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District III
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State of New Mexico
Energy Minerals and Natural Resources
Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Form C-144 July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.

For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

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Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or Closure Plan Application

Proposed Alternative Method Permit of Closure Plan Application
Type of action: Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method Modification to an existing permit Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.
Operator: Melrose Operating TNC, OGRID#: 184860
Address: 1000 W. Wilshire Suite 223 OKKhoma 4tg, OK. 73116
Facility or well name: Jalmat Field Yates Sand UNIT #159
API Number: 30 - 025 - 38868 / OCD Permit Number: P1 - DD 8 7 9
U/L or Qtr/Qtr F Section 13 Township 225 Range 35E County: Lea
Center of Proposed Design: Latitude 32023.609N Longitude 103019.428W NAD: 1927 1983
Surface Owner: Federal State Private Tribal Trust or Indian Allotment
2. National Pit: Subsection F or G of 19.15.17.11 NMAC
Temporary: X Drilling Workover
Permanent Emergency Cavitation P&A
☐ Lined ☐ Unlined Liner type: Thickness 20 mil ☐ LLDPE X HDPE ☐ PVC ☐ Other
★ String-Reinforced
Liner Seams: Welded Factory Other Volume: 2900 bbl Dimensions: L 100 x W 40 x D 20
3.
☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of
intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other
Lined Unlined Liner type: Thickness mil LLDPE HDPE PVC Other
Liner Seams: Welded Factory Other
4. Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume:bbl Type of fluid:
Tank Construction material:
Secondary containment with leak detection Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness mil
5. Alternative Method:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

Funcing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks) Chain link, six feet in height, two strands of barbed wire at top (Required if located within 1000 feet of a permanent residence, school, h institution or church) Four foot height, four strands of barbed wire evenly spaced between one and four feet Alternate. Please specify	ospital,	
Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks) Screen Netting Other Monthly inspections (If netting or screening is not physically feasible)		
8. Signs: Subsection C of 19.15.17.11 NMAC 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers Signed in compliance with 19.15.3.103 NMAC		
9. Administrative Approvals and Exceptions: Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance. Please check a box if one or more of the following is requested, if not leave blank: Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval. Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.		
Siting Criteria (regarding permitting): 19.15.17.10 NMAC Instructions: The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.		
Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes X No	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	☐ Yes 🛣 No	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to temporary, emergency, or cavitation pits and below-grade tanks) - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes 🔼 No	
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. (Applies to permanent pits)	Yes 🗷 No	
Visual inspection (certification) of the proposed site; Aerial photo; Satellite image Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site	☐ Yes 🗷 No	
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes 🔀 No	
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	☐ Yes 🗷 No	
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	Yes 🗷 No	
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	Yes 🗷 No	
Within a 100-year floodplain FEMA map	☐ Yes 🔀 No	

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC Previously Approved Design (attach copy of design) API Number: or Permit Number:
12. Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are
attached. Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9 Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Previously Approved Design (attach copy of design) API Number:
Previously Approved Operating and Maintenance Plan API Number:(Applies only to closed-loop system that use
above ground steel tanks or haul-off bins and propose to implement waste removal for closure)
Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached. Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Climatological Factors Assessment Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC Cuality Control/Quality Assurance Construction and Installation Plan Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC Nuisance or Hazardous Odors, including H ₂ S, Prevention Plan Emergency Response Plan Oil Field Waste Stream Characterization Monitoring and Inspection Plan Erosion Control Plan Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC
Proposed Closure: 19.15.17.13 NMAC Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.
Type: Drilling Workover Emergency Cavitation P&A Permanent Pit Below-grade Tank Closed-loop System Alternative Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only) On-site Closure Method (Only for temporary pits and closed-loop systems) In-place Burial On-site Trench Burial Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)
Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings) Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13) Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment to	.D NMAC) f more than two	
facilities are required.		
Disposal Facility Name: Disposal Facility Permit Number:		
Disposal Facility Name: Disposal Facility Permit Number:		
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations? [Yes (If yes, please provide the information below) [No		
Required for impacted areas which will not be used for future service and operations: Soil Backfill and Cover Design Specifications based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC		
17. Siting Criteria (regarding on-site closure methods only): 19.15.17.10 NMAC Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable so provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate deconsidered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Judemonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	strict office or may be	
Ground water is less than 50 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes 🛣 No	
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes 🗶 No	
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	Yes No	
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	Yes 🔀 No	
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	Yes 🗶 No	
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	Yes 🔀 No	
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	Yes 🗷 No	
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	Yes 🗷 No	
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	Yes 🔀 No	
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	Yes 🔀 No	
Within a 100-year floodplain FEMA map	☐ Yes 🗶 No	
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached. Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.13 NMAC Protocols and Procedures - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC Re-vegetation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC		

