oil & Gas will be notified and all activities approved of prior to commencing work activities.

SAFETY INFORMATION - VISION STATEMENT:

LFS believes that all accidents and incidents are preventable. Our corporate goal is to have zero incidents, accidents, or near misses. To further our commitment to safety, LFS has staffed a Safety Director, whose sole purpose is to identify and mediate possible safety concerns and to be a resource to advise on such safety issues. He will be involved in work safety plans, managing JSAs, and offering oversight on our daily safety meeting program. We require that all of our employees and subcontractors accept that philosophy and uphold the standards of LFS. Our field supervisors are well-control certified, with both site specific and industry required safety qualifications related to new well drilling and well workovers. LFS supervisors are responsible to complete pre-job meetings with the contractors and clients, obtain daily work permits, complete JSAs, safety meetings, review Emergency Response Plans, identify any unsafe practices or potential hazards, and implement corrective actions to minimize employee exposure. LFS implements a site specific safety plan that defines the scope of work and identifies the appropriate safety standards and responsibilities for applicable parties for each project

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LONQUIST			Westlake Chemical Natrium Facility	Project No: F1552		
		Pluggir	Brine Well No. 11 ng and Abandonment Procedure	Date: November 09, 2020		
FIELD SE	ERVICE		Rev 2	Page: 4 of 20		
Well No: 11 State: West Virginia		Virginia	County: Marshall	Field: Marshall County		
District: Franklin	Location: TBD		Quadrangle: New Martinsville	Operator: Eagle Natrium, LLC		
API No: 47-051-00523	Estimated T	D: 6,816'	Target Geology: Salina Formation	Status: Inactive Solution Mining		

performed. LFS will implement a complete HSE plan for all phases of the operation. Our goal is always to ensure compliance with all client needs, as well as all local, State, and Federal safety and environmental regulations.

A work permit per tour, obtained from LFS, will be required, and well site safety meetings will be conducted at the beginning of each tour and at the beginning of critical operations by LFS supervisor prior to commencing any well work. All contractors involved during the tour or the critical operations will be required to attend the safety meeting, and all will be required to participate in the JSA process.

The following safety gear and personal protective equipment are required:

- Hard Hat
- Safety Glasses with side protection (shields or curvature)
- Fire Retardant Clothing
- Colored work vest when working within 150' of roads or near moving heavy equipment
- Steel-toed Safety Shoes w/Ankle Support Leather or Rubber
- Gloves
- Fall protection required 4' or above
- Any additional required safety equipment
- Tour and Critical Operation Safety Meeting.
- JSA Form Completed per tour and prior to critical operations by all contractors present

Additional safety and housekeeping items include:

- A Hot Work Permit is REQUIRED to perform any work where an engine will be running
- · A copy of all hot-work permits will be kept on file
- The LEL will be checked at the start of the workday and anytime work ceases for more than 30 minutes
- All personnel will be required to complete at least once the safety orientation required by Westlake Chemical Natrium
- Zero tolerance for any fluid release
- · Spills and releases to be reported to Westlake Chemical Natrium
- Any Injuries and Near Misses are to be reported and investigated to/by LFS and Westlake Chemical Natrium
- Vehicles to have company placards or logos
- Good housekeeping standards
- No Tobacco or Vapor Products on Westlake Chemical Property
- Good housekeeping standards

A completed and detailed site specific safety plan along with a spill containment plan is being generated to accompany the workover procedure, and it will be included with the final field package for the project.

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LONQL	JIST		Westlake Chemical Natrium Facility	Project No: F1552		
		Pluggir	Brine Well No. 11 ng and Abandonment Procedure	Date: November 09, 2020		
FIELD SI	ENVIGE		Rev 2	Page: 5 of 20		
Well No: 11	/ell No: 11 State: West Virginia		County: Marshall	Field: Marshall County		
District: Franklin Location: TBD		Quadrangle: New Martinsville	Operator: Eagle Natrium, LLC			
API No: 47-051-00523	Estimated T	D: 6,816'	Target Geology: Salina Formation	Status: Inactive Solution Mining		

WORK PLAN:

The daily work activities will commence after all permits have been acquired and the pre-tour safety meetings have been completed. All depths shown below are estimated depths and based on previous workover operations. The well conditions and local geology will dictate the final setting depths of each casing string. The WV DEP Office of Oil & Gas will be contacted and plans submitted for any activity that deviates from the plan prescribed below.

Pre-job Notifications

 Notify WV DEP Office of Oil & Gas (Office of Oil and Gas) 30 days prior (24 hrs at a minimum) to the commencement of the workover.

a. WV DEP Office of Oil & Gas Contacts: 601 - 57th Street

Charleston, WV 25304 (304) 926-0450

- b. Contact the state inspector (James Nicholson) whose contact information is in the regulatory section of this procedure.
 - i. Jim Nicholson 304-552-3874 WV DEP Oil & Gas inspector

Phase 1 - Wireline set plugs

- 1. (Westlake Chemical) to fill 7" casing with freshwater down to the casing shoe
- 2. (Westlake Chemical) to nipple down wellhead piping to 7-1/16" 3M Master Valve, and remove the wellhead building off to the side of the location before moving in the wireline crew and equipment.
- 3. Move in the Wireline Unit, Grease Trailer, Packer hand and tools, and Crane and rig up on location. Unload and nipple up the 7-1/16" 5 M 3M lubricator and wellhead rental spools, and torque turn all flange bolts.
- 4. Open wellhead's master valve. Run CCL, 6.151" Gauge Ring, and Junk Basket from 0' to 6,800', Pull up into the lubricator. Close master valve. Laydown the basket and check for trash was in the junk basket. Repeat junk basket runs if necessary until the junk basket comes back clean.
- 5. Run Segmented Bond Log from 6,800' to 0' to look for good cement bond sections from 6,800' to 6,500' to set the CIBPs, and look for the top of cement on the 7" casing which is expected to be at 2,120'. POOH with wireline and close the wellhead master valve
- 6. Make up the 1st 7" Cast Iron Bridge Plug (CIBP), and open the master valve. Run in the hole with the 1st CIBP and set at 6,750' (or other depth determined from the SBL results). Tag plug with wireline to confirm set, and POOH with plug setting tool. Close Master valve. Connect line to vacuum truck. Open Master valve to check for flow back. Shut in Master valve.
- 7. Make up the 2nd 7" Cast Iron Bridge Plug (CIBP), and open the master valve. Run in the hole with the 2nd CIBP and set at 6,700' (or other depth determined from the SBL results). Tag plug with wireline to confirm set, and POOH with plug setting tool and lay down. Close Master valve. Open Master valve to check for flow back. Close Master valve
- If well is still flowing through perforations at 4,950', then set a contingency 7" Retrievable Bridge Plug (RBP) at 4,000' (above the perforations).

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LONQUIST			Westlake Chemical Natrium Facility	Project No: F1552 Date: November 09, 2020	
		Pluggin	Brine Well No. 11 ng and Abandonment Procedure		
FIELD ST	ERVICE		Rev 2	Page: 6 of 20	
Well No: 11 State: West Virginia		ginia	County: Marshall	Field: Marshall County	
District: Franklin	Location: TBD	11	Quadrangle: New Martinsville	Operator: Eagle Natrium, LLC Status: Inactive Solution Mining	
API No: 47-051-00523	Estimated TD: 6	5,816'	Target Geology: Salina Formation		

9. Nipple down the wireline lubricator and wellhead rentals. Rig down and move out the Wireline Unit, Grease Trailer, Packer hand and Crane

Phase 2 - Site Prep

- 10. Install primary fluid containment, and laydown location Mats
 - a. Sub Base liner of 18,500 sq ft
 - b. Mat rentals area of 18,500 sq ft (estimated 155 mats with 160 sq ft/mat)
 - c. Muscle wall containment quantity of 30
- 11. Unload and Spot the rental frac tanks and berms, hose manifold, and auxiliary equipment

Phase 3 – Cementing Plugs with Workover Rig

- 12. Move in the Workover Rig and rig up on location. Rig up rig pump and tank with mud gas separator. Perform a Rig Audit to check rig equipment and check all the safety equipment on the rig are in compliance with up to date inspections/certifications.
- 13. Unload 6,800' of Workstring (2-7/8", 7.9 lbs/ft, P-110 PH6), and handling tools, and spinner tongs
- 14. Nipple up the BOP:
 - a. DSA: 7-1/16" 3M X 7-1/16" 5M
 - b. BOP Double Ram (7-1/16" 5M X 7-1/16" 5M)
 - c. Mud Cross: (7-1/16" 5M X 7-1/16" 5M w/ 2-1/16" 3M outlets)
 - d. HCR Valves (2-1/16" 5M) and choke line to the choke manifold
 - e. BOP Annular Preventer (7-1/16" 5M X 7-1/16" 5M)
 - f. Stripper head (7 1/16")
- 15. Test all BOP preventers, valves and choke lines every trip. Actuate ram preventers every trip on tubing every trip, and actuate annular at least once a week on tubing.
- 16. Rig up workover rig floor stairs and hand rails.
- 17. If a 7" RBP was set on wireline, it will need to be retrieved via wireline before continuing.
- 18. Run in the hole with test plug (2-7/8 PH 6) and 1jt of 2-7/8 PH 6 to the casing head and seat. Open casing head annulus valve. Pressure test pipe rams, blind rams, HCR valves, mud cross, and choke line to 200 psig low, 3,000 psig high for 15 minutes. Pressure test the Annular preventer to 200 psig low, and 1,500 psig high for 15 minutes. Pull test plug out of the hole.
- 19. Tap 2" LP into the 10-3/4" casing, and install 2" LP 3M Ball Valve and 2" LP bull plug with ½" tap and needle valve with pressure gauge.
- 20. TIH with 2-7/8" PH 6 workstring and tag the top of the CIBP at 6,700', and prepare to start placing cementing plugs
- Notify WV DEP Office of Oil & Gas 24 hours prior to cementing (See WV DEP Office of Oil & Gas Contacts in Step 1).

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT	DATE	Client Signature
JRW	11/09/2020	RSC	11/09/2020			

FIELD SERVICE Plugging and Abandomment Procedure Rev 2 Date: Page: 7 Add to a page: 7 of 20 Well No: 11 State: West Virginia County: Marshall Field: Marshall County District Franklin Location: TBD Quadrangle: New Martinsville Operator: Eagle Natrium, L API No: 47-051-00523 Estimated TD: 6,816' Target Geology. Salina Formation Status: Inactive Solution Min 22. Rig up cement equipment, mix and pump cement plug No: 1 of 15.6 pp Class A Cement - Neat from 6,700 ⁻⁶ , Puil up 500', and reverse circulate until clear fluid comes to surface. Pull up another 2,000, and close annular perform a Bradenhead squeeze on the cement plug. WOC for 8-12 hours. 23. TH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug No.3 of 15.6 ppg Class A Cement - Neat from 5,200 ⁻⁵ , 700 ⁻⁹ , Pull up 500', and reverse circulate until-fluid cornes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug No.4 of 15.6 ppg Class A Cement - Neat from 5,200 ⁻⁷ , 4,700 ⁻⁷ , Pull up 500', and reverse circulate until-fluid cornes to surface. Pull up another 2000 ⁻ , and close annular and perform a Bradenhead squeeze on the cemplug No.4 of 15.6 ppg Class A Cement - Neat from 5,200 ⁻⁷ , 4,700 ⁻⁷ , Pull up 50 ⁻ , and reverse circulate until-fluid cornes to surface. Pull up another 2000 ⁻ , and close annular and perform a Bradenhead squeeze on the cemplug No.4 of 15.6 ppg Class A Cement - Neat from 5,200 ⁻⁷ , 4,700 ⁻⁷ , Pull up 50 ⁻ , and reverse circulate until-fluid cornes to surface. Pull up another 2,000 ⁻ , and close annular and	LU	NU	012	1	Westlal Natriu Brine	we Unemical Im Facility Well No. 11			
Page: 7 of 20 Well No: 11 State: West Virginia County: Marshall Field: Marshall County District: Franklin Location: TBD Quadrangle: New Martinsville Operator: Eagle Natrium, L API No: 47-061-00523 Estimated TD: 6,816' Target Geology: Salina Formation Status: Inactive Solution Mit 22. Rig up cement equipment, mix and pump cement plug No.1 of 15.8 pp Class A Cement - Neat from 6,700'-6, Puil up 500', and reverse circulate until clear fluid comes to surface. Puil up another 2,000', and reverse circulate until it fluid comes to surface. Puil up another 2000', and reverse circulate until it fluid comes to surface. Puil up another 2000', and reverse out any green cement from the well. Mix and pump cemplug, No.2 of 15.6 pp Class A Cement - Neat from 5,700' - 5,200'. Pull up 500', and reverse circulate until fluid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug, No.3 of 15.6 pp Class A Cement - Neat from 5,200 - 4,700'. Pull up 500', and reverse circulate until fluid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug No.4 of 15.6 pp Class A Cement - Neat from 5,200 - 4,700''. Pull up 500', and reverse circulate until fluid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug No.4 of 15.6 pp Class A Cement - Neat from 5,200 - 4,700''. Pull up 500', and reverse circulate until fluid comes to surface. Pull up another 2000'', and close annular and perform a Bradenhead squeeze	FI	FID S	FRVICI	Pluggi	Plugging and Abandonment Procedure			Date: November 09, 2020	
Well No: 11 State: West Virginia County: Marshall Field: Marshall County District: Franklin Location: TBD Quadrangle: New Martinsville Operator: Eagle Nathrum, L API No: 47.051-00523 Estimated TD: 6,816' Target Geology: Salina Formation Status: Inactive Solution Mil 22. Rig up cement equipment, mix and pump cement plug No.1 of 15 6 ppg Class A Cement – Neat from 6,700'-6, Pull up 500', and reverse circulate until clear fluid comes to surface. Pull up another 2,000', and close annular perform a Bradenhead squeeze on the cement plug. WOC for 8-12 hours. 23. TIH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug No.2 of 15.6 ppg Class A Cement – Neat from 5,700' – 5,700'. Pull up 500', and reverse circulate until fuid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug. NO.2 for 8-12 hours. 24. TIH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug No.3 of 15.6 ppg Class A Cement – Neat from 5,700' – 5,200'. Pull up 500', and reverse circulate until fluid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug. WOC for 8-12 hours. 25. TIH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug No.4 of 15.6 ppg Class A Cement – Neat from 5,200' – 4,700'. Pull up 500', and reverse circulate until fluid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug. WOC for 8-12 hours. 26. TIH and tag the top of the								Page: 7 of 20	
District Franklin Location: TBD Quadrangle: New Martinsville Operator: Eagle Natrium, L API No: 47-051-00523 Estimated TD: 6,816' Target Geology: Salina Formation Status: Inactive Solution Min 22. Rig up cement equipment, mix and pump cement plug No.1 of 15.6 ppg Class A Cement – Neat from 6,700'-6, Pull up 500', and reverse circulate until clear fluid comes to surface. Pull up another 2,000', and close annular perform a Bradenhead squeeze on the cement plug. WOC 6 r8-12 hours. 23. TIH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug, No.2 of 15.6 ppg Class A Cement – Neat from 5,700' – 5,700'. Pull up 500', and reverse circulate until fluid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug, NO.3 of 15.6 ppg Class A Cement – Neat from 5,700' – 5,200'. Pull up 500', and reverse circulate until fluid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug, NO.3 of 15.6 ppg Class A Cement – Neat from 5,200' – 5,200'. Pull up 500', and reverse circulate until fluid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug, NOC for 8-12 hours. 25. TIH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug, NOC for 5-12 hours. 26. Rig down rig floor, hand rails and stairs. Nipple down 7-1/16' SM BOP Stack, DSA, and 7-1/16' 3M Valve. Rel 7 1/16' BOP stack. 27. Nipple up the BOP onto of the wellhead spool hanging off the 7''. a. a. DSA: to bottom of wellhead flange to 13-5/8' 5M	Well No): 11	State: V	Vest Virginia	County:	Marshall		Field: Marshall County	
 API No: 47-051-00523 Estimated TD: 6,816' Target Geology: Salina Formation Status: Inactive Solution Mit 22. Rig up cement equipment, mix and pump cement plug No.1 of 15.6 ppg Class A Cement – Neat from 6,700'-6, Pull up 500', and reverse circulate until clear fluid comes to surface. Pull up another 2,000', and close annular perform a Bradenhead squeeze on the cement plug. WOC for 8-12 hours. 23. TIH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug, WOC for 8-12 hours. 24. TIH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug, WOC for 8-12 hours. 24. TIH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug, NO.3 of 15.6 ppg Class A Cement – Neat from 5,700' – 5,200'. Pull up 500', and reverse circulate until/fluid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug, WOC for 8-12 hours. 25. TIH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug, WOC for 8-12 hours. 26. TIH and tag the top of the plug, and reverse out any green cement from the well. Mix and pump cemplug NO.4 of 15.6 ppg Class A Cement – Neat from 5,200' – 4,700'. Pull up 500', and reverse circulate until/fluid comes to surface. Pull up another 2000', and close annular and perform a Bradenhead squeeze on the cemplug. WOC for 8-12 hours. 26. TIH and tag the top of the wellhead spoel hanging off the 7'. a. DSA: to bottom of the wellhead spoel hanging off the 7'. a. DSA: to bottom of the wellhead spoel hanging off the 7'. a. DSA: to bottom of the wellhead flange to 13-5/8' 5M b. Mud Cross: 513-5/6' 5M XI 33-5/8' 5M Mix 13-5/8' 5M Mix 13-5/8' 5M Mix 13-5/8' 5M Mix 13-5/8' 5M XI 33-5/8' 5M Mix 13-5/8' 5M	District.	Franklin	Location	n: TBD	tinsville	Operator: Eagle Natrium, LLC			
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 a. DSA: to bottom of wellhead flange to 13-5/8" 5M b. Mud Cross: (13-5/8" 5M X 13-5/8" 5M w/ 4-1/16" 3M outlets) c. HCR Valves (4-1/16" 5M) and choke line to the choke manifold d. BOP Annular Preventer (13-5/8" 5M X 13-5/8" 5M) 28. Test all BOP preventers, valves and choke lines every trip. Actuate ram preventers every trip on tubing every and actuate annular at least once a week on tubing. 29. Rig up workover rig floor stairs and hand rails. 30. Run in the hole with test plug (2-7/8 PH 6) and 1jt of 2-7/8 PH 6 to the casing head and seat. Open casing annulus valve. Pressure test pipe rams, blind rams, HCR valves, mud cross, and choke line to 200 psig low, 3 psig high for 15 minutes. Pressure test the Annular preventer to 200 psig low, and 1,500 psig high for 15 minutes. 31. Move in and rig up casing crews to pull 7" casing. Rig up 7" casing spear and pick up the 7" casing to the rig 'MIRU Wireline, and run free point on the 7" casing expected to be at 2,120' TOC, and POOH and switch tools. split shot down to the free point and cut the 7" casing out of the well. Rig down casing crew. a. If the 7" cannot be pulled at the top of cement which is expected to be at 2120', then the cut will be rup hole, and perforations will be made in the 7" stub, and cement will be spotted to seal casing and to the rup hole, and perforations will be made in the 7" stub, and cement will be spotted to seal casing and to the rup hole, and perforations will be made in the 7" stub.	27.	Nipple up th	e BOP onto	of the wellhead	spool hang	ng off the 7".			
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up hole, and perforations will be made in the 7 [°] stub, and cement will be spotted to seal casing and to	31.	Move in and MIRU Wireli split shot do slips, Lay do	rig up casir ne, and run wn to the fre wn casing s	ng crews to pull free point on the see point and cut spear. Pull and la	7" casing. R e 7" casing e the 7" casin aydown 7" c	ig up 7" casing xpected to be a g at a collar. R asing out of the	a spear and pi at 2,120' TOC DMO wireline a well. Rig dow	ck up the 7" casing to the rig floor. , and POOH and switch tools. Run . Pick up 7" above rig floor and set wn casing crew.	
CLIENT		a. If the up h	ole, and pe	forations will be	made in the	e 7° stub, and c	cement will be	e spotted to seal casing and top.	
PREPARED BY DATE DATE DATE Client Signature	PREP	ARED BY	DATE	APPROVED BY	DATE	CLIENT	DATE	Client Signature	

