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July 11, 2008

www.montand.com

Reply to Santa Fe Office

**HAND-DELIVERED** 

Mr. David Brooks New Mexico Oil Conservation Division 1220 South St. Francis Drive Santa Fe, NM 87505

> Re: NMOCD Case No. 14134, Application of the Board of County Commissioners of Rio Arriba County; and NMOCD Case No. 14141, Application of Approach Operating, LLC, Rio Arriba County, New Mexico

Dear Mr. Brooks:

Enclosed is a set of copies of the C-144's filed with the District II office by Approach Operating, LLC on the Division's C-144 form published on June 24, 2008 for each of the following wells:

> Sultemeier Well No. 1 T27N R4E NMPM Lat. 36°642610227 N Long. 106.547435219W

Sena Well No. 1 T28N R4E NMPM Lat. 36°40'08.61650 N Long. 106°30'27.29027"W Sena Well No. 2 T28N R4E NMPM Lat. 36°39'25.02004" N Long. 106°30'42.51613" W

Woolley Family LP Well No. 1 T28N R5E NMPM Lat. 36°41'27'88700" N Long. 106°23'11.85392" W

Avella Sultemeier Well No. 2 T28N R4E NMPM Lat. 36°38'41.8" N Long. 106°31'34.3" W

Rosemary Roller Well No. 1 T28N R5E NMPM Lat. 36°40'18.4" N Long. 106°24'41.5" W

Leo Valdez Well No. 1 T28N R4E NMPM Lat. 36°39'47.90" N Long. 106°33'29.18" W

Cloyd Hinkle Well No. 1 T28N R4E NMPM Lat. 36°39'38.46" N Long. 106°33'13.02" W

Anthony Garcia Well No. 1 T28N R4E NMPM Lat. 36°39'37.8" N Long. 106°31'46.3" W

Very truly yours,

7. I way dall

J. Scott Hall

JSH/mb Enclosure

cc: Ted Trujillo, Esq. (w/enc.) Adan Trujillo, Esq. (w/enc.)

Form C-144 June 24, 2008

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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.

### Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or 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

Closure of a 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: Asstrach Operating, LLC OGRID#: 248343				
Address: 6500 West Freeway, Suite 800, Ft. Worth, TX 76116				
Facility or well name: Sultemeier No. 1				
30 000 2 00 10 000 000 000 000 000 000 00				
U/L or Qtr/Qtr Section 19 Township 28W Range 42 County: Lio Arriba				
Center of Proposed Design: Latitude 36.642610227 N Longitude 106.547435219 NAD: 20927 1983				
Surface Owner: Federal State Private Tribal Trust or Indian	,			
Pit: Subsection F or G of 19.15.17.11 NMAC	Closed-loop System: Subsection H of 19.15.17.11 NMAC			
Temporary: Drilling Workover	Drying Pad Tanks Haul-off Bins Other			
Permanent Emergency Cavitation Steel Pit	Lined Unlined			
Lined Unlined	Liner type: Thickness MA mil LLDPE HDPE PVC			
Liner type: Thicknessmil	Other			
Other String-Reinforced	Seams: Welded Factory Other			
Seams: Welded Factory Other Volume: U/A bbi U/A yd3				
Seams: Welded Factory Other Volume: U/A bbl V/A yd³  Volume: bbl Dimensions: L x W x D Dimensions: Length W/A x Width V/A				
Below-grade tank: Subsection I of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC			
Volume:bbl	☐ Chain link, six feet in height, two strands of barbed wire at top			
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and			
Tank Construction material:	four feet			
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC			
☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other			
☐ Visible sidewalls and liner	Monthly inspections			
☐ Visible sidewalls only	Signs: Subsection C of 19.15.17.11 NMAC			
Other	12'x24', 2' lettering, providing Operator's name, site location, and			
Liner type: Thickness mil  HDPE PVC	emergency telephone numbers			
Other	Signed in compliance with 19.15.3.103 NMAC			
Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration	Administrative Approvals and Exceptions: Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.			
of approval.	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 Fc			
	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				
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				
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 ☐ NA			
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - 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				
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 19.15.17.12 NMAC  Closure Plan - 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:				
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 (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (required 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 - 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:				

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 ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC				
☐ Quality 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 <sub>2</sub> 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				
Type: Drilling Workover Emergency Cavitation Permanent Pit Below-grade Tank Closed-loop System	Alternative			
Proposed Closure Method: Waste Excavation and Removal Waste Removal (Closed-loop systems only)				
<ul> <li>On-site Closure Method (Only for temporary pits and closed-loop systems)</li> <li>In-place Burial On-site Trench Burial</li> </ul>				
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for con	nsideration)			
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 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. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10				
NMAC for guidance.				
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	Ycs 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	Ycs 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			
	Yes No			
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site				
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division				
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				

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 Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility				
or facilities for the disposal of liquids, drilling fluids and drill cuttings.				
Disposal Facility Name: Disposal Facility Permit Number:				
Disposal Facility Name: Disposal Facility Permit Number:				
by a check mark in the box, that the documents are attached.  Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.13 NMAC  Proof of Surface Owner Notice - based upon the appropriate requirements of \$\frac{9}{2}\$. 15.17.13 NMAC  Construction and Design of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.13 NMAC  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  Waste Material Sampling Plan - 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 or in case on-site closure standards cannot be achieved)  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 I 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): Sice A. Moraan Title: Landman				
Name (Print): Brice A. Morgan  Title: Landman  Date: 7-9-08				
:-mail address: byorgan & apptoachtesources.com Telephone: 817-989-9000				
OCD Approval: Permit Application (including closure plan) Closure Plan (only)				
OCD Representative Signature: Approval Date:				
Title: OCD Permit Number:				
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date:				
Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method  If different from approved plan, please explain.				
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 Proof of Deed Notice (if applicable) Plot Plan Confirmation Sampling Analytical Results Waste Material Sampling Analytical Results Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)				
<ul> <li>□ Proof of Closure Notice</li> <li>□ Proof of Deed Notice (if applicable)</li> <li>□ Plot Plan</li> <li>□ Confirmation Sampling Analytical Results</li> <li>□ Waste Material Sampling Analytical Results</li> <li>□ Disposal Facility Name and Permit Number</li> <li>□ Soil Backfilling and Cover Installation</li> <li>□ Re-vegetation Application Rates and Seeding Technique</li> <li>□ Site Reclamation (Photo Documentation)</li> <li>○ On-site Closure Location: Latitude Longitude NAD: □1927 □ 1983</li> </ul>				
Proof of Closure Notice Proof of Deed Notice (if applicable) Plot Plan Confirmation Sampling Analytical Results Waste Material Sampling Analytical Results Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)				
Proof of Closure Notice Proof of Deed Notice (if applicable) Plot Plan Confirmation Sampling Analytical Results Waste Material Sampling Analytical Results 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: Latitude Longitude NAD: 1927 1983 Departor Closure Certification: hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and				
Proof of Closure, Notice Proof of Deed Notice (if applicable) Plot Plan Confirmation Sampling Analytical Results Waste Material Sampling Analytical Results 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: Latitude Longitude NAD: 1927 1983 Departor Closure Certification: 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.				

### APPROACH OPERATING, LLC. OPERATIONS PLAN

I. Location:

LAT

Date: June 18, 2008

LONG

Rio Arriba County, NM

Field: Wildcat

Elev: GL

Surface:

II. Drilling

A. Contractor: TBD B. Mud Program:

The surface hole will be drilled with a air, if possible, or fresh water mud.

The production hole will be drilled with air or air/mist.

### C. Minimum Blowout Control Specifications:

Double ram type 3000 psi working pressure BOP with a rotating head. See the attached Exhibit # \_\_ for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All check of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

No over pressured zones are expected in this well. No H2S zones expected, but compliance packs will be on location.

III. Logging program: Induction / GR and density logs at TD.

### IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt & Grade
12-1/4"	350'	9-5/8"	32.3# H-40
8-3/4"	2000.	4-1/2"	10.5# J-55

### B. Float Equipment

- a. Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.
- b. Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the shoe joint. Centralized with bow spring centralizers

### V. Cementing:

• Surface Casing: 9-5/8" 32.3 lb/ft H-40 set to 350'.

Cement 0-350'

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal Fluid Volume: 10 bbl

Fluid 2: Lead Cement

Premium Cement Fluid Weight 15.600 lbm/gal

94 lbm/sk Premium Cement (Cement) Slurry Yield: 1.180 ft<sup>3</sup>/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 5.238

2 % Calcium Chloride (Accelerator)

Top of Fluid: 0 ft

Calculated Fill: 350 ft

Calculated Fill: 350 ft
Volume: 42.139 bbl

Calculated Sacks: 200.503 sks
Proposed Sacks: 205 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 23.966 bbl

• Production Casing: 4-1/2" 10.5 lb/ft J-55 casing set to TD.

Cement

Fluid Instructions

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal

Fluid Volume: 20 bbl

Fluid 2: Lead Cement

13 lbm/gal 50/50 Poz Premium Fluid Weight  $1.436 \text{ ft}^3/\text{sk}$ 0.4 % Halad(R)-344 (Low Fluid Loss Control) Slurry Yield:

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 6.193

Gal/sk

0 ft5 lbm/sk Gilsonite (Lost Circulation Additive) Top of Fluid:

Calculated Fill: 2000 ft

Fluid Density:

156.266 bbl Volume:

Calculated Sacks: 610.982 sks Proposed Sacks: 615 sks

Fluid 3: Water Based Spacer

Water Displacement lbm/gal

Fluid Volume:

31.197 bbl

8.330

• The wells will have 40' of 14" conductor set. Then a 12-1/4" hole will be drilled to about 350' when 9-5/8" surface casing will be set and cemented. We will drill out with a 8-3/4" bit using

### MULTI-POINT SURFACE USE PLAN

### 1. Existing Roads:

When existing roads are used to access the proposed location they will be maintained in the same or better condition than presently found.

### 2. Planned Access Roads:

Some new access road will have to be constructed. If existing access road is also used, it will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

### 3. Location of Existing Wells:

Attached map (Plat # 1) shows existing wells within one mile radius of the proposed well. N/A

### 4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

To protect livestock and wildlife, equipment will be fenced. Any tanks will be enclosed by a dike.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

### 5. Water Supply:

Water for drilling and completion will be purchased from local sources.

### 6. Source of Construction Materials:

No additional construction materials will be required to build.

### 7. Methods of Handling Waste Disposal:

- a. The drill cuttings, fluids and completion fluids will be placed in the steel tanks. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.
- b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.
- c. Portable toilets will be provided and maintained during drilling operations.

### 8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. .

### 9. Well Site Layout:

A plat of the drill pad with location of drilling equipment and rig orientations also attached.

### 10. Plans for Restoration of Surface:

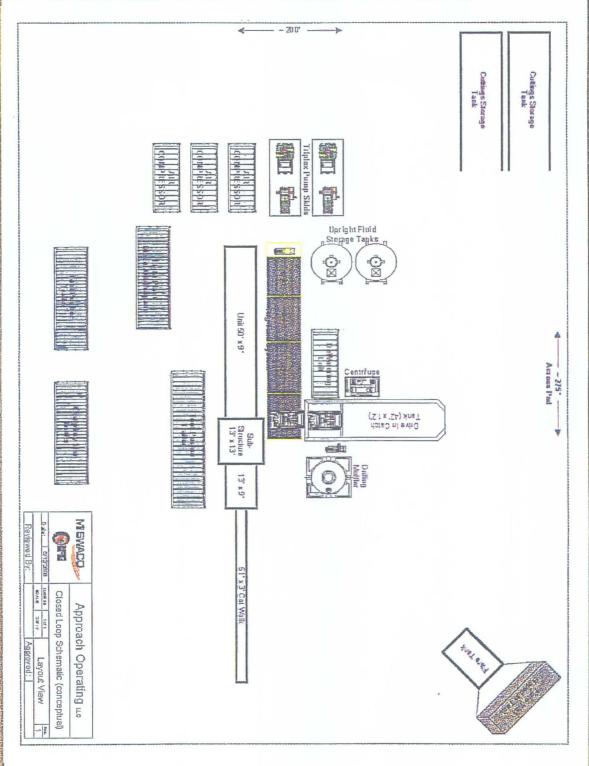
When the well is abandoned the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with appropriate seed mixture.

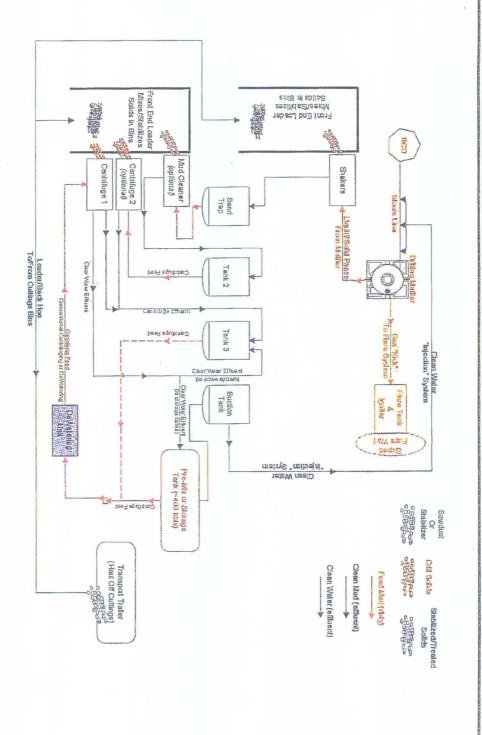
If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted to blend with the natural color of the landscape.

### 11. Lessee's or Operator's Representative:

Glenn W. Reed, Executive Vice President – Engineering & Operations Approach Resources 6500 West Freeway, Suite 800 Fort Worth, Texas 76116 Phone: (817) 989-9000

Glenn W. Reed
Executive Vice President – Engineering & Operations





Revie		Dalas		MEM
Reviewed By:		9002/21/0		WCC
	SCALE:	PECH NO	Cic	
	3.5'17	1001	sed Loc	Appro
Approved:	LION LIOCES	Ela D.	Closed Loop Schematic (conceptua	pproach Operating LLG
	OCARR		conceptual)	ting LLC
	-	Nen		

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Form C-144 June 24, 2008

District J 1625 N. French Dr., Hobbs, NM 88240 District II. 1301 W. Grand Avenue, Artesia, NM 88210 District III. 1000 Rio Brazos Road, Aztec, NM 87410 District IV. 1220 S. St. Francis Dr., Santa Fe, NM 87505

### State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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.

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

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				
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: ANDroch Characters 110 OGRID#: 748543				
Operator: Aftroach Operating, LC OGRID#: 248343  Address: 6500 West Freeway, Suite 800, Ft. Worth, 7x 76116				
Facility or well name: Seria No. 1	, , , , , , , , , , , , , , , , , , , ,			
API Number: 30-039-30386	OCD Permit Number			
U/L or Qtr/Qtr M Section 10 Township 28	Al Bons 45 County Pio Arriba			
O/L or QIPQII 1/1 Section 10 Township. 20	Range 12 County. 2:071. Map. Mag. 71002			
	Longitude 106° 30'27.2902" W NAD: 1927 □ 1983			
Surface Owner:  Federal State Private Tribal Trust or Indian	Allotment			
Pit: Subsection F or G of 19.15.17.11 NMAC	Closed-loop System: Subsection H of 19.15.17.11 NMAC			
Temporary: Drilling Workover	Drying Pad Tanks Haul-off Bins Other			
Permanent Emergency Cavitation Steel Pit	☐ Lined ☐ Unlined			
Liner type: Thickness N/A mil LLDPE HDP				
Lincr type: Thickness mil	☐ Other			
Other String-Reinforced	Seams: Welded Factory Other			
Seams: Welded Factory Other	Volume: N/A bbl N/A yd³			
Volume: x D x D	Dimensions: Length WA x Width WA			
Below-grade tank: Subsection I of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.1.1 NMAC			
Volume:bbl	Chain link, six feet in height, two strands of barbed wire at top			
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and			
Tank Construction material:	four feet			
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC			
☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other			
☐ Visible sidewalls and liner	☐ Monthly inspections			
☐ Visible sidewalls only	Signs: Subsection C of 19.15.17.11 NMAC			
☐ Other	12'x24', 2' lettering, providing Operator's name, site location, and			
Liner type: Thicknessmil	emergency telephone numbers			
☐ Other	Signed in compliance with 19.15.3.103 NMAC			
Alternative Method:	Administrative Approvals and Exceptions:			
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration	Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.			
of approval.	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 Burcau 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			
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 ☐ NA		
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - 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 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			
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 19.15.17.12 NMAC  Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.13 NMAC			
Previously Approved Design (attach copy of design) API Number: or Permit Number:			
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 (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (required 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 Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  NMAC			
Previously Approved Design (attach copy of design) API Number:			