Operator Application Certification:
I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.
Name (Print): CAM ROBB', NS Title: Forman
Signature: Can Rollin Date: 10/21/08
e-mail address: Maximume Valornet, com Telephone: 575-390-4666
20. OCD Approval: Permit Application (including closure plan) Closure Plan (only) OCD Conditions (see attachment)
OCD Representative Signature: Approval Date:
Title: ENVIRONMENTAL ENGINEER OCD Permit Number: P1-00873
21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.
Closure Completion Date:
Closure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method Waste Removal (Closed-loop systems only) If different from approved plan, please explain.
23. Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.
Disposal Facility Name: Disposal Facility Permit Number:
Disposal Facility Name: Disposal Facility Permit Number:
Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations? Yes (If yes, please demonstrate compliance to the items below) \(\subseteq \) No
Required for impacted areas which will not be used for future service and operations: Site Reclamation (Photo Documentation) Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique
Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached. Proof of Closure Notice (surface owner and division) Proof of Deed Notice (required for on-site closure) Plot Plan (for on-site closures and temporary pits) Confirmation Sampling Analytical Results (if applicable) Waste Material Sampling Analytical Results (required for on-site closure) Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)
On-site Closure Location: LatitudeLongitudeNAD: ☐ 1927 ☐ 1983
Operator Closure Certification: I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.
Name (Print): Title:
Signature: Date:
e-mail address: Telephone:

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October 17, 2008

Melrose Operating Company 1000 W. Wilshire, Suite 223 Oklahoma City, OK 73116

Attn: Mr. Cam Robbins
Production Supervisor

RE: Work Plan For Pit Closure Located at Jalmat Field Yates Sand, Unit # 159; U/L A Sec 13, T22S and R35E, API #30-025-38873 of Lea County, New Mexico

Dear Mr. Robbins:

Blade Services LLC, Inc. would like to take this time to thank you and Melrose Operating Co., for the opportunity to provide our professional services. Attached you will find our work plan and cost for the above listed site.

If you have any questions and/or need more data in regards to projects please call at any time. You can reach me at 575-390-5004

Sincerely,

Rick Navarrette, Sr. Project Manager

Summary/Overview

The Jalmat Field Yates Sand unit site should be completed and remediated in accordance with the standards of the NMOCD. Pit closure of the temporary drilling pit will be addressed accordingly.

The potential contaminates of concern are mid to high-level concentrations of production water and drill cuttings circulated into a temporary drilling pit from well bore.

The lands primary use is domestic pasture for ranching and the production of oil and gas.

The USGS-OCD water map for this area shows the depth to ground water to be in the 250' range BGS.

Pursuant to the standards of the NMOCD, the clean up level for this site will be at <5,000ppm of TPH, <50ppm for BTEX and chlorides less than <500ppm.

The following scope of work was based on data from our site visit and the requirements of the NMOCD for site clean up.

Scope of Work for Entombment and site reclamation

Note: Melrose Operating Co. has requested for Blade Services, LLC., to remove and remediate reserve pit drill cuttings for pit closure. Melrose has also requested that Blade Services submit a copy of results and reclamation plan to NMOCD for entombment of impacted soils.

- ✓ First Blade Services will call One-Call for line spot clearance before any excavation at the site is started.
- ✓ Blade Services will mobilize to the site located in the area Southwest of Eunice, NM equipment and personnel necessary to start and complete the site remediation as required to get the site back into compliance.