LO	NQ	JIS	T	Westlak Natriu	e Chemical m Facility		Project No: F1552
	-		Pluggi	Brine V ing and Aba	Vell No. 11 Indonment Pro	ocedure	Date: November 09, 2020
F	ELD	ERVIC	E	F	Rev 2	Page: 8 of 20	
Well No	o: 11	State:	West Virginia	County:	Marshall		Field: Marshall County
District	Franklin	Locatio	on: TBD	Quadrar	gle: New Mart	insville	Operator: Eagle Natrium, LLC
API No	47-051-00523	B Estima	ted TD: 6,816'	Target G	Beology: Salina	Formation	Status: Inactive Solution Mining
32.	Move in the cement plug intermediate	Wireline U no. 4 whi casing sho	Init, and pack-off ch is expected to be at 1,608' up to	lubricator. F b be at 4,70 surface, an	Run CCL, Gaug 0'. Run Segme d look for good	ge Ring, and nted Bond Lo cement bond	Junk Basket from 0' to the top of og from the bottom of the 10-3/4" sections. POOH with wireline.
	a. If the casi	ere is no c ng sections	ement, then an a s that are across	attempt to pu the coal bed	ill the 10-3/4" ir s at 164' – 167	ntermediate c ', 250' – 256'	asing will be made to remove the
	b. If the char be p	ere is partia ges space ulled out o	al cement, then a d out every 50ft a f the well.	perforating across the ur	program will be n-cemented sec	implemented tions of 10-3	d to shoot 1ft guns with 6SPF /4" casing that were not able to
33.	(Optional) M not be pulled 50ft across t	IRU Wireli l out of the he un-cem	ne and perforate well. The perfora ented sections o	the 7" casing ating program f 7" casing th	g if there are ar n will be to shoo nat were not ab	ny un-cement ot 1ft guns wit le to be pulled	ed sections of 7" casing that could th 6SPF charges spaced out every d out of the well.
34.	TIH and tag top of cemer will need to I	the top of nt plug up t be placed a	the plug 4,700', a o 2,420'. If the 7" across perforated	and reverse casing had I sections of	out any green o to be perforated 7" casing with (cement from d as stated in 5% gel space	the well. Spot 6% gel spacer from previous task no. 33, then cement d in between.
35.	Mix and pur circulate unt Pull up anot	np cement i il clear flui ner 500', a	plug No.5 of 15.6 d comes to surfa nd WOC for 8-12	ppg Class A ce. Pull up 1 hours.	Cement – Nea ,000', and reve	t from 2,420' erse circulate	 – 1,920'. Pull up 500', and reverse until clear fluid comes to surface.
36.	TIH and tag No.6 of 15.6 comes to su	the top of t ppg Class rface. Pull	he plug 1,920', a s A Cement – Ne up another 500',	nd reverse o at from 1,92 and WOC fo	ut any green ce :0' – 1,420'. Pu or 8-12 hours.	ement from th Il up 500', an	e well. Mix and pump cement plug d reverse circulate until clear fluid
37.	TIH and tag	the top of t	the plug, and reve	erse out any	green cement	from the well	
38.	Install TIW a	ind pressu	re test the cemen	t plug to for	30 minutes Rei	move TIW	
39.	Mix and pun circulate unt	np cement il clear fluid	plug No.7 of 15.6 d comes to surfac	6 ppg Class ce. WOC for	A Cement – Ne 8-12 hours.	eat from 1,420	0 – 920'. Pull up 500', and reverse
40.	TIH and tag of 15.6 ppg (to surface. V	the top of Class A Ce VOC for 8-	the plug, and rev ment – Neat from 12 hours.	erse out any 1 920' – 420'	green cement Pull up to surfa	from the well ace, and reve	l. Mix and pump cement plug No.8 rse circulate until clear fluid comes
41.	TIH and tag of 15.6 ppg 0 WOC for 8-1	the top of Class A Ce 2 hours.	the plug, and rev ment – Neat from	erse out any 1420' – 0'. Pi	green cement ull out of the hol	from the well e. Rig down c	I. Mix and pump cement plug No.9 cementers and load out workstring.
42.	Nipple down	the 5M BC	OP Stack, DSA.				
43.	Clean out rig to disposal to	tank and f be solidif	rac tanks on loca ied at Quala disp	tion, and loa osal.	d out equipmen	it. Haul off mu	id and green cement "waste water"
44.	Rig down wo	orkover equ	uipment, frac tanl	ks, and othe	r rental equipm	ent	
PRE	ARED BY	DATE	APPROVED BY	DATE	CLIENT	DATE	Client Signature

JRW

11/09/2020

RSC

11/09/2020

LONQUIST			Westlake Chemical Natrium Facility	Project No: F1552		
		Pluggi	Brine Well No. 11 ng and Abandonment Procedure	Date: November 09, 2020		
FIELD SE	RVICE		Rev 2	Page: 9 of 20		
Well No: 11 State: Wes		Virginia	County: Marshall	Field: Marshall County		
District: Franklin	Location: TBD 523 Estimated TD: 6,816'		Quadrangle: New Martinsville	Operator: Eagle Natrium, LLC		
API No: 47-051-00523			Target Geology: Salina Formation	Status: Inactive Solution Mining		

Phase 4 - Cleanup and Civil Work

45. Clean and load out mats, and remove sub base liner containment

- 46. MIRU Cementers, Cement well to surface if the cement is not at surface, RDMO
- 47. Excavate around the wellhead to expose casing 5' below ground level, and remove cement around the wellhead
- 48. Cut and pull all the casings and wellhead a minimum of 5 feet below ground level
- 49. Weld a 1/2 inch steel plate across the casings with the well's closure date and well API number inscribed on top
 - a. API Number and plug date to be inscribed on top of steel plate
 - b. Surface monuments installed as per WV DEP OOG and Westlake requirements
- 50. Install a well marker that is at least 30" above grade and 6" wide that details well's closure date and well API number inscribed on top
- 51. Fill in excavation, and close up. Move off location

REPARED BY	DATE	APPROVED BY	DATE	CLIENT	DATE	Client Signature
JRW	11/09/2020	RSC	11/09/2020			

JIST		Westlake Chemical Natrium Facility	Project No: F1552	
COVICE	Pluggir	Brine Well No. 11 ng and Abandonment Procedure	Date: November 09, 2020	
ERVILE		Rev 2	Page: 10 of 20	
State: West	Virginia	County: Marshall	Field: Marshall County	
Location: TBD 523 Estimated TD: 6,816'		Quadrangle: New Martinsville	Operator: Eagle Natrium, LLC	
		Target Geology: Salina Formation	Status: Inactive Solution Mining	
	State: West Location: TE Estimated T	JIST ERVICE State: West Virginia Location: TBD Estimated TD: 6,816'	Westlake Chemical Natrium Facility Brine Well No. 11 Plugging and Abandonment Procedure Rev 2 State: West Virginia County: Marshall Location: TBD Quadrangle: New Martinsville Estimated TD: 6,816' Target Geology: Salina Formation	

Reporting Information

Daily Reports - Email or Fax

- Stephen Clark
- Ed McLaughlin
- Dick Longuist
- Eric Busch
- Joshua Willis

Final Reports - Email and Hard Copy

- Stephen Clark
- Lonquist & Company, LLC

Final Reports to include:

- Daily Reports
- Well Schematics
- Well Completion Report
- Well Logs
- Photos

PREPARED BY	DATE	APPROVED BY	DATE	CLIENT	DATE	Client Signature
JRW	11/09/2020	RSC	11/09/2020			

LUN		10		Natriur Brine W	n Facility /ell No. 11	-	Data: November 00, 2020			
FIELD	SE	RVIC	Plugg	Plugging and Abandonment Procedure Rev 2			Date.	Ad		2020
				Transien			Page:	11	or	20
Well No: 11		State: V	Vest Virginia	/irginia County: Marshall			Field: Marshall County			ity
District: Frankl	in	Locatio	n: TBD	Quadran	gle: New Martin	sville	Operat	or: Eagl	e Natri	um, LLC
API No: 47-051	-00523	Estimat	ed TD: 6,816'	Target G	eology: Salina F	ormation	Status:	Inactive	e Soluti	on Mining
	16339 West V Ed Mc o Stephe	Energy F /irginia, 2 Laughlin. Telepho Email –	Road, Proctor 26055 – Owner's Rep one – 304-266-8 Edward.Mclaus rk, P.E. – Owne	resentative 3647 <u>ghlin@westlat</u> er's Represent	<u>ke.com</u> ative					
Regulatory	0 0 0	Telepho Cell – 3 Email –	one – 304.455.2 04.266.8264 - <u>Stephen.Clark(</u>	200, Ext. 331 @Westlake.co	8 <u>om</u>					
	West V Depart Office 601 - 5 Charle (304) 9	/irginia tment of I of Oil and 57th Stree ston, WV 926-0450	Environmental F d Gas et / 25304	Protection						
÷	Jeff Mo o o	cLaughlir Telepho Email -	n – Permitting - ^V one – 304-926-0 - <u>Jeffrey.W.McL</u>	Vertical Wells/ 0499, ext.1614 aughlin@wv.c	Plugging - Tech 4 10V	nical Analys	st			
•	James o	Nicholso Telepho Email –	on – WVDEP Of one – 304-552-3 - <u>James I.Nichol</u>	fice of Oil and 3874 <u>son@wv.gov</u>	Gas Inspector f	for Marshall	(051)			
		DATE	APPROVED BY	DATE	CLIENT	DATE		Clie	ent Signatu	re
PREPARED BT										

Marshall County or: Eagle Natrium, LL(Inactive Solution Minin								
or: Eagle Natrium, LLC Inactive Solution Minin								
Inactive Solution Minir								
snua vviilis – Petroleum Engineer								

LUNUU	IIST	Westlake Chemical Natrium Facility	Project No: F1552
		ing and Abandonment Procedure	Date: November 09, 2020
FIELD 3	- MILLE	Rev 2	Page: 13 of 20
Vell No: 11	State: West Virginia	County: Marshall	Field: Marshall County
District: Franklin	Location: TBD	Quadrangle: New Martinsville	Operator: Eagle Natrium, LLC
PI No: 47-051-00523	Estimated TD: 6,816'	Target Geology: Salina Formation	Status: Inactive Solution Mining
		PROPOSED SCHEDULE	
DDEDADEO DV	DATE	DATE CLIENT	Olivet Structure

