

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

Form C-144  
July 21, 2008

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office  
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office

6242

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  
☒ Modification to an existing permit  
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

**Instructions:** Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances

1  
Operator EnerVest Operating, LLC OGRID # 143199  
Address 1001 Fannin St Ste 800 Houston, Texas 77002  
Facility or well name Hunsaker 725 S  
API Number 30-045-32526 OCD Permit Number Pending  
U/L or Qtr/Qtr E Section 26 Township 31N Range 09W County San Juan  
Center of Proposed Design Latitude 36 872280 Longitude -107 756111 NAD ☐ 1927 ☒ 1983  
Surface Owner ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2  
☐ **Pit:** Subsection F or G of 19 15 17 11 NMAC

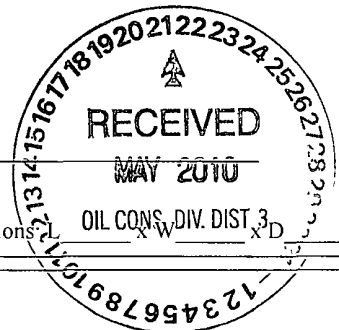
Temporary ☐ Drilling ☐ Workover

☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A

☐ Lined ☐ Unlined Liner type Thickness \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_

☐ String-Reinforced

Liner Seams ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_ Volume \_\_\_\_\_ bbl Dimensions \_\_\_\_\_



3  
☐ **Closed-loop System:** Subsection H of 19 15 17 11 NMAC

Type of Operation ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)

☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other \_\_\_\_\_

☐ Lined ☐ Unlined Liner type Thickness \_\_\_\_\_ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other \_\_\_\_\_

Liner Seams ☐ Welded ☐ Factory ☐ Other \_\_\_\_\_

4  
☒ **Below-grade tank:** Subsection I of 19 15 17 11 NMAC

PERMIT EXISTING BELOW -GRADE TANK

Volume 120 bbl Type of fluid Primarily produced water w/ compressor skid precipitation & incidental lubricating oil

Tank Construction material Steel Open-top w/ expanded metal cover

☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off

☒ Visible sidewalls and liner ☐ Visible sidewalls only ☒ Other \_\_\_\_\_ Visible sidewalls, liner, 6" lift & electronic monitoring \_\_\_\_\_

Liner type Thickness 20 mil ☒ HDPE ☐ PVC ☐ Other \_\_\_\_\_

5  
☐ **Alternative Method:**

Submittal of an exception request is required Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval

6

**Fencing:** Subsection D of 19 15 17 11 NMAC (*Applies to permanent pits, temporary pits, and below-grade tanks*)

- ☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☒ Alternate Please specify \_\_\_\_\_ 42" Hog-wire fence with 2 strands barbed-wire on top \_\_\_\_\_

7

**Netting:** Subsection E of 19 15 17 11 NMAC (*Applies to permanent pits and permanent open top tanks*)

- ☒ Screen ☐ Netting ☐ Other \_\_\_\_\_
- ☐ Monthly inspections (If netting or screening is not physically feasible)

8

**Signs:** Subsection C of 19 15 17 11 NMAC

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☒ Signed in compliance with 19 15 3 103 NMAC

9

**Administrative Approvals and Exceptions:**

Justifications and/or demonstrations of equivalency are required Please refer to 19 15 17 NMAC for guidance

**Please check a box if one or more of the following is requested, if not leave blank:**

- ☒ Administrative approval(s) Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval
- ☐ Exception(s) Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval

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**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	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
- 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)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- 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 ( <i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i> )	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- Visual inspection (certification) of the proposed site, Aerial photo, Satellite image	<input type="checkbox"/> NA
Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application ( <i>Applies to permanent pits</i> )	<input type="checkbox"/> Yes <input type="checkbox"/> No
- Visual inspection (certification) of the proposed site, Aerial photo, Satellite image	<input checked="" type="checkbox"/> 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- 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	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- Written confirmation or verification from the municipality, Written approval obtained from the municipality	
Within 500 feet of a wetland	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- US Fish and Wildlife Wetland Identification map, Topographic map, Visual inspection (certification) of the proposed site	
Within the area overlying a subsurface mine	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	
Within an unstable area	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources, USGS, NM Geological Society, Topographic map	
Within a 100-year floodplain	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
- FEMA map	

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**Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist:** Subsection B of 19 15 17 9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19 15 17 9 NMAC  
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19 15 17 9 NMAC  
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15 17 10 NMAC  
☒ Design Plan - based upon the appropriate requirements of 19 15 17 11 NMAC  
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17.12 NMAC  
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19 15 17 13 NMAC  
☒ Previously Approved Design (attach copy of design) API Number 30-045-28314 or Permit Number 6204

12.

**Closed-loop Systems Permit Application Attachment Checklist:** Subsection B of 19.15 17 9 NMAC**Instructions:** Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19 15 17 9  
☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19 15 17 10 NMAC  
☐ Design Plan - based upon the appropriate requirements of 19 15 17 11 NMAC  
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17 12 NMAC  
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19 15 17 13 NMAC  
☐ Previously Approved Design (attach copy of design) API Number \_\_\_\_\_  
☐ Previously Approved Operating and Maintenance Plan API Number \_\_\_\_\_ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

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**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

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**Proposed Closure:** 19 15 17 13 NMAC**Instructions:** Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

- Type ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☒ Below-grade Tank ☐ Closed-loop System  
☐ Alternative  
 Proposed Closure Method ☒ Waste Excavation and Removal  
☐ Waste Removal (Closed-loop systems only)  
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)  
☐ In-place Burial ☐ On-site Trench Burial  
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

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**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 I of 19 15 17 13 NMAC  
☒ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

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**Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:** (19 15 17 13 D NMAC)

**Instructions:** Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name \_\_\_\_\_ Disposal Facility Permit Number \_\_\_\_\_

Disposal Facility Name \_\_\_\_\_ Disposal Facility Permit Number \_\_\_\_\_

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

*Required for impacted areas which will not be used for future service and operations*

☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC

☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15 17 13 NMAC

☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

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**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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> 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	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 500 feet of a wetland - US Fish and Wildlife Wetland Identification map, Topographic map, Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area - Engineering measures incorporated into the design, NM Bureau of Geology & Mineral Resources, USGS, NM Geological Society, Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No

18

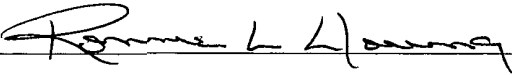
**On-Site Closure Plan Checklist:** (19 15 17 13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19 15 17 10 NMAC
- ☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19 15 17 13 NMAC
- ☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19 15 17 11 NMAC
- ☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19 15 17 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

19

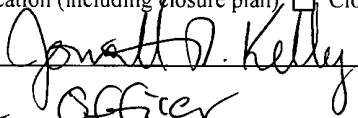
**Operator Application Certification:**

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) Ronnie L Young Title Compliance Supervisor  
 Signature  Date 5-19-10  
 e-mail address ryoung@enervest.net Telephone 713-495-6530

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**OCD Approval:** ☒ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature:  Approval Date: 1/17/2012

Title: Compliance Officer OCD Permit Number: \_\_\_\_\_

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**Closure Report (required within 60 days of closure completion):** Subsection K of 19 15 17 13 NMAC

*Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.*

☐ Closure Completion Date: \_\_\_\_\_

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**Closure Method:**

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)  
☐ If different from approved plan, please explain \_\_\_\_\_

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**Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:**

*Instructions: Please identify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.*

Disposal Facility Name \_\_\_\_\_ Disposal Facility Permit Number \_\_\_\_\_

Disposal Facility Name \_\_\_\_\_ Disposal Facility Permit Number \_\_\_\_\_

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

*Required for impacted areas which will not be used for future service and operations*

- ☐ Site Reclamation (Photo Documentation)  
☐ Soil Backfilling and Cover Installation  
☐ Re-vegetation Application Rates and Seeding Technique

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**Closure Report Attachment Checklist:** *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Proof of Closure Notice (surface owner and division)  
☐ Proof of Deed Notice (required for on-site closure)  
☐ Plot Plan (for on-site closures and temporary pits)  
☐ Confirmation Sampling Analytical Results (if applicable)  
☐ Waste Material Sampling Analytical Results (required for on-site closure)  
☐ Disposal Facility Name and Permit Number  
☐ Soil Backfilling and Cover Installation  
☐ Re-vegetation Application Rates and Seeding Technique  
☐ Site Reclamation (Photo Documentation)

On-site Closure Location Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD ☐ 1927 ☐ 1983

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**Operator Closure Certification:**

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan

Name (Print) \_\_\_\_\_ Title \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

e-mail address \_\_\_\_\_ Telephone \_\_\_\_\_

**EnerVest Operating, LLC (EV)**

**BELOW-GRADE TANK  
DESIGN AND CONSTRUCTION SPECIFICATIONS**

**Rule 19.15.17.11**

- C. Enervest Operating is the official operator of record for all wells which have below-grade tanks to be addressed in this specification. All below-grade tanks are located on these leases and will be in full compliance with 19.15.16.8 regarding signage.
- D. EV will ensure a fence shall be constructed and maintained in good repair with gates that are closed and locked when responsible personnel are not on site. EV shall insure that all gates are closed and locked when responsible personnel are not on-site.

If the below-grade tank is located within 1,000 feet of a permanent residence, school, hospital, institution or church, the fence shall be a chain link security fence at least 6 feet in height with at least two strands of barbed wire on top.

If the below-grade tank is not within 1,000 feet of the above mentioned structures, the fence shall constructed to exclude livestock with at least four strands of barbed wire evenly spaced between one foot from the ground and four foot above the ground.

EV is requesting administrative approval to use a 42" Hog wire fence with 2 strands barbed-wire on top in lieu of the required four strand barbed wire fence. This will be supported with iron posting at the corners and 10 – 12 feet apart. EV believes this will offer better protection for wildlife in these tank areas. Please refer to Exhibit 2.1 of this Section.

- E. EV shall ensure an open top tank is screened with expanded 3/16" metal screen or a fully closed top, both of which are welded on the top of the tank. Such screening will be painted to blend with the below-grade tank. EV believes this is sufficient strength to protect migratory birds or other wildlife
- I. EV will ensure all below-grade tanks will be constructed of 3/16" steel, resistant to the tank's contents and to damage from sunlight. Based on water production and road condition for access during the winter months there are a choice of three different sizes which could be used:

<b>CAPACITY</b>	<b>DIAMETER</b>	<b>HEIGHT</b>
125 bbl	15'	4'
120 bbl	12'	6'
100 bbl	12'	5'

This tank will contain liquids and should prevent contamination of fresh water to protect the public health and environment.

The below-grade system will include a excavated area for the tanks which will be dependent upon the size of the tank used:

- 18' x 18' x 4' High Square excavated area
- 18' Diameter x 4' High Circular excavated area
- 18' Diameter x 5' High Circular excavated area

Most of our below-grade tank systems were installed prior to June 16, 2008 and are 16.5' x 16.5' x 4' square excavated area design. As tanks are retro fitted, this will be changed to one of the above. The particular area and well conditions will determine which design best for that particular well. EV will ensure that there will be room to walk around the tank inside the containment area which will better enable our field personnel to inspect for damage to liners or incidental leaks. Please refer to tank diagram under Exhibit 2.2 of this section for details.

All excavated areas will be reinforced with metal walls to prevent collapse. There will be sufficient open area on all sides of the tank to witness any incidental release that may occur. Please refer to tank diagram under Appendix 8.

EV will ensure the base of any excavated area containing a below-grade tank will be level and free of rocks, debris, sharp edges or irregularities to prevent punctures, cracks or indentations of the liner or tank bottom.

EV will ensure that any geomembrane liner used shall consist of 30-mil flexible PVC or 60-mil HDPE liner or equivalent liner material. The liner shall be composed of an impervious, synthetic material that is resistant to petroleum hydrocarbons, salt and acidic and alkaline solutions and shall be resistant to ultraviolet light. The liner shall have a hydraulic conductivity no greater than  $1 \times 10^{-9}$  cm/sec. The liner shall be compatible with EPA SW-846 method 9090A. EV will install the liner in such a manner as to divert any possible leak for visual inspection. EV will demonstrate to the OCD that the liner complies with the specifications within Subparagraph (a) of Paragraph (4) of Section I of 19.156.17.11 NMAC and obtain approval from the division prior to the installation of the new design.

EV is requesting administrative approval to use an equivalent liner. The "Dura-Skirm J45 BB" is a 45-mil reinforced liner which we feels offers the same or better protection as the required 60-mil liner as indicated above. Please refer to Exhibit 2.3 of this Section for the specification sheets for this liner.

EV will ensure the fluid levels of tanks will be monitored by automatic high level alarms at 24" from the top and shut-off devise at 10 1/2 inches from the top of the

tank. The tanks will be also equipped with a manual shut-off valve in the event it is needed. Please see design specification sheet of this system in this section. The majority of our below-grade tanks are within the berm around our tank battery and as so are protected from run-on water. Those outside this berm will be protected with an earthen berm which will extend at least 6" above surface ground level to divert run-on around the tank. The side walls of the excavated area will extend at least 6" above the ground level to divert run-on water around the tank. Any possible leak will be diverted, on the liner, in such a way can be visually inspected. Please refer to Exhibit 2.4 of this Section for details of this automatic shut-off system.

EV tank design will be a single walled tank constructed to ensure that the side walls are open for visual inspection for leaks; the bottom will be elevated six inches above the ground surface and will contain a geomembrane liner, as described above, directly on the ground level of the containment area.