- ✓ Blade Services will have Ricky Navarrette delineate the site vertical and horizontal for chloride's to determine the extent of impacted soil. Samples will then be sent to Trace Analysis lab for analysis. Once analysis are sent back with the results NMOCD will then be contacted for approval before any capping or pit closure is resumed. Due to the size of reserve pit, Blade Services will split the site into quadrants testing 25% of impacted soils. Blade Services will test the vertical; starting one foot from mud removal into deep bury pit.
- ✓ Blade Services LLC., will then start excavation of impacted soil for on-site deep bury pit. Impacted soils will then be mixed on a 3 to 1 ratio, then taking a grab sample from mixture and taking sample to Trace Analysis for a paint filtration testing method. Once method is determined that mixture has passed and approved by OCD. Mixture will then be placed in an approved reinforced 20ml poly liner from West Texas plastics for entombment. The entombment pit will be approximately 100x40x20 foot deep; which will hold 2,900 cubic yards of material. Once all contents are placed in entombment pit; Blade Services will cap pit with an approved 20ml poly liner from West Texas Plastics. Then pit will be backfilled so that contents are 4 foot below ground level.
- ✓ Blade Services will have Ricky Navarrette field screen the site during the excavation and once the levels have dropped below NMOCD guidelines, final samples will be personally taken to Trace Analysis lab for analysis.
- ✓ If site does not clear NMOCD guidelines on the 3 to 1 mix ratio; this will be determined with a paint filter testing method at Trace Analysis. Blade Services will then submit a request for waste removal to the NMOCD office. Then waste material will be transferred to (Sundance Disposal) or and approved NMOCD disposal site.
- ✓ Once all of the remediation criteria has been met for site closure and compliance, the site will be backfilled with clean material from the site. The site will be contoured with a slight crown to prevent the ponding of any rain water and reseeded; with the

proper seed according to the NMOCD. Vegetative cover will equal 70% of the native perennial vegetative cover consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons or until successful growth is established.

- ✓ Trench burial pit will be marked by an approved steel maker, no less than four inches in diameter, cemented in a hole three feet deep in the center of the onsite burial. The marker will be flushed with the ground to allow access of the active well pad and for safety concerns. The marker will include a threaded collar to be used for future abandonment. The top of the marker will contain a welded steel plate 12" square that indicates the onsite burial of the temporary pit. The plate will be easily removable and a four foot tall riser will be threaded into the top of the collar marker and welded around the base with the operator's information. The operator's information will include the following: Operator name, ease name, well name and number, unit number, section, township, range and an indicator that the marker is an onsite burial location.
- ✓ Once all of the closure criteria have been met, a final closure report will be prepared by Blade Services. This report will include a summary of remediation operations, findings on-site and lab analysis, site maps and project photos.

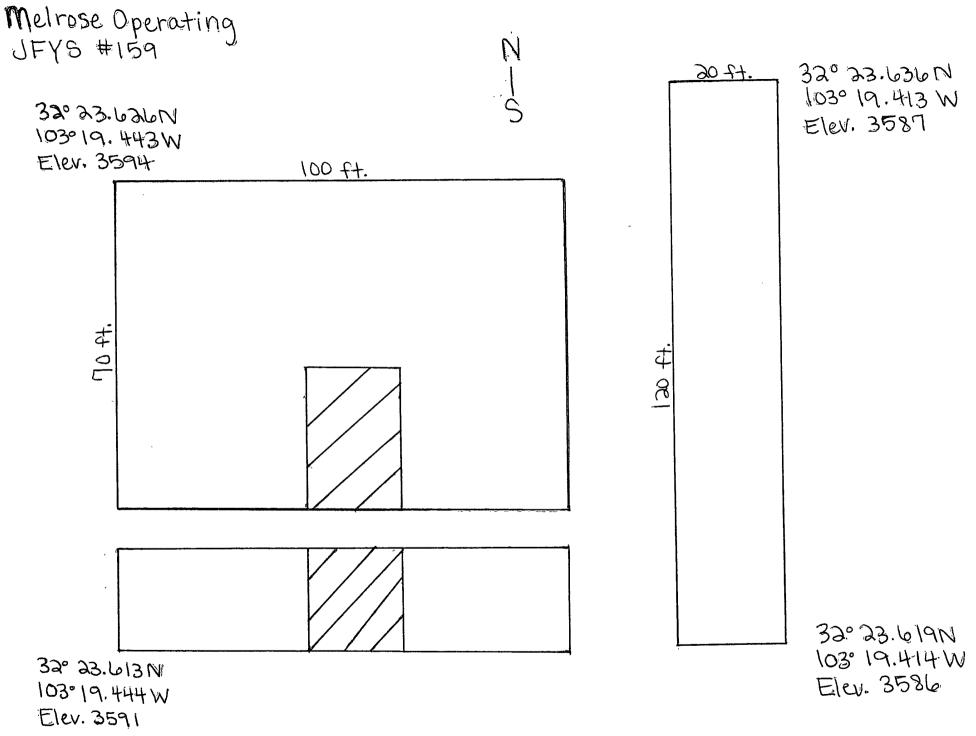
If you have any questions and/or need more data in regards to this project please call 575-390-5004 at any time.

Sincerely,

Rick Navarrette,

Sr. Project Manager

Blade Services LLC.



Well \$20 23.609 N 1030 19.428W Elev. 3586