		Brine Well No. 11 Plugging and Abandonment 2020 Proposed Schedule 11/09/2020	
Task Nane Disease and the second science	Duration	D4 D1 D2 D3 D4 D5 D6 D7 D8 D9 D10 D11 D12 D13 D14 D15 D16 D17 D18 D19 D25 D21 D22 D23 D24 D25 D26 D27 D28 D29 D30 D81 D32	1033 1034
ISA Safat: Operational Lock One Tay Ore	2 mays	NA Store Foundation	
MIRITWI MITAdaster and Lubracity	1.35 her	Virgi and Virgi Statistical	
Open Master Valve	0.5 hrs	The second	
Run Junk Basket and CCL (0° T-6,807	1.75 hrs	Run Junk Busket and CCI.	
POOH and ND 7-1/16" 5M inbricator	0.75 hrs	FROM	
MU SBT Logging Tools, NU 7-1 167 5M Lubricator	0.75 hrs	MUSB1, NU Lubecator	
Run SBT log f 6800' T 0'	1.5 hrs	Rus SBT	_
POOH and ND 7-1 16" 5M lubricator, LD SBT Tools	1 hr	POOL ND L director	_
MII the Lit 7* CIBP and setting tool. NIII phosentar	L Dr.	2001 CAULIA 27 Clibe	
RIH. Set the 1st RBP at 6750	1.5 brs	C R11 and Set	
POOL and open the well, to test plug	0.5 hrs.	EPOK01	
ND Lubricator, MU 2nd 7" RBP, NUL Lubricator	1 hr	ND Lubreator, MU 2nd CIBP	
RIH . Set the 2nd RBP at 6700	1 hr	RIH and Set	
POOH and ND 7-1 16" 5M lubricator, LD WL Tools	1 hi	FPORI, MD Labreatar	
RDMO Wireline: Packer Hand and Torque Crew	Lbr	RUMO WI	
Stand-by for Westlake Chemical's assessed for Dhaze 2	1 day	Starle Real-Re	
source of the treatment of the transfer of the	r may		
Phase 2 - Sire Prep	3 days	Hase 2 - Sire Prep	
Install primary containment	8 hrs	2, Install Containment	
LT3 Mate	S hrs	1D Mas	
Indone and Spot Tanks and Barras Manifold	d hrs	10 Tarkand Rems	
Contract and open reacts and perturbations	d his		
ouroad Auguraty Edulpment, 1974	4 113		
Phase 3 - Workover Big Cementing	19 days	Phase 3 - Kie Chat	
MIR! Workawer Ru	8 hrs	MIRITRE	
NUT7-1/16 5M BOR Test	d hrs	NITIOP Ted	
THI oran an ind to 6700	4 lus	Zana, 111	
Die un enwart wertender	2.4.	A PU Complexi	
Human contract along and the 700% of 200%	5 105	Ultra Maria	
Pump centern prug no 1 (5500 - 5200)	0.5168	The set of	
Pull up 550, and reverse circulate	1 10	Pretension Control Constraints	
Pull up 2000 and performs a Bradenhead squeeze	1.5.4#3		
WUC Overnight	AN HER	• 10:00	
Tild to tag top of cement and reverser circulate green crot	3 207-5		
Pump cement plug no 2 (6200° + 5700°)	0.5 hrs	Fring No. 2	
Pull up 500° and reverse enculate	1.14		
Pall up 2000' and perform a Bradenhead squeeze	3.5 hrs		
WOC Overnight	a) hrs	▲[102]	
TIH to tag top of cement and reversor circulate green cmt	3 hts	da	
Pump cement plug no. 3 (5700 - 5200')	0.5 hrs	Plug No. 1	
Pall up 500% and reverse circulate	1 hr		
Pull up 2000' and perform a Bradenhead squeeze	3 5 hrs		
WOC Overnight	0 hrs	₹10.22	
TIH to tag top of cement and reverser circulate green emt	3 hrs		
Pump cement plug no 4 (5200° - 4700°)	0.5 hrs	Plug No. 4	
Pull up 5000, and reverse cuculate	1 hr	TReverse Cire	
Pull up 2000 and perform a Bradenhead squeeze, POOF	5.5 hrs	Cement Squeere	
WOC Overnight	0 hrs		
Rig down workover rig floor	1 hr	<u> </u>	
ND 7-1/16 5M BOP, and Master Valve	3 hrs	ND BOP and Master Valve	
ND Wellhead to pall 7 Casing	3 hrs	2 ND WH to 7 Csg300 hrs	
NU 11 3M BOP	1 hr	NII BOP	
	2 4	Ted BOP	
Test H())	A III'S		

		Plugging and Abandonment 2020 Proposed Schedule 11/09/2020		
Duration	D-1 D1 D2 D3 D4 D5 D6	D7 D8 D9 D10 D11 D12 D13	D14 D15 D16 D17 D18 D19 D20 D21 D22 D23 D24 D25 D26 D27 D28	D29 D30 D31 D32 D33 D3
t hr			Server 71 (19) Les	
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4 ltrs			Solir Shar	
4 hrs				
2 ms			Pull 75 00 lys	
J.IUS.				
1 m			Pup SBT	
4 1115. 2 fans			Perforate 10:3/44 (8) hrs	
1 los			Perforate 74 00 hrs	
t he			RDMO WL	
3 hrs			THE	
7 hrs				
2 hrs			Pump Gell Spacer	
L hr			Plug No. 5	
1 hr			Reverse Circ	
2 here			Cement Squeeze	
0 hes			▲ 10/30	
3 hrs			TIH	
0.5 here			Plug No. 6	
1 fee				
3.5 hus			WOC	
3,5 ms			TH	
0.5 km			Plue No 7	
the			Reverse Circ	
7 5 hrs			WOC	-
A D DES				-
5 ms			Test Plue	
1.01				
0.5 ms			Revense Cire	
2.5 hrs			WOC	
2.5.105			TH	
0.5 hrs			Plus No. 9	
1.5 hrs			POOL	
3 5 hrs.			WOC. RD Cementers	
1 Dr			ND BOP	
4 nrs			Tank Cleanus	
8 hrs			RDMO Rig	
S days			Phase 4 - Cleanup and Civil Work	().
2 days			Clean Mats Lond out Mats	
1 day			Remote Containment	
I day			Excavate around well	Anomi-
I day			Cement to	surface
I day			Exea	whe around well
4 hrs				Cut Wellhead
4 hrs				Weld Marker
1 day				Fill Hole 📩
	Liter 4 Juns 4 Juns 4 Juns 5 Juns 5 Juns 5 Juns 1 Jun 4 Juns 4 Juns 4 Juns 4 Juns 4 Juns 4 Juns 4 Juns 5 Juns 2 Juns 2 Juns 2 Juns 2 Juns 2 Juns 2 Juns 3 Juns 2 Juns 3 Juns 2 Juns 3 Juns 3 Juns 0 Juns 3 Juns 1 Jun 3 Juns 3 Juns 4 Juns 8 Juns 4 Juns 8 Juns 4 Juns 8 Juns 4 Juns	1 hr 4 hrs 4 hrs 3 hrs 3 hrs 3 hrs 1 hr 4 hrs 1 hr 2 hrs 1 hr 2 hrs 1 hr 2 hrs 3 hrs 0 5 hrs 1 hr 3 5 hrs 1 hr 2 5 hrs 1 hr 2 5 hrs 1 hr 2 5 hrs 1 hr 3 hrs 0 5 hrs 1 hr 2 5 hrs 1 hr <td>Lite 4 has 4 has 4 has 4 has 4 has 3 has 3 has 3 has 4 has 4 has 1 hat 4 has 5 has 1 hat 1 hat 2 has 0 has 3 has 0 has 3 has 0 S has 1 hat 3 has 3 has</td> <td>Lar Lar Lar </td>	Lite 4 has 4 has 4 has 4 has 4 has 3 has 3 has 3 has 4 has 4 has 1 hat 4 has 5 has 1 hat 1 hat 2 has 0 has 3 has 0 has 3 has 0 S has 1 hat 3 has 3 has	Lar Lar

LONQU	IIST		Westlak Natriu	e Chemical n Facility		Project No: F1552
	POWLAT	Plugg	Brine W ing and Aba	/ell No. 11 ndonment Proc	edure	Date: November 09, 2020
FIELD SI	J SERVICE Rev 2					Page: 14 of 20
ell No: 11	State: Wes	t Virginia	County:	Varshall		Field: Marshall County
strict: Franklin	Location: T	BD	Quadran	gle: New Martin	sville	Operator: Eagle Natrium, LLC
PI No: 47-051-00523	Estimated 7	TD: 6,816'	Target G	eology: Salina F	ormation	Status: Inactive Solution Mining
	PR	OPOSED W	'ELLBORE &	WELLHEAD S	CHEMATIC	s
PREPARED BY	DATE AP	PPROVED BY	DATE		DATE	Client Signature
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		e: 10/12/2020	Dated		Project No: F1552		Permit No: NA	7416-7 esneoid sexeT
	AN :	l Type/Status	IeW	Â	Field: Marshall Count	53	20-120-74 :0N IGA	HORSTON INVERSION
	100	AN :RTS\year	ung (e03) əllivanih	Quadrangle: New Ma	(8)	District: Franklin (0	ATHON NITELA
	(FC) liederel	nty/Parish: N	nog	sinigi\/	State/Province: Wes		Country: USA	LIELD SERVICE
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101 McKinney St. Suite 1650 Houston, Texas 77002 Tel: 713.659.9950 Fax: 713.659.9959

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						@ 6,816	+ - D	2'000,
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					st Packer @ 4,812' nducted on 1/18/2019 4,36 - 1,745,35 psig 1,46 - 1,745,57 psig	t their states and thei	tionations	2'000,
						2 A 2 A 2 A 2 A	2	¢'200, —
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Project No: F1552

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1001 McKinney St. Suite 1650 Houston, Texas 77002 Tel: 713,659,9950 Fax: 713,559,9959

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Drawn: JRW

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API No: 47-051-0523



spacer throughout 7" casing that is not full of cement.