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					
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   Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC   Quality 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 <sub>2</sub> S, Prevention Plan   Emergency Response Plan   Oil Field Waste Stream Characterization   Monitoring and Inspection Plan   Erosion Control Plan   Erosion Control 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	_				
Type: Drilling Workover Emergency Cavitation 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 contractions.	isideration)				
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 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. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.					
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	☐ Yès ☐ Nó ☐ NA				
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					
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					
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					
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.					

ste 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 I of 19.15.17.13 NMAC				
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC				
ste Removal Closure For Closed-loop Systems That Utilize Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility				
facilities for the disposal of liquids, drilling fluids and drill cuttings.				
risposal Facility Name: TNT Environmental Inc. Disposal Facility Permit Number: 11M - 01-0008				
-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate,				
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 and Design of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC				
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  Waste Material Sampling Plan - 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 or in case on-site closure standards cannot be achieved)				
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 I of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC				
_1 Site Rectamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC				
erator Application Certification:				
ereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.				
ne (Print): Brice A. Morgan Title: Landman				
nature: 54.1/				
e-mail address: by organ & approaches outces 100 Telephone: 817-989-9000				
D Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only)				
CD Approval: Permit Application (including closure plan) Closure Plan (only)				
CD Approval: Permit Application (including closure plan) Closure Plan (only)  CD Representative Signature:  Approval Date:				
CD Approval: Permit Application (including closure plan) Closure Plan (only)  CD Representative Signature:  Approval Date:  OCD Permit Number:				
CD Approval: Permit Application (including closure plan) Closure Plan (only)  CD Representative Signature:  Approval Date:  OCD Permit Number:  Subsection K of 19.15.17.13 NMAC				
CD Approval: Permit Application (including closure plan) Closure Plan (only)  CD Representative Signature:  Approval Date:  OCD Permit Number:				
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CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:    le:  OCD Permit Number:      Subsection K of 19.15.17.13 NMAC    Closure Completion Date:				
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:    le:  OCD Permit Number:    Surre Report (required within 60 days of closure completion):  Subsection K of 19.15.17.13 NMAC  Closure Completion Date:    Surre Method:  Alternative Closure Method				
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:    le:  OCD Permit Number:    Suure Report (required within 60 days of closure completion):  Subsection K of 19.15.17.13 NMAC    Closure Completion Date:    Suure Method:  Alternative Closure Method  Alternative Closure Method    If different from approved plan, please explain.				
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:    le:  OCD Permit Number:    Sure Report (required within 60 days of closure completion):  Subsection K of 19.15.17.13 NMAC    Closure Completion Date:    Sure Method:    Waste Excavation and Removal  On-Site Closure Method  Alternative Closure Method    If different from approved plan, please explain.    Sure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check rik in the box, that the documents are attached.				
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:    le:  OCD Permit Number:    Suure Report (required within 60 days of closure completion):  Subsection K of 19.15.17.13 NMAC    Closure Completion Date:    Suure Method:  Alternative Closure Method  Alternative Closure Method    If different from approved plan, please explain.				
DApproval: Permit Application (including closure plan) Closure Plan (only)  Description: Approval Date: OCD Permit Number: OCD				
D Approval: Permit Application (including closure plan)   Glosure Plan (only)  D Representative Signature: Approval Date:				
DApproval: Permit Application (including closure plan) Closure Plan (only)  Description: Approval Date:  OCD Permit Number:  Description: Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method  If different from approved plan, please explain.  Description: Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Description: Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Description: Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Description: Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Description: Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Description: Description Date:  Description: Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Description: Description Date:				
D Approval: Permit Application (including closure plan) Closure Plan (only)  D Representative Signature: Approval Date:  Description: Subsection K of 19.15.17.13 NMAC  Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Dispure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method  If different from approved plan, please explain.  Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Proof of Closure Method  If different from approved plan, please explain.  Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Proof of Closure Method  If different from approved plan, please explain.  Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Proof of Closure Method  If different from approved plan, please explain.  Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Proof of Closure Method  If different from approved plan, please explain.  Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Proof of Closure Method  If different from approved plan, please explain.  Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Proof of Closure Method  If different from approved plan, please explain.  Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Proof of Closure Notice  Proof of Closure Notice  Proof of Closure Notice  Proof of Deed Notice (if applicable)  Plot Plan  Confirmation Sampling Analytical Results  Disposal Facility Name and Permit Number  Soil Backfilling and Cover Installation				
D Approval:  Permit Application (including closure plan)  Closure Plan (only)  D Representative Signature:				
DApproval: Permit Application (including closure plan) Closure Plan (only)  DRepresentative Signature: Approval Date:  Besure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Sure Method: Waste Excavation and Removal On-Site Closure Method Alternative Closure Method  If different from approved plan, please explain.  Soure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check rin the box, that the documents are attached.  Proof of Closure Notice  Proof of Deed Notice (if applicable)  Plot Plan  Confirmation Sampling Analytical Results  Waste Material Sampling Analytical Results  Disposal Facility Name and Permit Number  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique  Site Reclamation (Photo Documentation)				
D Approval: Permit Application (including closure plan) Closure Plan (only)  D Representative Signature: Approval Date:  Let: OCD Permit Number:  District Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method  If different from approved plan, please explain.  District Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check rk in the box, that the documents are attached.  Proof of Closure Notice Proof of Deed Notice (if applicable) Plot Plan Confirmation Sampling Analytical Results Waste Material Sampling Analytical Results 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: Latitude Longitude NAD: 1927 1983				
D Approval:  Permit Application (including closure plan)  Closure Plan (only)  D Representative Signature:				
DApproval: Permit Application (including closure plan) Closure Plan (only)  Description Representative Signature:				
DApproval: Permit Application (including closure plan) Closure Plan (only)  Description: Approval Date:    Completion   Approval Date:				
DApproval: Permit Application (including closure plan) Closure Plan (only)  Description Representative Signature:				
DApproval:   Permit Application (including closure plan)   Closure Plan (only)  D Representative Signature:   Approval Date:				
DApproval: Permit Application (including closure plan) Closure Plan (only)  Description: Approval Date:    Completion   Approval Date:				

### APPROACH OPERATING, LLC. OPERATIONS PLAN

I. Location:

LAT

Date: June 18, 2008

LONG

Rio Arriba County, NM

Field: Wildcat

Elev: GL

Surface:

II. Drilling

A. Contractor: TBD B. Mud Program:

The surface hole will be drilled with a air, if possible, or fresh water mud.

The production hole will be drilled with air or air/mist.

### C. Minimum Blowout Control Specifications:

Double ram type 3000 psi working pressure BOP with a rotating head. See the attached Exhibit # \_\_ for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All check of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

No over pressured zones are expected in this well. No H2S zones expected, but compliance packs will be on location.

III. Logging program: Induction / GR and density logs at TD.

### IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt & Grade
12-1/4"	350'	9-5/8"	32.3# H-40
8-3/4**	2000°	4-1/2"	10.5# J-55

### B. Float Equipment

- a. Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.
- b. Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the shoe joint. Centralized with bow spring centralizers

### V. Cementing:

• Surface Casing: 9-5/8" 32.3 lb/ft H-40 set to 350'.

Cement 0-350'

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal Fluid Volume:

Fluid 2: Lead Cement

Premium Cement

Fluid Weight 15.600

lbm/gal 94 lbm/sk Premium Cement (Cement) Slurry Yield: 1.180 ft<sup>3</sup>/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 5.238

Gal/sk
2 % Calcium Chloride (Accelerator)

Top of Fluid: 0 ft

Calculated Fill: 350 ft

Volume: 42.139 bbl Calculated Sacks: 200.503 sks

10 bbl

Proposed Sacks: 205 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 23.966 bbl

• Production Casing: 4-1/2" 10.5 lb/ft J-55 casing set to TD.

Cement

Fluid Instructions

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal

Fluid Volume: 20 bbl

Fluid 2: Lead Cement

50/50 Poz Premium Fluid Weight 0.4 % Halad(R)-344 (Low Fluid Loss Control) Slurry Yield: 1.436 ft³/sk 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 6.193

Gal/sk.

5 lbm/sk Gilsonite (Lost Circulation Additive) Top of Fluid: 0 ft

Calculated Fill: 2000 ft

Volume: 156.266 bbl Calculated Sacks: 610.982 sks

Proposed Sacks: 615 sks.

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 31.197 bbl

• The wells will have 40' of 14" conductor set. Then a 12-1/4" hole will be drilled to about 350' when 9-5/8" surface casing will be set and cemented. We will drill out with a 8-3/4" bit using

### MULTI-POINT SURFACE USE PLAN

### 1. Existing Roads:

When existing roads are used to access the proposed location they will be maintained in the same or better condition than presently found.

### 2. Planned Access Roads:

Some new access road will have to be constructed. If existing access road is also used, it will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

### 3. Location of Existing Wells:

Attached map (Plat # 1) shows existing wells within one mile radius of the proposed well. N/A

### 4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

To protect livestock and wildlife, equipment will be fenced. Any tanks will be enclosed by a dike.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

### 5. Water Supply:

Water for drilling and completion will be purchased from local sources.

### 6. Source of Construction Materials:

No additional construction materials will be required to build.

### 7. Methods of Handling Waste Disposal:

- a. The drill cuttings, fluids and completion fluids will be placed in the steel tanks. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.
- b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.
- c. Portable toilets will be provided and maintained during drilling operations.

### 8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. .

### 9. Well Site Layout:

A plat of the drill pad with location of drilling equipment and rig orientations also attached.

### 10. Plans for Restoration of Surface:

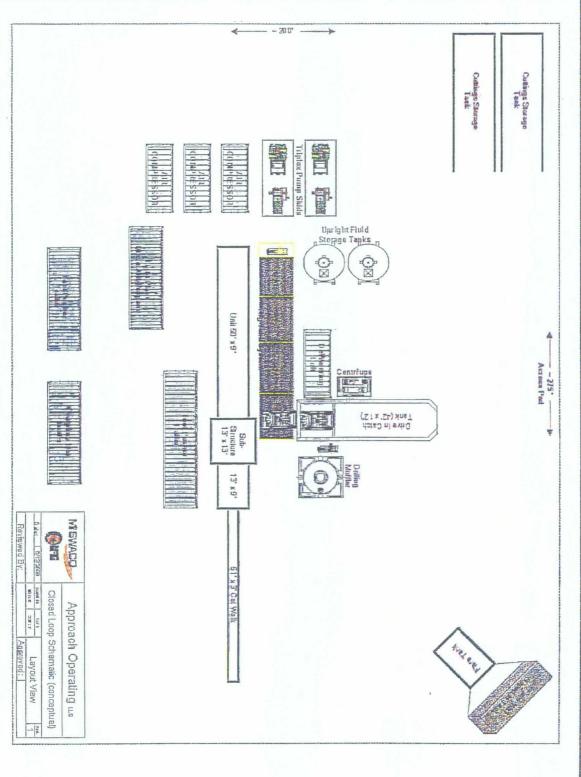
When the well is abandoned the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with appropriate seed mixture.

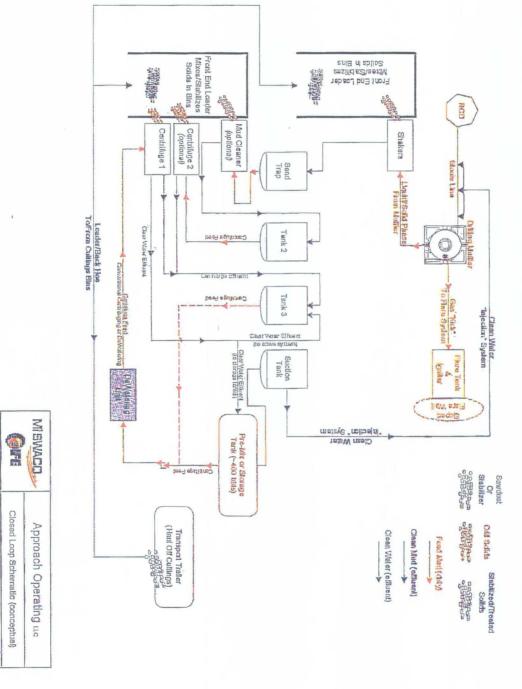
If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted to blend with the natural color of the landscape.

### 11. Lessee's or Operator's Representative:

Glenn W. Reed, Executive Vice President – Engineering & Operations Approach Resources 6500 West Freeway, Suite 800 Fort Worth, Texas 76116 Phone: (817) 989-9000

Glenn W. Reed
Executive Vice President – Engineering & Operations





Review	-			Mal	
Reviewed By:		6 DUCKE M		EWACO	
	SCACE.	Pacu (16	Clo		
	11.95	101	sed Loa	Appro	
Approved:			Closed Loop Schematic (conceptual)	Approach Operating LLG	
	רוטא וייוטעפטט	2	(conceptual)	tingc	
	-	Max			

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Form C-144 June 24, 2008

District I 1625 N. French Dr., Hobbs, NM 88240 District II
1301 W. Grand Avenue, Artesia, NM \$8210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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.

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

Permit of a nit. closed-loop system, below-grade tank, or proposed alternative method

	system, below-grade tank, or proposed alternative method		
Instructions: Please submit one application (Form C-144) per in	ndividual pit, closed-loop system, below-grade tunk or alternative request		
	ability should operations result in pollution of surface water, ground water or the ply with any other applicable governmental authority's rules, regulations or ordinances.		
Operator: Approach Operating, 11c	OGRID#: 248343		
Address: 6500 West Freeway, Suite 800, Ft. Worth, TX 76/16			
Facility or well name: Sena Uo. 2			
0			
API Number: 30-039-30394 OCD Permit Number: U/L or Qtr/Qtr Section 16 Township 2810 Range 42 County: Lio Arriba			
Center of Proposed Design: Latitude 36° 39'25.02004 k	Longitude 106° 30′42.516″ W NAD: 12/927 ☐ 1983		
Surface Owner:  Federal  State Private Tribal Trust or Indian	,		
Pit: Subsection F or G of 19.15.17.11 NMAC	Closed-loop System: Subsection H of 19.15.17.11 NMAC		
Temporary: Drilling Workover	Drying Pad Tanks Haul-off Bins Other		
☐ Permanent ☐ Emergency ☐ Cavitation ☐ Steel Pit	☐ Lined ☐ Unlined		
Lined Unlined	Liner type: Thickness mil LLDPE HDPE PVC		
Liner type: ThicknessmilLLDPE HDPE PVC	Other		
Other String-Reinforced	Seams: Welded Factory Other		
Seams: Welded Factory Other	Volume: N/A bbl N/A yd³  Dimensions: Length N/A x Width N/A		
Volume:bbl Dimensions: Lx Wx D	Dimensions: Length WA x Width WA		
Below-grade tank: Subsection I of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC		
Volume:bbl	Chain link, six feet in height, two strands of barbed wire at top		
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and		
Tank Construction material:	four feet		
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC		
Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other		
☐ Visible sidewalls and liner	Monthly inspections		
☐ Visible sidewalls only	Signs: Subsection C of 19.15,17.11 NMAC		
Other	12'x24', 2' lettering, providing Operator's name, site location, and		
Liner type: Thickness mil	emergency telephone numbers		
Other	Signed in compliance with 19.15.3.103 NMAC		
Alternative Method:	Administrative Approvals and Exceptions:		
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration	Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.		
of approval.	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				
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				
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				
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - 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				
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				
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site				
Within the area overlying a subsurface mine.  - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division				
Within an unstable area.  - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map				
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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC				
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 (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (required 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 - 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:				