Once a below-grade tank which was installed prior to June 16, 2008 does not demonstrate integrity, EV shall promptly repair or remove that below-grade tank and close the tank or install a below-grade tank that is in full compliance with Paragraph 1 thru 4 of Section I of 19.15.17.11 NMAC. EV shall comply with the operational requirements of 19.15.17.12 NMAC. Please refer to tank diagram under Appendix 8 for details

Any single walled below-grade tank installed before June 16, 2008 where any portion of the tank sidewall is below the ground surface and not totally visible shall be closed, retrofited or replaced before June 15, 2013. EV will fully comply with Paragraph 1 thru 4 of Section I of 19.15.17.11 NMAC for all retrofitting or replacement of below-grade tanks.

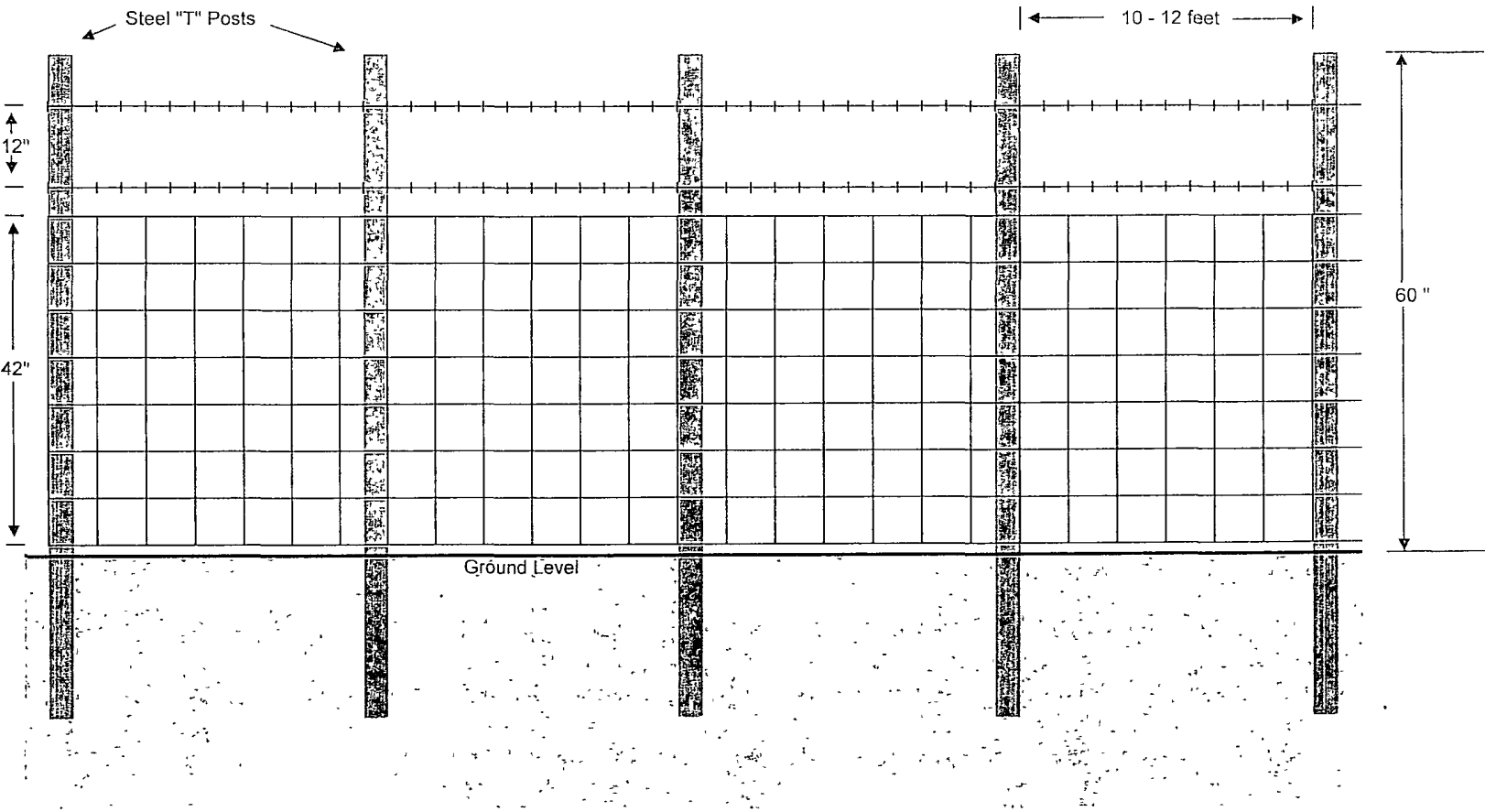


ENERVEST OPERATING, LLC

Proposed Alternative Fencing

Below-Grade Tank Construction

42" Hogwire Fence with 2 strands barbed-wire on top

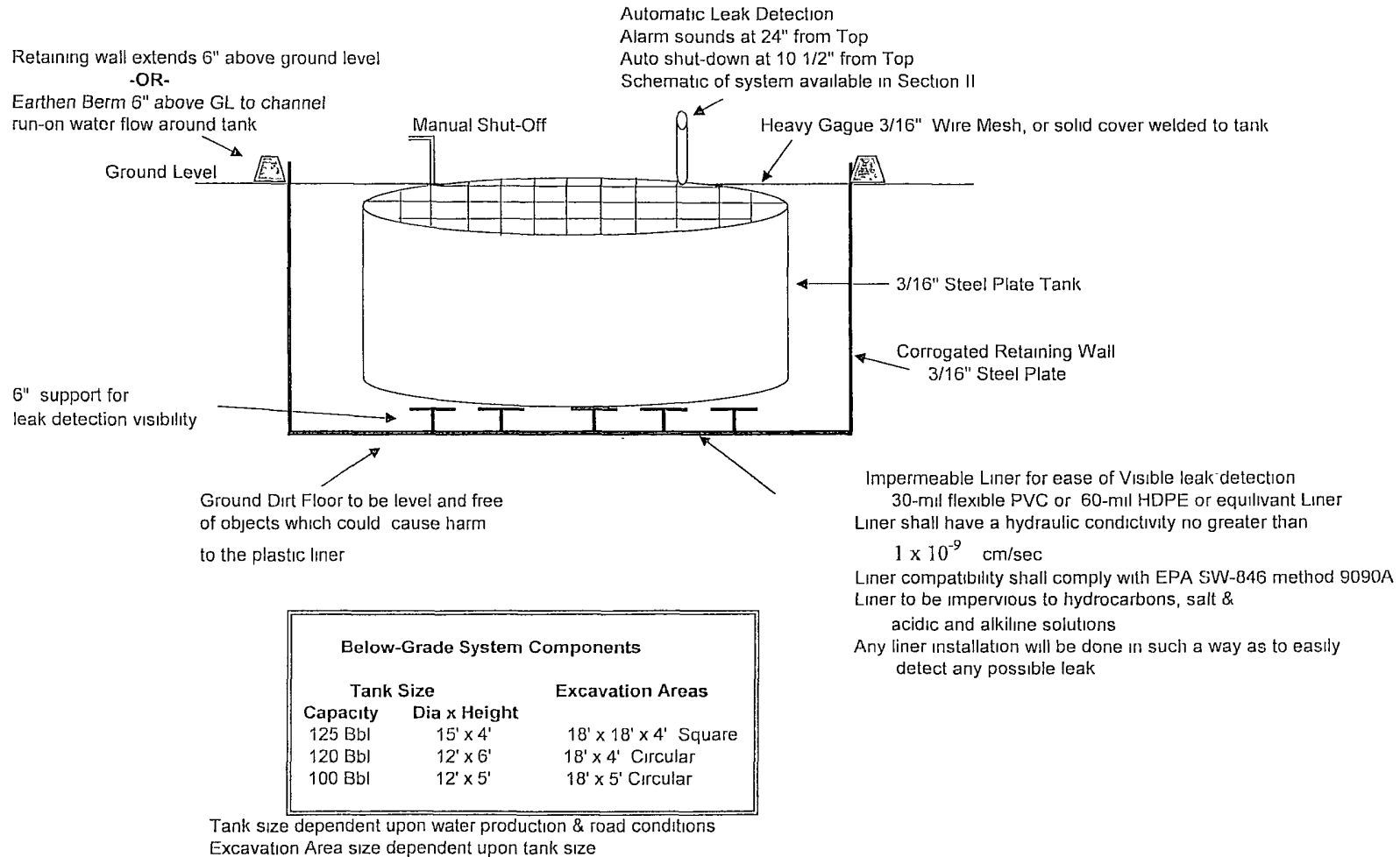


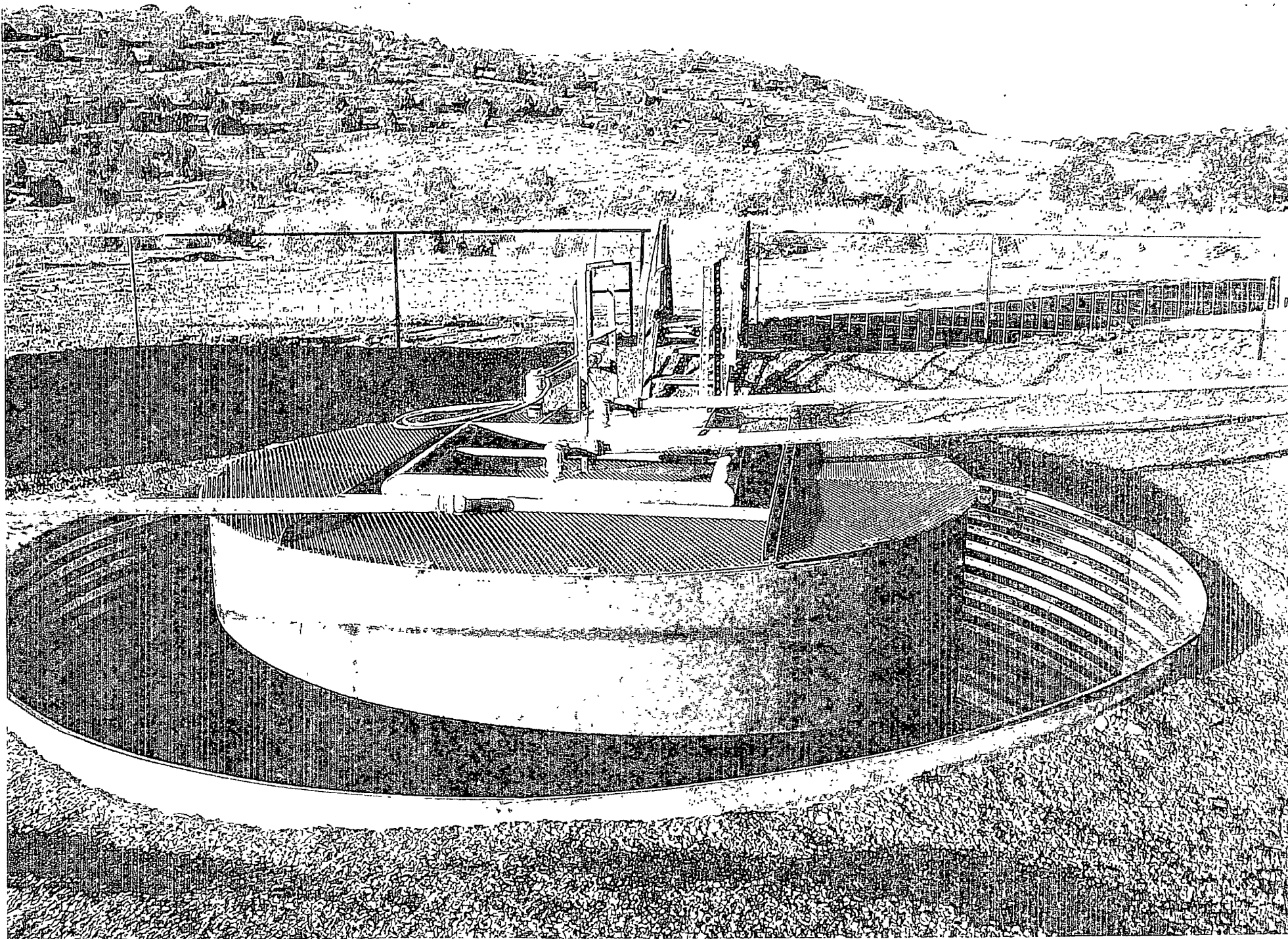


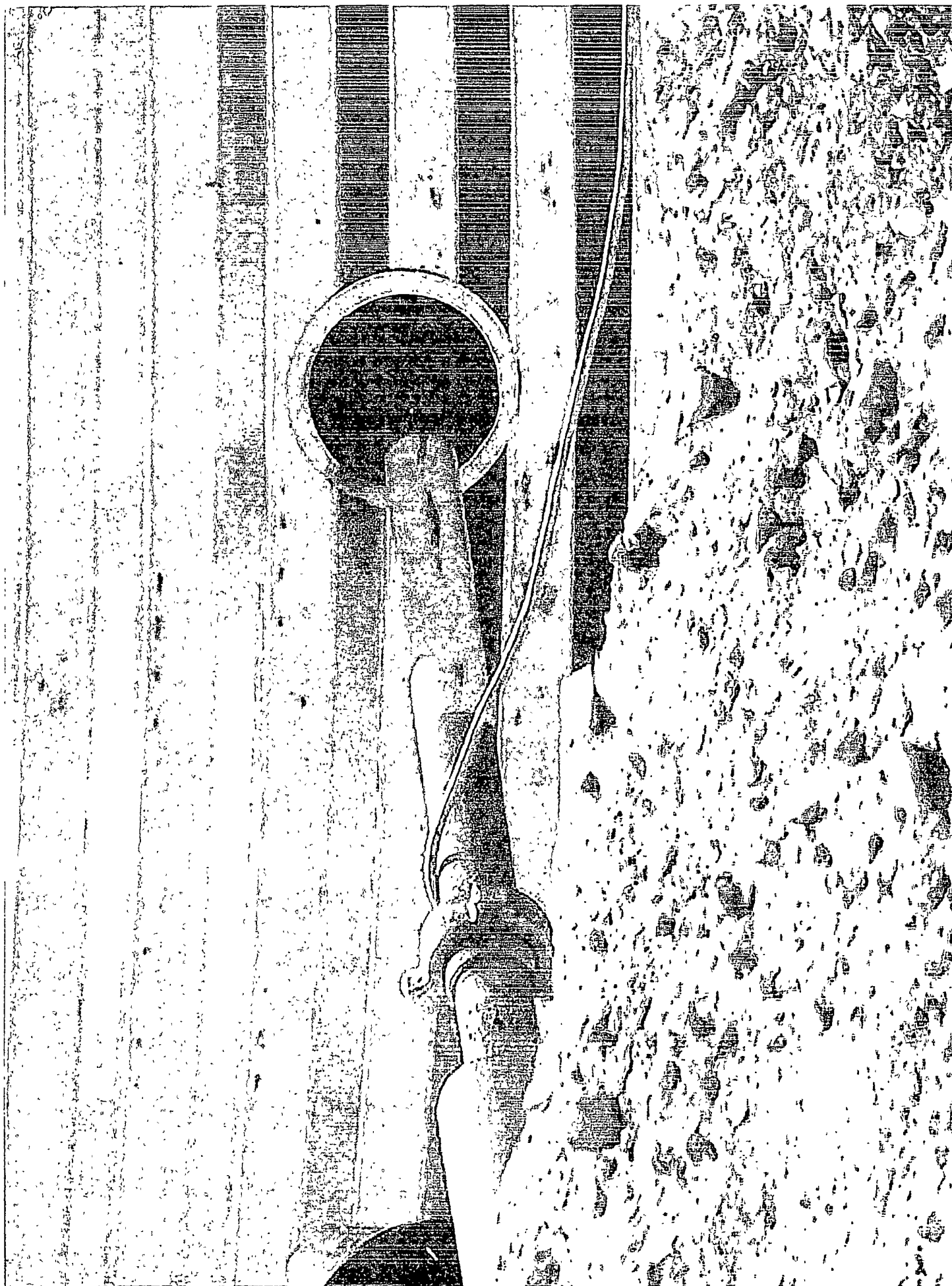
EnerVest Operating, LLC  
Western Division

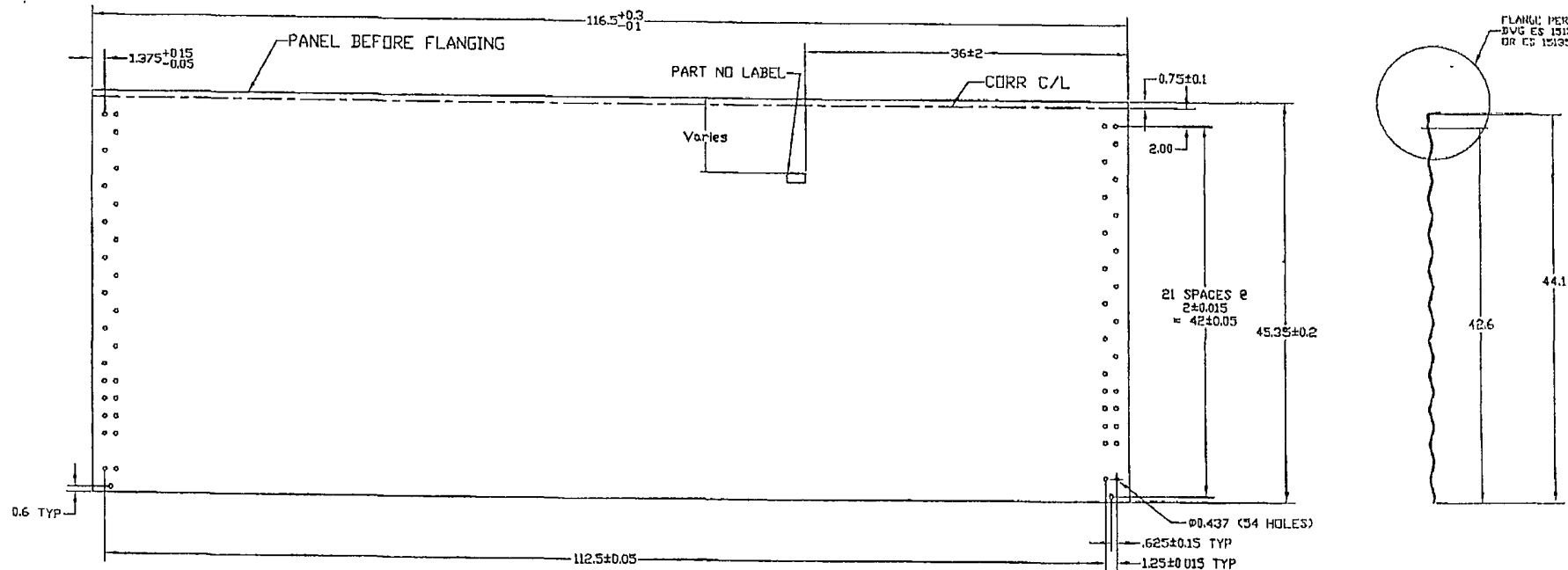
## Below-Grade Tank System

Gravity Fed - Produced Water

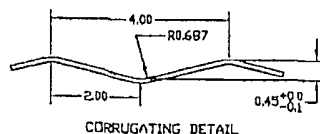








44' WALL PANEL BEFORE FLANGING

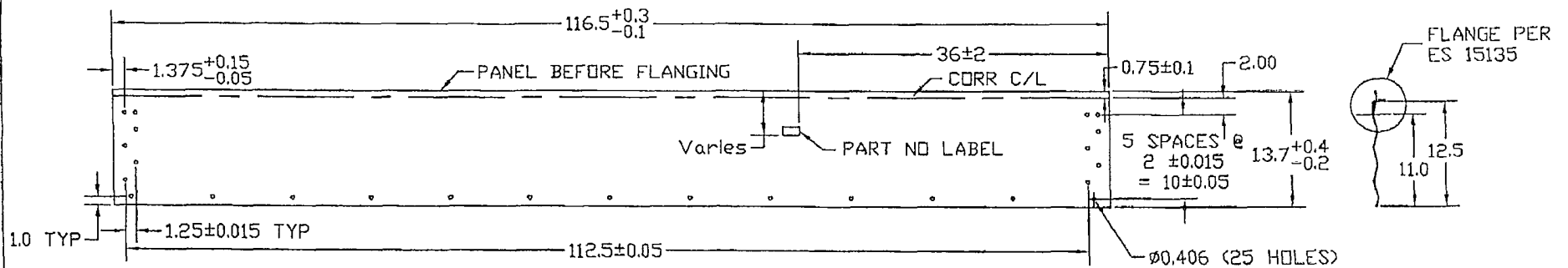