Well No: 11 State: West Virginia County: Marshall Field: Marshall County District: Franklin Location: TBD Quadrangle: New Martinsville Operator: Eagle Natrium, API No: 47-051-00523 Estimated TD: 6,816' Target Geology: Salina Formation Status: Inactive Solution N	PREPARED BY Date APPROVED BY Date Client Signature	FIELD SERVICE		Pluggi	Westlake Chemical Natrium Facility Brine Well No. 11 Plugging and Abandonment Procedure Rev 2				Project No: F1552 Date: November 09, 2020		
Verino, II Coation TBD Quadrangle: New Martinsville Operator: Eagle Natrium, API No: 47-061-00523 Estimated TD: 6,816' Target Geology: Salina Formation Status: Inactive Solution M CEMENT PLUG DETAILS	PREPARED BY Date APPROVED BY Date CLENT Date Clent Signature PREPARED BY Date APPROVED BY Date CLENT Date Clent Signature		State: Wee	t Virginia	County:	Marshall		Field: M	Arshall	Count	tv
Detrict: Pranklin Location, PBD Gradinargie, New Maransvine Opportor, Edge reaction, API No: 47-051-00523 Estimated TD: 6,816' Target Geology: Salina Formation Status: Inactive Solution M CEMENT PLUG DETAILS	PREFARED BY DATE APPROVED BY DATE CLEAT DATE CLEAT DATE Cleat Cleat	District: Enanklin	Leastion: 7		Oundron	alo: Now Martir	eville	Operato	r: Fagle	Natri	im LLC
CEMENT PLUG DETAILS	CEMENT PLUG DETAILS PREPARED BY DATE APPROVED BY DATE AUTOCIDED Client Signature		Estimated	TD: 6.816'	Target G	eology: Salina l	Formation	Status	Inactive	Solutio	on Minine
	PREPARED BY DATE APPROVED BY DATE CLIENT APPROVAL DATE Client Signature JRW 11/09/2020 RSC 11/09/2020 DATE Client Signature				CEMENT PL	UG DETAILS					
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7" Cased I	lole - Ce	ment F	lug No.	1	10/.	29/202	.0				-	
- Jubeu -	Weight		OD	Bottom	Тор	Height	Volume	% of	Volume	Volume	Yield	Volume
Type	(ppg)	Type	(in)	(Ft)	(Ft)	(Ft)	(BBL/FT)	Excess	(BBLs)	(CF)	(CF/sks)	(sks)
Class A Neat	15.6	Csg	6.276	6700	6200	500	0.0383	20%	23.0	128.9	1.180	109.2
TOTAL			-		-				23.0	128.9		109.2
1.5 1.15												
" Cased	Hole - Ce	ement F	Plug No.	2						2.2		
A Street Street	Weight	1	OD	Bottom	Тор	Height	Volume	% of	Volume	Volume	Yield	Volume
Type	(ppg)	Туре	(in)	(Ft)	(Ft)	(Ft)	(BBL/FT)	Excess	(BBLs)	(CF)	(CF/sks)	(sks)
Class A Neat	15.6	Csg	6.276	6200	5700	500	0.0383	20%	23.0	128.9	1.180	109.2
TOTAL									23.0	128.9		109.2
	1000	_	_	_				_		200	-	
7" Cased	Hole - Ce	ement F	Plug No.:	3	_			_	_			
	Weight		OD	Bottom	Тор	Height	Volume	% of	Volume	Volume	Yield	Volume
Туре	(ppg)	Туре	(in)	(Ft)	(Ft)	(Ft)	(BBL/FT)	Excess	(BBLs)	(CF)	(CF/sks)	(sks)
Class A Neat	15.6	Csg	6.276	5700	5200	500	0.0383	20%	23.0	128.9	1.180	109.2
TOTAL									23.0	128.9	-	109.2
				-	-							-
7" Cased	Hole - Ce	ement F	lug No.	4		1.11.21.2	1		1.0.1	Lausteria	Marta	Malum
	Weight	10000	OD	Bottom	Top	Height	Volume	% of	Volume	volume	rield	volume
Туре	(ppg)	Туре	(in)	(Ft)	(Ft)	(Ft)	(BBL/FT)	Excess	(BBLs)	(CF)	(CF/SKS)	(SKS)
Class A Neat	15.6	Csg	6.276	5200	4700	500	0.0383	20%	23.0	128.9	1.180	109.2
TOTAL									23.0	128.9		109.2
	1.1. 0.							_				
Cased	Hole - Ge	en spac	er on	1 m m 1		Lucita	Land and	n/ . f	Malana	Maluina	Made	Valuma
	Weight	-	00	Bottom	lop	Height	Volume	% 01	volume	volume	(CE (alua)	Volume
Tuno	(ppg)	Type	(in)	(FT)	(Ft)	(Ft)	(BBL/FI)	Excess	(BBLS)	(CF)	(CF/SKS)	(SKS)
туре	0.1		6 376	1 1700	7.47.0	2200	0 0 0 0 0 0	2002	1047			
Gel Spacer	Gel	Csg	6.276	4700	2420	2280	0.0383	20%	104.7			
Gel Spacer TOTAL	Gel	Csg	6.276	4700	2420	2280	0.0383	20%	104.7 104.7	0.0		0.0
Gel Spacer TOTAL	Gel	Csg	6.276	4700	2420	2280	0.0383	20%	104.7 104.7	0.0		0.0
Gel Spacer TOTAL 7" Cased	Gel Hole - Ce	Csg ement I	6.276	4700	2420	2280	0.0383	20%	104.7 104.7	0.0	Vield	0.0
Gel Spacer TOTAL 7" Cased	Gel Hole - Ce Weight	Csg ement I	6.276	4700 5 Bottom	2420 Top	Height	Volume	20%	104.7 104.7 Volume	0.0 Volume	Yield	0.0 Volume
Gel Spacer TOTAL 7" Cased	Gel Hole - Ce Weight (ppg)	Csg ement I	0D (in)	4700 5 Bottom (Ft)	2420 Top (Ft)	Height (Ft)	0.0383 Volume (BBL/FT)	20% % of Excess	104.7 104.7 Volume (BBLs)	0.0 Volume (CF)	Yield (CF/sks)	0.0 Volume (sks)
Gel Spacer TOTAL 7" Cased Type Class A Neat	Gel Hole - Ce Weight (ppg) 15.6	Csg ement I Type Csg	0D (in) 6.276	4700 5 Bottom (Ft) 2420	2420 Top (Ft) 2120	2280 Height (Ft) 300	0.0383 Volume (BBL/FT) 0.0383	20% % of Excess 50%	104.7 104.7 Volume (BBLs) 17.2	0.0 Volume (CF) 96.7	Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat	Gel Hole - Ce Weight (ppg) 15.6 15.6	Csg Type Csg OH	6.276 Plug No OD (in) 6.276 10.192	4700 5 Bottom (Ft) 2420 2120	2420 Top (Ft) 2120 1920	2280 Height (Ft) 300 200	0.0383 Volume (BBL/FT) 0.0383 0.1009	20% % of Excess 50% 50%	104.7 104.7 Volume (BBLs) 17.2 30.3	0.0 Volume (CF) 96.7 170.0	Yield (CF/sks) 1.180 1.180	0.0 Volume (sks) 81.9 144.0
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL	Gel Weight (ppg) 15.6 15.6	Csg Type Csg OH	6.276 Plug No OD (in) 6.276 10.192	4700 5 Bottom (Ft) 2420 2120	2420 Top (Ft) 2120 1520	2280 Height (Ft) 300 200	0.0383 Volume (BBL/FT) 0.0383 0.1009	20% % of Excess 50% 50%	104.7 104.7 Volume (BBLs) 17.2 30.3 47.5	0.0 Volume (CF) 96.7 170.0 96.7	Yield (CF/sks) 1.180 1.180	0.0 Volume (sks) 81.9 144.0 226.0
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL	Gel Hole - Ce Weight (ppg) 15.6 15.6	Csg Type Csg OH	0D (in) 6.276 10.192	4700 5 Bottom (Ft) 2420 2120	2420 Top (Ft) 2120 1920	2280 Height (Ft) 300 200	0.0383 Volume (BBL/FT) 0.0383 0.1009	20% % of Excess 50% 50%	104.7 104.7 Volume (BBLs) 17.2 30.3 47.5	0.0 Volume (CF) 96.7 170.0 96.7	Yield (CF/sks) 1.180 1.180	0.0 Volume (sks) 81.9 144.0 226.0
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole	Gel Hole - Ce Weight (ppg) 15.6 15.6 15.6	Csg Type Csg OH t Plug I	6.276 Plug No OD (in) 6.276 10.192 No.6	4700 5 Bottom (Ft) 2420 2120	2420 Top (Ft) 2120 1920	2280 Height (Ft) 300 200	0.0383 Volume (BBL/FT) 0.0383 0.1009	20% % of Excess 50% 50%	104.7 104.7 Volume (BBLs) 17.2 30.3 47.5	0.0 Volume (CF) 96.7 170.0 96.7	Yield (CF/sks) 1.180 1.180 Yield	0.0 Volume (sks) 81.9 144.0 226.0
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg)	Csg ement I Type Csg OH t Plug I	6.276 Plug No.: OD (in) 6.276 10.192 No.6 OD (in)	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft)	2420 Top (Ft) 2120 1920	2280 Height (Ft) 300 200 Height	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/CT)	20% % of Excess 50% 50%	Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs)	0.0 Volume (CF) 96.7 170.0 96.7 Volume	Yield (CF/sks) 1.180 1.180 Yield (CE/cks)	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks)
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole	Gel Weight (ppg) 15.6 15.6 15.6 Cemen Weight (ppg) 15.6	Csg Type Csg OH t Plug I Type OH	6.276 OD (in) 6.276 10.192 10.192 No.6 OD (in) 0.192	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920	2420 Top (Ft) 2120 1920 Top (Ft) 1420	2280 Height (Ft) 300 200 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50%	Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1
Gel Spacer TOTAL 7" Cased Type Class A Neat TOTAL Open Hole Type Class A Neat	Gel Weight (ppg) 15.6 15.6 15.6 Cemen Weight (ppg) 15.6	Csg Type Csg OH t Plug I Type OH	6.276 OD (in) 6.276 10.192 No.6 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920	2420 Top (Ft) 2120 1920 Top (Ft) 1420	2280 Height (Ft) 300 200 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100%	Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole Type Class A Neat TOTAL	Gel Weight (ppg) 15.6 15.6 5.6 Cemen Weight (ppg) 15.6	Csg Type Csg OH t Plug 1 Type OH	6.276 OD (in) 6.276 10.192 No.6 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920	2420 Top (Ft) 2120 1920 Top (Ft) 1420	2280 Height (Ft) 300 200 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100%	104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9	0.0 Volume (CF) 96.7 170.0 96.7 96.7 Volume (CF) 566.6 566.6	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole Type Class A Neat TOTAL 10-3/4" Ca	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6	Csg Type Csg OH t Plug I Type OH e - Cem	6.276 Plug No.: OD (in) 6.276 10.192 No.6 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920 A No.7	2420 Top (Ft) 2120 1920 Top (Ft) 1420	2280 Height (Ft) 300 200 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100%	104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole Type Class A Neat TOTAL Class A Neat TOTAL	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hol Weight	Csg Type Csg OH t Plug I Type OH	6.276 OD (in) 6.276 10.192 No.6 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920 9 No.7 Bottom	2420 Top (Ft) 2120 1920 Top (Ft) 1420	2280 Height (Ft) 300 200 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100%	104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole Type Class A Neat TOTAL 10-3/4" Ca	Gel Weight (ppg) 15.6 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hold Weight (pog)	Csg Type Csg OH t Plug P Type OH e - Cem	6.276 OD (in) 6.276 10.192 No.6 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920 No.7 Bottom (Ft)	2420 Top (Ft) 2120 1920 Top (Ft) 1420	2280 Height (Ft) 300 200 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT)	20% % of Excess 50% 50% % of Excess 100%	104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks)	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1 Volume (sks)
Gel Spacer TOTAL 7" Cased 7" Cased 7" Cased 7" Cased 7" Cased 7" Cased 7" Cased 7" Cased 7" C	Gel Weight (ppg) 15.6 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hol Weight (ppg) 15.6	Csg Perment I Type Csg OH t Plug I Type OH e - Cem Type Csg	6.276 OD (in) 6.276 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920 No.7 Bottom (Ft) 1420	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100% % of Excess 20%	104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 100.9	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6 566.6 Volume (CF) 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480,1 480,1 480,1 480,1 Volume (sks) 288,1
Gel Spacer TOTAL 7" Cased 7" C	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hol (ppg) 15.6	Csg Perment I Type Csg OH t Plug I Type OH e - Cem Type Csg	6.276 OD (in) 6.276 10.192 No.6 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 2120 Bottom (Ft) 1920 No.7 Bottom (Ft) 1420	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100% % of Excess 20%	Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 Volume (BBLs) 60.5 60.5	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6 566.6 Volume (CF) 339.9 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1 480.1 Volume (sks) 288.1 288.1
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole Type Class A Neat TOTAL 10-3/4" Ca Type Class A Neat Type Class A Neat	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hol Weight (ppg) 15.6	Csg ement I Type Csg OH t Plug I Type OH e - Cem	6.276 OD (in) 6.276 10.192 No.6 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920 Bottom (Ft) 1420	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100% % of Excess 20%	104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 100.9 100.9 100.9 5 0.5 60.5 60.5	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6 566.6 Volume (CF) 339.9 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1 480.1 Volume (sks) 288.1 288.1
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole Type Class A Neat TOTAL 10-3/4" Ca Type Class A Neat TOTAL	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hole Weight (ppg) 15.6 Sed Hole Sed Hole	Csg Type Csg OH t Plug I Type OH e - Cem Type Csg e - Cem	6.276 OD (in) 6.276 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920 9 No.7 Bottom (Ft) 1420 9 No.8	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100% % of Excess 20%	104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 100.9 100.9 100.9 100.9 5 60.5 60.5	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6 566.6 Volume (CF) 339.9 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1 480.1 Volume (sks) 288.1 288.1
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole Type Class A Neat TOTAL 10-3/4" Ca Type Class A Neat TOTAL	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hole Weight (ppg) 15.6	Csg Type Csg OH t Plug I Type OH e - Cem Type Csg e - Cem	6.276 OD (in) 6.276 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 OD (in) 10.192 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920 9 No.7 Bottom (Ft) 1420 9 No.8 Bottom	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100% % of Excess 20%	104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 100.9 100.9 100.9 100.9 100.5 60.5 60.5	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6 566.6 566.6 Volume (CF) 339.9 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180 Yield	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1 Volume (sks) 288.1 288.1 288.1
Gel Spacer TOTAL 7" Cased Type Class A Neat Class A Neat TOTAL Open Hole Type Class A Neat TOTAL 10-3/4" Ca Class A Neat Type Class A Neat TOTAL 10-3/4" Ca	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hol Weight (ppg) 15.6 Sed Hol Weight (ppg)	Csg Type Csg OH t Plug I Type OH e - Cem Type Csg e - Cem Type	6.276 OD (in) 6.276 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 OD (in) 10.192 OD (in) 10.192 OD (in) 0D (in)	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920 No.7 Bottom (Ft) 1420 No.8 Bottom (Ft)	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920 Top (Ft)	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500 Height (Ft)	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100% % of Excess 20%	104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 Volume (BBLs) 60.5 60.5 60.5	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6 566.6 Volume (CF) 339.9 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180 Yield (CF/sks)	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1 480.1 480.1 480.1 288.1 288.1 288.1 Volume (sks)
Gel Spacer TOTAL 7" Cased 7" C	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6 Sed Hold Sed Hold Weight (ppg) 15.6 Sed Hold Sed Hold S	Csg Type Csg OH t Plug I Type OH e - Cem Type Csg e - Cem Type Csg	6.276 Plug No OD (in) 6.276 10.192 No.6 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 2120 Bottom (Ft) 1920 No.7 Bottom (Ft) 1420 No.8 Bottom (Ft) 920	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920 Top (Ft) 920	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100% % of Excess 20%	104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 Volume (BBLs) 60.5 60.5	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6 566.6 Volume (CF) 339.9 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1 480.1 480.1 288.1 288.1 288.1 288.1 288.1
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Gel Spacer TOTAL 7" Cased 7" C	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6	Csg Type Csg OH t Plug I Type OH e - Cem Type Csg e - Cem Type Csg	6.276 Plug No OD (in) 6.276 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 2120 Bottom (Ft) 1920 No.7 Bottom (Ft) 1420 No.8 Bottom (Ft) 1420	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920 Top (Ft) 420	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100% % of Excess 20%	104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 Volume (BBLs) 60.5 60.5 60.5 60.5 60.5 60.5	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6 566.6 Volume (CF) 339.9 339.9 339.9 339.9 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1 480.1 480.1 288.1 288.1 288.1 288.1 288.1 288.1 288.1
Gel Spacer TOTAL 7" Cased Type Class A Neat TOTAL Open Hole Type Class A Neat TOTAL 10-3/4" Ca Type Class A Neat TOTAL 10-3/4" Ca	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6	Csg Type Csg OH t Plug I Type OH e - Cem Type Csg e - Cem	6.276 Plug No OD (in) 6.276 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 OD (in) 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 No.192 No.192	4700 5 Bottom (Ft) 2420 2120 2120 Bottom (Ft) 1920 No.7 Bottom (Ft) 1420 No.8 Bottom (Ft) 920 No.9	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920 Top (Ft) 420	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 100% % of Excess 20%	104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 Volume (BBLs) 60.5 60.5 60.5 60.5 60.5 60.5	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 566.6 566.6 566.6 Volume (CF) 339.9 339.9 339.9 339.9 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 480.1 480.1 480.1 480.1 480.1 288.1 288.1 288.1 288.1 288.1 288.1 288.1
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Gel Spacer TOTAL 7" Cased 7" C	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6	Csg Type Csg OH t Plug I Type OH t Plug I Type Csg e - Cem Type Csg e - Cem Type Csg e - Cem	6.276 Plug No OD (in) 6.276 10.192 No.6 OD (in) 10.192 No.6 OD (in) 10.192 OD (in) 0.192 OD (in) 10.192 OD (in) 10.192 OD (in) 0.192 OD (in) 0D (in) 0D,(in) 0D,(in) 0D,(in) 0D,(in)	4700 5 Bottom (Ft) 2420 2120 Bottom (Ft) 1920 No.7 Bottom (Ft) 1420 No.8 Bottom (Ft) 1420 No.8 Bottom (Ft) 920 No.9 Bottom (Ft) 920	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920 Top (Ft) 420 Top (Ft)	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 20% % of Excess 20% % of Excess 20%	104.7 104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.5 60.5 60.5 60.5 60.5 60.5 60.5 60.5	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 366.6 566.6 566.6 Volume (CF) 339.9 339.9 339.9 339.9 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180 Yield (CF/sks)	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 288.1 288.1 288.1 288.1 288.1 288.1 288.1 288.1 288.1
Gel Spacer TOTAL 7" Cased 7" Cased 7" Cased 7" Cased 7" Cased 7" C	Gel Weight (ppg) 15.6 15.6 Cemen Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6 Sed Hold Weight (ppg) 15.6	Csg Type Csg OH t Plug I Type OH e - Cem Type Csg e - Cem Type Csg e - Cem Type Csg e - Cem	6.276 Plug No OD (in) 6.276 10.192 No.6 OD (in) 10.192	4700 5 Bottom (Ft) 2420 2120 2120 Bottom (Ft) 1920 No.7 Bottom (Ft) 1420 No.8 Bottom (Ft) 920 No.9 Bottom (Ft) 920 Bottom (Ft) 1420 Bottom (Ft) 1420 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1920 Bottom (Ft) 1420 Bottom (Ft) 1420 Bottom (Ft) 1420 Bottom (Ft) 1420 Bottom (Ft) 1420 Bottom (Ft) 1420 Bottom (Ft) 1420 Bottom (Ft) 1420 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 920 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft) 420 Bottom (Ft)	2420 Top (Ft) 2120 1920 Top (Ft) 1420 Top (Ft) 920 Top (Ft) 420 Top (Ft) 0	2280 Height (Ft) 300 200 Height (Ft) 500 Height (Ft) 500 Height (Ft) 500	0.0383 Volume (BBL/FT) 0.0383 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009 Volume (BBL/FT) 0.1009	20% % of Excess 50% 50% % of Excess 20% % of Excess 20% % of Excess 20%	104.7 104.7 104.7 104.7 Volume (BBLs) 17.2 30.3 47.5 Volume (BBLs) 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.9 100.5 60.5 60.5 60.5 60.5 60.5 60.5 60.5	0.0 Volume (CF) 96.7 170.0 96.7 Volume (CF) 3566.6 566.6 Volume (CF) 339.9 339.9 339.9 339.9 339.9 Volume (CF) 339.9	Yield (CF/sks) 1.180 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180 Yield (CF/sks) 1.180	0.0 Volume (sks) 81.9 144.0 226.0 Volume (sks) 288.1 288.1 288.1 288.1 288.1 288.1 288.1 288.1 288.1 288.1

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Rev 2 Page: 16 of 20 Well No: 11 State: West Virginia County: Marshall Field: Marshall County District: Franklin Location: TBD Quadrangle: New Martinsville Operator: Eagle Natrium, LL API No: 47-061-00523 Estimated TD: 6,816* Target Geology: Salina Formation Status: Inactive Solution Min	LONQU	IST	Westlake Chemical Natrium Facility Brine Well No. 11 Plugging and Abandonment Procedure			Project No: F1552 Date: November 09, 2020			2020	
Well No: 11 State: West Virginia County: Marshall Field: Marshall County District: Franklin Location: TBD Quadrangle: New Martinsville Operator: Eagle Nathrum, LL API No: 47-051-00523 Estimated TD: 6,816' Target Geology: Salina Formation Status: Inactive Solution Min	FIELD SE	RVILLE		R	lev 2		Page:	16	of	20
District: Franklin Location: TBD Quadrangie: New Martinsville Operator: Eagle Natrium, LL API No: 47-051-00523 Estimated TD: 6,816' Target Geology: Salina Formation Status: Inactive Solution Min	Well No: 11	State: Wes	st Virginia	County: I	Marshall		Field:	Marshal	I Coun	ity
API No: 47-051-00523 Estimated TD: 6,816' Target Geology: Salina Formation Status: Inactive Solution Min AFE AFE	District: Franklin	Location: 1	TBD	Quadran	gle: New Marti	nsville	Opera	tor: Eagle	e Natri	um, LLC
AFE	API No: 47-051-00523	Estimated	TD: 6,816'	Target G	eology: Salina	Formation	Status	: Inactive	e Soluti	on Mining
AFE										
PREPARED BY DATE APPROVED BY DATE Client APPROVAL DATE Client Signature				A	FE					