	<del></del>		
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			
Introched.  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  Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC			
Quality 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			
<ul> <li>Nuisance or Hazardous Odors, including H₂S, Prevention Plan</li> <li>Emergency Response Plan</li> <li>Oil Field Waste Stream Characterization</li> </ul>			
☐ Monitoring and Inspection Plan ☐ Erosion Control Plan ☐ Closure Plan - bäsed 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			
Type: Drilling Workover Emergency Cavitation 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 cor	nsideration)		
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 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. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.			
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.	☐ Yes ☐ No		

aste 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 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 I of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC			
Vaste Removal Closure For Closed-loop Systems That Utilize Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility			
facilities for the disposal of liquids, drilling fluids and drill outlings			
Disposal Facility Name: NM-01-000 8  n-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate,			
n-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate,			
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 and Design of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC			
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  Waste Material Sampling Plan - 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 or in case on-site closure standards cannot be achieved)			
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 I of 19.15.17.13 NMAC			
Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19,15.17.13 NMAC			
perator Application Certification:			
hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.			
ame (Print):			
ame (Print): Brie A. Morgan  Title: Landman  Date: 7-9-08			
mail address: 6Morgan@approachtesources.com Telephone: 817-989-9000			
CD Approval: Permit Application (including closure plan) Closure Plan (only)			
CD Approval: Permit Application (including closure plan) Closure Plan (only)			
CD Approval: Permit Application (including closure plan) Closure Plan (only)			
CD Approval: Permit Application (including closure plan) Closure Plan (only)  CD Representative Signature: Approval Date: OCD Permit Number:			
CD Approval: Permit Application (including closure plan) Closure Plan (only)  CD Representative Signature: Approval Date:  OCD Permit Number:  CD Approval: Plan (only)  Approval Date:  OCD Permit Number:  Course Report (required within 60 days of closure completion): Subsection K of 19:15.17.13 NMAC			
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:  OCD Permit Number:  OCD Permit Number:  Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date:			
CD Approval: Permit Application (including closure plan) Closure Plan (only)  CD Representative Signature: Approval Date:  itle: OCD Permit Number:  losure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date:			
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:  OCD Permit Number:  OCD Permit Number:  Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date:			
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:    itle:  OCD Permit Number:    losure Report (required within 60 days of closure completion):  Subsection K of 19:15.17.13 NMAC    Closure Completion Date:    losure Method:  Alternative Closure Method  Alternative Closure Method    If different from approved plan, please explain.			
CD Approval: Permit Application (including closure plan) Closure Plan (only)  CD Representative Signature: Approval Date:  itle: OCD Permit Number:  losure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method  If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check work in the box, that the documents are attached.			
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:    itle:  OCD Permit Number:    losure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC    Closure Completion Date:    losure Method:  Alternative Closure Method  Alternative Closure Method    If different from approved plan, please explain.  losure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check ark in the box, that the documents are attached.    Proof of Closure Notice			
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:    itle:  OCD Permit Number:    losure Report (required within 60 days of closure completion): Subsection K of 19:15.17.13 NMAC    Closure Completion Date:    Waste Excavation and Removal  On-Site Closure Method  Alternative Closure Method    If different from approved plan, please explain.  Insure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check ark in the box, that the documents are attached.    Proof of Closure Notice   Proof of Deed Notice (if applicable)			
CD Approval: Permit Application (including closure plan) Closure Plan (only)  CD Representative Signature:			
CD Approval: Permit Application (including closure plan) Closure Plan (only)  CD Representative Signature:			
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:			
CD Approval:			
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:  Approval Date:			
CD Approval:			
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:			
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:			
CD Approva!: Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:			
CD Approval:  Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:			
CD Approval:			
CD Approva!: Permit Application (including closure plan)  Closure Plan (only)  CD Representative Signature:			

### APPROACH OPERATING, LLC. OPERATIONS PLAN

I. Location:

LAT

Date: June 18, 2008

LONG

Rio Arriba County, NM

Field: Wildcat

Elev: GL

Surface:

II. Drilling

A. Contractor: TBD B. Mud Program:

The surface hole will be drilled with a air, if possible, or fresh water mud.

The production hole will be drilled with air or air/mist.

### C. Minimum Blowout Control Specifications:

Double ram type 3000 psi working pressure BOP with a rotating head. See the attached Exhibit # \_\_ for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All check of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

No over pressured zones are expected in this well. No H2S zones expected, but compliance packs will be on location.

III. Logging program: Induction / GR and density logs at TD.

### IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt & Grade
12-1/4"	350'	9-5/8"	32.3# H-40
8-3/4**	2000	4-1/2"	10.5# J-55

### B. Float Equipment

- a. Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.
- b. Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the shoe joint. Centralized with bow spring centralizers

### V. Cementing:

• Surface Casing: 9-5/8" 32.3 lb/ft H-40 set to 350'.

Cement 0-350'

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal

Fluid Volume: 10 bbl

Fluid 2: Lead Cement

Premium Cement Fluid Weight 15.600

lbm/gal

94 lbm/sk Premium Cement (Cement) Slurry Yield: 1.180 ft<sup>3</sup>/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 5.238

Gal/sk

2 % Calcium Chloride (Accelerator) Top of Fluid: 0 ft

Calculated Fill: 350 ft

Volume: 42.139 bbl

Calculated Sacks: 200.503 sks

Proposed Sacks: 205 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 23.966 bbl

• Production Casing: 4-1/2" 10.5 lb/ft J-55 casing set to TD.

Cement

Fluid Instructions

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal

Fluid Volume: 20 bbl

Fluid 2: Lead Cement

50/50 Poz Premium Fluid Weight 13 lbm/gal 0.4 % Halad(R)-344 (Low Fluid Loss Control) Sluirty Yield: 1.436 ft³/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 6.193

Gal/sk

5 lbm/sk Gilsonite (Lost Circulation Additive) Top of Fluid: 0 ft

Calculated Fill: 2000 ft

Volume: 156.266 bbl

Calculated Sacks: 610.982 sks

Proposed Sacks: 615 sks.

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 31.197 bbl

• The wells will have 40' of 14" conductor set. Then a 12-1/4" hole will be drilled to about 350' when 9-5/8" surface casing will be set and cemented. We will drill out with a 8-3/4" bit using

### MULTI-POINT SURFACE USE PLAN

### 1. Existing Roads:

When existing roads are used to access the proposed location they will be maintained in the same or better condition than presently found.

### 2. Planned Access Roads:

Some new access road will have to be constructed. If existing access road is also used, it will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

### 3. Location of Existing Wells:

Attached map (Plat # 1) shows existing wells within one mile radius of the proposed well. N/A

### 4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

To protect livestock and wildlife, equipment will be fenced. Any tanks will be enclosed by a dike.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

### 5. Water Supply:

Water for drilling and completion will be purchased from local sources.

### 6. Source of Construction Materials:

No additional construction materials will be required to build.

### 7. Methods of Handling Waste Disposal:

- a. The drill cuttings, fluids and completion fluids will be placed in the steel tanks. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.
- b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.
- c. Portable toilets will be provided and maintained during drilling operations.

### 8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. .

### 9. Well Site Layout:

A plat of the drill pad with location of drilling equipment and rig orientations also attached.

### 10. Plans for Restoration of Surface:

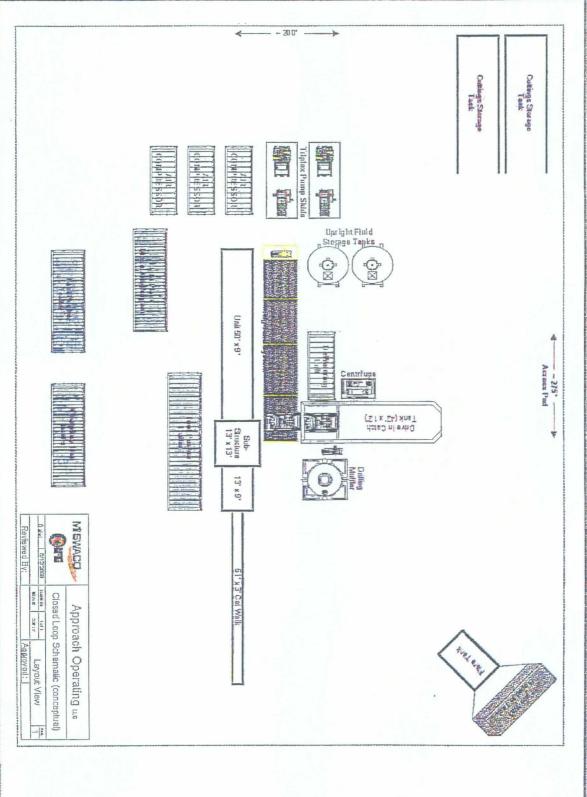
When the well is abandoned the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with appropriate seed mixture.

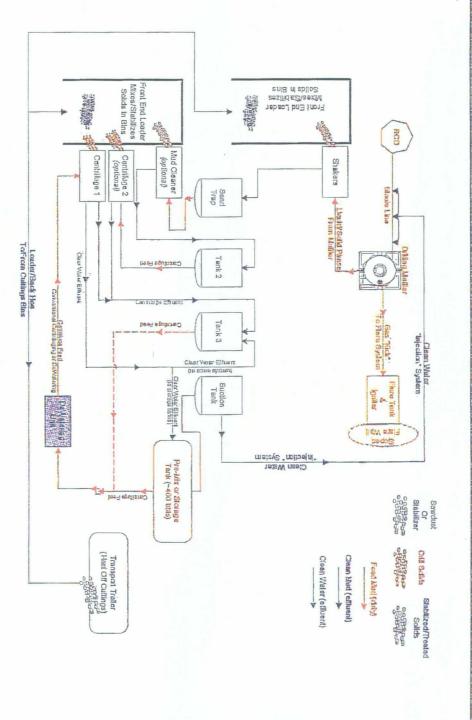
If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted to blend with the natural color of the landscape.

### 11. Lessee's or Operator's Representative:

Glenn W. Reed, Executive Vice President – Engineering & Operations Approach Resources 6500 West Freeway, Suite 800 Fort Worth, Texas 76116 Phone: (817) 989-9000

Glenn W. Reed
Executive Vice President – Engineering & Operations





Reviewed By:	and a	Dalle BOUER NO STATE		MIEWACO
	11.8°C 12	101	Closed Lo	Appro
Approved:	LIOW LICESS		Closed Loop Schematic (conceptual)	pproach Operatingc
	-	New.		

Form C-144 June 24, 2008

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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 Burcau office and provide a copy to the appropriate NMOCD District Office.

### Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or 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

Closure of a pit, closed-loop	system, below-grade talk, or proposed atternative method			
S	ndividual pit, closed-loop system, below-grade tank or alternative request			
Please be advised that approval of this request does not relieve the operator of li-	ability should operations result in pollution of surface water, ground water or the uply with any other applicable governmental authority's rules, regulations or ordinances.			
	<del></del>			
Addrago: USTO 1 Vest From Swite	800 Ft (1) arth TV 7/-11/-			
Operator: Approach Operating, LLC OGRID#: 248343  Address: 6500 West Freeway, Suite 800, Ft. Worth, TX 76116  Facility or well name: Woolley Family LA No. 1				
1777				
API Number: 30-039-30397 OCD Permit Number:  U/L or Qtr/Qtr H Section 3 Township 2810 Range 52 County: Rio Arriba				
Center of Proposed Design: Latitude 36° 41' 27.88700 "N Longitude 106° 25' 11.85392 WAD: \$\frac{1}{2}1927 \Bigsq 1983				
Surface Owner:   Federal  State  Private  Tribal Trust or Indian	Allotment			
Pit: Subsection F or G of 19.15.17.11 NMAC	Closed-loop System: Subsection H of 19.15.17.11 NMAC			
Temporary: Drilling Workover	Drying Pad Tanks Haul-off Bins Other			
☐ Permanent ☐ Emergency ☐ Cavitation ☐ Steel Pit	Lined Unlined			
Lined Unlined	Liner type: Thickness <b>N/A</b> mil LLDPE HDPE PVC			
Liner type: Thickness mil	Other			
Other String-Reinforced	Seams: Welded Factory Other			
Seams: Welded Factory Other	Volume: N/A bbl N/A yd³			
Volume:bbl Dimensions: L x W x D	Dimensions: Length W/A x Width W/A			
Below-grade tank: Subsection I of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC			
Volume:bbl	Chain link, six feet in height, two strands of barbed wire at top			
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and			
Tank Construction material:	four feet			
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC			
☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other			
☐ Visible sidewalls and liner	Monthly inspections			
☐ Visible sidewalls only	Signs: Subsection C of 19.15.17.11 NMAC			
Other	12'x24', 2' lettering, providing Operator's name, site location, and			
Liner type: Thicknessmil	emergency telephone numbers			
Other	Signed in compliance with 19.15.3.103 NMAC			
Alternative Method:	Administrative Approvals and Exceptions:			
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration	Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.			
of approval.	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				
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				
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	☐ Ycs ☐ No ☐ NA			
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA			
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				
Within 500 feet of a wetland.  - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site				
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   Sting 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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC				
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 (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (required 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 - 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:				

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 da attached.	ocuments are
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	
Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC  Quality Control/Quality Assurance Construction and Installation Plan  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC	
<ul> <li>☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan</li> <li>☐ Emergency Response Plan</li> </ul>	
☐ 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	<b>-</b>
Type: Drilling Workover Emergency Cavitation 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 con	nsideration)
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 source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10	
NMAC for guidance.	
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	Ycs 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	☐ Yeş ☐ 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 ☐ Ņo
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.	Yes No