CORRUGATING DETAIL

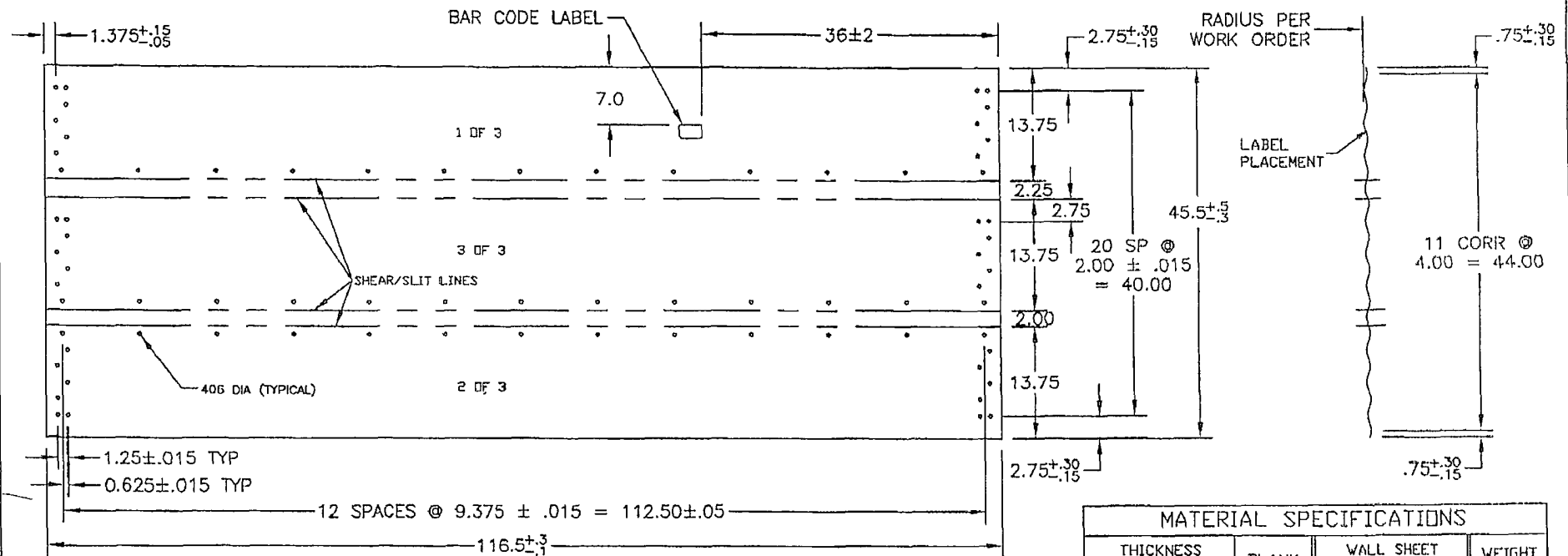
- MANUFACTURING NOTES:
1. CORRUGATION... SEE DETAIL
  2. HOLE OFF CENTER OF CORR... ± .05
  3. HOLE BURR MAX... .01
  4. CUT OFF BURR MAX... .01
  5. CORNER HOLE TO HOLE DIAGONAL ± .15

MATERIAL SPECIFICATIONS				
THICKNESS		BLANK WIDTH	WALL SHEET PART NO	WEIGHT (lb)
NUMINAL	MINIMUM			
0.066	0.061	46.5	CW4415F	98.5
0.096	0.088	46.3	CW4413F	143.4

MATERIAL					BLANK SIZE		SURFACE AREA		WEIGHT (LBS)	
SEE CHART - ASTM A653 SS GR 50 G115 OIL					46.5 x 116.5				see chart	
DESIGN	RM	THIS DRAWING IS THE EXCLUSIVE PROPERTY OF WESTEEL AND ALL RIGHTS ARE RESERVED	SCALE	DATE	LOC	LOC	DATE	LOC	DATE	LOC
DWN.	RF	NO PART OF THIS DRAWING MAY BE USED OR REPRODUCED IN ANY MANNER WHATSOEVER WITHOUT WRITTEN PERMISSION FROM WESTEEL, A DIVISION OF JENISYS ENGINEERED PRODUCTS	ETS	02.02.19	WINNIPEG	WINNIPEG	02.02.19	WINNIPEG	02.02.19	WINNIPEG
CHKD.	BA	DRAWING TITLE	ECR	A6647	EP. NO	TYPE	REV. NO.	REV. NO.	REV. NO.	REV. NO.
APPD.	BA	CONTAINMENT RING 44' WALL PANEL	SIZE	B	DRAWING NO.	REV. NO.	REV. NO.	REV. NO.	REV. NO.	REV. NO.
CUSTOMER	PRINTING DATE	REV. NO.	REV. NO.	REV. NO.	REV. NO.	REV. NO.	REV. NO.	REV. NO.	REV. NO.	REV. NO.
1	01.28.04	LOWERED CLAMP LOCATION 4'	A6786	RF	BA	1	1	1	1	1
NO	DATE	REVISION	E.C.R.	BY	CH.	REV. NO.	REV. NO.	REV. NO.	REV. NO.	REV. NO.