FIELD SERVICE		Plugg	Westlak Natriu Brine V ing and Aba R	lure [Project No: F1552 Date: November 09, 2020 Page: 17 of 20	
Well No: 11	State: V	Vest Virginia	County:	Marshall	F	Field: Marshall County
District: Franklin	Location	n' TBD	Quadran	dle: New Martinsv	ille (Operator: Eagle Natrium, LLC
API No: 47-051-00523	Estimat	ed TD: 6.816'	Target G	eology: Salina For	mation	Status: Inactive Solution Mining
			DIREC	CTIONS		
PREPARED BY	DATE	APPROVED BY	DATE	CLIENT	DATE	Client Signature

Google Maps Westlake Chemical to Wells Bottom, 3, WV 26155 Drive 1.6 miles, 4 min



Imagery ©2019 Google, Map data ©2019 1000 ft

via WV-2 S Fastest route, the usual traffic 4 min 1.6 miles

Explore Wells Bottom



LONQU	JISI	Γ	Westlak Natriu	e Chemical m Facility		Project No: F1552
	raviar	Plugg	Brine V ing and Aba	Date: November 09, 2020		
FIELD SI	ERVIGE		R	Page: 18 of 20		
/ell No: 11	State: We	est Virginia	County: I	Marshall		Field: Marshall County
istrict: Franklin	Location:	TBD	Quadran	gle: New Martinsvil	le	Operator: Eagle Natrium, LLC
PI No: 47-051-00523	Estimated	d TD: 6,816'	Target G	eology: Salina Forn	nation	Status: Inactive Solution Mining
		SU	IRVEY PLAT	OF WELLBORE		
PREPARED BY	DATE	APPROVED BY	DATE	CLIENT	DATE	Client Signature
IRW/ 11	/09/2020	RSC	11/00/2020	APPROVAL	-10 (- 7)	

KOBR MA 9	NAD '83 LATITUDE 39"45'00"
EAGLE NATRIUM LLC	
LAULE NATHON, LLO	
11.09 AU.±	Ø 508-P
WELL NO. BW 11	1381
47-051-00523	
17 007 00020	313-P @ 521-P 2400'
WELL NO BE 11	OP WELL NO
STATE PLANE COORDINATES NORTH ZONE (NAD 83)	310 443 BW 11 47.051.00523
N. 451,461.96 E. 1,593,239.36	AT-OSI-ODES
LAT=(N) 39.731844	
LONG=(#) 80.834358	11 227-P
N. 4,398,008 E. 514,194	EXISTING EPAVELOT
	11 1 MILLING MILLING
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E DADI USA ROM LLC.	LES PETET WELL NO VIEL
IN 78-14	WELL NO 47 051 00521 P
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2 11 11 1 M 28-114	(M /8.11)
9 18	NOTES ON SURVEY
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A PERIOD	REFERENCES ARE BASED ON GRID NORTH FOR THE WY STATE PLANE COORDINATE
	SYSTEM NORTH ZONE NAD '83 TRACT BOUNDARY SHOWN MEREON TAK
Lift.	FROM DEED BOOK 799 FACE 387 AND A PREVIOUS SURVEY BY SLS IN 2004 - 200
IT SLS	3 SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR
	AND COUNTY CLERK RECORDS OF MARSHAL COUNTY IN NOVEMBER, 2020.
and the state	WELL STATE PLANE, LAT /LONG AND UTM (NAD'8.3) COORDINATES ESTABLISHED F
100×100	DGP5(SURVEY GRADE)
	HILD (+) DENOTES LOCATION OF WELL ON UNITED
THE UNDERSIGNED, HEREBY CERTIFY THAT	CENSE STATES TOPOGRAPHIC MAPS
KNOWLEDGE AND BELIEF AND SHOWS ALL	ATE NOVENBER 4 20 20
THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED	STATE OF
BY THE DIVISION OF ENVIRONMENTAL PROTECTION	API
PS Wheet A Mila 1	E WELL 47 - 051 - 005
2294	STATE COUNTY PERMI
MINIMUM DEGREE	
OF ACGURACY 1/2500 FILE NO 30	1"= 200" DIVISION OF ENVIRONMENTAL PROTECTION
HORIZONTAL & VERTICAL	O CORS NETWORKI OFFICE OF OIL AND GAS
TYPE OIL GAS INJECTION X DISPOSA	IF "GAS" PRODUCTION STORAGE DEEP X SHALLOW
LOCATION : GROUND	
ELEVATION WATERS	HED OHIO RIVER
DISTRICT FRANKLIN CON	UNTY_MARSHALL QUADRANGLE NEW MARTINSVILLE 7.5
SURFACE OWNEREAGLE NATRIUM, LLC	ACREAGE 11 69 ±
ROYALTY OWNEREAGLE NATRIUM, LLC	ACREAGE
DROBOSED WORK	LEASE NO
PROPOSED WORK :	REDRILL FRACTURE OR STIMULATE PLUG OFF O
DRILL CONVERT DRILL DEEPER	
PROPOSED WORK : DRILL CONVERT FORMATION PERFORATE NEW FORMATION	PLUG AND ABANDON_XCLEAN OUT AND REPLUGOTHER
PROPOSED WORK : DRILL CONVERT PROMATION PERFORATE NEW FORMATION PHYSICAL CHANGE IN WELL (SPECIFY)	PLUG AND ABANDON_XCLEAN OUT AND REPLUGOTHER TARGET FORMATIONSALINA
PROPOSED WORK : DRILL CONVERT DRILL DEEPER FORMATION PERFORATE NEW FORMATION PHYSICAL CHANGE IN WELL (SPECIFY)	PLUG AND ABANDON_XCLEAN OUT AND REPLUGOTHER TARGET FORMATIONSALINA ESTIMATED DEPTH
PROPOSED WORK : DRILL CONVERT DRILL DEEPER FORMATION PERFORATE NEW FORMATION PHYSICAL CHANGE IN WELL (SPECIFY) WELL OPERATOR EAGLE NATRIUM, LLC	PLUG AND ABANDON_XCLEAN OUT AND REPLUGOTHER TARGET FORMATIONSALINA ESTIMATED DEPTH DESIGNATED AGENTTHOMAS HORAN
PROFOSED WORK : DRILL CONVERT DRILL DEEPER FORMATION PERFORATE NEW FORMATION PHYSICAL CHANGE IN WELL (SPECIFY) WELL OPERATOR EAGLE NATRIUM, LLC ADDRESS P.O. BOX 191	PLUG AND ABANDON_X CLEAN OUT AND REPLUGOTHER TARGET FORMATIONSALINA ESTIMATED DEPTH DESIGNATED AGENTTHOMAS HORAN ADDRESS P.O. BOX 191

elein di	DVIDE	Pluggi	Brine W ng and Aba	Date: November 09, 2020	
FIELD 3	ERVICE		R	Page: 19 of 20	
/ell No: 11	State: Wes	t Virginia	County: I	Marshall	Field: Marshall County
istrict: Franklin	Location: T	BD	Quadran	gle: New Martinsville	Operator: Eagle Natrium, LLC
PI No: 47-051-00523	Estimated 7	TD: 6,816'	Target G	eology: Salina Format	tion Status: Inactive Solution Minir
			VENDOR P	ROPOSALS	
PREPARED BY	DATE AP	PROVED BY	DATE	CLIENT DAT	TE Client Signature
				AFFROVAL	

LONQU FIELD S	Plugg	Westlak Natriu Brine V jing and Aba R	Project No: F1552 Date: November 09, 2020			
	Ctata: M	West Virginia	County	Marchall		Field: Marshall County
Vveil No: 11	State. W		Ounty.	alo: Now Mortin	cvillo	Operator: Fagle Natrium 11C
	Location		Quadran	cology: Salina I	Formation	Status: Inactive Solution Mining
			SAFET	Y PLAN		
	DATE		DATE	CLIENT	DATE	Client Signature

47 - 051 - 00523 P

Page <u>1</u> of <u>4</u>

State of West Virginia Department of Environmental Protection – Office of Oil and Gas Well Operator's Report of Well Work

API <u>47</u> 051 0523 County	Marshall	District Franklin	
Quad New Martinsville, WV Pad Na	_{ne} N/A	Field/Pool Name N	/A
Farm name Axiall Corp.		Well Number No.	11 Injection
Operator (as registered with the OOG) Eagle Na	trium LLC/Axiall Corp.		
Address N. St. Rt. 2,	City New Martinsville	State _WV	Zip_26155
As Drilled location NAD 83/UTM Attach a Top hole Northing Landing Point of Curve Northing Bottom Hole Northing Elevation (ft) GL Type Permit Type □ Deviated □ Horizontal □ Type of Operation □ Convert □ Deepen □ I Well Type □ Brine Disposal □ CBM □ Gas □ C Type of Completion □ Single □ Multiple Flue Drilled with □ Cable ■ Rotary	n as-drilled plat, profile view, a Ea Ea of Well DNew Existing Horizontal 6A Vertical Drill DPlug Back DRed Dil DSecondary Recovery S ids Produced DBrine DGas	nd deviation survey sting	Interim IFinal Deep I Shallow Stimulate Orage I Other Vater Injection
Drilling Media Surface hole Air Mud Production hole Air Mud Fresh Water Mud Type(s) and Additive(s) Brine Water mixed with 2%KCL	Fresh Water Intermediate	hole 🗆 Air 🗆 Mud	□ Fresh Water □ □ Brine RECEIVED Office of Oil and Gas <u>NOV 1 2 20</u> 20
Date permit issued Date dril Date completion activities began N/A Verbal plugging (Y/N) N Date permission	ing commenced 10/26/201 Date completion act on granted N/A	3 Date drilling c ivities ceased Granted by	WV Department of Environmental Protection 2015 N/A N/A
Please note: Operator is required to submit a pluggi	ng application within 5 days of	verbal permission to p	lug
Freshwater depth(s) ft 50'	Open mine(s) (Y/N)	depths	N/A
Salt water depth(s) ft 1050'-1750'	Void(s) encountered	(Y/N) depths	N/A
Coal depth(s) ft 256' - 261'	Cavern(s) encountere	d (Y/N) depths	N/A
Is coal being mined in area (Y/N)	 		

Reviewed by:

.

API 47- 051	0523	Farm r	ame_Axiall C	orp.	· · · · · · · · · · · · · · · · · · ·	W	ell number_N	o. 11 Inje	ection
CASING STRINGS	Hole Size	Casing Size	Depth	New or Used	Grade wt/ft	••••••	Basket Depth(s)	Did cerr * Provi	ient circulate (Y/N) de details below*
Conductor		16"	62'	New	5	2.36			
Surface									
Coal									
Intermediate 1		10 3/4"	1609'	New	H-40	@32.75			
Intermediate 2									
Intermediate 3									
Production		7"	8455'	New	N-80 (@ 26lb/ft	·		
Tubing		5"	365'	1	N-80	@18lb/ft			
Packer type and d	epth set			L		<u> </u>			
squeezed from 4950 CEMENT DATA	0' to 2120'. Class/Type of Cement	Numbe of Sack	r Sluri s wt (pr	y Y og) (ft	Tield ³ /sks)	Volume $(ft^{\frac{3}{2}})$	e Cem Top (ient MD)	WOC (hrs)
Conductor									
Surface									
Coal									
Intermediate 1							Surf	ace	
Intermediate 2									<u></u>
Intermediate 3									
Production							21	20'	
Tubing									
Drillers TD (ft)	N/a			Loggers T	D (ft) <u>N/A</u>				
Deepest format	ion penetrated	N/A		Plug back	to (ft) <u>N/A</u>				
Plug back proc	cedure <u>N/A</u>								
Kick off depth	(ft)_N/A								
Check all wirel	ine logs run	a caliper	density	🗆 deviate	d/directio	onal 🗆	induction		

		-		□ neutron	🗆 resi	istivity	🗆 gamma ray		temperature	□so	onic	
Well cored	🗆 Yes		No	Convent	ional	Sidewa	12	Were cutt	ings collected	🗆 Yes	οN	lo
DESCRIBE	THE CI	ENT	RALIZEI	R PLACEM	ENT US	ED FOR	EACH CASINC	STRING	<u>N/A</u>			RECEN/ED Office of Oil and Gas
												NOV 1 2 2020
WAS WELL	, COMP	LET	ED AS S	HOT HOL	E o Ye	es 🗆 N	o DETAIL	S <u>N/A</u>			E	W Department of nvironmental (rotection
WAS WELL	COMP	LET	ED OPE	N HOLE?	🗆 Yes	🗆 No	DETAILS	N/A				
WERE TRA	CERS U	ISEE) 🗆 Yes	🗆 No	ТҮРЕ	OF TRA	CER(S) USED	N/A				

Page 2_ of 4____

API 47. 051 ____0523 _____ Farm name_Axiall Corp. _____ Well number_____No. 11 Injection

Stage No.	Perforation date	Perforated from MD ft.	Perforated to MD ft.	Number of Perforations	Formation(s)
N/A					
D				· · · ·	

PERFORATION RECORD

Please insert additional pages as applicable.

STIMULATION INFORMATION PER STAGE

Complete a separate record for each stimulation stage.

Stage No.	Stimulations Date	Ave Pump Rate (BPM)	Ave Treatment Pressure (PSI)	Max Breakdown Pressure (PSI)	ISIP (PSI)	Amount of Proppant (lbs)	Amount of Water (bbls)	Amount of Nitrogen/other (units)
N/A		Ţ	T	T				
				-				
						+		
		· · · · · · · · · · · · · · · · · · ·			······			
					<u> </u>			
					· · · · · · · · · · · · · · · · · · ·			
								- OfFERENCEN,ED
								- mod or Oir and Ga

Please insert additional pages as applicable.