	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 document			
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 Su			
Site Reclamation Plan - based upon the appropriate requirements of	Subsection G of 19.15.17.13 NMAC		
Waste Removal Closure For Closed-loop Systems That Utilize Haul-o	ff Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility		
or facilities for the disposal of liquids, drilling fluids and drill cuttings.			
Disposal Facility Name: TNT Environmental Inc	Disposal Facility Permit Number: AJM - 01 - 0008		
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: E.	nch 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 approp			
Proof of Surface Owner Notice - based upon the appropriate require			
Construction and Design of Burial Trench (if applicable) based upon Protocols and Procedures - based upon the appropriate requirements			
Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements			
Waste Material Sampling Plan - based upon the appropriate requires	ments of Subsection F of 19.15.17.13 NMAC		
Disposal Facility Name and Permit Number (for liquids, drilling flu	ids and drill cuttings or in case on-site closure standards cannot be achieved)		
Soil Cover Design - based upon the appropriate requirements of Sul			
Re-vegetation Plan - based upon the appropriate requirements of Su			
Site Reclamation Plan - based upon the appropriate requirements of	Subsection G of 19.13.17.13 NMAC		
Operator Application Certification:			
I hereby certify that the information submitted with this application is true			
Name (Prince A Margan	The / and die		
Name (Print): Brice A. Morgan Signature: A.M.	Title: Caramata		
2 N.	7-9-08		
Signature:	Date: 1-1-06		
e-mail address: by organ approach lesources.	O.M. Talaulana \$17-959-9000		
e-mail address: Complete the Califfrence of the Systematic 1.7	Telephone: 11 1 17 17 1000		
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OCD Approval: Permit Application (including closure plan) Clo	isure Plan (only)		
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OCD Approval: Permit Application (including closure plan) Coco CCD Representative Signature:	Sure Plan (only). Approval Date:		
OCD Approval: Permit Application (including closure plan) Coco CCD Representative Signature:	Sure Plan (only). Approval Date:		
OCD Approval: Permit Application (including closure plan) Coco CCD Representative Signature:  Title:	Approval Date: OCD Permit Number: Section K. of 19.15.17.13 NMAC		
OCD Approval: Permit Application (including closure plan) Coco CCD Representative Signature:  Title:	Approval Date: OCD Permit Number:		
OCD Approval: Permit Application (including closure plan) Coco CCD Representative Signature:  Title:  Closure Report (required within 60 days of closure completion): Subsectionary Method:	Approval Date: OCD Permit Number: Section K of 19.15.17.13 NMAC Closure Completion Date:		
OCD Approval: Permit Application (including closure plan) Closure Report (required within 60 days of closure completion): Substitute Method:  Waste Excavation and Removal On-Site Closure Method	Approval Date: OCD Permit Number: Section K of 19.15.17.13 NMAC Closure Completion Date:		
OCD Approval: Permit Application (including closure plan) Coco CCD Representative Signature:  Title:  Closure Report (required within 60 days of closure completion): Subsectionary Method:	Approval Date: OCD Permit Number: Section K of 19.15.17.13 NMAC Closure Completion Date:		
OCD Approval: Permit Application (including closure plan) Closure Report (required within 60 days of closure completion): Substitute Excavation and Removal On-Site Closure Method If different from approved plan, please explain.	Approval Date: OCD Permit Number: Section K of 19.15.17.13 NMAC Closure Completion Date:		
OCD Approval: Permit Application (including closure plan) Coco CCD Representative Signature:  Title: Closure Report (required within 60 days of closure completion): Substitute Method:  Waste Excavation and Removal On-Site Closure Method  If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the followark in the box, that the documents are attached.	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method		
OCD Approval: Permit Application (including closure plan) Closure Report (required within 60 days of closure completion): Substitute Excavation and Removal On-Site Closure Method: If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the followark in the box, that the documents are attached.  Proof of Closure Notice	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method		
OCD Approval: Permit Application (including closure plan) Closure Report (required within 60 days of closure completion): Substitute:  Closure Method: Waste Excavation and Removal On-Site Closure Method If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the followark in the box, that the documents are attached. Proof of Closure Notice Proof of Deed Notice (if applicable)	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method		
OCD Approval:  Permit Application (including closure plan)  Cooch Cooch Cook Cook Cook Cook Cook Cook Cook Coo	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method		
OCD Approval:  Permit Application (including closure plan)  Cooch Representative Signature:  Title:  Substitute:  Substitu	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method		
OCD Approval:  Permit Application (including closure plan)  Cooch Coch Representative Signature:  Title:  Substitute:  Provided Within 60 days of closure completion): Substitute:  Provided Removal  On-Site Closure Method  If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the followark in the box, that the documents are attached.  Proof of Closure Notice  Proof of Deed Notice (if applicable)  Poof Plan  Confirmation Sampling Analytical Results  Waste Material Sampling Analytical Results  Disposal Facility Name and Permit Number	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method		
OCD Approval:  Permit Application (including closure plan)  Cooch Coch Representative Signature:  Title:  Substitute:  Permit Application (including closure plan)  Coch Representative Signature:  Proceedings of Closure Report (required within 60 days of closure completion):  Substitute:  Proceedings of Closure Method  The different from approved plan; please explain.  Closure Report Attachment Checklist:  Instructions:  Each of the followark in the box, that the documents are attached.  Proof of Closure Notice  Proof of Deed Notice (if applicable)  Poof of Deed Notice (if applicable)  Poof of Deed Notice (if applicable)  Poof Signature Sampling Analytical Results  Signature Results  Signature Results  Signature Results  Posposal Facility Name and Permit Number  Soil Backfilling and Cover Installation	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method		
OCD Approval:  Permit Application (including closure plan)  Cooch Representative Signature:  Title:  Substitute:  Substitute:  Substitute:  Substitute:  Proof of Closure Method:  If different from approved plan; please explain.  Closure Report Attachment Checklist: Instructions: Each of the followark in the box, that the documents are attached.  Proof of Closure Notice  Proof of Deed Notice (if applicable)  Proof of Deed Notice (if applicable)  Proof of Deed Notice (if applicable)  Substitute Maste Material Sampling Analytical Results  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method		
OCD Approval:  Permit Application (including closure plan)  Cooch Representative Signature:  Title:  Substitute:  Substitute:  Substitute:  Substitute:  Proof of Closure Method:  If different from approved plan; please explain.  Closure Report Attachment Checklist: Instructions: Each of the followark in the box, that the documents are attached.  Proof of Closure Notice  Proof of Deed Notice (if applicable)  Poof plan  Confirmation Sampling Analytical Results  Waste Material Sampling Analytical Results  Disposal Facility Name and Permit Number  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique  Site Reclamation (Photo Documentation)	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method  wing items must be attached to the closure report. Please indicate, by a check		
OCD Approval:  Permit Application (including closure plan)  Cood Cook Cook Cook Cook Cook Cook Coo	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method		
OCD Approval:  Permit Application (including closure plan)  Cood Cook Cook Cook Cook Cook Cook Coo	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method  wing items must be attached to the closure report. Please indicate, by a check  Longitude NAD:   1927   1983		
OCD Approval:  Permit Application (including closure plan)  Cood Cook Representative Signature:  Title:	Approval Date:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method  wing items must be attached to the closure report. Please indicate, by a check  Longitude		
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OCD Approval:  Permit Application (including closure plan)  Cood Coch Representative Signature:  Title:	Approval Date:  OCD Permit Number:  OCD Permit Number:  Section K of 19.15.17.13 NMAC  Closure Completion Date:  Alternative Closure Method  wing items must be attached to the closure report. Please indicate, by a clieck  Longitude		

# APPROACH OPERATING, LLC. OPERATIONS PLAN

I. Location:

LAT

Date: June 18, 2008

LONG

Rio Arriba County, NM

Field: Wildcat

Elev: GL

Surface:

II. Drilling

A. Contractor: TBD B. Mud Program:

The surface hole will be drilled with a air, if possible, or fresh water mud.

The production hole will be drilled with air or air/mist.

### C. Minimum Blowout Control Specifications:

Double ram type 3000 psi working pressure BOP with a rotating head. See the attached Exhibit # \_\_\_ for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All check of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

No over pressured zones are expected in this well. No H2S zones expected, but compliance packs will be on location.

III. Logging program: Induction / GR and density logs at TD.

### IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt & Grade
12-1/4"	350'	9-5/8"	32.3# H-40
8-3/4"	2000?	4-1/2"	10.5# J-55

### B. Float Equipment

- Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.
- b. Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the shoe joint. Centralized with bow spring centralizers

### V: Cementing:

• Surface Casing: 9-5/8" 32.3 lb/ft H-40 set to 350'.

Cement 0-350'

Fluid 1: Water Based Spacer

Fluid Density: 8.330 Water

lbm/gal Fluid Volume: 10 bbl

Fluid 2: Lead Cement

Fluid Weight Premium Cement 15.600

lbm/gal

 $1.180 \text{ ft}^3/\text{sk}$ 94 lbm/sk Premium Cement (Cement) Slurry Yield: 5.238

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid:

0 ft 2 % Calcium Chloride (Accelerator) Top of Fluid:

Calculated Fill: 350 ft

> Volume: 42.139 bbl

Calculated Sacks: 200.503 sks

Proposed Sacks: 205 sks

Fluid 3: Water Based Spacer

Fluid Density: Water Displacement 8.330

Ibm/gal

Fluid Volume: 23.966 bbl

• Production Casing: 4-1/2" 10.5 lb/ft J-55 casing set to TD.

Cement

Fluid Instructions

Fluid 1: Water Based Spacer

Fluid Density: 8.330 Water

lbm/gal

Fluid Volume: 20 bbl

Fluid 2: Lead Cement

50/50 Poz Premium Fluid Weight 0.4 % Halad(R)-344 (Low Fluid Loss Control) Slurry Yield: 1.436 ft<sup>3</sup>/sk 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 6.193

Gal/sk

5 lbm/sk Gilsonite (Lost Circulation Additive) Top of Fluid: 0 ft

Calculated Fill: 2000 ft

Volume: 156.266 bbl Calculated Sacks: 610.982 sks

Proposed Sacks: 615 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 31.197 bbl

• The wells will have 40° of 14" conductor set. Then a 12-1/4" hole will be drilled to about 350° when 9-5/8" surface casing will be set and cemented. We will drill out with a 8-3/4" bit using

### MULTI-POINT SURFACE USE PLAN

### 1. Existing Roads:

When existing roads are used to access the proposed location they will be maintained in the same or better condition than presently found.

### 2. Planned Access Roads:

Some new access road will have to be constructed. If existing access road is also used, it will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

### 3. Location of Existing Wells:

Attached map (Plat # 1) shows existing wells within one mile radius of the proposed well. N/A

### 4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

To protect livestock and wildlife, equipment will be fenced. Any tanks will be enclosed by a dike.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

### 5. Water Supply:

Water for drilling and completion will be purchased from local sources.

### 6. Source of Construction Materials:

No additional construction materials will be required to build.

### 7. Methods of Handling Waste Disposal:

- a. The drill cuttings, fluids and completion fluids will be placed in the steel tanks. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.
- b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.
- c. Portable toilets will be provided and maintained during drilling operations.

### 8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. .

### 9. Well Site Layout:

A plat of the drill pad with location of drilling equipment and rig orientations also attached.

### 10. Plans for Restoration of Surface:

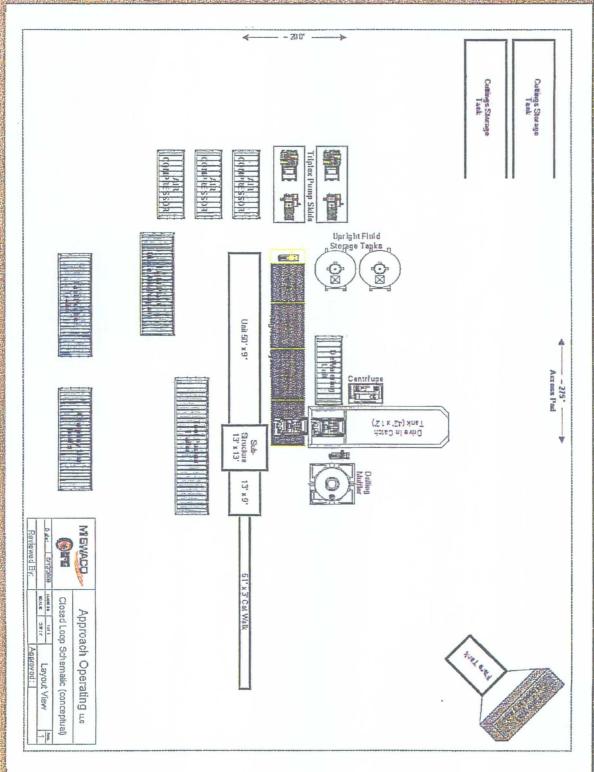
When the well is abandoned the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with appropriate seed mixture.

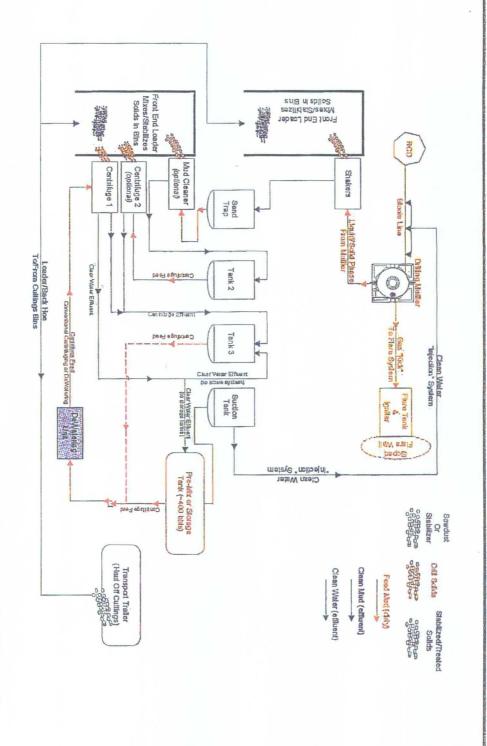
If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted to blend with the natural color of the landscape.

## 11. Lessee's or Operator's Representative:

Glenn W. Reed, Executive Vice President – Engineering & Operations Approach Resources 6500 West Freeway, Suite 800 Fort Worth, Texas 76116 Phone: (817) 989-9000

Glenn W. Reed
Executive Vice President – Engineering & Operations





MISWACO

Closed Loop Schematic (conceptual)

Approach Operating LLC

Reviewed By:

BCACE: 3.8": F

Flow Process

Approved:

, x ×

Form C-144 June 24, 2008

District I 1625 N. French Dr., Hobbs, NM 88240 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505

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.

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

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			
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: Antoach Operatina, LLC	OGRID#: 248343		
Operator: Approach Operating, LLC OGRID#: 248343  Address: 6500 West Freeway, Suite 800, Ft. Worth, TX 76116			
Facility or well name: Avella Sultemeret No. Z			
API Number: 30-039 - OCD Permit Number: U/L or Qtr/Qtr 9 Section 20 Township 28N Range 42 County: Rio Arriba			
U/L or Otr/Otr 9 Section 20 Township 25	3N Range 4E County: Rio Arriba		
Center of Proposed Design: Latitude 36° 38'41.8"N	Longitude 106° 31′ 34.3″ W NAD: \$\infty\$1927 \[ \] 1983		
Surface Owner: 🔲 Federal 🔲 State 🔀 Private 🔲 Tribal Trust or Indian 2	Allotment		
Pit: Subsection F or G of 19.15.17.11 NMAC	Closed-loop System: Subsection H of 19.15.17.11 NMAC		
Temporary:  Drilling  Workover	Drying Pad Manks Haul-off Bins Other		
Permanent Emergency Cavitation Steel Pit	Lined Unlined		
Lined Unlined	Liner type: Thickness N/A mil LLDPE HDPE PVC		
Liner type: ThicknessmilLLDPE HDPE PVC	Other		
Other String-Reinforced	Seams:  Welded Factory Other		
Seams: Welded Factory Other	Volume: <u>W/A</u> bbl <u>W/A</u> yd³		
Volume: bbl Dimensions: L x W x D	Dimensions: Length WA x Width WA		
Below-grade tank: Subsection I of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC		
Volume:bbl	Chain link, six feet in height, two strands of barbed wire at top		
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and		
Tank Construction material:	four feet		
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC		
☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other		
☐ Visible sidewalls and liner	Monthly inspections		
☐ Visible sidewalls only	Signs: Subsection C of 19.15.17.11 NMAC		
Other	12'x24', 2' lettering, providing Operator's name, site location, and		
Liner type: Thicknessmil  HDPE PVC	emergency telephone numbers		
Other	Signed in compliance with 19.15.3.103 NMAC		
Alternative Method:	Administrative Approvals and Exceptions:		
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration	Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.		
of approval.	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 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	Ycs 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 ☐ NA		
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.  (Applies to permanent pits)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA		
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			
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 - 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:			
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 (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (required 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  Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  NMAC			
Previously Approved Design (attach copy of design) API Number:			

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			
Intrached.  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 ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Quality Control/Quality Assurance Construction and Installation Plan			
<ul> <li>□ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>□ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> <li>□ Nuisance or Hazardous Odors, including H₂S, Prevention Plan</li> <li>□ Emergency Response Plan</li> </ul>			
<ul> <li>☐ Oil Field Waste Stream Characterization</li> <li>☐ Monitoring and Inspection Plan</li> <li>☐ Erosion Control Plan</li> <li>☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC</li> </ul>			
Proposed Closure: 19.15.17.13 NMAC			
Type: Drilling Workover Emergency Cavitation Permanent Pit Below-grade Tank Closed-loop System	Alternative		
Proposed Closure Method: Waste Excavation and Removal			
Waste Removal (Closed-loop systems only)			
<ul> <li>On-site Closure Method (Only for temporary pits and closed-loop systems)</li> <li>In-place Burial</li> <li>On-site Trench Burial</li> </ul>			
Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for con	nsideration)		
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 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. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.			
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	Ycs No		
Within 500 féet 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			
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		

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			
Vaste Removal Closure For Closed-loop Systems That Utilize Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility facilities for the disposal of liquids, drilling fluids and drill cuttings.  Disposal Facility Name: TNT Environmental Inc. Disposal Facility Permit Number: N			
n-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: Each of the following items must be attached to the closure plan. Please indicate,			
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 and Design of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.13 NMAC  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  Waste Material Sampling Plan - 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 or in case on-site closure standards cannot be achieved)  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 I of 19.15.17.13 NMAC			
perator Application Certification:			
hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.			
ame (Print): Brice A. Morgan Title: Landman gnature: 7-9-08			
mail address: bMotagn@approachtesoutces.com Telephone: 817-989-9000			
CD Approval: Permit Application (including closure plan) Closure Plan (only)			
CD Representative Signature: Approval Date:			
CD Representative Signature: Approval Date: itle: OCD Permit Number:			
losure Report (required within 60 days of closure completion): Subsection K-of 19.15.17.13 NMAC			
Consure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC   Closure Completion Date:   Closure Method:   Waste Excavation and Removal   On-Site Closure Method   Alternative Closure Method   If different from approved plan, please explain.    Source Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check ark in the box, that the documents are attached.   Proof of Closure Notice   Proof of Deed Notice (if applicable)   Plot Plan   Confirmation Sampling Analytical Results   Waste Material Sampling Analytical Results   Disposal Facility Name and Permit Number   Soil Backfilling and Cover Installation   Re-vegetation Application Rates and Seeding Technique   Site Reclamation (Photo Documentation)			
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC   Closure Completion Date:   Closure Method:   Closure Method   Alternative Closure Method   If different from approved plan, please explain.   Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check ark in the box, that the documents are attached.   Proof of Closure Notice   Proof of Deed Notice (if applicable)   Plot Plan   Confirmation Sampling Analytical Results   Waste Material Sampling Analytical Results   Waste Material Sampling and Cover Installation   Re-vegetation Application Rates and Seeding Technique   Site Reclamation (Photo Documentation)   Consite Closure Location: Latitude   Longitude   NAD:   1927   1983			
Consure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC   Closure Completion Date:   Closure Method:   Waste Excavation and Removal   On-Site Closure Method   Alternative Closure Method   If different from approved plan, please explain.    Source Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check ark in the box, that the documents are attached.   Proof of Closure Notice   Proof of Deed Notice (if applicable)   Plot Plan   Confirmation Sampling Analytical Results   Waste Material Sampling Analytical Results   Disposal Facility Name and Permit Number   Soil Backfilling and Cover Installation   Re-vegetation Application Rates and Seeding Technique   Site Reclamation (Photo Documentation)			
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC   Closure Completion Date:   Closure Method:   Closure Method   Alternative Closure Method   If different from approved plan, please explain.   Closure Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check ark in the box, that the documents are attached.   Proof of Closure Notice   Proof of Closure Notice   Proof of Deed Notice (if applicable)   Plot Plan   Confirmation Sampling Analytical Results   Waste Material Sampling Analytical Results   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: Latitude   Longitude   NAD:   1927   1983   Perator Closure Certification:   Percept certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and			
Insure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC   Closure Completion Date:   Closure Method:   Waste Excavation and Removal   On-Site Closure Method   Alternative Closure Method   If different from approved plan, please explain.   Insurance Report Attachment Checklist: Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check ark in the box, that the documents are attached.   Proof of Closure Notice   Proof of Deed Notice (if applicable)   Plot Plan   Confirmation Sampling Analytical Results   Waste Material Sampling Analytical Results   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: Latitude   Longitude   NAD:   1927   1983     perator Closure Certification:   Insurance Complete to the best of my knowledge and dief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.			