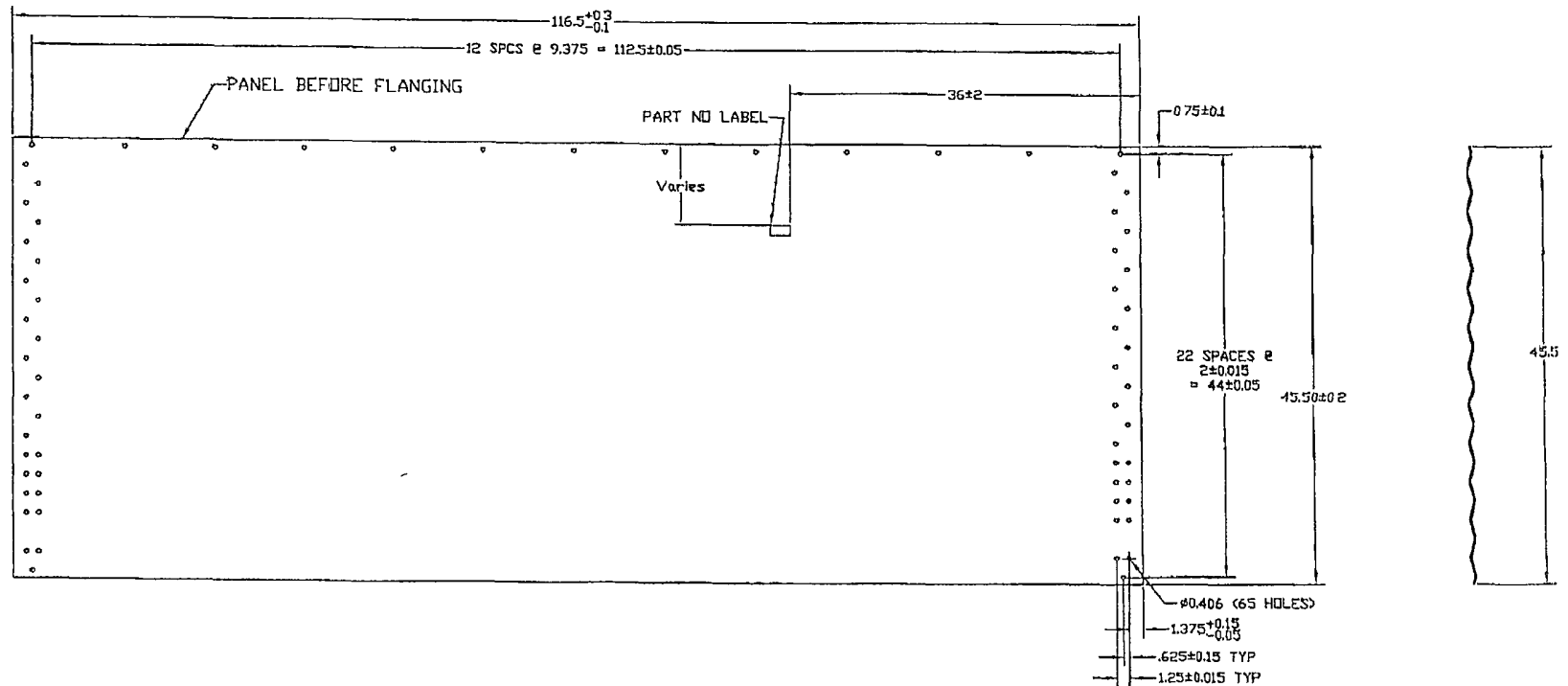


13 1/2" WALL PANEL LAYOUT BEFORE FLANGING

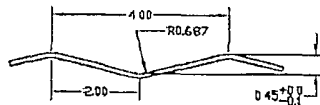


MATERIAL SPECIFICATIONS				
THICKNESS		BLANK WIDTH	WALL SHEET PART NO	WEIGHT (lb)
NOMINAL	MINIMUM			
0.066	0.061	14.75	CW1357F	31.5

					MATERIAL		BLANK SIZE		WEIGHT (LBS.)		
					SEE CHART - ASTM A653 SS GR50 G115 OIL		46.5x116.5 (3 pcs)		31.5		
					DIMENSIONS SHOWN ARE IMP MM UNITS SHOWN IN BRACKETS		THIS DRAWING IS THE EXCLUSIVE PROPERTY OF WESTEEL AND ALL RIGHTS ARE RESERVED NO PART OF THIS DRAWING MAY BE USED OR REPRODUCED IN ANY MANNER WHATSOEVER WITHOUT WRITTEN PERMISSION FROM Westeel Limited		SCALE N.T.S.	DWN. (Y.M.D.) 2004.11.30	LOCATION WPG
					TOLERANCES (UNLESS OTHERWISE NOTED)		WESTEEL		E.C.R. A6834	C.P. NO 02-255	DWG TYPE A-2000
					DIMENSIONS: IMPERIAL (In.) METRIC (mm)		DRAWING TITLE 13.5" FULL PANEL - 57" ONLY CONTAINMENT RING		SIZE A		DRAWING NO ES 15516
					.X ? .1 X ? .2 .XX ? .03 .X ? 1.0 XXX ? .010 .XX ? .50		CHKD. BA		REV. NO O		
					ANGULAR: ± 1°		APPD. BA		CUSTOMER -		PRINTING DATE (Y.M.D.) -
NO	DATE	REVISION	E.C.R.	BY	CH.						



44' WALL PANEL AFTER CORRUGATING AND PUNCHING



CORRUGATING DETAIL

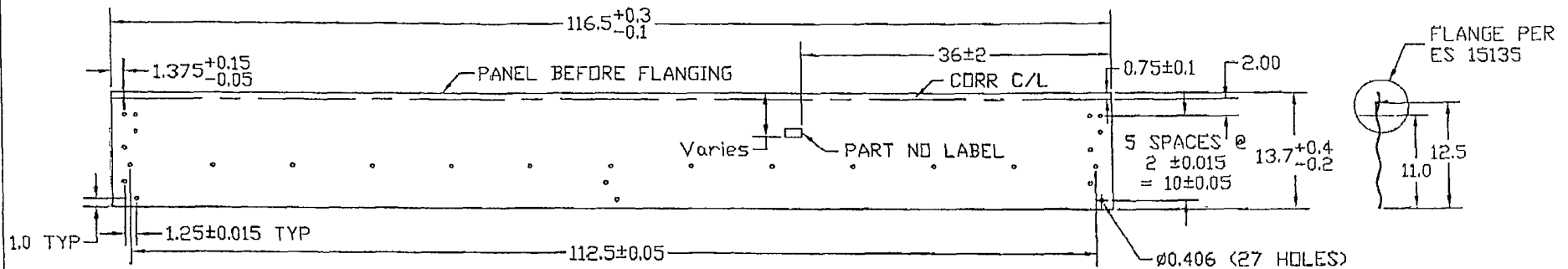
- MANUFACTURING NOTES:
1. CORRUGATION..... SEE DETAIL
  2. HOLE OFF CENTER OF CORR..... ± .09
  3. HOLE BURR MAX..... .01
  4. CUT OFF BURR MAX..... .01
  5. CORNER HOLE TO HOLE DIAGONAL ± .15

MATERIAL SPECIFICATIONS				
THICKNESS		BLANK WIDTH	WALL SHEET PART NO	WEIGHT (lbs)
NOMINAL	MINIMUM			
0.066	0.061	465	CW445715F	97.7
0.139	0.130	462	CW445710F	208.5

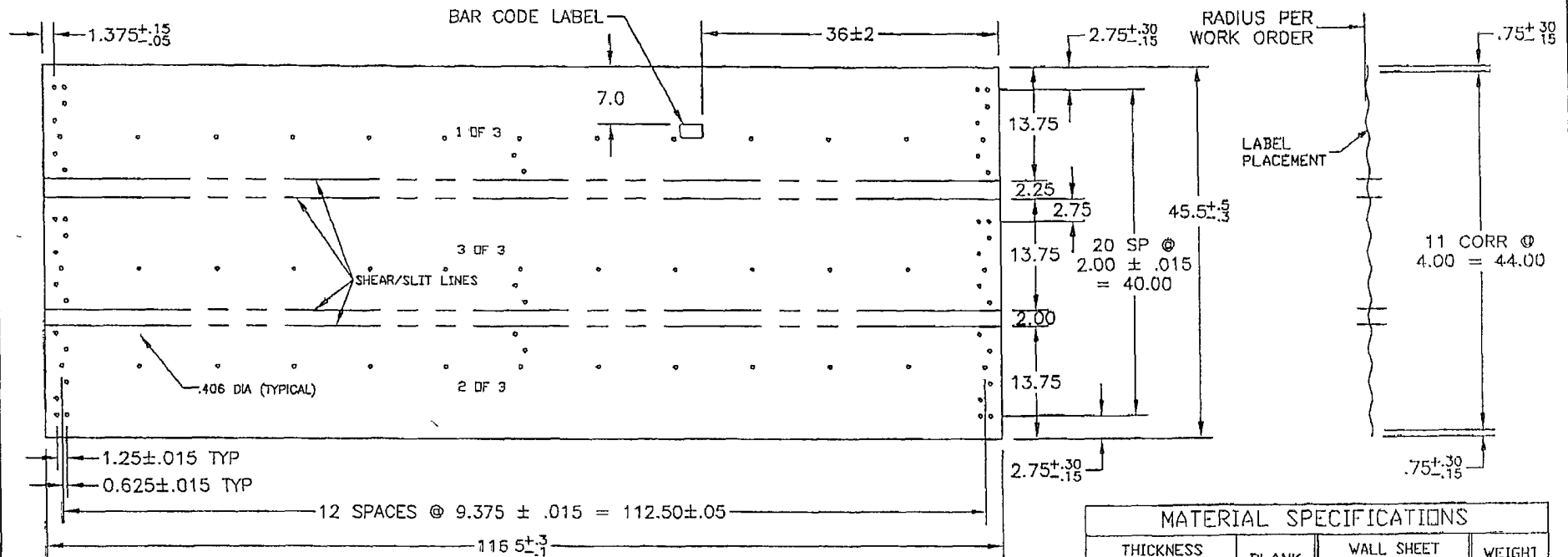
NO					DATE	REVISION	E.C.R.	BY	CH	MATERIAL					BLANK SIZE		SURFACE AREA		WEIGHT (LBS)	
										SEE CHART - ASTM A653 SS GR 50 G115 OIL					46.5 x 116.5				see chart	
										DESND. BA WESTEEL							SCALE nts		DWN. (Y.M.D.) 04.12.01	
										DWN. RF							E.C.R. A6834		LOCATION WINNIPEG	
										CHKD. BA									TYPE A-2000	
										APPD. BA									REV. NO.	
										DRAWING TITLE 44' FULL PANEL - 57' ONLY CONTAINMENT RING							SIZE B		DRAWING NO ES 15518	
										CUSTOMER									0	
										PRINTING DATE										





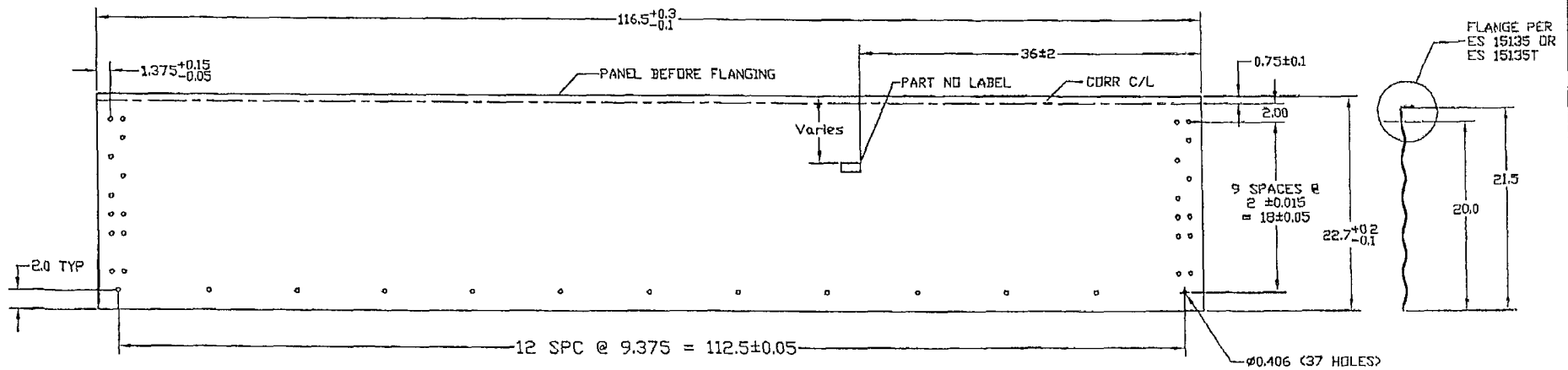


13 1/2" WALL PANEL LAYOUT BEFORE FLANGING

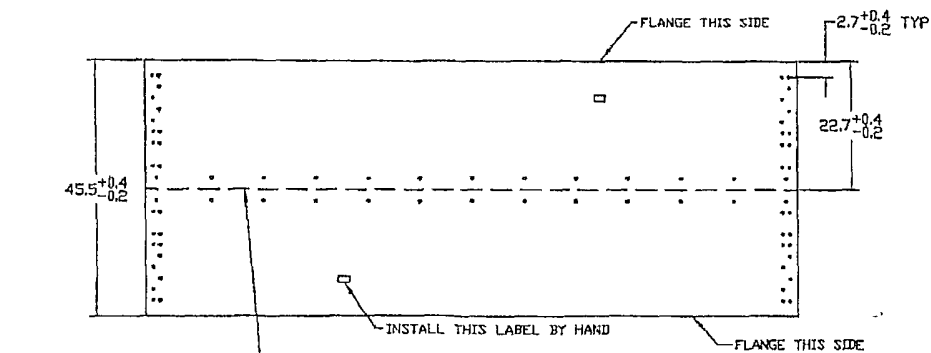


MATERIAL SPECIFICATIONS				
THICKNESS		BLANK WIDTH	WALL SHEET	WEIGHT
NOMINAL	MINIMUM		PART NO	(LBS)
0.066	0.061	14.75	019419	31.5

				MATERIAL				BLANK SIZE				WEIGHT (LBS.)	
				SEE CHART - ASTM A653 SS GR50 G115 Q1L				46.5x116.5 (3 pcs)				31.5	
				DESND.				THIS DRAWING IS THE EXCLUSIVE PROPERTY OF WESTEEL				SCALE	
				BA				AND ALL RIGHTS ARE RESERVED				DWN. (Y.M.D.)	
				DWN.				NO PART OF THIS DRAWING MAY BE USED OR REPRODUCED IN ANY MANNER WHATSOEVER WITHOUT WRITTEN PERMISSION FROM Westeel Limited				LOCATION	
				RF								N.T.S.	
				CHKD.				DRAWING TITLE 9.5" FULL PANEL - 52.5" ONLY				E.C.R.	
				BA								A6834	
				APPD.				CONTAINMENT RING				E.P. NO	
				BA								02-255	
												DWG TYPE	
												A-2000	
												SIZE	
												DRAWING NO.	
												REV. NO.	
												A	
												019419	
												O	