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PRODUCING	FORMATION	(<u>S)</u>	<u>DEPTHS</u>	TVD		MD	
Please insert ac	dditional pages a	as applicable.					
GAS TEST	□ Build up c	Drawdown	Open Flow	(DIL TEST 🗆 FI	ow 🗆 Pump	
SHUT-IN PRE	SSURE Surf	face	psi Botte	om Hole	psi I	DURATION OF 7	TEST hrs
OPEN FLOW	Gas mcf	Oil ſpd	NGL bpd	_ bpd	Water bpd	GAS MEASURE	D BY Orifice 🗆 Pilot
LITHOLOGY/ FORMATION	TOP DEPTH IN FT	BOTTOM DEPTH IN FT	TOP DEPTH IN FT	BOTTOM DEPTH IN F	T DESCRIBE RO	OCK TYPE AND REG	CORD QUANTITYAND
	NAME TVD	TVD	MD	MD	TYPE OF FLU	ID (FRESHWATER,	BRINE, OIL, GAS, H ₂ S, ETC)
						1	
····							
Please insert ad	ditional pages as	s applicable.					
Drilling Contrac	ctor Viking Drillin	ng				_	
Audress			City			State2	Cip
Logging Compa Address	my Baker Hughe	es	City	<u>_</u> _		State	Vin
	Bakar Hur		City			State 2	יור <u></u>
Jementing Com Address	ipany <u>Daker Hu</u> g	y 100	City			State 7	<i>Lip</i>
Stimulating Con	npany N/A						
Address			City			State Z	
Please insert add	litional pages as	applicable.					Office RECE
completed by	Edward T. McLa	ughlin			Telephone 30	04-455-2200-3476	
ignatur 2	which T. 1	Jough	C: Title Bri	ne Field Engin	eer	Date 11/20/	2014 NUV 1

47-051-00523 P

-747

Page <u>4</u> of <u>4</u>

Outdrappel New Martingville		AND GAS DIVISION	.6	Lable T	
Permit No. HARS 523	WE	LL RECORI	D	Storage	051-0052
motor Pittsburgh Plate (1)a	e Coment			CAI 67 G	interest interest
ddress New Martinsville, We	st Virginie	Casing and Tubing	i Used in Drilling	Left in Well	Packers
erm. et n. wells	Acres_				
ell No	Eley 639	8ize	62	62	
strict_BranklinCounty	Marshall	18			Kind of Packer
e surface of tract is owned in fee by_	Pitteburgh	10_3/4_	1608	1608	Rise of
Address	NEW MERCINSALT	Le84		•	71
Lass Company	Ver Manhdameda		8454	8454	Depth set 7390
illing commenced April 18, 19	Sherry Marcomercel	6 3/16			
Illing completed July 4, 1964		ð			Perf. top
te ShotFrom		2			Perf. bottom
th		winers Used_			Perf. top
In Flow /10ths Water In	•	Insh			Perf. bottom
/10ths Mere. in		Inch			
ume	Cu.	PL CASING CEI	MENTED 10-3/	BIZE 1605	No. FLAPPIL 23 Date
ck Pressureibs.	•	hrs.		84	
	bbis., 1st 24	hrs. COAL WAS	encountered	AT	PEETINCHES
ELL ACIDIZED		FE	etinci	HES	FEETINCHES
BULT AFTER TREATMENT CK PRESSURE AFTER TREATMEN	it	······································			
Parmetion Coles Han	reet	Balt Water		Feet	
linit Se	t Top	Bottom	or Water	Depth	Remarks
nongahelaj	. 0	256	•	1	
Pittsburgh Coal	1 954	1 70-5	1		
GH VVILL	< 200	[03	1		•
Ames Line	· 256	261			•
Ames Line Saltsburg Sand	250 256 115 503	261 423 527			•
Ames Line Saltsburg Sand ((1st Cown Rnn)	256 256 115 \$03	261 423 527			•
Ames Line Saltsburg Sand (1st Cown Run) Brush Creek Line	256 415 503. 710	703 261 423 527 716			•
Ames Line Saltsburg Sand (1st Cown Run) Brush Creek Line ogheny Upper Freeport Line	250 256 415 ~503 710 783 780	703 261 423 527 716 1070			•
Ames Lime Saltsburg Sand (1st Cown Run) Brush Creek Lime Joper Freeport Lime Lover Kitt. Coal Hor.	256 415 503 710 783 789 1024	703 261 423 527 716 1070 800 1027			•
Ames Lime Saltsburg Sand (1st Cown Run) Brush Greek Lime Upper Freeport Lime Lover Kitt. Coal Hor. tsville Form.	256 415 503 710 783 789 1024 1070	703 261 423 527 716 1070 800 1027 1245			
Ames Lime Saltsburg Sand (1st Cown Run) Brush Creek Lime legheny Upper Freeport Lime Lower Kitt. Coal Hor. itsville Form, Honewood Sands	256 415 503 710 783 789 1024 1070 :1070	703 261 423 527 716 1070 800 1027 1245 1122			
Ames Lime Saltsburg Sand (1st Cown Run) Brush Creek Lime Legheny Upper Freeport Lime Lower Kitt. Coal Hor. Staville Form. Homewood Sanis Maxton Sand	256 115 503 710 783 789 1024 1070 1070 1210	703 261 423 527 716 1070 800 1027 1245 1122 1245			•
Ames Lime Saltsburg Sand (1st Cown Run) Brush Creek Lime Joper Freeport Lime Lover Kitt. Coal Hor. tsville Form. Honewood Sands Maxton Sand Miss. System	256 415 503 710 783 789 1024 1070 1070 1210 1245	703 261 423 527 716 1070 800 1027 1245 1122 1245 1122 1245			
Ames Line Saltsburg Sand (1st Cown Run) Brush Creek Line egheny Upper Preeport Line Lower Kitt. Coal Hor. tsville Form. Homewood Sands Maxton Sand Miss. System Little Line Boneil Comp Ch.	256 115 503 710 783 789 1024 1070 1070 1210 1245 1257	703 261 423 527 716 1070 800 1027 1245 1122 1245 1122 1245			
Ames Line Saltsburg Sand (1st Cown Run) Brush Greek Line Joper Preepart Line Lower Kitt. Coal Hor. tsville Form. Honewood Sands Maxton Sand Miss. System Little Line Pencil Cave Shale	256 115 503 710 783 789 1024 1070 1070 1210 1215 1257 1278	703 261 423 527 716 1070 800 1027 1245 1122 1245 1122 1245 1288			
Ames Lime Saltsburg Sand (1st Cown Run) Brush Greek Lime Upper Freeport Lime Lower Kitt. Coal Hor. tsville Form. Homewood Sanis Maxton Sand Miss. System Little Lime Pencil Cave Shale Greenbrier Lime	256 115 503 710 783 789 1024 1070 1070 1210 1215 1257 1278 1288	703 261 423 527 716 1070 800 1027 1245 1125 1245 1245 1245 1245 1288 1288 1288 1375	•		
Ames Lime Saltsburg Sand (Ist Cown Run) Brush Greek Lime Upper Freeport Lime Lover Kitt. Coal Hor. tsville Form. Honewood Sands Maxton Sand Miss. System Little Lime Pencil Cave Shale Greenbrier Lime "Big Lime"	256 115 503 710 783 789 1024 1070 1070 1210 1215 1257 1278 1286 2	103 261 423 527 716 1070 800 1027 1245 1122 1245 1122 1245 1128 1288 1375	elt 7210'2	211 173-	5 Sc
Ames Lime Saltsburg Sand (1st Cown Run) Brush Greek Lime Lower Kitt. Coal Hor. Lower Kitt. Coal Hor. Itsville Form. Honewood Sands Maxton Sand Maxton	256 115 503 710 783 789 1024 1070 1024 1070 1210 1210 1215 1257 1278 1288 2	261 423 527 716 1070 800 1027 1245 1122 1245 1122 1245 1285 1278 1288 1375	elt 7210-	NIP BD	
Ames Lime Saltsburg Sand (1st Cown Run) Brush Creek Lime legheny Upper Freeport Lime Lover Kitt. Coal Hor. Lover Kitt. Coal Hor. Hor. Hor. Hor. Hor. Hor. Hor. Hor.	256 115 503 710 783 789 1024 1070 1070 1210 1210 1245 1257 1278 1288 A 1375 1375	261 423 527 716 1070 800 1027 1245 1122 1245 1122 1245 1122 1245 1278 1288 1375 34548 1620	alt 6700		
Ames Lime Saltsburg Sand (1st Cown Run) Brush Creek Lime legheny Upper Preeport Lime Lover Kitt. Coal Hor. Lover Kitt. Coal Hor. Hor. Hor. Hor. Big Lime Weir Beres Sand	256 415 503 710 783 789 1024 1070 1210 1210 1245 1257 1278 1288 1375 1375 1757	261 423 527 716 1070 800 1027 1245 1122 1245 1278 1288 1375 54548 1620 1840	intr 60000		
Ames Line Saltsburg Sand (lst Cown Run) Brush Creek Line Legheny Upper Preeport Line Lower Kitt. Coal Hor. Lower Kitt. Coal Hor. ttsville Form. Honswood Sands Maxton Sand Maxton Sand Max	256 115 503 710 783 789 1024 1070 1070 1210 1245 1257 1278 1288 1288 1375 1375 1375 1950	261 423 527 716 1070 800 1027 1245 1122 1245 1122 1245 1278 1288 1375 34948 1620 1840 1982	alt 6 10 1	NIP JJ Sast	
Ames Lime Saltsburg Sand (1st Cown Run) Brush Creek Lime legheny Upper Preeport Lime Lover Kitt. Coal Hor. toville Form. Homewood Sands Maxton Sand Miss. System Little Lime Pencil Cave Shale Greenbrier Lime "Big Lime" ono' Keener. Big Injun Weir Beres Sand Norison Devonian System	256 115 503 710 783 789 1024 1070 1070 1210 1245 1257 1278 1288 1288 1375 1375 1375 1375	261 423 527 716 1070 800 1027 1245 1122 1245 1278 1288 1375 1620 1840 1982	11 10 10 10 10 10 10 10 10 10 10 10 10 1	NIP JA	
Ames Lime Saltsburg Sand (lst Cown Run) Brush Creek Lime legheny Upper Preeport Lime Lover Kitt. Coal Hor. tsville Form. Honewood Sands Maxton Sand Miss. System Little Lime Pencil Cave Shale Greenbrier Lime "Big Lime" ono' Keener. Big Injun Weir Berea Sand Horizon Devonian System Catskill 7	256 115 503 710 783 789 1024 1070 1070 1070 1210 1245 1257 1278 1288 1288 1375 1375 1375 1375 1375	261 423 527 716 1070 800 1027 1245 1122 1245 1278 1288 1375 1620 1840 1982	The Contract of the Contract o	HIP JA HIP	
Ames Line Saltsburg Sand (lst Cown Run) Brush Creek Line Legheny Upper Freeport Line Lower Kitt. Coal Her. tower Sand Katter Sand Her. tower State Sand Her. tower Sand	256 115 503 710 783 789 1024 1070 1070 1210 1245 1257 1278 1288 1375 1375 1375 1375 1757 1950 1982 2905	261 423 527 716 1070 800 1027 1245 1122 1245 1278 1288 1375 14548 1620 1840 1982 2295	The second and the second seco	NIP SI SANA FEU 1:65 CEIVED SI Virginia CO Minas	
Ames Line Saltsburg Sand (1st Cown Run) Brush Creek Line legheny Upper Freeport Line Lover Kitt. Coal Hor. Itsville Form. Honewood Sands Maxton Sand P Miss. System Little Line Pencil Cave Shale Greenbrier Line "Big Line" cono! Keener, Big Injun Weir Berea Sand Rorison P Devonian System Catskill 7 Chemung Riley	256 115 503 710 783 789 1024 1070 1070 1210 1245 1257 1278 1288 1375 1375 1375 1375 1375 1375 1375 1375 1950 1982 2295 2005	261 423 527 716 1070 800 1027 1245 1122 1245 1278 1288 1375 14548 1620 1840 1982 2295 3460	The second secon	NIP SI SAN SI SA	

Tioga metabentonito Onondsga Lime Oriskany (Ridgelsy) " (Shrivar) Helderberg Top Silurian Keyser Lime Salina I.ockport (2000000000000000000000000000000000000	(5805 5823 6048 6132 6287 6405 6405 6405 6507 7492 7804 7833 8149 8238 8261 8285	5812 6048 6132 6267 6405 6507 7492 7833 7833 8282 8129 8246 8277 8466	(Sult 67/8-	472 6832 = 7277 = 7277 =	051-00523 P 90%+ Halite 10% Halite 5-80% Halite
Red Medina Sands	8317 8359 8444	8342 8450 8450	· ·		
Queenston Total Denth	8462				
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		* *			



47 - 051 - 00523P

RECEIVED Office of Oil and Gas

NOV 1 2 2020

WV Department of Environmental Protection

NDTES: a.) DRIGINAL DRILL DATE : 1961- 196 b.) FIELD MDDIFICATIONS DONE IN 3/20 c.) SEE SK-40911 FOR DRIGINAL LOG/CO	62 013. ROSS SECTION.		3 DMW 2 DMW 1 DWS	6300' [REMDVE] 91/50// 100// 100//	IF 5-1/2'Ø CA:))/ADDED WATER VELS EXISTING CAV	SING AND ITY
			REV. By	DATE	ESCRIPTION	
	DEPT: 70 - BI	RINE				
	TITLE: #11 BRIN	NE WELL (API #47	-051-0523)		
	ELEVAT	I EINAL CRE	ISS SECT	ION		
	DRAWING TYPE:	MECHANIC	al proce	SS EQUIPMEN	t mpe	
	EQUIPMENT No:	7000-115	-0011			
	а		DRAWN	M. HUSARIK	DATE 12/0	09/13
	X		CHECKEI) E. McLAUGH	IN DATE 12/0	09/13
	Î		app' VD	e, McLaughl	IN DATE 12/0	09/13
	l â		SCALE :	NONE	ACAD YES	
			JOB No	P-XXX-G		REV
	NATRIL	ЛМ	DWG	70-264	4	3

-y D)



	SLS		SYSTEM NORTH ZONE NAD '83 2. TRACT BOUNDARY SHOWN HEREON TAKEN FROM DEED BOOK 799 PAGE 387 AND A PREVIOUS SURVEY BY SLS IN 2004 – 2005 3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF MARSHALL COUNTY IN NOVEMBER, 2020. 4. WELL STATE PLANE, LAT,/LONG, AND UTM (NAD'83) COORDINATES ESTABLISHED BY DGPS(SURVEY GRADE).
I THE UNDERSIGNE THIS PLAT IS CORR KNOWLEDGE AND F THE INFORMATION THE REGULATIONS BY THE DIVISION O P.S 2294	D, HEREBY CERTIFY THAT ECT TO THE BEST OF MY BELIEF AND SHOWS ALL REQUIRED BY LAW AND ISSUED AND PRESCRIBED F ENVIRONMENTAL PROTECTION	J HILTON (+) DEN CENSED (+) DEN JO. 2294 (+) DAT IO. 2294 (+) DAT STATE OF (+) OPE ONAL SUR (1) (+) DEN ONAL SUR (+) DEN NO	NOTES LOCATION OF WELL ON UNITED TATES TOPOGRAPHIC MAPS. TE
MINIMUM DEGREE OF ACCURACY HORIZONTAL & VEF ONTROL DETERMIN WELL TYPE OIL LOCATION :	1 / 2500 FILE NO. 8874PBW1 SCALE 1" = 20 SCALE 1" = 20 NED BY DGPS (SURVEY GRADE TIE TO CORS) BRINE & LIQUID WASTE GAS INJECTION_X DISPOSAL GROUND Karte	1-PLUG.dwg STA 0' DIVISIO NETWORK) OFF IF "GAS" PRODUCTION	TE OF WEST VIRGINIA N OF ENVIRONMENTAL PROTECTION FICE OF OIL AND GAS
ELEVATION DISTRICT SURFACE OWNER ROYALTY OWNER PROPOSED WORK DRILL C	WATERSHED FRANKLIN COUNTY EAGLE NATRIUM, LLC EAGLE NATRIUM, LLC : ONVERT DRILL DEEPER RI		QUADRANGLE NEW MARTINSVILLE 7.5' OF ACREAGE 11.69 ± OF ACREAGE DE OF JRE OR STIMULATE PLUG OFF OLD
FORMATION PHYSICAL CHANGE	PERFORATE NEW FORMATION PLU(G AND ABANDON_X TARGET F ESTIMA	CLEAN OUT AND REPLUG OTHER ORMATION SALINA FED DEPTH
WELL OPERATOR ADDRESS	EAGLE NATRIUM, LLC P.O. BOX 191 NEW MARTINSVILLE, WV 26155	DESIGNATED AGENT	J. THOMAS HORAN P.O. BOX 191 NEW MARTINSVILLE, WV 26155