# APPROACH OPERATING, LLC. OPERATIONS PLAN

I. Location:

LAT

Date: June 18, 2008

LONG

Rio Arriba County, NM

Field: Wildcat

Elev: GL

Surface:

II. Drilling

A. Contractor: TBD B. Mud Program:

The surface hole will be drilled with a air, if possible, or fresh water mud.

The production hole will be drilled with air or air/mist.

### C. Minimum Blowout Control Specifications:

Double ram type 3000 psi working pressure BOP with a rotating head. See the attached Exhibit # \_\_ for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All check of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

No over pressured zones are expected in this well. No H2S zones expected, but compliance packs will be on location.

III. Logging program: Induction / GR and density logs at TD.

### IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt & Grade
12-1/4"	350'	9-5/8?"	32.3# H-40
8-3/4**	2000	4-1/2"	10.5# J-55

### B. Float Equipment

- a. Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.
- b. Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the shoe joint. Centralized with bow spring centralizers

## V. Cementing:

• Surface Casing: 9-5/8" 32.3 lb/ft H-40 set to 350'.

Cement 0-350'

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal Fluid Volume: 10 bbl

Fluid 2: Lead Cement

Premium Cement Fluid Weight 15.600 lbm/gal

94 lbm/sk Premium Cement (Cement) Slurry Yield: 1.180 ft<sup>3</sup>/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 5.238

Gal/sk
2 % Calcium Chloride (Accelerator)
Top of Fluid: 0 ft

2 % Calcium Chloride (Accelerator) Top of Fluid: 0 ft
Calculated Fill: 350 ft

Calculated Fill: 350 ft
Volume: 42.139 bbl

Calculated Sacks: 200.503 sks

Proposed Sacks: 205 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 23.966 bbl

• Production Casing: 4-1/2" 10.5 lb/ft J-55 casing set to TD.

Cement

Fluid Instructions

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal

Fluid Volume: 20 bbl

Fluid 2: Lead Cement

50/50 Poz Premium Fluid Weight 13 lbm/gal 0.4 % Halad(R)-344 (Low Fluid Loss Control) Slurry Yield: 1.436 ft³/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 6.193

Gal/sk

5 lbm/sk Gilsonite (Lost Circulation Additive) Top of Fluid: 0 ft

Calculated Fill: 2000 ft

Volume: 156.266 bbl

Calculated Sacks: 610.982 sks Proposed Sacks: 615 sks.

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 31.197 bbl

• The wells will have 40' of 14" conductor set. Then a 12-1/4" hole will be drilled to about 350' when 9-5/8" surface casing will be set and cemented. We will drill out with a 8-3/4" bit using

### MULTI-POINT SURFACE USE PLAN

### 1. Existing Roads:

When existing roads are used to access the proposed location they will be maintained in the same or better condition than presently found.

### 2. Planned Access Roads:

Some new access road will have to be constructed. If existing access road is also used, it will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

### 3. Location of Existing Wells:

Attached map (Plat # 1) shows existing wells within one mile radius of the proposed well. N/A

### 4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

To protect livestock and wildlife, equipment will be fenced. Any tanks will be enclosed by a dike.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

### 5. Water Supply:

Water for drilling and completion will be purchased from local sources.

### 6. Source of Construction Materials:

No additional construction materials will be required to build.

### 7. Methods of Handling Waste Disposal:

- a. The drill cuttings, fluids and completion fluids will be placed in the steel tanks. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.
- b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.
- c. Portable toilets will be provided and maintained during drilling operations.

### 8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. .

### 9. Well Site Layout:

A plat of the drill pad with location of drilling equipment and rig orientations also attached.

### 10. Plans for Restoration of Surface:

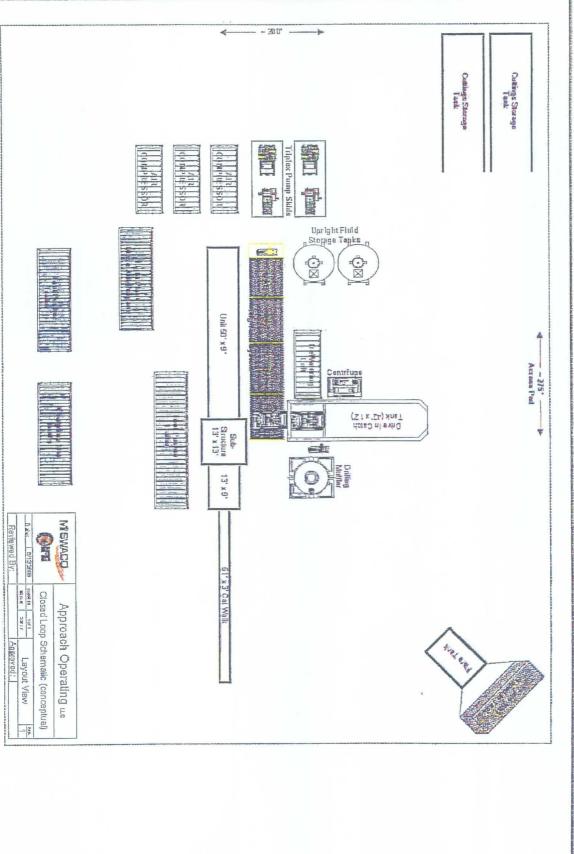
When the well is abandoned the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with appropriate seed mixture.

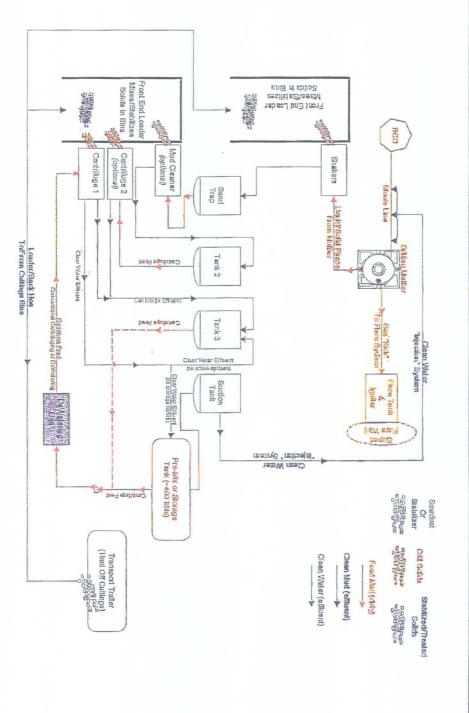
If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted to blend with the natural color of the landscape.

### 11. Lessee's or Operator's Representative:

Glenn W. Reed, Executive Vice President – Engineering & Operations Approach Resources 6500 West Freeway, Suite 800 Fort Worth, Texas 76116 Phone: (817) 989-9000

Glenn W. Reed
Executive Vice President – Engineering & Operations





Reviewed By:		D4 6 07 27 00 0		MEWACO
	SCACE:	Pacific	Clo	
	31,32	101	sed Loc	Appro
Approved:	Flow Floress		Closed Loop Schematic (conceptual)	Approach Operating the
		Naw.		

Form C-144 June 24, 2008

District 1
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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.

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

	ystem, below-grade tank, or proposed alternative method system, below-grade tank, or proposed alternative method
•	idividual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of lia	ability should operations result in pollution of surface water, ground water or the ply with any other applicable governmental authority's rules, regulations or ordinances.
Operator: Asstoach Dogating 166	OGRID#: Z48343
Address: 4500 12 best Freeway Suite	OGRID#: 248343 800, Ft. Worth, TX 76116
Facility or well name: Rosemany Poller No.	
API Number: 3/2-D39 -	OCD Permit Number:
IVI. or Otr/Otr N Section 9 Township 2.8	3N Range 52 County Rio Arriba
Center of Proposed Design: Latitude 34° 40' 18.4" N	OCD Permit Number:  3N Range 5& County: Rio Arriba  Longitude 106°24′41.5″ W NAD: \$\int 1927 \[ \] 1983
Surface Owner:  Federal  State  Private  Tribal Trust or Indian	1
Pit: Subsection F or G of 19,15,17,11 NMAC	Closed-loop System: Subsection H of 19.15.17.11 NMAC
Temporary: Drilling Workover	Drying Pad X Tanks Haul-off Bins Other
Permanent Emergency Cavitation Steel Pit	Lincd Unlined Lincr type: Thickness N/A mil LLDPE HDPE PVC
Lined Unlined	<u>-</u>
Liner type: Thicknessmil LLDPE HDPE PVC	Other
Other String-Reinforced	Seams: Welded Factory Other
Seams: Welded Factory Other	Volume: N/A bbl N/A yd3
Volume:bbl Dimensions: Lx Wx D	Dimensions: Length NA x Width NA
Below-grade tank: Subsection I of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC
Volume:bbl	☐ Chain link, six feet in height, two strands of barbed wire at top
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and
Tank Construction material:	four feet
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC
Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other
☐ Visible sidewalls and liner	Monthly inspections
☐ Visible sidewalls only	Signs: Subsection C of 19.15.17.11 NMAC
Other	12'x24', 2' lettering, providing Operator's name, site location, and
Liner type: Thicknessmil	emergency telephone numbers
Other	Signed in compliance with 19.15.3.103 NMAC
Alternative Method:	Administrative Approvals and Exceptions:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration	Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.
of approval.	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
i	consideration of approval.
	Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

	<del></del>		
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 ☐ 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)  - 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 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			
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	☐ Yès ☐ Nö		
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	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 Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do			
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 19.15.17.12 NMAC  Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC  Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.19 NMAC and 19.15.17.13 NMAC			
Previously Approved Design (attach copy of design) API Number: or Permit Number:			
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 do	cuments are		
attached.  Geologic and Hydrogeologic Data (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9  Siting Criteria Compliance Demonstrations (required 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 - 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:			

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 do	ocuments 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	
☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC ☐ Quality 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 <sub>2</sub> S, Prevention Plan	
☐ Emergency Response Plan ☐ Oil Field Waste Stream Characterization	
<ul> <li>☐ Monitoring and Inspection Plan</li> <li>☐ Erosion Control Plan</li> <li>☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC</li> </ul>	
Proposed Closure: 19.15.17.13 NMAC	
Type: Drilling Workover Emergency Cavitation 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 cor	nsideration)
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 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. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance:	
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 ☐ NA
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; Acrial 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

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  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC
Waste Removal Closure For Closed-loop Systems That Utilize Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility
or facilities for the disposal of liquids, drilling fluids and drill cuttings.  Disposal Facility Name: TWT Environmental Inc. Disposal Facility Permit Number: NM-01-0008
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 and Design of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC.  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.  Waste Material Sampling Plan - 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 or in case on-site closure standards cannot be achieved)  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 I of 19.15.17.13 NMAC.  Site Reclamation 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): Brice A. Morgan Title: Landman
Signature:
e-mail address: bMorgan@approach resources.com Telephone: 817-989-9000
OCD Approval: Permit Application (including closure plan) Closure Plan (only)
OCD Representative Signature: Approval Date:
Title: OCD Permit Number:
Closure Report (required within 60 days of closure completion); Subsection K of 19.15.17.13 NMAC  Closure Completion Date:
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Closure Method:  Waste Excavation and Removal On-Site Closure Method  If different from approved plan, please explain.
Closure Report (required within 60 days of closure completion):    Waste Excavation and Removal   On-Site Closure Method   Alternative Closure Method   If different from approved plan, please explain.    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   Proof of Deed Notice (if applicable)   Plot Plan   Confirmation Sampling Analytical Results   Waste Material Sampling Analytical Results   Disposal Facility Name and Permit Number   Soil Backfilling and Cover Installation   Re-vegetation Application Rates and Seeding Technique   Site Reclamation (Photo Documentation)
Closure Report (required within 60 days of closure completion):  Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Waste Excavation and Removal On-Site Closure Method  If different from approved plan, please explain.  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  Proof of Deed Notice (if applicable)  Plot Plan  Confirmation Sampling Analytical Results  Waste Material Sampling Analytical Results  Disposal Facility Name and Permit Number  Soil Backfilling and Cover Installation  Re-vegetation Application Rates and Seeding Technique  Site Reclamation (Photo Documentation)
Closure Report (required within 60 days of closure completion):  Closure Method:  Waste Excavation and Removal On-Site Closure Method It different from approved plan, please explain.  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.  Proof of Deed Notice (if applicable)  Plot Plan  Confirmation Sampling Analytical Results  Waste Material Sampling Analytical Results  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: Latitude Longitude NAD: 1927 1983
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Method:  Waste Excavation and Removal  On-Site Closure Method  Alternative Closure Method  If different from approved plan, please explain.  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.  Proof of Deed Notice (if applicable)  Plot Plan  Confirmation Sampling Analytical Results  Waste Material Sampling Analytical Results  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: Latitude  Longitude  NAD:   1927   1983
Closure Report (required within 60 days of closure completion):    Closure Completion Date:   Closure Completion Date:   Closure Method:   Closure Excavation and Removal   On-Site Closure Method   Alternative Closure Method   If different from approved plan, please explain.    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   Proof of Deed Notice (if applicable)   Plot Plan   Confirmation Sampling Analytical Results   Waste Material Sampling Analytical Results   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: Latitude   Longitude   NAD:   1927   1983     Departor Closure Certification:   Intereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and celler. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

# APPROACH OPERATING, LLC. OPERATIONS PLAN

I. Location:

LAT

Date: June 18, 2008

LONG

Rio Arriba County, NM

Field: Wildcat

Elev: GL

Surface:

II. Drilling

A. Contractor: TBD B. Mud Program:

The surface hole will be drilled with a air, if possible, or fresh water mud.

The production hole will be drilled with air or air/mist.

### C. Minimum Blowout Control Specifications:

Double ram type 3000 psi working pressure BOP with a rotating head. See the attached Exhibit # \_\_ for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All check of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

No over pressured zones are expected in this well. No H2S zones expected, but compliance packs will be on location.

III. Logging program: Induction / GR and density logs at TD.

### IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt & Grade
12-1/4"	350'	9-5/8"	32.3# H-40
8-3/4**	2000'	4-1/2"	10.5# J-55

### B. Float Equipment

- a. Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.
- b. Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the shoe joint. Centralized with bow spring centralizers

### V. Cementing:

• Surface Casing: 9-5/8" 32.3 lb/ft H-40 set to 350'.

Cement 0-350'

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330 lbm/gal

Fluid Volume: 10 bbl

Fluid 2: Lead Cement

Premium Cement Fluid Weight 15.600

lbm/gal94 lbm/sk Premium Cement (Cement)Slurry Yield:

94 lbm/sk Premium Cement (Cement) Slurry Yield: 1.180 ft<sup>3</sup>/sk 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 5.238

0.123 idin/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fitted

2 % Calcium Chloride (Accelerator) Top of Fluid: 0 ft

Calculated Fill: 350 ft

Volume: 42.139 bbl Calculated Sacks: 200.503 sks

Proposed Sacks: 205 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 23.966 bbl

• Production Casing: 4-1/2" 10.5 lb/ft J-55 casing set to TD.