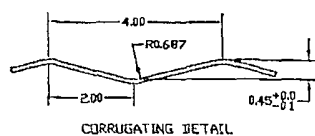


21 1/2' WALL PANEL LAYOUT BEFORE FLANGING



SLIT ON CENTER OF CORR  
AFTER CORR/PUNCHING

MANUFACTURING VIEW ONLY - DOUBLE PANEL AFTER  
CORR & PUNCH, BEFORE SLITTING & FLANGING



#### MANUFACTURING NOTES:

1. CORRUGATION... SEE DETAIL
2. HOLE OFF CENTER OF CORR... ± .05
3. HOLE BURR MAX... .01
4. CUT OFF BURR MAX... .01
5. CORNER HOLE TO HOLE DIAGONAL... ± .15

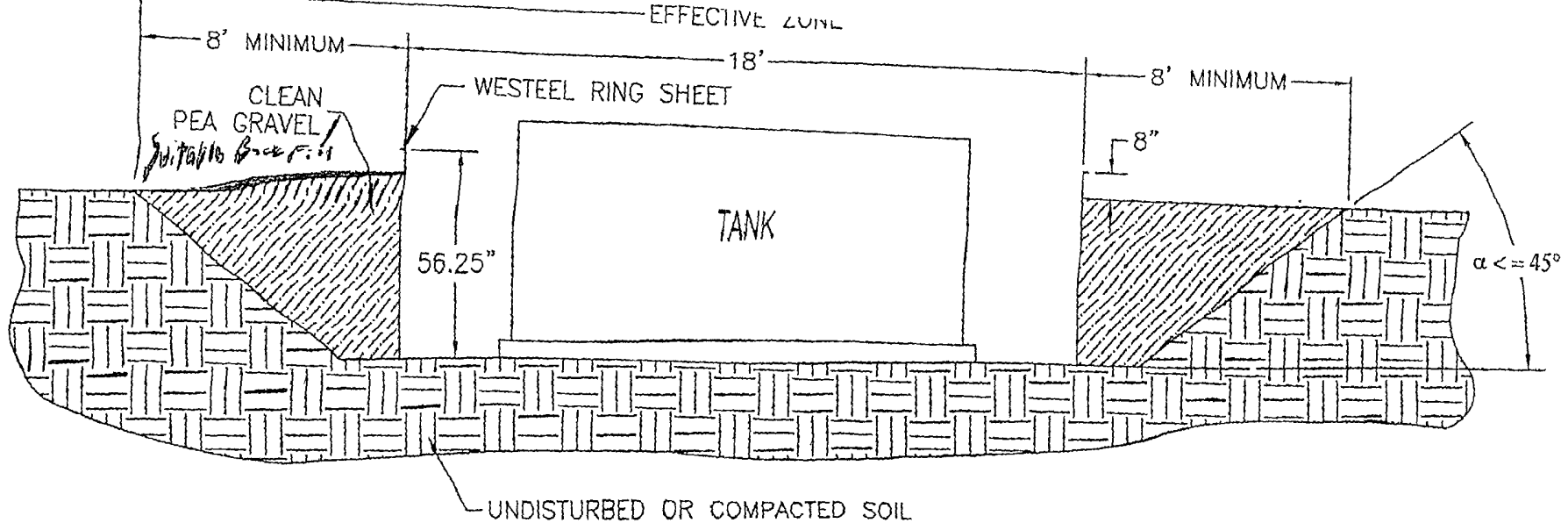
#### MATERIAL SPECIFICATIONS

THICKNESS		BLANK WIDTH	WALL SHEET PART NO	WEIGHT (lb)
NOMINAL	MINIMUM			
0.066	0.061	23.3	C10514	49.4

NO	DATE	REVISION	E.C.R.	BY	CH
1	06/12/06	CORRECTED HOLE PATTERN ON BOTTOM BLANK	A6898	RF	RF

DIMENSIONS SHOWN ARE IMPERIAL UNITS SHOWN IN BRACKETS	
TOLERANCES UNLESS OTHERWISE NOTED	
DIMENSIONS:	
IMPERIAL (in.)	METRIC (mm)
± .1	± 2
± .03	± 0.8
± .010	± .25
ANGULAR ± 1°	

MATERIAL		BLANK SIZE		SURFACE AREA		WEIGHT (LBS)	
SEE CHART - ASTM A653 SQ GR50 GL15 DIL		46.6x116.5 (2 pcs)		98.0813		49.4	
DESIGN		SCALE		DWG. CYM D7		LOCATION	
RM		nts		98.08.13		WINNIPEG	
DRAWING TITLE		E.C.R.		C.P. NO.		TYPE	
CONTAINMENT RING 22" WALL PANEL		A 6428		98-197		ACAD14	
APPROVAL		PRINTING DATE		SIZE		DRAWING NO	
RM				B		C10514	
REV. NO		REV. NO		REV. NO		REV. NO	
1		1		1		1	



#### INSTALLATION INSTRUCTIONS & SITE REQUIREMENTS

1. EXCAVATE AS PER ABOVE
2. FOR BEST RESULTS, BACKFILL WITH CLEAN PEA GRAVEL (OR EQUIVALENT FREE FLOWING MATERIAL) EVENLY AROUND THE STRUCTURE, TAKING CARE NOT TO FILL IN ANY ONE AREA VERY HIGH RELATIVE TO OTHER AREAS, SO AS TO MAINTAIN THE STRUCTURE AS ROUND. WORKING AROUND THE STRUCTURE IN APPROXIMATELY 6" LIFTS IS RECOMMENDED. (NOTE: ALTERNATIVE MATERIALS CAN BE USED BUT CARE MUST BE TAKEN TO INSURE THAT THE EXTERNAL PRESSURES ACTING ON THE STRUCTURE REMAIN UNIFORM. IF NATIVE SOIL IS USED AS A BACKFILL MATERIAL, IT SHOULD BE UNIFORM IN CONSISTENCY, AND BE FREE OF LARGE ROCKS OR UNBROKEN CLUMPS, WHICH COULD RESULT IN UNEVEN LOADING).
3. THE COMPLETED STRUCTURE SHOULD EXTEND APPROXIMATELY 8" ABOVE GRADE
4. TO INSURE STRUCTURAL INTEGRITY, UNEVEN EXTERNAL WALL PRESSURE IS TO BE AVOIDED. NO VEHICLES OR OTHER SOURCES OF POINT LOADING SHOULD BE PERMITTED WITHIN THE EFFECTIVE ZONE (AS ILLUSTRATED).
5. WESTEEL IS NOT LIABLE FOR ANY DAMAGES OR INJURIES RESULTING FROM ANY FAILURE DUE TO IMPROPER INSTALLATION, IMPROPER SITE CONDITIONS, OR INADEQUATE MAINTENANCE OF THE SITE.

NOTE: THIS SYSTEM IS NOT DESIGNED FOR THE SECONDARY CONTAINMENT OF LIQUIDS, RATHER, TO ALLOW FOR INSPECTION OF THE TANK.

## PRODUCT DESCRIPTION

**DURA•SKRIM J30, J36 and J45** are Linear Low Density Polyethylene geomembranes reinforced with a heavy encapsulated 1300 Denier polyester reinforcement. In addition to excellent dimensional stability the tri-directional reinforcement provides exceptional tear and tensile strength.

**DURA•SKRIM J-Series** membranes are formulated with thermal and UV stabilizers to assure a long service life. Custom colors are available based on minimum volume requirements.

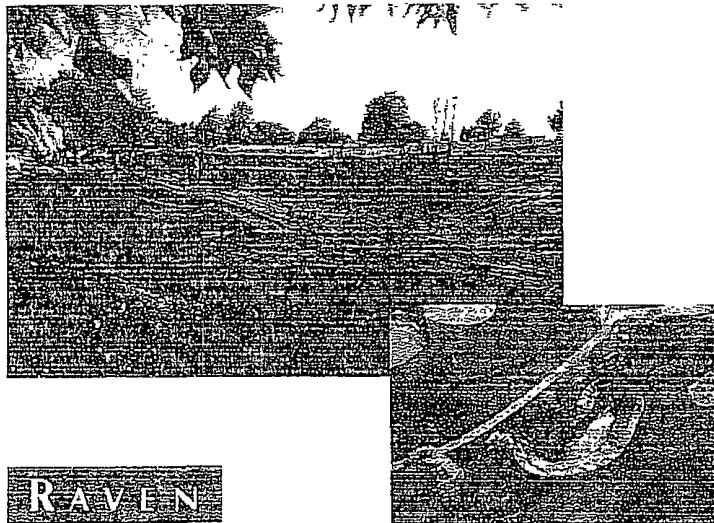
## PRODUCT USE

**DURA•SKRIM J30, J36 and J45** are used in applications that require exceptional outdoor life and demand high tear strength and resistance to thermal expansion.

**DURA•SKRIM J30, J36 and J45** are manufactured from a very chemical-resistant, Linear Low Density Polyethylene with excellent cold crack performance.

## SIZE & PACKAGING

**DURA•SKRIM J30, J36 and J45** are available in a variety of widths and lengths to meet the project requirements. Large diameter mill rolls are available to assure an efficient seaming process. Factory welded panels are accordion folded and tightly rolled on a heavy-duty core for ease of handling and time saving installation.



**RAVEN**  
INDUSTRIES  
Engineered Films Division

PRODUCT	PART NUMBER
DURA•SKRIM J30 .....	J30BB
DURA•SKRIM J36 .....	J36BB
DURA•SKRIM J45 .....	J45BB

## COMMON APPLICATIONS

- Waste Lagoon Liners
- Floating Covers
- Daily Landfill Covers
- Modular Tank Liners
- Tunnel Liners
- Remediation Liners
- Earthen Liners
- Interim Landfill Covers
- Remediation Covers
- Landfill Caps
- Erosion Control Covers
- Radon Retarder
- Canal Liners
- Disposal Pit Liner
- Water Containment Ponds
- Heap Leach Liner



# DURA-SKRIM®

# J30, J36 & J45 BB



PROPERTIES	TEST METHOD	DURA-SKRIM J30BB		DURA-SKRIM J36BB		DURA-SKRIM J45BB	
		Min. Roll Averages	Typical Roll Averages	Min. Roll Averages	Typical Roll Averages	Min. Roll Averages	Typical Roll Averages
APPEARANCE		Black/Black		Black/Black		Black/Black	
THICKNESS, NOMINAL	ASTM D5199	27 mil	30 mil	32 mil	36 mil	40 mil	45 mil
WEIGHT <small>lbs/MSF (oz/yd<sup>2</sup>)</small>	ASTM D5261	126 lbs (18.14)	140 lbs (20.16)	151 lbs (21.74)	168 lbs (24.19)	189 lbs (27.21)	210 lbs (30.24)
CONSTRUCTION		**Extrusion laminated with encapsulated tri-directional scrim reinforcement					
PLY ADHESION	ASTM D413	16 lbs	20 lbs	19 lbs	27 lbs	25 lbs	33 lbs
1" TENSILE STRENGTH	ASTM D7003	88 lbf MD 63 lbf DD	110 lbf MD 79 lbf DD	90 lbf MD 70 lbf DD	113 lbf MD 87 lbf DD	110 lbf MD 84 lbf DD	138 lbf MD 105 lbf DD
1" TENSILE ELONGATION @ BREAK % (FILM BREAK)	ASTM D7003	550 MD 550 DD	750 MD 750 DD	550 MD 550 DD	750 MD 750 DD	550 MD 550 DD	750 MD 750 DD
1" TENSILE ELONGATION @ PEAK % (SCRIM BREAK)	ASTM D7003	20 MD 20 DD	33 MD 33 DD	20 MD 20 DD	30 MD 31 DD	20 MD 20 DD	36 MD 36 DD
TONGUE TEAR STRENGTH	ASTM D5884	75 lbf MD 75 lbf DD	97 lbf MD 90 lbf DD	75 lbf MD 75 lbf DD	114 lbf MD 107 lbf DD	100 lbf MD 100 lbf DD	125 lbf MD 127 lbf DD
GRAB TENSILE	ASTM D7004	180 lbf MD 180 lbf DD	218 lbf MD 210 lbf DD	180 lbf MD 180 lbf DD	295 lbf MD 294 lbf DD	220 lbf MD 220 lbf DD	341 lbf MD 337 lbf DD
TRAPEZOID TEAR	ASTM D4533	120 lbf MD 120 lbf DD	146 lbf MD 141 lbf DD	130 lbf MD 130 lbf DD	189 lbf MD 172 lbf DD	160 lbf MD 160 lbf DD	193 lbf MD 191 lbf DD
*DIMENSIONAL STABILITY	ASTM D1204	<1	<0.5	<1	<0.5	<1	<0.5
PUNCTURE RESISTANCE	ASTM D4833	50 lbf	64 lbf	65 lbf	83 lbf	80 lbf	99 lbf
MAXIMUM USE TEMPERATURE		180°F	180°F	180°F	180°F	180°F	180°F
MINIMUM USE TEMPERATURE		-70°F	-70°F	-70°F	-70°F	-70°F	-70°F

MD = Machine Direction  
DD = Diagonal Directions



Note: Minimum Roll Averages are set to take into account product variability in addition to testing variability between laboratories.

\*Dimensional Stability Maximum Value

\*\*DURA-SKRIM J30BB, J36BB and J45BB are a four layer reinforced laminate. The outer layers consist of a high strength polyethylene film manufactured using virgin grade resins and stabilizers for UV resistance in exposed applications

DURA-SKRIM J30BB, J36BB and J45BB are reinforced with a 1300 denier tri-directional scrim reinforcement.

Note: To the best of our knowledge, unless otherwise stated, these are typical property values and are intended as guides only, not as specification limits. NO WARRANTIES ARE MADE AS TO THE FITNESS FOR A SPECIFIC USE OR MERCHANTABILITY OF PRODUCTS REFERRED TO, no guarantee of satisfactory results from reliance upon contained information or recommendations and disclaims all liability for resulting loss or damage.