100	Select County (051) Marshall	Select datatypes: 0	Check All)		Table Descriptions County Code Translatio	<u>ns</u>	
WVGES	523	Location	7 Production	2 Plugging	Permit-Numbering Serie Usage Notes	14	
	Enter Permit #, 020	W Owner/Completion	J Stratigraphy	✓ Sample	Contact Information		
"Pipeline"	Get Data Reset	Pay/Show/Water	V Logs	7 Btm Hole Loc	WVGES Main "Pipeline-Plus" New		
WV Geological & Economic S	Survey:	Well:	County = 0	51 Permit =	523	Report Tim	te: Tuesday, May 31, 2011 4:30:49 PM
Location Information	View Map						
API COUNTY PER	RMIT TAX_DISTRICT QUAD_75 Q	UAD_15 LAT_DD LC avy Martineville_39.73151680	N_DD_UTME 182923_514633.8	UTMN 4397972 7			
Owner Information API CMP_DT SUF 4705100523 7/-/1964 Orig	FFIX STATUS FARM jinal Loc Completed J Wells/Allied Chem 8	WELL_NUM CO_NUM I J N Wells 11	EASE LEASE_N	UM MINERAL_OV	VN OPERATOR P PPG Industries, Inc.	ROP_VD PROP_TRG	T_FM
Completion Information.		The second second	A A REALING		Station in the second		
API CMP_DT SPU 4705100523 7/-/1964 -/	JD_DT ELEV DATUM FIELD DI 636 Ground Level Unnamed Ju	EEPEST_FM DEEPEST_FMT miata Fm Tuscarora Ss	Miscellaneous W	FINAL_CLASS ell Unsuccessful	Brine Rotary Nat/Open	HD TVD TMD NEW_ H 6470 8470	FTG G_BEF G_AFT O_BEF O_AFT P_ 0 0 0 0 0 0
There is no Pay data for	r this well						
There is no Production	Gas data for this well						
There is no Production	Oil data for this well						

API	SUFFIX	FM	FM_QUALITY	DEPTH_TOP	DEPTH_QUALITY	THICKNESS	THICKNESS_QUALITY	ELEV	DATUM
4705100523	Original Loc	Pittsburgh coal	Well Record	256	Reasonable	5	Reasonable	636	Ground Level
4705100523	Original Loc	Ames Ls	Well Record	415	Reasonable	8	Reasonable	636	Ground Level
4705100523	Original Loc	1st Cow Rn/Moundsvle	Well Record	503	Reasonable	24	Reasonable	636	Ground Level
4705100523	Original Loc	Lo Kittanning coal	Well Record	1024	Reasonable	3	Reasonable	636	Ground Level
4705100523	Original Loc	Homewd Ss/2n Cow Run	Well Record	1070	Reasonable	52	Reasonable	636	Ground Level
4705100523	Original Loc	Little Lime	Well Record	1257	Reasonable	21	Reasonable	636	Ground Level
4705100523	Original Loc	Pencil Cave	Well Record	1276	Reasonable	10	Reasonable	636	Ground Level
4705100523	Original Loc	Big Lime	Well Record	1288	Reasonable	87	Reasonable	636	Ground Level
4705100523	Original Loc	Greenbrier Group	Well Record	1288	Reasonable	87	Reasonable	636	Ground Level
4705100523	Original Loc	Big Injun (Price&eq)	Well Record	1375	Reasonable	245	Reasonable	635	Ground Level
4705100523	Original Loc	Weir	Well Record	1757	Reasonable	83	Reasonable	636	Ground Level
4705100523	Original Loc	Berea Ss	Well Record	1950	Reasonable	32	Reasonable	636	Ground Level
4705100523	Original Loc	Hampshire Grp	Well Record	1982	Ostnble Pick	313	Reasonable	636	Ground Level
4705100523	Original Loc	Greenland Gap Fm	Well Record	2295	Reasonable	1165	Reasonable	636	Ground Level
4705100523	Original Loc	Riley	Well Record	2905	Reasonable	47	Reasonable	635	Ground Level
4705100523	Original Loc	Benson	Well Record	3052	Reasonable	6	Reasonable	635	Ground Level
4705100523	Original Loc	Brallier	Well Record	3460	Reasonable	1427	Reasonable	635	Ground Level
4705100523	Original Loc	Harrell Sh	Well Record	4887	Reasonable	63	Reasonable	636	Ground Level
4705100523	Original Loc	Hamilton	Well Record	4950	Reasonable	282	Reasonable	635	Ground Level
4705100523	Original Loc	Marcellus Sh	Well Record	5232	Reasonable	590	Ostrible Pick	638	Ground Level
4705100523	Original Loc	Onondaga Ls	Well Record	5823	Reasonable	225	Reasonable	636	Ground Level
4705100523	Original Loc	Oriskany	Well Record	6048	Reasonable	84	Reasonable	635	Ground Level
4705100523	Original Loc	Helderberg	Well Record	5132	Reasonable	273	Reasonable	635	Ground Level
4705100523	Original Loc	Salina	Well Record	6405	Reasonable	1087	Reasonable	635	Ground Level
4705100523	Original Loc	McKenzie Fm	Well Record	7492	Reasonable	312	Ostnble Pick	635	Ground Level
4705100523	Original Loc	Keefer Ss.	Well Record	7804	Reasonable	29	Reasonable	636	Ground Level
4705100523	Original Loc	Rose Hill Fm	Well Record	7833	Reasonable	509	Qstrible Pick	636	Ground Level
4705100523	Original Loc	Tuscarora Ss	Well Record	8359	Reasonable	91	Reasonable	635	Ground Level
4705100523	Original Loc	Juniata Fm	Well Record	8462	Reasonable	0	Reasonable	635	Ground Level

There is no Wireline (E-Log) data for this well

There is no Plugging data for this well

There is no Sample data for this well

RECEIVED Office of Oil and Gas

NOV 1 2 2020

W// Depail/Jent of Environmental (Protection

5/31/2011

47 - 051 - 00523P

WW-4A Revised 6-07 1) Date: 11/9/2020 2) Operator's Well Number No. 11 Brine Well

3) API Well No.: 47 - 051 - 00523

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS <u>NOTICE 0F APPLICATION TO PLUG AND ABANDON A WELL</u>

4) Surface Ow	ner(s) to be served:	5) (a) Coal Operator	
(a) Name	Eagle Natrium, LLC	Name	
Address	P.O. Box 191	Address	
	New Martinsville, WV 26155		
(b) Name		(b) Coal Owner(s) with Declaration	
Address		Name	_
		Address	
(c) Name		Name	
Address		Address	
6) Inspector	James Nicholson	(c) Coal Lessee with Declaration	-
Address	P.O. Box 44	Name	
figure ob	Moundsville, WV 26041	Address	
Telephone	304-552-3874		

TO THE PERSONS NAMED ABOVE: You should have received this Form and the following documents:

- (1) The application to Plug and Abandon a Well on Form WW-4B, which sets out the parties involved in the work and describes the well its and the plugging work order; and
- (2) The plat (surveyor's map) showing the well location on Form WW-6.

The reason you received these documents is that you have rights regarding the application which are summarized in the instructions on the reverses side. However, you are not required to take any action at all.

Take notice that under Chapter 22-6 of the West Virginia Code, the undersigned well operator proposes to file or has filed this Notice and Application and accompanying documents for a permit to plug and abandon a well with the Chief of the Office of Oil and Gas. West Virginia Department of Environmental Protection, with respect to the well at the location described on the attached Application and depicted on the attached Form WW-6. Copies of this Notice, the Application, and the plat have been mailed by registered or certified mail or delivered by hand to the person(s) named above (or by publication in certain circumstances) on or before the day of mailing or delivery to the Chief.

	Well Operator	Eagle Natrium, LLC	RECEIVED
OFFICIAL SEAL	By:	APAthan	Office of Oil and Gas
	Its:	Agent	UOU-1 0 2020-
STATE OF WEST VIRGINIA	Address	P.O . Box 191	NOV 1 2 2020
E KAY THOMAS		New Martinsville, WV 26155	MAC Proceedings of
My Commission Expires October 19, 2025	Telephone	304-451-3797	Environmental Protection
Subscribed and sworn before me t	his 9th d	av of November	
E: Kay The	2	Notary Public	-
My Commission Expires	Ct 13, 6	2025	

Oil and Gas Privacy Notice

The Office of Oil and Gas processes your personal information, such as name, address and phone number, as a part of our regulatory duties. Your personal information may be disclosed to other State agencies or third parties in the normal course of business or as needed to comply with statutory or regulatory requirements, including Freedom of Information Act requests. Our office will appropriately secure your personal information. If you have any questions about our use of your personal information, please contact DEP's Chief Privacy Officer at <u>depprivacyoffier@wv.gov</u>.

SURFACE OWNER WAIVER

Operator's Well Number

No. 11 Brine Well (NA)

INSTRUCTIONS TO SURFACE OWNERS NAMED ON PAGE WW4-A

The well operator named on page WW-4A is applying for a permit from the State to plug and abandon a well. (Note: If the surface tract is owned by more than three persons, then these materials were served on you because your name appeared on the Sheriff's tax ticket on the land or because you actually occupy the surface tract. In either case, you may be the only owner who will actually receive these materials.) See Chapter 22 of the West Virginia Code. Well work permits are valid for 24 months. If you do not own any interest in the surface tract, please forward these materials to the true owner immediately if you know who it is. Also, please notify the well operator and the Office of Oil and Gas.

NOTE: YOU ARE NOT REQUIRED TO FILE ANY COMMENT. WHERE TO FILE COMMENTS AND OBTAIN ADDITIONAL INFORMATION:

Chief, Office of Oil and Gas **Department of Environmental Protection** 601 57th St. SE Charleston, WV 25304 (304) 926-0450

Time Limits and methods for filing comments. The law requires these materials to be served on or before the date the operator files his Application. You have FIVE (5) DAYS after the filing date to file your comments. Comments must be filed in person or received in the mail by the Chief's office by the time stated above. You may call the Chief's office to be sure of the date. Check with your postmaster to ensure adequate delivery time or to arrange special expedited handling. If you have been contacted by the well operator and you have signed a "voluntary statement of no objection" to the planned work described in these materials, then the permit may be issued at any time.

Comments must be in writing. Your comments must include your name, address and telephone number, the well operator's name and well number and the approximate location of the proposed well site including district and county from the application. You may add other documents, such as sketches, maps or photographs to support your comments.

The Chief has the power to deny or condition a well work permit based on comments on the following RECEIVED office of Oil and Gas grounds:

- The proposed well work will constitute a hazard to the safety of persons. 1)
- The soil erosion and sediment control plan is not adequate or effective; 2)
- 3) Damage would occur to publicly owned lands or resources;
- The proposed well work fails to protect fresh water sources or supplies; 4)
- The applicant has committed a substantial violation of a previous permit or a substantial violation of one 5) or more of the rules promulgated under Chapter 22, and has failed to abate or seek review of the violation...".

If you want a copy of the permit as it is issued or a copy of the order denying the permit, you should request a copy from the Chief.

VOLUNTARY STATEMENT OF NO OBJECTION

I hereby state that I have read the instructions to surface owners and that I have received copies of a Notice and Application For A Permit To Plug And Abandon on Forms WW-4A and WW-4B, and a survey plat.

I further state that I have no objection to the planned work described in these materials, and I have no objection to a permit being issued on those materials. FOR EXECUTION BY A CORPORATION, FOR EXECUTION BY A NATURAL PERSON ETC.

	Date	Name	(NA; Eagle Natrium, LLC owns surface)
Signature		By	
		Its	Date

Signature

Date

WV Department of

NOV 1 2 2020

47-051-00523P

API No.4 7-051-00523 (NA)Farm NameEAGLE NATRIUM LLC/AXIALL CORP.Well No.11 Brine Well

INSTRUCTIONS TO COAL OPERATORS OWNERS AND LESSEE

The well operator named on the obverse side of WW-4 (B) is about to abandon the well described in the enclosed materials and will commence the work of plugging and abandoning said well on the date the inspector is notified. Which date shall not be less then five days after the day on which this notice and application so mailed is received, or in due course should be received by the Department of Environmental Protection Office of Oil & Gas.

This notice and application is given to you in order that your respective representatives may be present at the plugging and filling of said well. You are further notified that whether you are represented or not the operator will proceed to plug and fill said well in the manner required by Section 24, Article 6, Chapter 22 of the Code and given in detail on obverse side of this application.

NOTE: If you wish this well to be plugged according to 22-6-24(d) then as per Regulation 35CSR4-13.9 you must complete and return to this office on form OB-16 "Request by Coal Operator, Owner, or Lessee for plugging" prior to the issuance of this plugging permit.

WAIVER

The undersigned coal operator ____/ owner ____/ lessee ____/ of the coal under this well location has examined this proposed plugging work order. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

Date: _____

(NA) By: _____

Its _____

RECEIVED Office of Oil and Gas

NOV 1 2 2020

WV Department of Environmental Protection

(5/16) API Number 47 - 051 _ 00523 Operator's Well No. No. 11 Brine Well STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN	
STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN	
STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN	
DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN	
FLUIDS/ CUTTINGS DISPOSAL & RECLAMATION PLAN	
Operator Name_Eagle Natrium, LLC OP Code 39600	
Watershed (HUC 10) Ohio River Quadrangle New Martinsville, WV	_
Do you anticipate using more than 5,000 bbls of water to complete the proposed well work? Yes No	
Will and housed? Ver No. V.	
If so, please describe anticipated pit waste: (NA)	
Will a synthetic liner be used in the pit? Yes No If so, what ml.? (NA)	
Proposed Disposal Method For Treated Pit Wastes:	
Land Application (if selected provide a completed form WW-9-GPP)	
Underground Injection (UIC Permit Number)
Reuse (at API Number)
Off Site Disposal (Supply form WW-9 for disposal location)	
Other (Explain All waste will be disposed in an approved landfill.	
Will closed loop system be used? If so, describe: NA	
Drilling medium anticipated for this well (vertical and horizontal)? Air, freshwater, oil based, etc. NA	

Additives to be used in drilling medium? NA

Drill cuttings disposal method? Leave in pit, landfill, removed offsite, etc. All waste will be disposed in an approved landfill.

-If left in pit and plan to solidify what medium will be used? (cement, lime, sawdust) NA

-Landfill or offsite name/permit number? Quala (EnviroTank Clean) Facility # 701 / US EPA ID #: OHD987000783

Permittee shall provide written notice to the Office of Oil and Cas of any load of drill cuttings or associated waste rejected at any West Virginia solid waste facility. The notice shall be provided within 24 hours of rejection and the permittee shall also disclose where it was properly disposed.

I certify that I understand and agree to the terms and conditions of the GENERAL WATER POLLUTION PERMIT issued on April 1, 2016, by the Office of Oil and Gas of the West Virginia Department of Environmental Protection. I understand that the provisions of the permit are enforceable by law. Violations of any term or condition of the general permit and/or other applicable law or regulation can lead to enforcement action.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments thereto and that, based on my inquiry of those individuals immediately responsible for o btaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment.

Company Official Signature J. Thomas Horan		RECSIVED Office of Oil and Gas
Company Official Title Manager, Environmental Control		NOV 1 2 2020
Subscribed and sworn before me this Qth day of November	, 20 20	WWD man rend at Environment_) Protection
By Sharros My commission expires_OCT. 13, 2025	_ Notary Public	OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA É KAY THOMAS

7736 Proctor Creak Rd., Proctor, WV 26055 My Commission Expires October 13, 2025

47-051-00523P

Form	W	W	-9
------	---	---	----

Operator's Well No. No. 11 Brine Well

Lime	Tons/acre or to	correct to pH		
Fertilizer type				
Fertilizer amount		lbs/acre		
Mulch		Tons/acre		
		Seed Mixtures		
	Temporary		Permai	nent
Seed Type	lbs/acre		Seed Type	lbs/acre

Attach:

Maps(s) of road, location, pit and proposed area for land application (unless engineered plans including this info have been provided). If water from the pit will be land applied, provide water volume, include dimensions (L, W, D) of the pit, and dimensions (L, W), and area in acres, of the land application area.