Cement

Fluid Instructions

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal

Fluid Volume: 20 bbl

Fluid 2: Lead Cement

50/50 Poz Premium Fluid Weight 13 lbm/gal 0.4 % Halad(R)-344 (Low Fluid Loss Control) Slurry Yield: 1.436 ft³/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 6.193

Gal/sk.

5 lbm/sk Gilsonite (Lost Circulation Additive)

Top of Fluid: 0 ft

Calculated Fill: 2000 ft
Volume: 156.266 bbl

Calculated Sacks: 610.982 sks

Proposed Sacks: 615 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 31.197 bbl

• The wells will have 40' of 14" conductor set. Then a 12-1/4" hole will be drilled to about 350' when 9-5/8" surface casing will be set and cemented. We will drill out with a 8-3/4" bit using

### MULTI-POINT SURFACE USE PLAN

### 1. Existing Roads:

When existing roads are used to access the proposed location they will be maintained in the same or better condition than presently found.

### 2. Planned Access Roads:

Some new access road will have to be constructed. If existing access road is also used, it will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

### 3. Location of Existing Wells:

Attached map (Plat # 1) shows existing wells within one mile radius of the proposed well. N/A

## 4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

To protect livestock and wildlife, equipment will be fenced. Any tanks will be enclosed by a dike.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

### 5. Water Supply:

Water for drilling and completion will be purchased from local sources.

### 6. Source of Construction Materials:

No additional construction materials will be required to build.

### 7. Methods of Handling Waste Disposal:

- a. The drill cuttings, fluids and completion fluids will be placed in the steel tanks. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.
- b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.
- c. Portable toilets will be provided and maintained during drilling operations.

### 8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. .

### 9. Well Site Layout:

A plat of the drill pad with location of drilling equipment and rig orientations also attached.

### 10. Plans for Restoration of Surface:

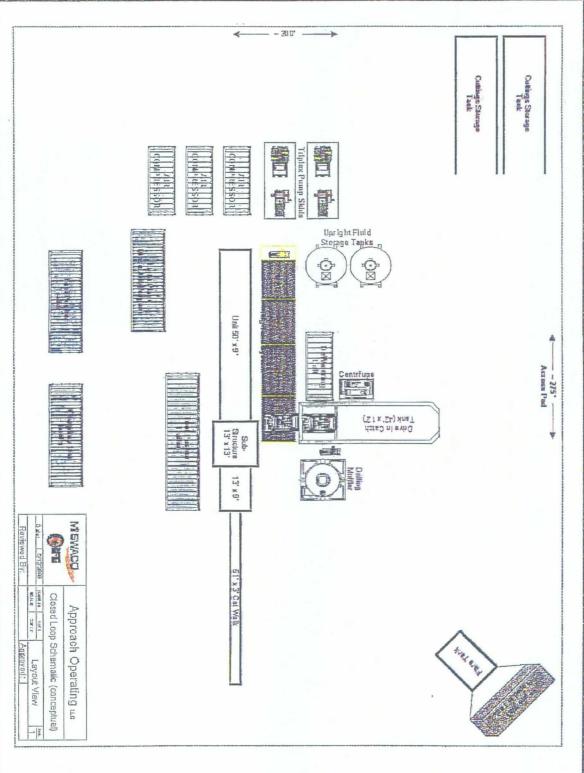
When the well is abandoned the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with appropriate seed mixture.

If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted to blend with the natural color of the landscape.

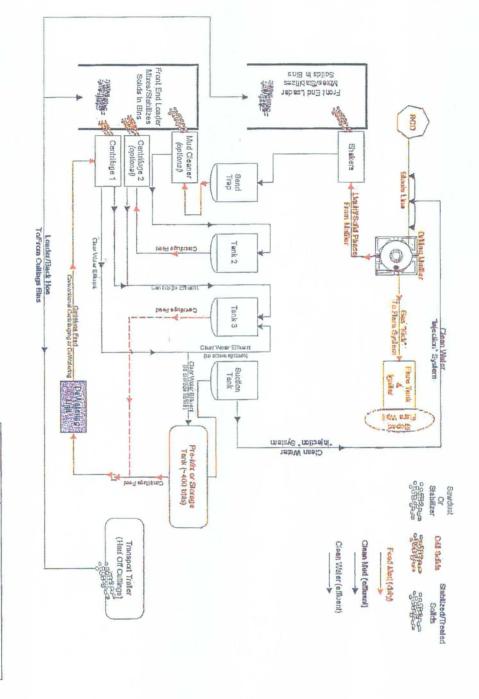
### 11. Lessee's or Operator's Representative:

Glenn W. Reed, Executive Vice President – Engineering & Operations Approach Resources 6500 West Freeway, Suite 800 Fort Worth, Texas 76116 Phone: (817) 989-9000

Glenn W. Reed
Executive Vice President – Engineering & Operations



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Reviewed By:	119632	ON THE BOULE LIE STREET		MISWACO
	35'17	101	Closed Loa	Approa
Approved:	Flow Floress	Danie Dranase	Closed Loop Schematic (conceptual)	pproach Operating LLC
	-	Neil		

Form C-144 June 24, 2008

District I 1625 N. French Dr., Hobbs, NM 88240 District II
1301 W. Grand Avenue, Artesia, NM 88210
District III 1000 Rio Brazos Road, Aztec, NM 87410 1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr.

Santa Fe, NM 87505

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 Burcau office and provide a copy to the appropriate NMOCD District Office.

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

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 Type of action:

Closure of a pai, closed-joop	system, below-grade tank, or proposed and maintained
Instructions: Please submit one application (Form C-144) per in	ndividual pit, closed-loop system, below-grade tank or alternative request
	ability should operations result in pollution of surface water, ground water or the ply with any other applicable governmental authority's rules, regulations or ordinances.
Operator: Approach Operating, LLC	OGRID#: 248343 te 800 Fort Worth, TX 76116
Address: USOO West Free way, Sui	Fe 800, Fort WOFFE, 1X 16116
Facility or well name: Leo Valdez No. 1	
API Number: 30-039 -	OCD Permit Number:
U/L or Qtr/Qtr Z Section 18 Township 25	Range 42 County: KIS AFFI SA
, · · · ·	Longitude <u>/06° 33′29./8" W</u> NAD: ⊠1927 ☐ 1983
Surface Owner:  Federal State M Private Tribal Trust or Indian	Allotment
Pit: Subsection F or G of 19.15.17.11 NMAC	Closed-loop System: Subsection H of 19.15.17.11 NMAC
Temporary: Drilling Workover	Drying Pad A Tanks Haul-off Bins Other
Permanent Emergency Cavitation Steel Pit	☐ Lined ☐ Unlined
Lined Unlined	Liner type: Thickness
Liner type: Thicknessmil	Other
Other String-Reinforced	Seams: Welded Factory Other
Scams: Welded Factory Other	Volume: N/A bbl N/A yd3
Volume: bbl Dimensions: L x W x D	Volume: N/A bbl N/A yd³  Dimensions: Length N/A x Width N/A
Below-grade tank: Subsection I of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC
Volume:bbl	Chain link, six feet in height, two strands of barbed wire at top
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and
Tank Construction material:	four feet
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC
☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other
☐ Visible sidewalls and liner	Monthly inspections
☐ Visible sidewalls only	Signs: Subsection C of 19.15.17.11 NMAC
Other	12'x24', 2' lettering, providing Operator's name, site location, and
Liner type: Thicknessmil	emergency telephone numbers
Other	☐ Signed in compliance with 19.15.3.103 NMAC
Alternative Method:	Administrative Approvals and Exceptions:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration	Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.
of approval.	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 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)  - 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 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
<ul> <li>Within an unstable area.</li> <li>Engineering measures incorporated into the design; NM Bureau of Geology &amp; Mineral Resources; USGS; NM Geological Society; Topographic map</li> </ul>	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 Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do 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   Design Plan - based upon the appropriate requirements of 19.15.17.10 NMAC   Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	cuments are
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 do attached.  Geologic and Hydrogeologic Data (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of Siting Criteria Compliance Demonstrations (required for on-site closure) - based upon the appropriate requirements of 19.15.17.10 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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	19.15.17.9
Previously Approved Design (attach copy of design) API Number:	

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 do	ocuments are
### ### ##############################	
Proposed Closure: 19.15.17.13 NMAC	<b>_</b>
Type: Drilling Workover Emergency Cavitation Permanent Pit Below-grade Tank Closed-loop System	_ Alternative
Proposed Closure Method:  Waste Excavation and 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 continuous co	nsideration)
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 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. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	
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 ☐ NA
Ground water is between 50 and 100 feet below the bottom of the buried waste  - NM Office of the State Engineer - iWATERS database scarch; 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 scarch; USGS; Data obtained from nearby wells	☐ Yes ☐ No ☐ NA
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	☐ Ycs ☐ 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	☐ Yeş ☐ 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

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 Haul-off Bins Only: (19.15.17.13.D NMAC) Instructions: Please indentify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings.
Disposal Facility Name: TWT Environmental Inc. Disposal Facility Permit Number: NM-01-0008
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 and Design of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC  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  Waste Material Sampling Plan - 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 or in case on-site closure standards cannot be achieved)  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 I of 19.15.17.13 NMAC  Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC
Operator Application Certification:
Name (Print): Zsice A. Moscan Title: Landman
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):
e-mail address: bMotaan@approach(esources.com Telephone: 817-989-9000
OCD Approval: Permit Application (including closure plan) Closure Plan (only)
OCD Representative Signature: Approval Date:
Title: OCD Permit Number:
Title:OCD Permit Number:
Closure Report (required within 60 days of closure completion): Subsection K of 19:15.17.13 NMAC  Closure Method:  Waste Excavation and Removal On-Site Closure Method  If different from approved plan, please explain.
Closure Report (required within 60 days of closure completion):  Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method  If different from approved plan, please explain.  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 Proof of Deed Notice (if applicable) Plot Plan Confirmation Sampling Analytical Results Waste Material Sampling Analytical Results Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-evegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Method:  Naste Excavation and Removal  On-Site Closure Method  Alternative Closure Method  If different from approved plan, please explain.  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  Proof of Deed Notice (if applicable)  Plot Plan  Confirmation Sampling Analytical Results  Waste Material Sampling Analytical Results  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: Latitude  Longitude  NAD:   1927   1983
Closure Report (required within 60 days of closure completion):  Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative Closure Method  If different from approved plan, please explain.  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 Proof of Deed Notice (if applicable) Plot Plan Confirmation Sampling Analytical Results Waste Material Sampling Analytical Results Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-evegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Method:  Waste Excavation and Removal On-Site Closure Method It different from approved plan, please explain.  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 Proof of Deed Notice (if applicable) Plot Plan Confirmation Sampling Analytical Results Waste Material Sampling Analytical Results 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: Latitude Longitude NAD: 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
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC  Closure Completion Date:  Closure Method:  Waste Excavation and Removal  On-Site Closure Method  Alternative Closure Method  If different from approved plan, please explain.  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  Proof of Deed Notice (if applicable)  Plot Plan  Confirmation Sampling Analytical Results  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: Latitude  Longitude  NAD:   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.

# APPROACH OPERATING, LLC. OPERATIONS PLAN

I. Location:

LAT

Date: June 18, 2008

LONG

Rio Arriba County, NM

Field: Wildcat

Elev: GL

Surface:

II. Drilling

A. Contractor: TBD B. Mud Program:

The surface hole will be drilled with a air, if possible, or fresh water mud.

The production hole will be drilled with air or air/mist.

# C. Minimum Blowout Control Specifications:

Double ram type 3000 psi working pressure BOP with a rotating head. See the attached Exhibit # \_\_ for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All check of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

No over pressured zones are expected in this well. No H2S zones expected, but compliance packs will be on location.

III. Logging program: Induction / GR and density logs at TD.

# IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt & Grade
12-1/4"	350'	9-5/8"	32.3# H-40
8-3/4**	2000	4-1/2"	10.5# J-55

### B. Float Equipment

- a. Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.
- b. Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the shoe joint. Centralized with bow spring centralizers

# V. Cementing:

• Surface Casing: 9-5/8" 32.3 lb/ft H-40 set to 350'.

Cement 0-350'

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

Ibm/gal
Fluid Volume: 10 bbl

Fluid 2: Lead Cement

Premium Cement Fluid Weight 15.600

Ibm/gal
94 Ibm/sk Premium Cement (Cement)
Slurry Yield: 1.180 ft<sup>3</sup>/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 5.238

Gal/sk

2 % Calcium Chloride (Accelerator)

Top of Fluid: 0 ft
Calculated Fill: 350 ft

Volume: 42.139 bbl Calculated Sacks: 200.503 sks

Proposed Sacks: 205 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 23.966 bbl

• Production Casing: 4-1/2" 10.5 lb/ft J-55 casing set to TD.

Cement

Fluid Instructions

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

Ibm/gal

Fluid Volume: 20 bbl

Fluid 2: Lead Cement

50/50 Poz Premium Fluid Weight 13 lbm/gal 0.4 % Halad(R)-344 (Low Fluid Loss Control) Slurry Yield: 1.436 ft³/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 6.193

Gal/sk

5 lbm/sk Gilsonite (Lost Circulation Additive) Top of Fluid: 0 ft

Calculated Fill: 2000 ft

Volume: 156.266 bbl

Calculated Sacks: 610.982 sks Proposed Sacks: 615 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal Fluid Volume: 31.197 bbl

• The wells will have 40' of 14" conductor set. Then a 12-1/4" hole will be drilled to about 350' when 9-5/8" surface casing will be set and cemented. We will drill out with a 8-3/4" bit using

# MULTI-POINT SURFACE USE PLAN

### 1. Existing Roads:

When existing roads are used to access the proposed location they will be maintained in the same or better condition than presently found.

### 2. Planned Access Roads:

Some new access road will have to be constructed. If existing access road is also used, it will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

### 3. Location of Existing Wells:

Attached map (Plat # 1) shows existing wells within one mile radius of the proposed well. N/A

## 4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

To protect livestock and wildlife, equipment will be fenced. Any tanks will be enclosed by a dike.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

# 5. Water Supply:

Water for drilling and completion will be purchased from local sources.

## 6. Source of Construction Materials:

No additional construction materials will be required to build.

# 7. Methods of Handling Waste Disposal:

- a. The drill cuttings, fluids and completion fluids will be placed in the steel tanks. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.
- b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.
- c. Portable toilets will be provided and maintained during drilling operations.

### 8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. .

### 9. Well Site Layout:

A plat of the drill pad with location of drilling equipment and rig orientations also attached.

## 10. Plans for Restoration of Surface:

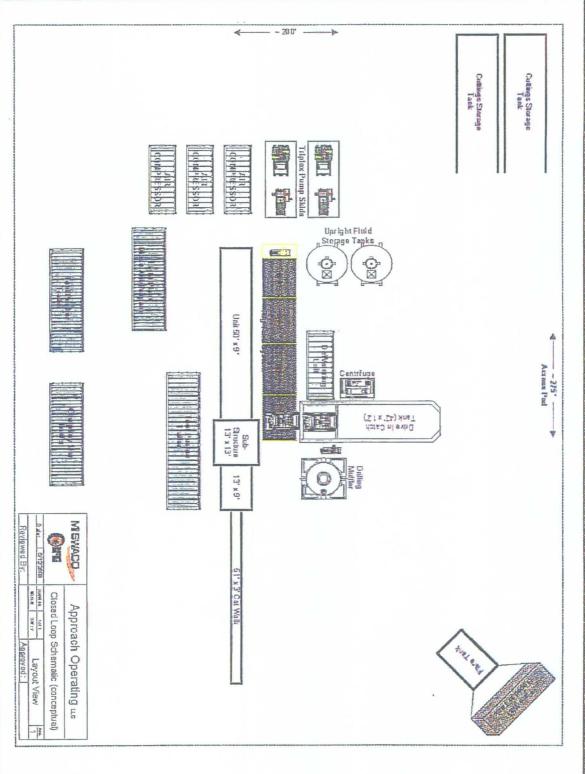
When the well is abandoned the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with appropriate seed mixture.

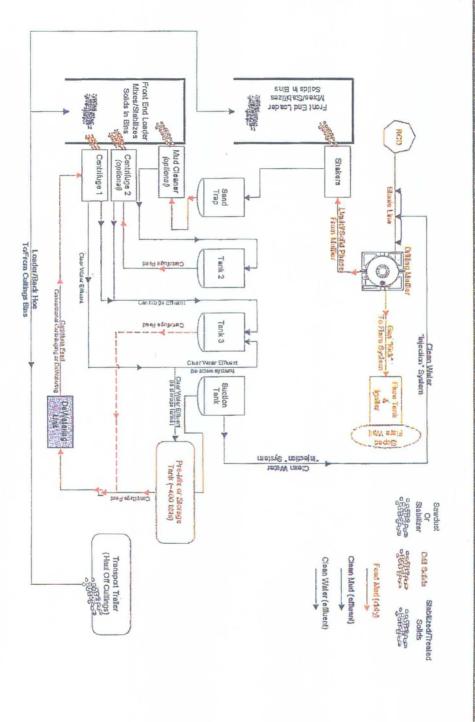
If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted to blend with the natural color of the landscape.