RAVEN INDUSTRIES, INC. / Engineered Films Division  
P.O. Box 5107 • Sioux Falls, SD 57117-5107  
Ph: (605) 335-0174 • Fx: (605) 331-0333  
Toll Free: 800-635-3456



ISO 9001:2000  
CERTIFIED MANAGEMENT SYSTEM

www.ravengeo.com

6/09 EFD 1125

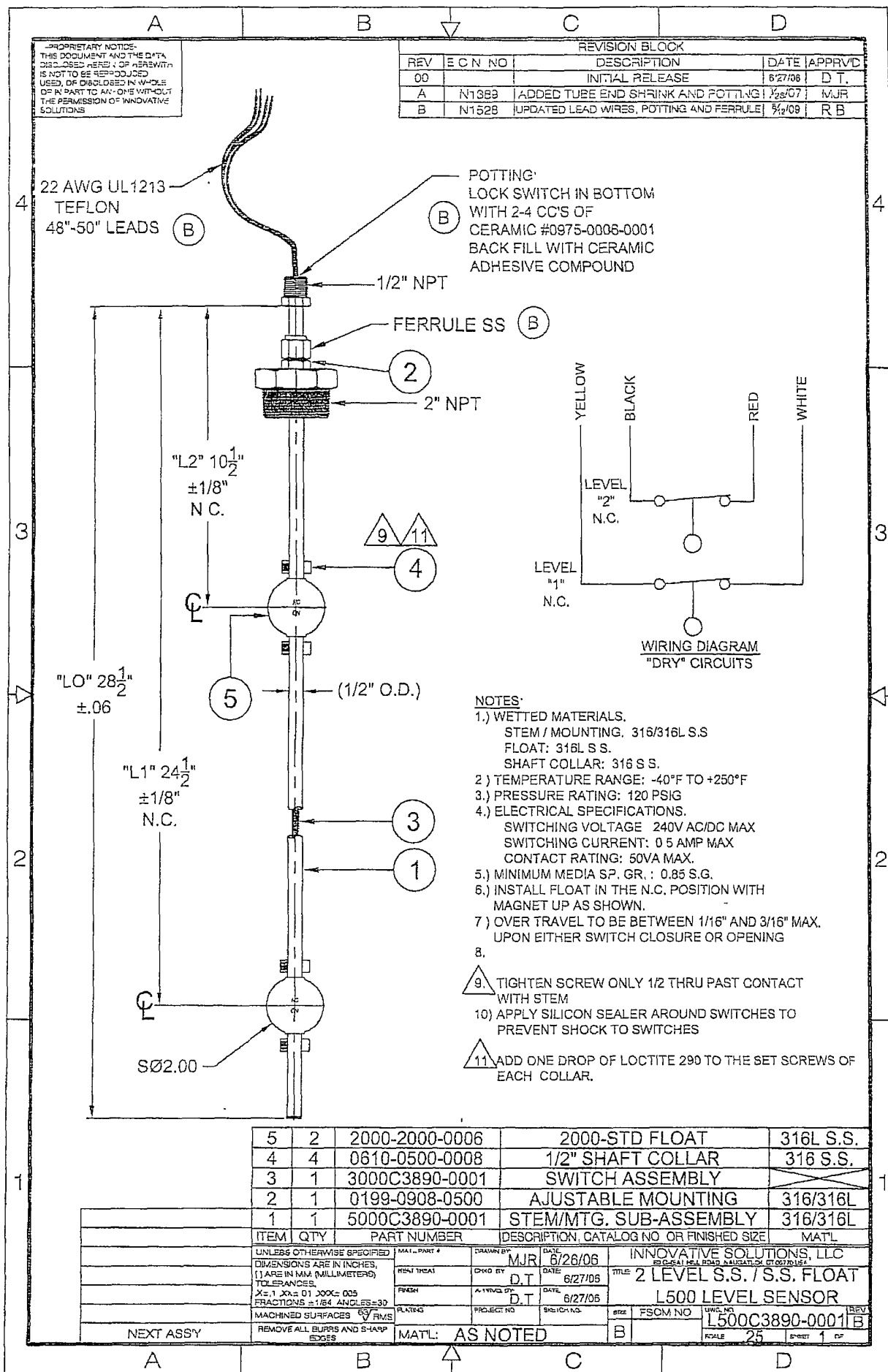


Exhibit 2.4

## Hunsaker 725 S

API 30-045-32526

### Sitting Criteria Compliance Demonstration

Criteria as per 19.15.17.10.(A) (1)	In Compliance	Comments
Ground water > 50' below bottom to tank	Yes	Refer to "Site Hydrology Report" in Section V
Continuously flowing water course >300 ft from tank & significant watercourse or lakebed, sinkhole, or playa lake measured from high water mark > 200 ft from tank	Yes	Refer to Observed Setting Requirements completed by field personnel - Appendix 08
Permanent Residence, school, hospital, institution, or church > 300 ft from tank	Yes	Refer to Observed Setting Requirements completed by field personnel - Appendix 08
Private, domestic fresh water well or spring > 500 ft from tank.	Yes	Refer to Observed Setting Requirements completed by field personnel - Appendix 08
Any other fresh water well or spring > 1000 ft from tank	Yes	Refer to Observed Setting Requirements completed by field personnel - Appendix 08
Within incorporated municipal boundary of defined municipal fresh water field	No	Refer to Observed Setting Requirements completed by field personnel - Appendix 08
Wetland > 500 ft from tank	Yes	Refer to Observed Setting Requirements completed by field personnel - Appendix 08
Not overlying a subsurface mine	Yes	Refer to Observed Setting Requirements completed by field personnel - Appendix 08
Not within an unstable area	Yes	Refer to "Karst Map" in Appendix 09, TOPO Map In Appendix 01, & Observed Setting Req. In Appendix 08
Not within a 100-year floodplain	Yes	Refer to Appendix 6 - 100 year floodplain map 2010 OCT 28 '11

OIL CONS. DIV.

DIST. 3

# Internet Mapping Framework

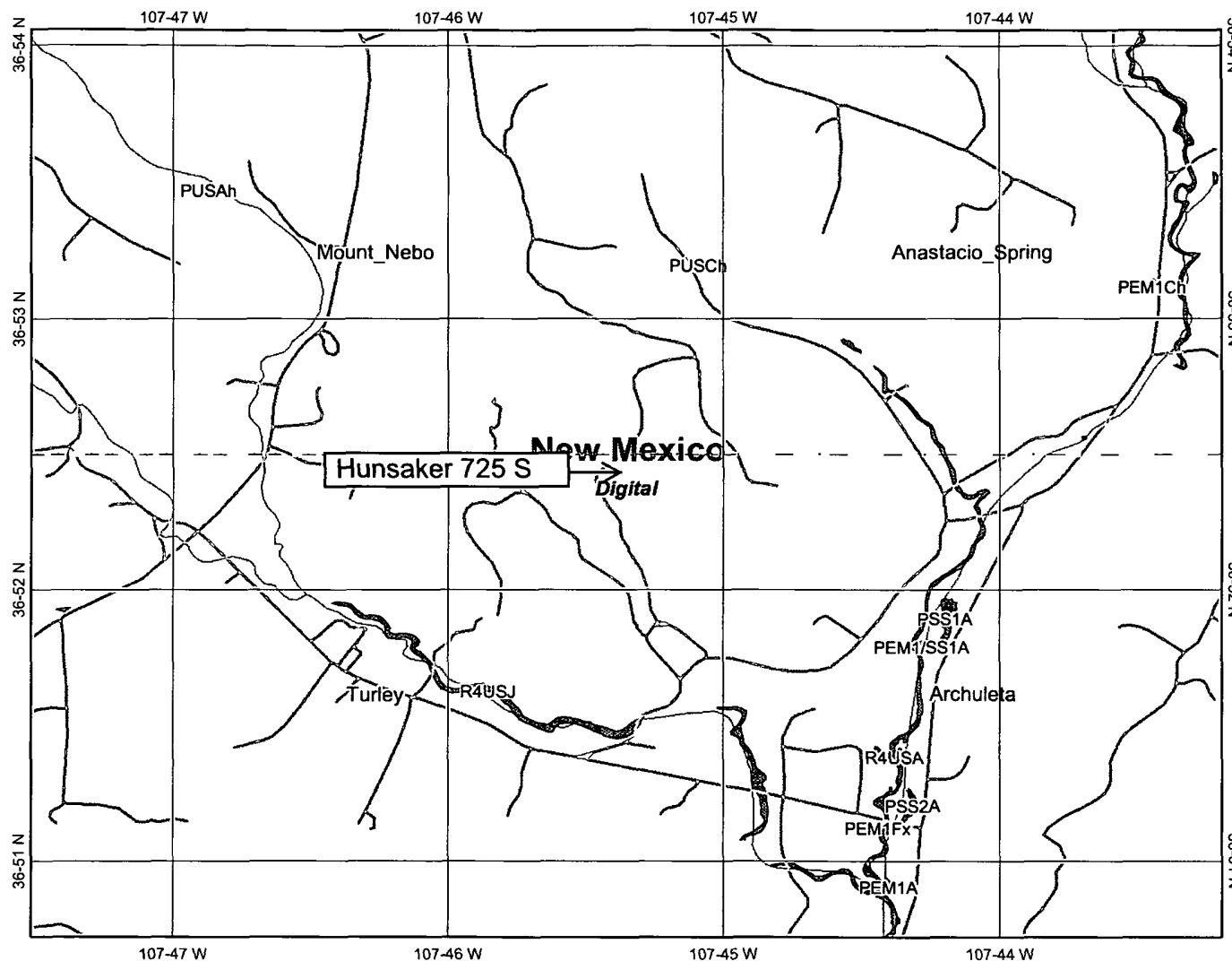


## Legend

- Interstate
- Major Roads
- Other Road
- Interstate
- State highway
- US highway
- Roads
- Cities
- USGS Quad Index 24K
- Lower 48 Wetland Polygons
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine
- Lower 48 Available Wetland Data
- Non-Digital
- Digital
- No Data
- Scan
- NHD Streams
- Counties 100K
- States 100K
- South America
- North America



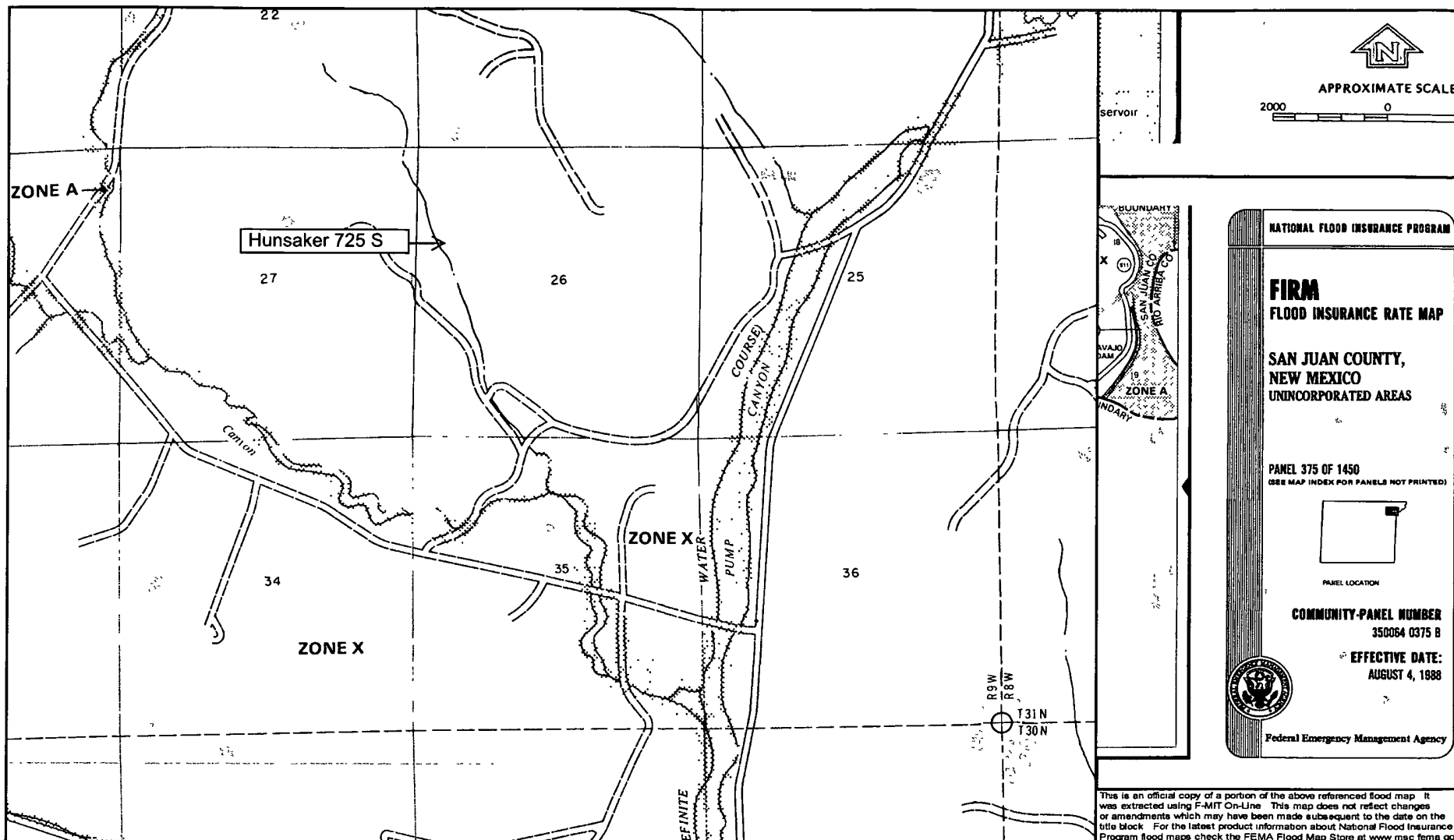
Scale: 1:43,294



Map center: 36° 52' 24" N, 107° 45' 21" W

This map is a user generated static output from an Internet mapping site and is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. THIS MAP IS NOT TO BE USED FOR NAVIGATION.