Photocopied section of involved 7.5' topographic sheet.

(Attahced)	
Plan Approved by: Jan Waldsac	
Alco opolocod'	

Drawing #49A-0435 - Topographical Map

#11 Brine Well Geologic Data

Title: 0. (9 Bos / nope

) Yes

9/2020 Date:)No

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NOV 1 2 2020

WV Department of Environmental Protection

Field Reviewed?

WW-9- GPP Rev. 5/16

Page of 1 - 00523 API Number 47 - 051 Operator's Well No.

Ouad: New Martinsville, WV

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS GROUNDWATER PROTECTION PLAN

Operator Name: Eagle Natrium, LLC

Watershed (HUC 10): Ohio River

Farm Name:

1. List the procedures used for the treatment and discharge of fluids. Include a list of all operations that could contaminate the groundwater.

Brine will be used to circulate any material encountered during scraper runs, perforations, or cutting operations. All waste will be disposed in an approved landfill. Thus, well effluent will not be land applied.

Describe procedures and equipment used to protect groundwater quality from the list of potential contaminant sources above. 2

All temporary brine storage tanks will be installed in containment consisting of berms and liner. Fuel tanks will have their own containment.

3. List the closest water body, distance to closest water body, and distance from closest Well Head Protection Area to the discharge area.

The Ohio River is approximately 1/4th mile away from the work site.

RECEMP Office of Oil an Gas

4. Summarize all activities at your facility that are already regulated for groundwater protection.

NOV 1 2 2020

WV Departo

ent al rotection The Westlake Natrium Plant is a NPDES regulated facility for discharge into the Ohio Rivernal F (Permit No. WV 0004359). The Plant is also covered by the WV AST Rule (Registration No. 2014-0002939).

5. Discuss any existing groundwater quality data for your facility or an adjacent property.

47-051-00523 P

WW-9- GPP Rev. 5/16

2 of 2 Page - 00523 API Number 47 - 051 Operator's Well No.

The groundwater at the Westlake Natrium Plant is contaminated due to historical operations. The Plant is covered under a Corrective Action Permit (No. WVD 004336343).

Provide a statement that no waste material will be used for deicing or fill material on the property. 6.

No waste material will be used for deicing or fill material on the property.

7. Describe the groundwater protection instruction and training to be provided to the employees. Job procedures shall provide direction on how to prevent groundwater contamination.

Westlake employees and its well consultant will provide training to drilling employees (contractors) discussing the requirements for preventing groundwater contamination. The training will also include the requirements for properly storing oil and fuels.

Provide provisions and frequency for inspections of all GPP elements and equipment. 8.

Supervision (well consultant) will be present for the entire drilling (P&A) operations. Ongoing inspections will be performed to prevent groundwater contamination.

Signature: Jue Under Date: 11/2/2020

REGEIVED Office of Oil and Gas

NOV 1 2 2020

WV Department of Environmental Protection



 $\label{eq:loss_state} $$ 1/22/201 $$ 1/22/201 $$ 1/22/201 $$ 1/22/2021 $$ 1/22/20$

1 22500 - 150 - 27

WW-7	
8-30-06	



West Virginia Department of Office of Oil	Environmental Protection and Gas
WELL LOCATION	N FORM: GPS
_{API} : 47-051-00523	WELL NO .: No. 11 Brine Well
FARM NAME: Eagle Natrium, LL	С
RESPONSIBLE PARTY NAME: Eagle I	Natrium, LLC
COUNTY: Marshall	DISTRICT: Franklin
OUADRANGLE: New Martinsville	

SURFACE OWNER: Eagle Natrium, LLC

ROYALTY OWNER: Eagle Natrium, LLC

UTM GPS NORTHING: 4,398,008 GPS ELEVATION: 636 ft. UTM GPS EASTING: 514,194

The Responsible Party named above has chosen to submit GPS coordinates in lieu of preparing a new well location plat for a plugging permit or assigned API number on the above well. The Office of Oil and Gas will not accept GPS coordinates that do not meet the following requirements:

- Datum: NAD 1983, Zone: 17 North, Coordinate Units: meters, Altitude: 1. height above mean sea level (MSL) - meters.
- 2. Accuracy to Datum - 3.05 meters
- Data Collection Method: 3.

Survey grade GPS × : Post Processed Differential

Real-Time Differential

Mapping Grade GPS ____: Post Processed Differential

Real-Time Differential

Letter size copy of the topography map showing the well location. 4

I the undersigned, hereby certify this data is correct to the best of my knowledge and belief and shows all the information required by law and the regulations issued and prescribed by the Office of Oil and Gas.

Manager, Environmental Control

RECEIVED Office of Cilland Gas

Signature

Date WAV Excerning of Environmental Protestion



OP-8 Rev. 1/12 BOND NUMBER K09554737

This bond replaces Liberty Mutual Insurance Company Bond # 674020813 effective March 15, 2017.

STATE OF WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

****Duplicate Original***

BLANKET BOND FOR OIL OR GAS WELLS, LIQUID INJECTION WELLS OR WASTE DISPOSAL WELLS

KNOWN ALL MEN BY THESE PRESENTS:

(1) That we, Eagle Natrium LLC

(2) State Route 2 North, PO Box 181, New Martinsville, WV 26155

As Principal, and (3) Westchester Fire Insurance Company

(4) 436 Wainut Street, Philadelphia, PA 19106

a firm and/or a corporation authorized to do business in the State of West Virginia, as Surety, are held and firmly bound unto the State of West Virginia in the just and full sum of (5) Fifty Thousand and no/100ths dollars (\$50,000.00) to the payment whereof well and truly to make, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the above bound Principal in pursuance of the provisions of Chapter 22, Article 6 and/or 6A, of the Code of West Virginia, 1931, as amended, and the regulations promulgated thereunder, has made or intends to make application to the Chief of the Office of Oil and Gas, Department of Environmental Protection, the State of West Virginia for a permit to perform well work (as defined in Chapter 22, Article 6 and/or 6A), on oil or gas wells and/or liquid injection wells and/or waster disposal wells, or has acquired or purchased, or shall hereafter acquire or purchase such wells, or has been or shall be assigned operating responsibility for such wells located in West Virginia; and

WHEREAS, THE Obligee as a condition precedent to the issuance of such Permit or release of other obligation has required the Principal to furnish a SURETY BOND acceptable to the Obligee guaranteeing the performance of said provisions of Chapter 22, Article 6 or 6A, of the Code of West Virginia, 1931, as amended, and the regulations promulgated thereunder;

NOW THEREFORE, the condition of this obligation is such that if the Principal, its personal representatives, successors, heirs and assigns shall in performing well work (as defined in Chapter 22, Article 6 and/or 6A) or operating such wells shall furnish all reports, information and affidavits as may be required by the Department of Environmental Protection, Office of Oil and Gas, documenting that said wells have been plugged and abandoned in accordance with Chapter 22, Article 6, of the Code of West Virginia, 1931, as amended, and the regulations promulgated thereunder, then this obligation to be void; otherwise to remain in full force and effect.

This bond shall be effective from the (11) 15th day of March , 2017, until released by the Department of Environmental Protection.

IN WITNESS WHEREOF the said Principal has hereunder set his or its hand and affixed his or its seal, and the said surety has caused its corporate name to be signed hereto and its corporate seal to be hereunto affixed by its duly authorized officer or agent this instrument this (12) 17th day of March , 2017.

(15) Principal Corporate Seal	(13) Eagle Natrium LLC Ray A By: (Principal) (Seal) (14) By: Sr. Vice President - Vinyls (Title)	
	(Must be President or V. President)	
		enter de
(18) Surety Corporate Seal	(16) Westchester Fire Insurance Company (Seal)	
	(17) By:	(A)
19) Cour	ntersigned: Na	х, з і
(2	(Resident West Virginia Agent) 20) Address: 3280 Peachtree Road NE, Suite 200, Atlanta, GA 30305	
(21))Telephone: 404-460-0754	Office of Oil and

NOV 1 2 2020

Gas

WV Department of Environmental Protection

(REVERSE)

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ACKNOWLEDGMENTS

Acknowledgment by Principal if Indiv	vidual or Partnership		
1. STATE OF			
2. County of		to-wit:	
3. I,		, a Notary Public in and for the	
 county and state aforesaid, do hereby whose name is signed to the foregoing wri 	certifiy that	e before me in my said county.	
5. Given under my hand this	day of	20	
6. Notary Seal	7		
(Notary Public)			
8. My commission expires on the	day of	20	
Acknowledgment by Principal if Co	rporation or Limited Liability Compa	any	
9. STATE TEXAS			
10. County of Harris		to-wit:	
11. 1. Amanda Helte	n	_, a Notary Public in and for the	
12. county and state aforesaid, do hereby 13. who as, <u>St. ViCe. PTCSIC</u>	y certify that KDEKE F. BU	signed the foregoing writing for	
14. <u>Eagle Notrium L</u> has this day, in my said county, before	re me, acknowledged the said writing to be	a corporation/LLC, a the act and deed of the said	
15. Given under my hand this 3	day of April	<u>20 17</u> .	
AviANDA HELTON Notary Public, State of Te December 9, 2007 8. My commission expires on the	ay of December	20_17_	,
Acknowledgment by Surety			
19. STATE OF Georgia	· · · ·	· · · · · ·	
20. County of Dekalb		to-wit:	
21. I. N. Jenny Dowdy	·	, a Notary Public in and for the	
22. county and state aforesaid, do hereby	, _{certify that} Stephen A. Vanr	۱	
23. who as, Attorney-In-Fact	s	igned the foregoing writing for	
24. Westchester Fire Ins	urance Company efore me, acknowledged the said writing	a corporation to be the act and deed of the	ne said
25 Given units in hat of the 17th	day of March	20 17/	
	27. <u>N. Jehn</u>	y Dow dy	
Thotaty Bublic) * 5	st _{day of} November	0 <u>0</u> <u>17</u>	
Sufficiency in Forth and Manner			RECEIVED Office of Oil and Gas
Of Execution Approved	Attorney G	ieneral	NOV 1 2 2020
This day of 20	ByBy(Assistant A	Attorney General)	- WW Donautore
			Environmental Protection

MESTCHESTER FIRE INSURANCE COMPANY

VANYA LO NOWOL

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(z)

(1)

following Resolution, adopted by the Board of Directors of the said Company on December 11, 2006, to wit: Know all men by these presents. That WESTCHESTER FIRE INSURANCE COMPANY, a corporation of the Commonwealth of Pennsylvania pursuant to the

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company, ensured into the other provides of the company of the Company, and the relations of the related into the other written commitment"):

Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or

Bach duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the scal of the Company or otherwise, to the extent that a such a pointed at a univorized by the grant of powers provided for in such persons written appointment for and on behalf of the Company, under the scal of the Company or otherwise, to the extent persons written appointment for and on behalf of the Company, under the scal of the Company or otherwise, to the extent persons written appointment as and on behalf of the Company, under the scal of the Company or otherwise, to the extent persons written appointment as and on behalf of the Company, under the s

Each of the Cheirman, the President and the Vice Presidents of the Company, under the seal of the Company of the Company with in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company as may be specified in such written full power and authority to execute, for and on behalf of the Company as may be specified in such written full power and authority to execute, for and on behalf of the Company with a specification of one or more particular. Written Commitments of the Company as may be specified in such written full power and authority to execute, for and on behalf of the Company as the presented of the Company as the seal of the Company as the presented of the presented of the Company as the presented of the present

Benefat of the Chairman, the President and Vice Presidents of the Company in hereby suthorized, for and on behalf of the Company, to delegate in written written delegation, which specification may be by execute, for and on behalf of the Company as are specified in such written delegation, which specification may be by execute, for and on behalf of the Company as are specified in such written delegation, which specification may be by execute for and on behalf of the Company as are specified in such written delegation, which specification may be by execute for any or the company as are specified in such written delegation, which specification may be by the Company as are specified in such written delegation, which specification may be by the company as a second strate of the Company as a second strate of the Company is a second strate of the Compan

The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or whiten appointment or delegation.

FURTHER RESOLVED, that the foregoing Resolution shall not the decred to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not timit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested.

Company at its principal office, writings in the nature thereof in penalties not exceeding Fifty million dollars & zero cents (\$50,000,000,000,000,000,000,000 in the execution of such writings in pursuance of these Does hereby nominate, constitute and appoint Stephen A Vann, all of the City of ATLANTA, Georgia, each individually if there be more than one named, its true and lawful automey-in-fact, to make, execute, seal and deliver on its behalf, and as its act and deed any and all bonds, undertakings, recognizances, contracts and other

FIRE INSURANCE COMPANY this 23 day of June 2016. IN WITNESS WHEREOF, the said Stephen M. Haney, Vice-President, has hereunto subscribed his name and affixed the Corporate scal of the said WESTCHESTER

MESTCHESTER FIRE INSURANCE COMPANY

122500 - 150 - Lt

Stephen M. Haney, Vice President



COUNTY OF PHILADELPHIA COMMONWEALTH OF PENUSYLVANIA

of said Company, referred to in the preceding instrument, is now in force. the said corporate seal and his signature were duly affixed by the authority and direction of the said corporation, and that Resolution, adopted by the Board of Directors preceding instrument, and he selmowledged that he executed the same, and that the seal affixed to the preceding instrument is the corporate seal of said Company; that Haney, Vice-President of the WESTCHESTER FIRE INSURANCE COMPANY to me personally known to be the individual and officer who executed the On this 23 day of June, AD. 2016 before me, a Notary Public of the Commonwealth of Pennsylvania in and for the County of Philadelphia came Stephen M.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Philadelphia the day and year first above written.

CIP. OI EMPROVIDIT LA TVES TVINYLON NON- OF HALLY AN



In witness whereof, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of the Corporation, this day of MANA MANA searcher and affixed the corporate seal of the Corporation, this was a searcher at the corporation of the Corporation. which the foregoing is a substantially true and correct copy, is in full force and effect. I, the undersigned Assistant Secretary of the WESTCHESTER FIRE INSURANCE COMPANY, do hereby certify that the original POWER OF ATTORNEY, of

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Office of Oil and Gas

NOV 1 2 2020

THIS POWER OF ATTORNEY MAY NOT BE USED TO EXECUTE ANY BOND WITH AN INCEPTION DATE AFTER June 23, 2018.



DocuGard #24646 contains a security partograph, blue background, heat-sensitive ink. conn-reactive watermark, and microtex printing on border.

47-051-00523P



P.O. Box 191 New Martinsville, WV 26155 Tel 304-451-3797 Fax 304-455-2422 J.Horan@Westlake.com

November 10, 2020

Certified Mail Return Receipt Requested

James Martin, Chief WV Department of Environmental Protection Office of Oil & Gas 601 57th Street Charleston, WV 25304

Dear Mr. Martin:

Subject: Plug and Abandon Permit Application for Operator's Well No. 11, API Well Number 47-051-00523

Please find attached, the required completed forms and associated map to plug and abandon Operator's Well No. 11, API Well Number 47-051-00523 located at the Eagle Natrium LLC, Natrium Plant.

If you have any questions, please call Mr. Steve Clark at (304) 451-3881.

Sincerely,

J. Thomas Horan Manager Environmental

Attachments:

Office of Oil and Gas

NOV 1 2 2020

WV Dependent of Environmental Protection