# 11. Lessee's or Operator's Representative:

Glenn W. Reed, Executive Vice President – Engineering & Operations Approach Resources 6500 West Freeway, Suite 800 Fort Worth, Texas 76116 Phone: (817) 989-9000

Glenn W. Reed
Executive Vice President – Engineering & Operations





Revie		Dalas		MEM
Reviewed By:		6000/c1/0		VACO
	SCALE:	PECHIO	Clo	
	3.6"17	101	sed Loc	Appro
Approved:	Flow Flocess	Elaw Danasa	Closed Loop Schematic (conceptual)	Approach Operating LLC
	-	Her		

District J
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District JV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources
Department
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

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.

# Pit, Closed-Loop System, Below-Grade Tank, or Proposed Alternative Method Permit or 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

Closure of a pit, closed-loop	system, below-grade tank, or proposed alternative method
· · · · · · · · · · · · · · · · · · ·	ndividual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of lig environment. Nor does approval relieve the operator of its responsibility to com	ability should operations result in pollution of surface water, ground water or the ply with any other applicable governmental authority's rules, regulations or ordinances.
Operator: Asstrach Operating, LLC	OGRID #: 248343
Address: 6500 West Freeway	OGRID#: 248343 Suite 800 Fort Worth, TX 76116
Facility or well name: Cloyd Hinkle No. 1	
API Number: 30-039 -	OCD Permit Number:
U/L or Qtr/Qtr K Section 18 Township 28	IN Range 48 County: Rio Arriba
Center of Proposed Design: Latitude 36° 59 '38 46" N	Longitude 106° 33' 13.02" W NAD: ☐1927 ☐ 1983
Surface Owner:  Federal  State Private Tribal Trust or Indian	· · · · · · · · · · · · · · · · · · ·
Pit: Subsection F or G of 19.15.17.11 NMAC	XjClosed-loop System: Subsection H of 19.15.17.11 NMAC
Temporary: Drilling Workover	Drying Pad Tanks Haul-off Bins Other
☐ Permanent ☐ Emergency ☐ Cavitation ☐ Steel Pit	Lined Unlined
Lined Unlined	Lincr type: Thickness WA mil LLDPE HDPE PVC
Lincr type: Thicknessmil	Other
Other String-Reinforced	Seams: Welded Factory Other
Seams:	Volume: N/A bbl N/A yd³
Volume:bbl Dimensions: Lx Wx D	Dimensions: Length WA x Width W/A
Below-grade tank: Subsection I of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC
Volume:bbl	☐ Chain link, six feet in height, two strands of barbed wire at top
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and
Tank Construction material:	four feet
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC
Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting: Other
☐ Visible sidewalls and liner	Monthly inspections
☐ Visible sidewalls only	Signs: Subsection C of 19.15.17.11 NMAC
Other	12'x24', 2' lettering, providing Operator's name, site location, and
Liner type: Thicknessmil	emergency telephone numbers
Other	☐ Signed in compliance with 19.15.3.103 NMAC
Alternative Method:	Administrative Approvals and Exceptions:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration	Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.
of approval.	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 Buréau 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 ☐ 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)  - 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 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 Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the de 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.   Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC   Design Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC   Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	9 NMAC
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 do attached.  Geologic and Hydrogeologic Data (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of Siting Criteria Compliance Demonstrations (required for on-site closure) - based upon the appropriate requirements of 19.15.17.10  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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC  NMAC	19.15.17.9
Previously Approved Design (attach copy of design) API Number:	

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 do attached.	ocuments are
<ul> <li>☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC</li> <li>☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC</li> <li>☐ Climatological Factors Assessment</li> </ul>	
☐ 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 ☐ Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC	
Quality Control/Quality Assurance Construction and Installation Plan	
<ul> <li>Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC</li> <li>Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC</li> </ul>	
Nuisance or Hazardous Odors, including $H_2S$ , 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	
Type: Drilling Workover Emergency Cavitation Permanent Pit Below-grade Tank Closed-loop System	7 Alternative
Proposed Closure Method: Waste Excavation and Removal	] Yuchanie
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 con	nsideration)
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 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. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10  NMAC for guidance.	
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 ☐ NA
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

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13		of the following items must be attached to the
closure plan. Please indicate, by a check mark in the box, that the doct		
<ul> <li>Protocols and Procedures - based upon the appropriate requiremen</li> <li>Confirmation Sampling Plan (if applicable) - based upon the appropriate requiremen</li> </ul>		tion F of 19 15 17 13 NMAC
Disposal Facility Name and Permit Number (for liquids, drilling fl		10.11 01 12.13.17.13 11.1110
Soil Backfill and Cover Design Specifications - based upon the ap	propriate requirements of Subs	section H of 19.15,17.13 NMAC
Re-vegetation Plan - based upon the appropriate requirements of S		
Site Reclamation Plan - based upon the appropriate requirements of	f Subsection G of 19.15.17.13	NMAC
Waste Removal Closure For Closed-loop Systems That Utilize Haul-	off Bins Only: (19.15.17.13.L	NMAC) Instructions: Please indentify the facility
or facilities for the disposal of liquids, drilling fluids and drill cuttings.		4 • 4 •
Disposal Facility Name: TNT Savitonmental Inc.		
On-Site Closure Plan Checklist: (19.15.17.13 NMAC) Instructions: I	ach of the following items m	ust be attached to the closure plan. Please indicate,
by a check mark in the box, that the documents are attached.		-10\P(10
☐ Siting Criteria Compliance Demonstrations - based upon the appro ☐ Proof of Surface Owner Notice - based upon the appropriate require		
Construction and Design of Burial Trench (if applicable) based up		
Protocols and Procedures - based upon the appropriate requirement		NS 01 17.10.111.11 1.11.110
Confirmation Sampling Plan (if applicable) - based upon the appro		tion F of 19.15.17.13 NMAC
Waste Material Sampling Plan - based upon the appropriate require		
Disposal Facility Name and Permit Number (for liquids, drilling fl		
Soil Cover Design - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vegetation Plan - based upon the appropriate requirements of Sur Re-vege		
Site Reclamation Plan - based upon the appropriate requirements of S		
		1111210
Operator Application Certification:		
I hereby certify that the information submitted with this application is true	e, accurate and complete to th	e best of my knowledge and belief.
Name (Print): Brice A. Mosaco	Title:	landman
Name (Print): Brice A. Morgan  Signature: FAM		<u> </u>
Signature:	Date:	7-9-08
c-mail address: bmoroun@approach Tesources	COM Telephone	817-989-9000
OCD Approval: Permit Application (including closure plan) C		
OCD Approval: Permit Application (including closure plan)	osure Plan (only)	
OCD Approval: Permit Application (including closure plan)	osure Plan (only)	Approval Date:
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# APPROACH OPERATING, LLC. OPERATIONS PLAN

I. Location:

LAT

Date: June 18, 2008

LONG

Rio Arriba County, NM

Field: Wildcat

Elev: GL

Surface:

II. Drilling

A. Contractor: TBD B. Mud Program:

The surface hole will be drilled with a air, if possible, or fresh water mud.

The production hole will be drilled with air or air/mist.

# C. Minimum Blowout Control Specifications:

Double ram type 3000 psi working pressure BOP with a rotating head. See the attached Exhibit # \_\_ for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All check of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

No over pressured zones are expected in this well. No H2S zones expected, but compliance packs will be on location.

III. Logging program: Induction / GR and density logs at TD.

### IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt & Grade
12-1/4"	350'	9-5/8"	32.3# H-40
8-3/4"	2000	4-1/2"	10.5# J-55

## B. Float Equipment

- a. Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.
- b. Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the shoe joint. Centralized with bow spring centralizers

# V. Cementing:

• Surface Casing: 9-5/8" 32.3 lb/ft H-40 set to 350'.

Cement 0-350'

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal

Fluid Volume: 10 bbl

Fluid 2: Lead Cement

Premium Cement Fluid Weight 15.600

lbm/gal

94 lbm/sk Premium Cement (Cement) Slurry Yield: 1.180 ft<sup>3</sup>/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 5.238

3al/sk

2 % Calcium Chloride (Accelerator)

Top of Fluid: 0 ft

Calculated Fill: 350 ft
Volume: 42.139 bb

Volume: 42.139 bbl Calculated Sacks: 200.503 sks

Proposed Sacks: 205 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 23.966 bbl

• Production Casing: 4-1/2" 10.5 lb/ft J-55 casing set to TD.

Cement

Fluid Instructions

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal

Fluid Volume: 20 bbl

Fluid 2: Lead Cement

50/50 Poz Premium

0.4 % Halad(R)-344 (Low Fluid Loss Control)

Slurry Yield: 1.436 ft³/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 6.193

Gal/sk.
5 lbm/sk. Gilsonite (Lost Circulation Additive)

Top of Fluid: 0 ft
Calculated Fill: 2000 ft

Volume: 156.266 bbl

Calculated Sacks: 610.982 sks Proposed Sacks: 615 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 31.197 bbl

• The wells will have 40° of 14" conductor set. Then a 12-1/4" hole will be drilled to about 350' when 9-5/8" surface casing will be set and cemented. We will drill out with a 8-3/4" bit using

### MULTI-POINT SURFACE USE PLAN

## 1. Existing Roads:

When existing roads are used to access the proposed location they will be maintained in the same or better condition than presently found.

### 2. Planned Access Roads:

Some new access road will have to be constructed. If existing access road is also used, it will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

### 3. Location of Existing Wells:

Attached map (Plat # 1) shows existing wells within one mile radius of the proposed well. N/A

## 4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

To protect livestock and wildlife, equipment will be fenced. Any tanks will be enclosed by a dike.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

# 5. Water Supply:

Water for drilling and completion will be purchased from local sources.

## 6. Source of Construction Materials:

No additional construction materials will be required to build.

# 7. Methods of Handling Waste Disposal:

- a. The drill cuttings, fluids and completion fluids will be placed in the steel tanks. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.
- b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.
- c. Portable toilets will be provided and maintained during drilling operations.

## 8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. .

### 9. Well Site Layout:

A plat of the drill pad with location of drilling equipment and rig orientations also attached.

### 10. Plans for Restoration of Surface:

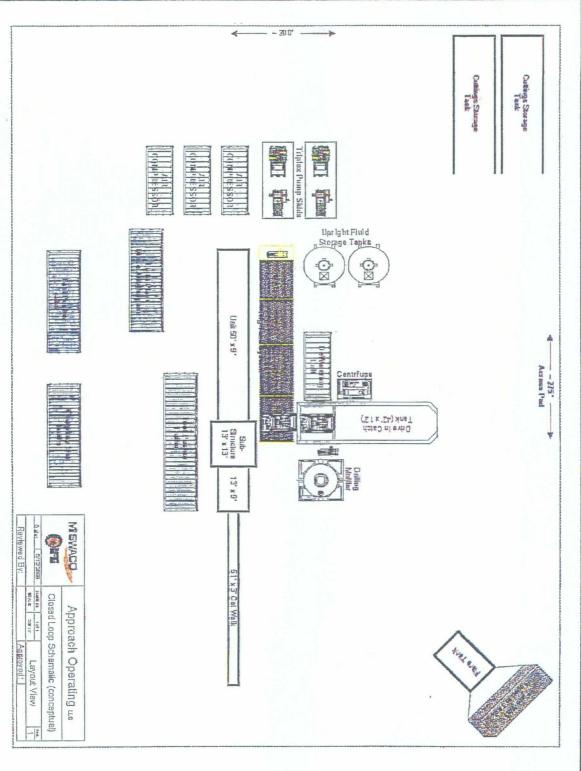
When the well is abandoned the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with appropriate seed mixture.

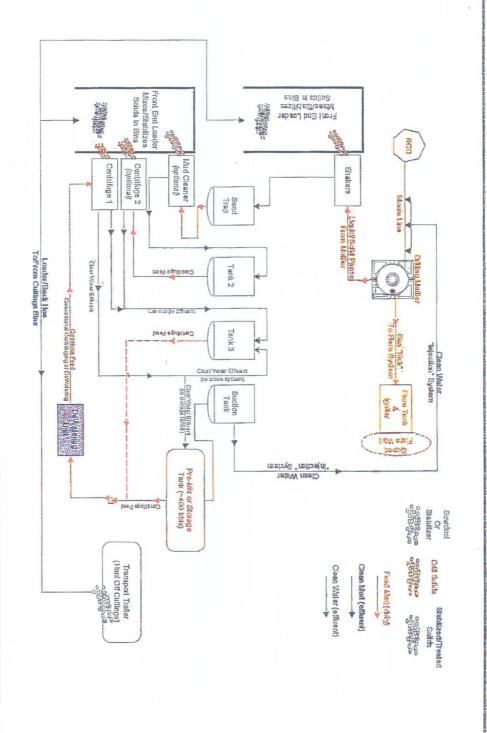
If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted to blend with the natural color of the landscape.

# 11. Lessee's or Operator's Representative:

Glenn W. Reed, Executive Vice President – Engineering & Operations Approach Resources 6500 West Freeway, Suite 800 Fort Worth, Texas 76116 Phone: (817) 989-9000

Glenn W. Reed
Executive Vice President – Engineering & Operations





Reviewed By: Approved:	BOOKE SELL LICAN LOCATE	Dale: 07/9/3000 racusto sat	Closed Loop Schematic (conceptual	Approach Operating
	1	12	ptual)	rc

. . . . . .

Form C-144 June 24, 2008

District I 1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

# State of New Mexico Energy Minerals and Natural Resources Department Oil Conservation Division 1220 South St. Francis Dr.

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

Santa Fe, NM 87505

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

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

r toposeu Atternative iviculou	remit of Closure rian Application
	ystem, below-grade tank, or proposed alternative method system, below-grade tank, or proposed alternative method
Instructions: Please submit one application (Form C-144) per in	ndividual pit, closed-loop system, below-grade tank or alternative request
Please be advised that approval of this request does not relieve the operator of lia	ability should operations result in pollution of surface water, ground water or the ply with any other applicable governmental authority's rules, regulations or ordinances.
	OGRID#: 248343 Lite 800, F1. Worth TX 76116
Address: 6500 West Herwy Su	site 800 Ft. Worth TX 76116
Facility or well name: Anthony Gatcia No. 1	
API Number: 30-039 -	OCD Permit Number:
	OCD Permit Number:  No Range 45 County: Rio Afriba
Center of Proposed Design: Latitude 3, 39' 37.8" N	Longitude 104° 31′46.3″ W NAD: \$1927 ☐ 1983
Surface Owner:  Federal State Private Tribal Trust or Indian	Allotment
Pit: Subsection F or G of 19,15.17.11 NMAC	Closed-loop System: Subsection H of 19.15.17.11 NMAC
Temporary: Drilling Workover	☐ Drying Pad ☐ Tanks ☐ Haul-off Bins ☐ Other
Permanent Emergency Cavitation Steel Pit	☐ Lined ☐ Unlined
Lined Unlined	Liner type: Thickness A/A mil LLDPE HDPE PVC
Liner type: Thicknessmil	Other
Other String-Reinforced	Seams: Welded Factory Other
Seams: Welded Factory Other	Volume: $\frac{\mathcal{U}/\mathcal{A}}{\mathcal{A}}$ bbl $\frac{\mathcal{U}/\mathcal{A}}{\mathcal{A}}$ yd <sup>3</sup>
Volume:	Dimensions: Length WA x Width WA
Below-grade tank: Subsection 1 of 19.15.17.11 NMAC	Fencing: Subsection D of 19.15.17.11 NMAC
Volume:bbl	☐ Chain link, six feet in height, two strands of barbed wire at top
Type of fluid:	Four foot height, four strands of barbed wire evenly spaced between one and
Tank Construction material:	four feet
Secondary containment with leak detection	Netting: Subsection E of 19.15.17.11 NMAC
Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off	Screen Netting Other
☐ Visible sidewalls and liner	Monthly inspections
☐ Visible sidewalls only	Signs: Subsection C of 19.15.17.11 NMAC
Other	12'x24', 2' lettering, providing Operator's name, site location, and
Liner type: Thicknessmil  HDPE PVC	emergency telephone numbers
Other	Signed in compliance with 19.15.3.103 NMAC
Alternative Method: Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration	Administrative Approvals and Exceptions:  Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.
of approval.	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.
	Entrionmental Dureau office for consideration of approval.