NATIONAL FLOOD INSURANCE PROGRAM

**FIRM**  
FLOOD INSURANCE RATE MAP

**SAN JUAN COUNTY,  
NEW MEXICO  
UNINCORPORATED AREAS**

PANEL 375 OF 1450  
(SEE MAP INDEX FOR PANELS NOT PRINTED)

PANEL LOCATION

COMMUNITY-PANEL NUMBER  
350064 0375 B

EFFECTIVE DATE:  
AUGUST 4, 1988

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.msc.fema.gov](http://www.msc.fema.gov)

**EnerVest Operating, LLC (EV)**

**BELOW-GRADE TANK  
OPERATIONAL REQUIREMENTS**

**Rule 19.15.17.12**

- A. EV will operate and maintain Below-Grade Tanks to insure the integrity of the below-grade tank, liner, liner system or berms to prevent contamination of fresh water and protect public health and the environment.

EV will not discharge or store any hazardous waste material of any kind in any Below-Grade Tank.

Any penetration of the below-grade below the liquid's surface that may occur, EV shall remove all liquid above the damage or leak line within 48 hours of the discovery. EV shall notify the appropriate district office within 48 hours of the discovery and repair the damage or replace the liner or below-grade tank.

EV will insure the metal retaining walls of the below-grade system around each tank will extend at least 6" above ground level or be equipped with a 6" earthen berm in an effort to divert run-on water around the below-grade system.

- D. EV will insure that a below-grade tank constructed and installed prior to June 16, 2008 that does not meet the requirements of 19.15.17.11 NMAC and does not demonstrate integrity or that the below-grade tank develops any conditions as identified in 19.15.17.12 NMAC shall close the existing below-grade tank pursuant to the closure requirements of 19.15.17.13 NMAC and install a below-grade tank that is in full compliance with our approved design. Please see below-grade system diagram in Appendix 8 for details.

EV will insure all Below-grade tanks will be equipped with automatic high-level alarm which sounds at 24" and than shut off devise to insure that flow will shut off at the freeboard height of 10 1/2 inches.

The majority of our below-grade tanks are within the berm around our tank battery and as so are protected from run-on water. Those outside this berm will be protected with an earthen berm which will extend at least 6" above surface ground level to divert run-on around the tank.

EV will remove any visible or measurable layer of oil from the fluid surface of a below-grade tank.

With any below-grade tank, installed before June 16, 2008, that is retrofitted or replaced with another tank, EV will insure that the soil beneath the removed soil is inspected for wet, discolored, or any other evidence of release, with photographic evidence. EV will report the results of all testing to the division on form C-141 and demonstrate to the division whether the evidence of contamination indicates an imminent threat to fresh water, public health, safety of the environment exists. If the division determines that the contamination does not pose an imminent threat to fresh water, public health, safety or the environment, EV shall complete the retrofit or the replacement of the below-grade tank as per our approved design program as indicated in Appendix 8. If EV or the division determines that the contamination poses an imminent threat to fresh water, public health, safety or the environment, then EV shall close the existing below-grade tank pursuant to the closure requirements of 19.17.15.13 NMAC prior to initiating the retrofit or replacement.

## Section IV

Closure Plan

EnerVest Operating, LLC (EV)

**BELOW-GRADE TANK  
CLOSURE REQUIREMENTS**

**Rule 19.15.17.13**

Before June 15, 2013, EV shall close, retrofit, or replace an existing below-grade tank that has not demonstrated integrity.

EV shall close a below-grade tank within the time periods provided in 19.15.17.13 NMAC, or by an earlier date that the division requires because of imminent danger to fresh water, public health or the environment.

- A. EV shall close an existing below-grade tank that does not meet the requirements of Subsection I, paragraphs (1) through (4), of 19.15.17.11 NMAC if not retrofitted to comply with said requirements prior to any sale or change of operator to 19.15.9.9 NMAC.

Any below-grade tank installed prior to June 16, 2008 that is single walled and where any portion of the tank sidewall is below the ground surface and not visible shall equip or retrofit the below-grade tank to comply with paragraphs (1) through (4) of Subsection I of 19.15.17.11 NMAC, or close it, within 5 years after June 16, 2008.

Within 60 days of cessation of the permitted below-grade tanks operation or as required by Subsection B of 19.15.17.17 NMAC, EV shall close the below-grade tank in accordance with a closure plan that the appropriate division district office approves.

- J. Prior to implementing any closure operations EV shall research county tax records to determine the name and address of the surface owner of the properties involved. EV shall notify this surface owner via Certified U.S. Mail, return receipt requested, of their intent to close said below-grade tank.

Upon determination, EV will notify the appropriate district office prior to any closure operations beginning. Such notification shall be at least 72 hours, via U.S. Mail, prior to beginning work but not more than one week prior to beginning work. Such notice shall contain at a minimum the following:

Operators Name  
Unit letter, Section, Township, & Range of well  
Well name and well number  
API Number of well

- E. All free standing liquids and sludge will be removed at the start of the below-grade tank closure process from the below-grade tank and disposed of in one of the below division-approved facility as indicated below:

TNT Land Farm	Permit # NM-01-0008	Liquids & Sludge
Environtech Land Farm	Permit # NM-01-0011	Solids
AguaMoss	Permit # 247130	Liquids

EV will obtain prior approval from the division to dispose, recycle, reuse, or reclaim the below-grade tanks and provide documentation of the final disposition of the below-grade tank in the closure report.

Existing liners that are removed as a result of closure will be wiped cleaned and disposed of at a solid waste facility listed below in compliance with Subparagraph (M) of Paragraph (I) of Subsection C 19.15.35.8 NMAC..

San Juan Regional Landfill	Permit # SWM 052426 or
“	Special Waster Permit # SWM052433 “sp”

If there is any on-site equipment associated with a below-grade tank, EV shall remove the equipment, unless the equipment is required for some other purpose .

Upon removal of the below-grade tank, EV will take, at a minimum, a five point composite sample from where the tank was sitting. EV shall collect individual grab samples will be taken from any area that is wet, discolored or showing other evidence of a release. All samples will be analyzed for the following:

Components	Test Method	Limits (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	100
Chlorides	EPA 300.1	250 or background, whichever is greater

EV will insure that the results of all sampling shall be reported to the division on approved form C-141. EV understands that the division may require additional delineation upon review of the results.

If sampling demonstrates that concentrations specified above have NOT been exceeded, or that a release has NOT occurred, EV will backfill the excavation with compacted, non-waste containing, earthen material, construct a division prescribed soil cover, and recontour and re-vegetate the site. The division prescribed soil cover, recontouring, and re-vegetation shall comply with 19.15.17.13.

If EV or the division determines that a release has occurred, EV shall fully comply with 19.15.29 NMAC and 19.15.30 NMAC as appropriate.

- G. Once EV has closed a below-grade tank, we shall reclaim the site to a safe and stable condition that blends with the surrounding undisturbed area. When possible, EV will restore the impacted surface area to the condition that existed prior to oil and gas operations by the placement of soil cover.

If the closed area is within the confines of the pad location EV will blend the site to match the pad location as much as possible. Such activities shall prevent erosion, protect fresh water, human health and the environment. EV will obtain written agreement from the surface owner for any alternate re-vegetation proposals and submit to the division for final approval.

- H. The soil cover design will be consistent with the requirements of 19.15.17.13(H)(1) and (3). The soil cover will consist of the background thickness of topsoil or one foot of suitable material to establish vegetation at the site, whichever is greater. The soil cover will be constructed to the site's existing grade and prevent ponding of water and erosion of the cover material.

- I. EV will seed the disturbed areas the first growing season after closing the below grade tank. Seeding will be accomplished via drilling on the contour whenever practical or by other division-approved methods. BLM or Forest Service stipulated seed mixes will be used on federal lands. Vegetative cover will equal 70% of the native perennial vegetative cover (un-impacted) consisting of at least three native plant species, including at least one grass, but not including noxious weeds, and maintain that cover through two successive growing seasons. Repeat seeding or planting will be continued until successful vegetative growth occurs. During the two growing seasons that prove viability, there shall be no artificial irrigation of the vegetation.

EV shall notify the division when it has seeded or planted and when it successfully achieves re-vegetation by U.S. Mail.

- K. Within 60 days of completion of closure operations, EV will file Form C-144, with attachments, outlining the detailed operations of the closing operations. Such attachments shall include, but not be limited to, proof of surface owner and division notifications, confirmation of sampling analysis, disposal facility names and permit numbers, soil backfilling and cover installation, re-vegetation application rates and seeding techniques, and photo documentations.

RCVD JAN 17 '12

**Site Specific Hydro Geologic Analysis**

OIL CONS. DIV.

**Hunsaker 725S**

DIST. 3

**API 30-045-32526**

The above referenced well is located at UL E, Sec 26, 31N, 09W at an elevation of 6130'. Surface casing was set to a depth of 235' or at a depth of 5895'.

According to the New Mexico Office of State Engineer, water well, SJ00012 on the TOPO Map, drilled was in 1952 by El Paso Natural Gas in the SE/4, Sec 27, 31N, 09W, with an elevation of 6032 and encountered water at a depth of 84 feet. This well is approximately 4 miles NE of our location.

The water well, SJ00013, in the SW/4 of Sec 10, 31N, 09W was drilled in 1953. There was no indication of water and this well was plugged in that same year.

The water well, SJ03841, approximately 1 mile SW of our location did encounter water at a depth of 26 feet. However the distance should not interfere with our location.

Southern Union drilled the Hunsaker #1A (045-21765) in 1975 at an elevation of 6127', about 200 feet East of our well. They set surface casing at 239', which is at a depth of 5888'. This would be 7' above our location. The make up of sand and shale should prevent any migration of water up stream.

With our elevation of 6130' at the bottom of the wash, groundwater could potentially be less than 50' below the surface.



UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTSUBMIT IN DUPLICATE  
(See other instructions on reverse side)PCUD 10N17'12  
FOR APPROVED  
OMB NO. 0008-0101

Expires: December 31, 1991

5. LEASE DESIGNATION AND SERIAL NO.

NMSF-078506

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.

Huneker #7255

9. API WELL NO.

30-045-32526

10. FIELD AND POOL, OR WILDCAT

Basin Fruitland Coal

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

SEC. 26, T31N, R9W, NMPM

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL:

OIL  
WELL ☐GAS  
WELL ☒DRY ☐

2004 NOV 18 PM 1 38

b. TYPE OF COMPLETION:

NEW  
WELL ☒WORK  
OVER ☐DEEP-  
EN ☐PLUG  
BACK ☐DIFF.  
RESVR ☐Other ☐

RECEIVED

070 FARMINGTON NM

2. NAME OF OPERATOR

BURLINGTON RESOURCES OIL &amp; GAS COMPANY

3. ADDRESS AND TELEPHONE NO.

PO BOX 4289, Farmington, NM 87499 (505) 326-9700

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)

At surface SEC. 26, T31N, R9W, NMPM  
SWNW 1480 FNL, 835FWL

At top prod. interval reported below

At total depth

14. PERMIT NO.

DATE ISSUED

12. COUNTY OR

PARISH

San Juan

13. STATE

New Mexico

15. DATE SPUDDED

11/3/04

16. DATE T.D. REACHED

11/11/04

17. DATE COMPL. (Ready to prod.)

11/16/04

18. ELEVATIONS (OF, RKB, RT, BR, ETC.)

8130' GL; 8142' KB

19. ELEV. CASINGHEAD

20. TOTAL DEPTH, MD &amp; TVD

3032'

21. PLUG, BACK T.D., MD &amp; TVD

3032'

22. IF MULTIPLE COMPL.,  
HOW MANY\*23. INTERVALS  
DRILLED BY

ROTARY TOOLS

yes

CABLE TOOLS

24. PRODUCTION INTERVAL (S) OF THIS COMPLETION-TOP, BOTTOM, NAME (MD AND TVD)\*

2682'-2945' Fruitland Coal 2782-2945

25. WAS DIRECTIONAL  
SURVEY MADE

No

26.

None

27. WAS WELL GORED

No

## CASING RECORD (Report all strings set in well)

CASING SIZE/GRADE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	TOP OF CEMENT, CEMENTING RECORD	AMOUNT PULLED
9 5/8"	32.38 H-40	235'	12 1/4"	233 cu ft	
7"	20# J-55	2621'	8 3/4"	737 cu ft	

## 29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
5 1/2"	2589'	3032'	none		2 3/8"	2693'	

## 30. TUBING RECORD

31. PERFORATION RECORD (Interval, size and number)	32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.
2782-2945'	DEPTH INTERVAL (MD)
	2782-2945'
	AMOUNT AND KIND OF MATERIAL USED
	NONE

## 33. PRODUCTION

DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)					WELL STATUS (Producing or shut-in)	
11/16/04		Flowing					SI	
DATE OF TEST	HOURS TESTED	CHOKED SIZE	PROD'n FOR TEST PERIOD	OIL-BBL	GAS-MCF	WATER-BBL	GAS-OIL RATIO	
11/13/04	1 hour		→					
FLOW, TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL-BBL	GAS-MCF	WATER-BBL	OIL GRAVITY-API (CORR.)		
SI 0	86	→	0	1587		0		

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

To be sold

TEST WITNESSED BY  
ACCEPTED FOR RECORD

35. LIST OF ATTACHMENTS

None

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED

Joni Clark

TITLE

Regulatory Specialist

DATE

11/18/04 FIELD OFFICE

\*(See Instructions and Spaces for Additional Data on Reverse Side)

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

NMOCD

27. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cased intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries)

FORMATION	TOP	BOTTOM	DESCRIPTION, CONTENTS, ETC.
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28.