Siting Criteria (regarding permitting): 19.15.47.10 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 ☐ 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)  - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	☐ Yes ☐ No ☐ NA
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 19.15.17.91  Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the do 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 19.15.17.10 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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	ocuments are
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 do attached.  Geologic and Hydrogeologic Data (required for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of Siting Criteria Compliance Demonstrations (required for on-site closure) - based upon the appropriate requirements of 19.15.17.10 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 - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC	19.15.17.9
Previously Approved Design (attach copy of design) API Number:	

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 do	cuments 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  Liner Specifications and Compatibility Assessment - based upon the appropriate requirements of 19.15.17.11 NMAC	
☐ Quality 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	
<ul> <li>Nuisance or Hazardous Odors, including H₂S, Prevention Plan</li> <li>Emergency Response Plan</li> <li>Oil Field Waste Stream Characterization</li> <li>Monitoring and Inspection Plan</li> </ul>	
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	
Type: Drilling Workover Emergency Cavitation 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 con	nsideration)
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 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. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.	
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 ☐ NA
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	☐ Ycs ☐ No ☐ NA
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; Acrial 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 Burcau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	Yes No
Within a 100-year-floodplain FEMA map	Yes No

	nstructions: 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	
<ul> <li>Protocols and Procedures - based upon the appropriate requirements of 19.15.</li> <li>Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements.</li> </ul>	
Disposal Facility Name and Permit Number (for liquids, drilling fluids and dri	
Soil Backfill and Cover Design Specifications - based upon the appropriate rec	quirements of Subsection H of 19.15.17.13 NMAC
Re-vegetation Plan - based upon the appropriate requirements of Subsection I	
Site Reclamation Plan - based upon the appropriate requirements of Subsection	
Waste Removal Closure For Closed-loop Systems That Utilize Haul-off Bins On	ly: (19.15.17.13.D NMAC) Instructions: Please indentify the facility
or facilities for the disposal of liquids, drilling fluids and drill cuttings.	
Disposal Facility Name: TNT Environmental Inc. I	Disposal Facility Permit Number: <u>WM-01-000 8</u>
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 requi	rements of 19.15.17.10 NMAC
Proof of Surface Owner Notice - based upon the appropriate requirements of S	Subsection F of 19.15.17.13 NMAC
Construction and Design of Burial Trench (if applicable) based upon the appr	
Protocols and Procedures - based upon the appropriate requirements of 19.15.  Confirmation Sampling Plan (if applicable) - based upon the appropriate requi	
Waste Material Sampling Plan - based upon the appropriate requirements of S	
Disposal Facility Name and Permit Number (for liquids, drilling fluids and dri	Il cuttings or in case on-site closure standards cannot be achieved)
Soil Cover Design - based upon the appropriate requirements of Subsection H	
Re-vegetation Plan - based upon the appropriate requirements of Subsection I Site Reclamation Plan - based upon the appropriate requirements of Subsection	
	1 G 01 1511511 11111 10
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): Brice A. Morgan	Title: Landman
Name (Print): Brice A. Morgan  Signature: BAMY	Date: 7-9-08
e-mail address: bMotgan Capproach tesources. com	Telephone: 817-989-9000
OCD Approval: Permit Application (including closure plan) Closure Plan	
OCD Approval: Permit Application (including closure plan) Closure Plan	(only)
······································	(only)
OCD Approval: Permit Application (including closure plan) Closure Plan OCD Representative Signature:	(only)
OCD Approval: Permit Application (including closure plan) Closure Plan  OCD Representative Signature:  Title:	(only)  Approval Date:  DCD Permit Number:
OCD Approval: Permit Application (including closure plan) Closure Plan  OCD Representative Signature:  Title:	(only)  Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC
OCD Approval: Permit Application (including closure plan) Closure Plan OCD Representative Signature:  Title: C  Closure Report (required within 60 days of closure completion): Subsection K of closure completion (including closure plan)	(only)  Approval Date:  DCD Permit Number:
OCD Approval: Permit Application (including closure plan) Closure Plan OCD Representative Signature:  Title: C  Closure Report (required within 60 days of closure completion): Subsection K of Closure Method:	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:
OCD Approval: Permit Application (including closure plan) Closure Plan  OCD Representative Signature:  Title: C  Closure Report (required within 60 days of closure completion): Subsection K of the completion of	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:
OCD Approval: Permit Application (including closure plan) Closure Plan  OCD Representative Signature:  Title: CO  Closure Report (required within 60 days of closure completion): Subsection K of Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternativ  If different from approved plan, please explain.	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method
OCD Approval: Permit Application (including closure plan) Closure Plan  OCD Representative Signature:  Title: C  Closure Report (required within 60 days of closure completion): Subsection K of the Color of the Col	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method
OCD Approval: Permit Application (including closure plan) Closure Plan OCD Representative Signature:  Title:	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method
OCD Approval: Permit Application (including closure plan) Closure Plan  OCD Representative Signature:  Title: Common Closure Report (required within 60 days of closure completion): Subsection K of Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the following items mark in the box, that the documents are attached.  Proof of Closure Notice  Proof of Deed Notice (if applicable)	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method
OCD Approval: Permit Application (including closure plan) Closure Plan OCD Representative Signature:  Title: CO  Closure Report (required within 60 days of closure completion): Subsection K of Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the following items mark in the box, that the documents are attached.  Proof of Closure Notice Proof of Deed Notice (if applicable) Plot Plan	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method
OCD Approval: Permit Application (including closure plan) Closure Plan  OCD Representative Signature:  Title: CO  Closure Report (required within 60 days of closure completion): Subsection K of Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the following items mark in the box, that the documents are attached.  Proof of Closure Notice  Proof of Deed Notice (if applicable)  Plot Plan  Confirmation Sampling Analytical Results  Waste Material Sampling Analytical Results	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method
OCD Approval:  Permit Application (including closure plan)  Closure Plan  OCD Representative Signature:  Title:	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method
OCD Approval:  Permit Application (including closure plan)  Closure Plan  OCD Representative Signature:  Title:	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method
OCD Approval:  Permit Application (including closure plan)  Closure Plan  OCD Representative Signature:  Title:  CO  Closure Report (required within 60 days of closure completion): Subsection K of Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the following items mark in the box, that the documents are attached.  Proof of Closure Notice Proof of Deed Notice (if applicable) Plot Plan Confirmation Sampling Analytical Results Waste Material Sampling Analytical Results Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method  s must be attached to the closure report. Please indicate, by a check
OCD Approval:  Permit Application (including closure plan)  Closure Plan  OCD Representative Signature:  Title:  CO  Closure Report (required within 60 days of closure completion): Subsection K of Closure Method:  Waste Excavation and Removal On-Site Closure Method Alternative If different from approved plan, please explain.  Closure Report Attachment Checklist: Instructions: Each of the following items mark in the box, that the documents are attached.  Proof of Closure Notice Proof of Deed Notice (if applicable) Plot Plan Confirmation Sampling Analytical Results Waste Material Sampling Analytical Results Disposal Facility Name and Permit Number Soil Backfilling and Cover Installation Re-vegetation Application Rates and Seeding Technique Site Reclamation (Photo Documentation)	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method
OCD Approval:  Permit Application (including closure plan)  Closure Plan  OCD Representative Signature:  Title:	Approval Date:  OCD Permit Number:  Of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method  s must be attached to the closure report. Please indicate, by a check  MAD: 1927 1983
OCD Approval:  Permit Application (including closure plan)  Closure Plan  OCD Representative Signature:  Title:	Approval Date:  OCD Permit Number:  Of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method  s must be attached to the closure report. Please indicate, by a check  MAD: 1927 1983
OCD Approval:  Permit Application (including closure plan)  Closure Plan  OCD Representative Signature:  Title:	Approval Date:  OCD Permit Number:  Of 19.15.17.13 NMAC  Closure Completion Date:  c Closure Method  s must be attached to the closure report. Please indicate, by a check  MAD: 1927 1983
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OCD Approval:  Permit Application (including closure plan)  Closure Plan  OCD Representative Signature:  Title:	Approval Date:  OCD Permit Number:  of 19.15.17.13 NMAC  Closure Completion Date:  e Closure Method  s must be attached to the closure report. Please indicate, by a check  NAD: 1927 1983  ort is true, accurate and complete to the best of my knowledge and ts and conditions specified in the approved closure plan.
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# APPROACH OPERATING, LLC. OPERATIONS PLAN

I. Location:

LAT

Date: June 18, 2008

LONG

Rio Arriba County, NM

Field: Wildcat

Elev: GL

Surface:

II. Drilling

A. Contractor: TBD B. Mud Program:

The surface hole will be drilled with a air, if possible, or fresh water mud.

The production hole will be drilled with air or air/mist.

# C. Minimum Blowout Control Specifications:

Double ram type 3000 psi working pressure BOP with a rotating head. See the attached Exhibit # \_\_ for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1500 psi.

The blind ram will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All check of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

No over pressured zones are expected in this well. No H2S zones expected, but compliance packs will be on location.

III. Logging program: Induction / GR and density logs at TD.

### IV. Mäterials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt & Grade
12-1/4"	350'	9-5/8"	32.3# H-40
8-3/4**	20003	4-1/2"	10.5# J-55

# B. Float Equipment

- a. Surface Casing: Notched collar on bottom and 3 centralizers on the bottom 3 joints.
- b. Production Casing: 4-1/2" whirler type cement nosed guide shoe and a float collar on top of the shoe joint. Centralized with bow spring centralizers

# V. Cementing:

• Surface Casing: 9-5/8" 32.3 lb/ft H-40 set to 350'.

Cement 0-350'

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330 lbm/gal

Fluid Volume: 10 bbl

Fluid 2: Lead Cement

Premium Cement Fluid Weight 15.600

lbm/gal
94 lbm/sk Premium Cement (Cement)
Slurry Yield: 1.180 ft<sup>3</sup>/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 5.238

Gal/sk

2 % Calcium Chloride (Accelerator) Top of Fluid: 0 ft

Calculated Fill: 350 ft

Volume: 42.139 bbl Calculated Sacks: 200.503 sks

Proposed Sacks: 205 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 23.966 bbl

• Production Casing: 4-1/2" 10.5 lb/ft J-55 casing set to TD.

Cement

Fluid Instructions

Fluid 1: Water Based Spacer

Water Fluid Density: 8.330

lbm/gal

Fluid Volume: 20 bbl

Fluid 2: Lead Cement

50/50 Poz Premium Fluid Weight 13 lbm/gal 0.4 % Halad(R)-344 (Low Fluid Loss Control) Slurry Yield: 1.436 ft³/sk

0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) Total Mixing Fluid: 6.193

Gal/sk

5 lbm/sk Gilsonite (Lost Circulation Additive) Top of Fluid: 0 ft

Calculated Fill: 2000 ft

Volume: 156.266 bbl Calculated Sacks: 610.982 sks

Proposed Sacks: 615 sks

Fluid 3: Water Based Spacer

Water Displacement Fluid Density: 8.330

lbm/gal

Fluid Volume: 31.197 bbl

• The wells will have 40° of 14" conductor set. Then a 12-1/4" hole will be drilled to about 350° when 9-5/8" surface casing will be set and cemented. We will drill out with a 8-3/4" bit using

### MULTI-POINT SURFACE USE PLAN

### 1. Existing Roads:

When existing roads are used to access the proposed location they will be maintained in the same or better condition than presently found.

## 2. Planned Access Roads:

Some new access road will have to be constructed. If existing access road is also used, it will be maintained in at least the current condition and will be upgraded where necessary to provide uninterrupted access to the proposed well.

### 3. Location of Existing Wells:

Attached map (Plat # 1) shows existing wells within one mile radius of the proposed well. N/A

## 4. Location of Production Facilities:

In the event of production, production facilities will be located on the drill pad. The actual placement of this equipment will be determined when the well's production characteristics can be evaluated after completion.

To protect livestock and wildlife, equipment will be fenced. Any tanks will be enclosed by a dike.

Upon completion of drilling, the location and surrounding area will be cleared of all debris.

# 5. Water Supply:

Water for drilling and completion will be purchased from local sources.

### 6. Source of Construction Materials:

No additional construction materials will be required to build.

### 7. Methods of Handling Waste Disposal:

- a. The drill cuttings, fluids and completion fluids will be placed in the steel tanks. Upon completion, the pad will be leveled, contoured and reseeded with the appropriate seed mixture.
- b. All garbage and trash will be placed in a metal trash basket. It will be hauled off and dumped in an approved land fill upon completion of operations.
- c. Portable toilets will be provided and maintained during drilling operations.

### 8. Ancillary Facilities:

Ancillary facilities are to be based on well productivity. . .

## 9. Well Site Layout:

A plat of the drill pad with location of drilling equipment and rig orientations also attached.

### 10. Plans for Restoration of Surface:

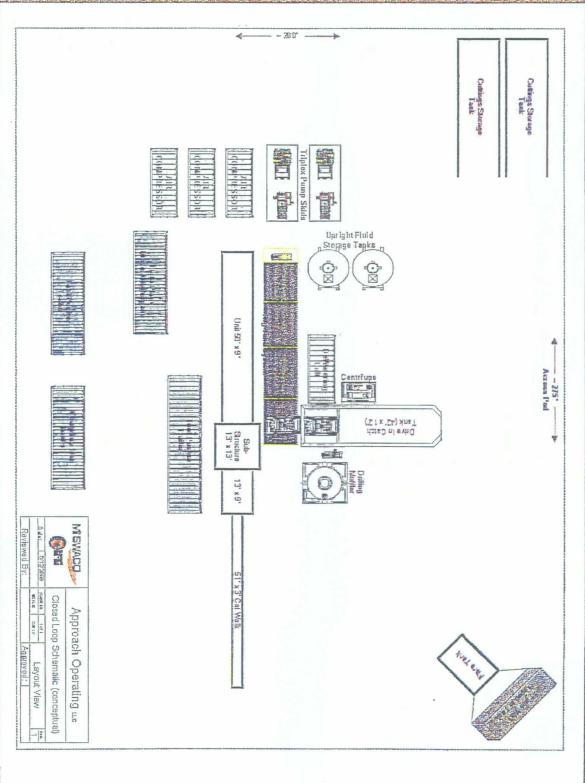
When the well is abandoned the location and access road will be cleaned and restored to the original topographical contours as much as possible. The area will be reseeded with appropriate seed mixture.

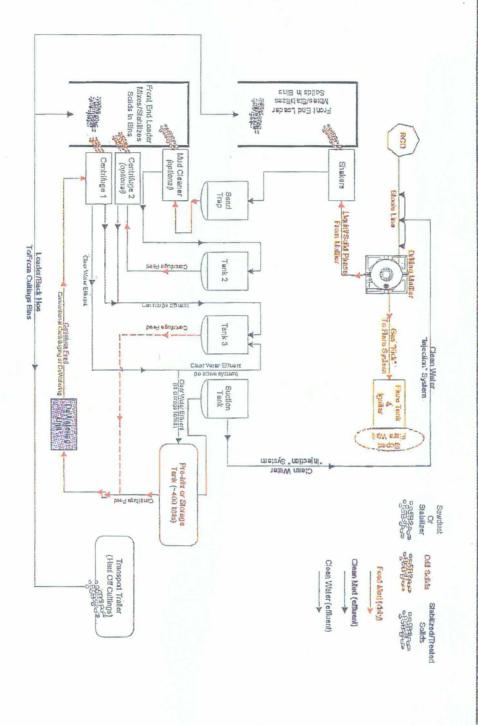
If the well is productive, areas not used in production will be contoured and seeded with stipulated seed mixture. Production equipment will be painted to blend with the natural color of the landscape.

# 11. Lessee's or Operator's Representative:

Glenn W. Reed, Executive Vice President – Engineering & Operations Approach Resources 6500 West Freeway, Suite 800 Fort Worth, Texas 76116 Phone: (817) 989-9000

Glenn W. Reed
Executive Vice President – Engineering & Operations





Reviewed By:		Dalle and State		MISWACO
	SCALE:	PECH NO	Cic	
	11.8°C	1 101	sed Loc	Approach Operating LLc
Approved:	LION LIONAGE		Closed Loop Schematic (conceptuel)	
	-	New.		