GEOLOGIC MARKERS

NAME	TOP	
	MEAS. DEPTH	TRUE VERT. DEPTH

Ojo Alamo	1667'	1751'	White, cr-gr ss.
Kirtland	1751'	2682'	Gry sh interbedded w/tight, gry, fine-gr ss.
Fruitland	2682'	2953'	Dk gry-gry carb sh, coal, grn silts, light-med gry; tight, fine gr ss.
Pictured Cliffs	2953'		Bn-Gry, fine grn, tight ss.

Ojo Alamo	1667'
Kirtland	1751'
Fruitland	2682'
Pic.Cliffs	2953'

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

SUBMIT IN DUPLICATE\*

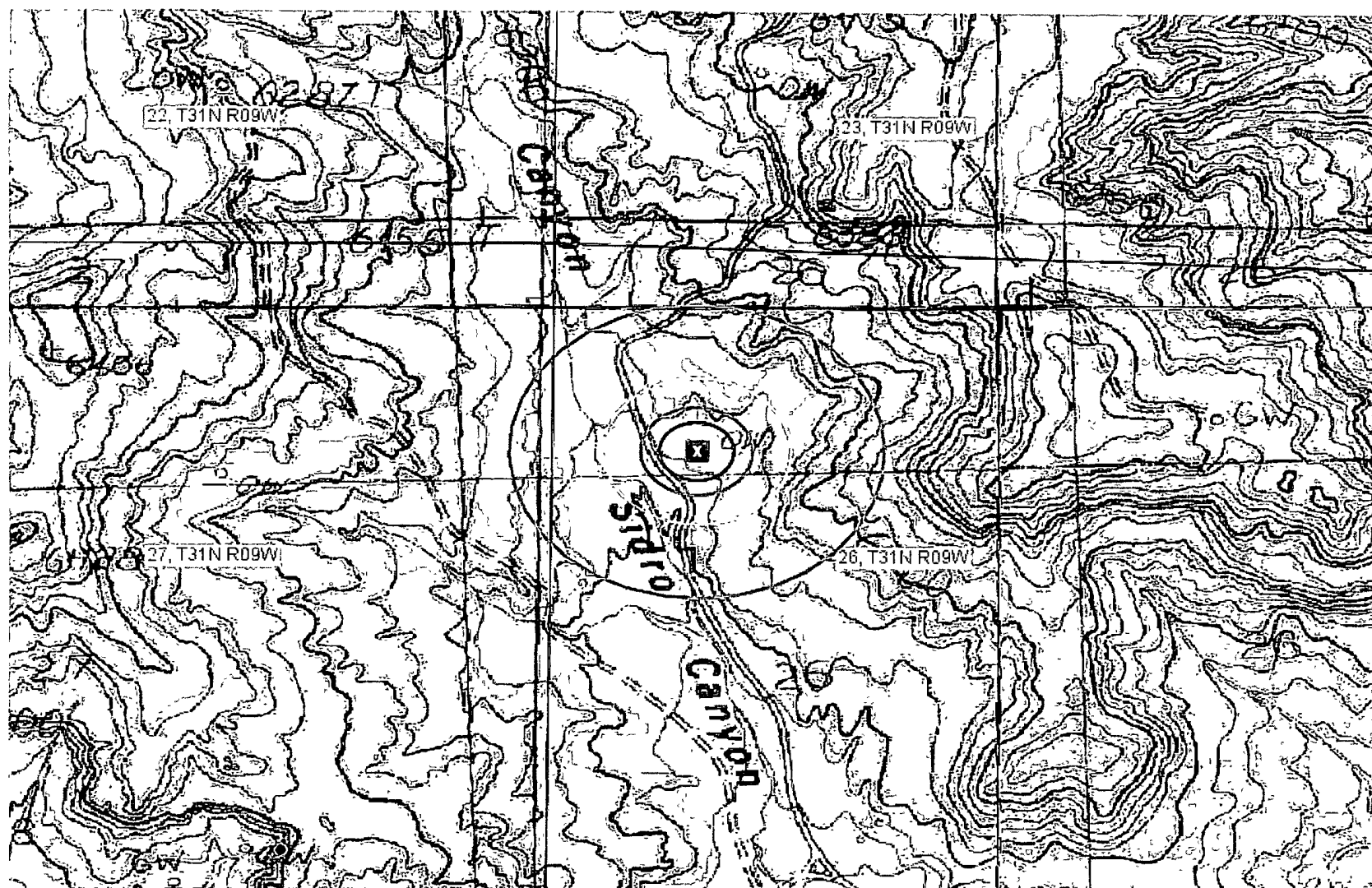
(See other in-  
structions on  
reverse side)Form approved.  
Budget Bureau No. 42-R355.5.

## WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> DRY <input type="checkbox"/> Other <input type="checkbox"/>				7. UNIT AGREEMENT NAME							
b. TYPE OF COMPLETION: NEW WELL <input checked="" type="checkbox"/> WORK OVER <input type="checkbox"/> DEEP-EN <input type="checkbox"/> PLUG BACK <input type="checkbox"/> DIFF. RESVR. <input type="checkbox"/> Other <input type="checkbox"/>				8. FARM OR LEASE NAME <b>Hunsaker</b>							
2. NAME OF OPERATOR <b>Southern Union Production Company</b>				9. WELL NO. <b>1-A</b>							
3. ADDRESS OF OPERATOR <b>P. O. Box 808, Farmington, New Mexico 87401</b>				10. FIELD AND POOL, OR WILDCAT <b>Blanco Mesavieja</b>							
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)* At surface <b>1460 ft. from the North line &amp; 960 ft. from the West line</b> At top prod. interval reported below <b>Same as above</b> At total depth <b>Same as above</b>				11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA <b>Sec. 26, T-31N, R-9W, N.M.P.M.</b>							
15. DATE SPUDDED <b>5/6/75</b>				16. DATE T.D. REACHED <b>5/14/75</b>		17. DATE COMPL. (Ready to prod.) <b>6/2/75</b>		18. ELEVATIONS (DF, RKB, RT, GR, ETC.)* <b>6127 Ft. Gr.</b>		19. ELEV. CASINGHEAD <b>6127 ft.</b>	
20. TOTAL DEPTH, MD & TVD <b>5400 ft. RKB</b>		21. PLUG, BACK T.D., MD & TVD <b>5339 ft. RKB</b>		22. IF MULTIPLE COMPL., HOW MANY*		23. INTERVALS DRILLED BY <b>0-5400 ft.</b>		ROTARY TOOLS		CABLE TOOLS	
24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)* <b>4741-4852 ft. MD &amp; TVD - Cliff House</b> <b>5186-5296 ft. MD &amp; TVD - Point Lookout</b>										25. WAS DIRECTIONAL SURVEY MADE <b>No</b>	
26. TYPE ELECTRIC AND OTHER LOGS RUN <b>ILS, Density, Cement Bond, Correlation Logs</b>										27. WAS WELL CORED <b>No</b>	
28. CASING RECORD (Report all strings set in well)											
CASING SIZE		WEIGHT, LB./FT.		DEPTH SET (MD)		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED	
10-3/4"		30.0#		239° RKB		13-3/4"		175 sacks		1975 ft.	
7"		23.0#		3169° RKB		9-7/8"		501 sacks		None	
29. LINER RECORD											
SIZE		TOP (MD)		BOTTOM (MD)		SACKS CEMENT*		SCREEN (MD)		PACKER SET (MD)	
4 1/2", 10.5#		3011 Ft.		5399 Ft.		272 Sks.				None	
30. TUBING RECORD											
SIZE		DEPTH SET (MD)		PACKER SET (MD)							
2-1/16"		4741 Ft.		None							
31. PERFORATION RECORD (Interval, size and number)											
Cliff House: 1 shot/ft. 4741-4746 ft., 4798-4852 ft. Total of 60 holes. Point Lookout: 1 shot/ft. 5186-5216 ft. 5226-5232 ft., 5278-5296 ft. Total of 54 holes.											
32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.											
DEPTH INTERVAL (MD)						AMOUNT AND KIND OF MATERIAL USED					
4741 - 4852						60,000# sand & 63,000 gals water					
5186 - 5296						60,000# sand & 63,000 gals water					
33. PRODUCTION											
DATE FIRST PRODUCTION		PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)						WELL STATUS (Producing or shut-in)			
6/11/75		Flowing						Shut-in			
DATE OF TEST		HOURS TESTED		CHOKE SIZE		PROD. FOR TEST PERIOD		OIL—BBL.		GAS—MCF.	
6/11/75		3		3 1/4"				252		252	
FLOW. TUBING PRESS.		CASING PRESSURE		CALCULATED 24-HOUR RATE		OIL—BBL.		GAS—MCF.		WATER—BBL.	
158		523				2016					
34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)										TEST WITNESSED BY <b>Kenneth K. Roddy</b>	
35. LIST OF ATTACHMENTS <b>None</b>											
36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records											
SIGNED		Original signed by <b>Don R. Collier</b>				TITLE <b>Office Manager</b>		DATE <b>June 12, 1975</b>			

**Don R. Collier**

(See Instructions and Spaces for Additional Data on Reverse Side)



Petroleum Recovery  
Research Center

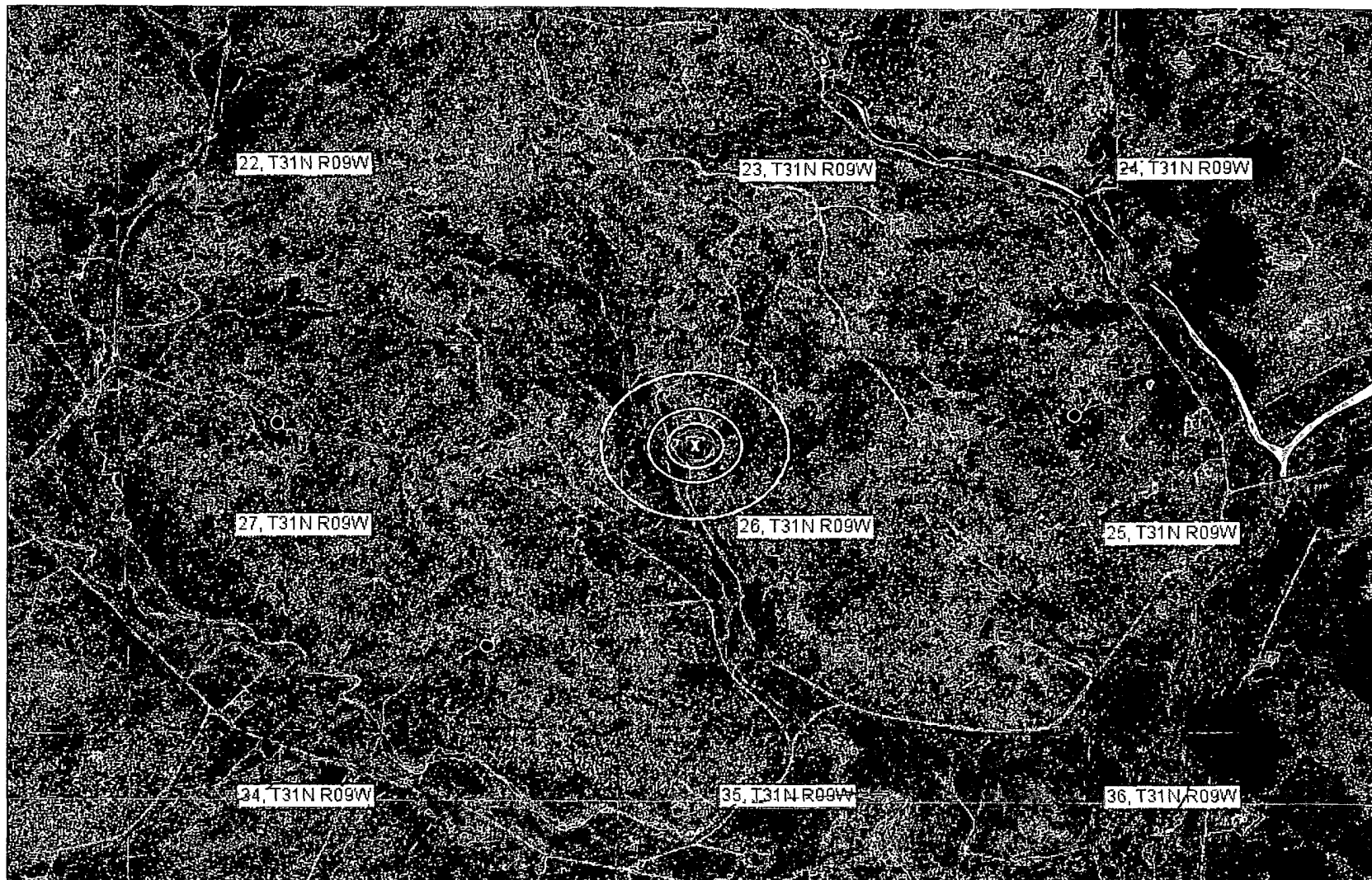
TOPO - HUNSAKER 725 S

Figure: 01

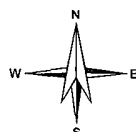
E-Sec 26, 31N, 09W

Nov 26, 2011

API 30-045-32526



0 1000 2000ft



Petroleum Recovery  
Research Center

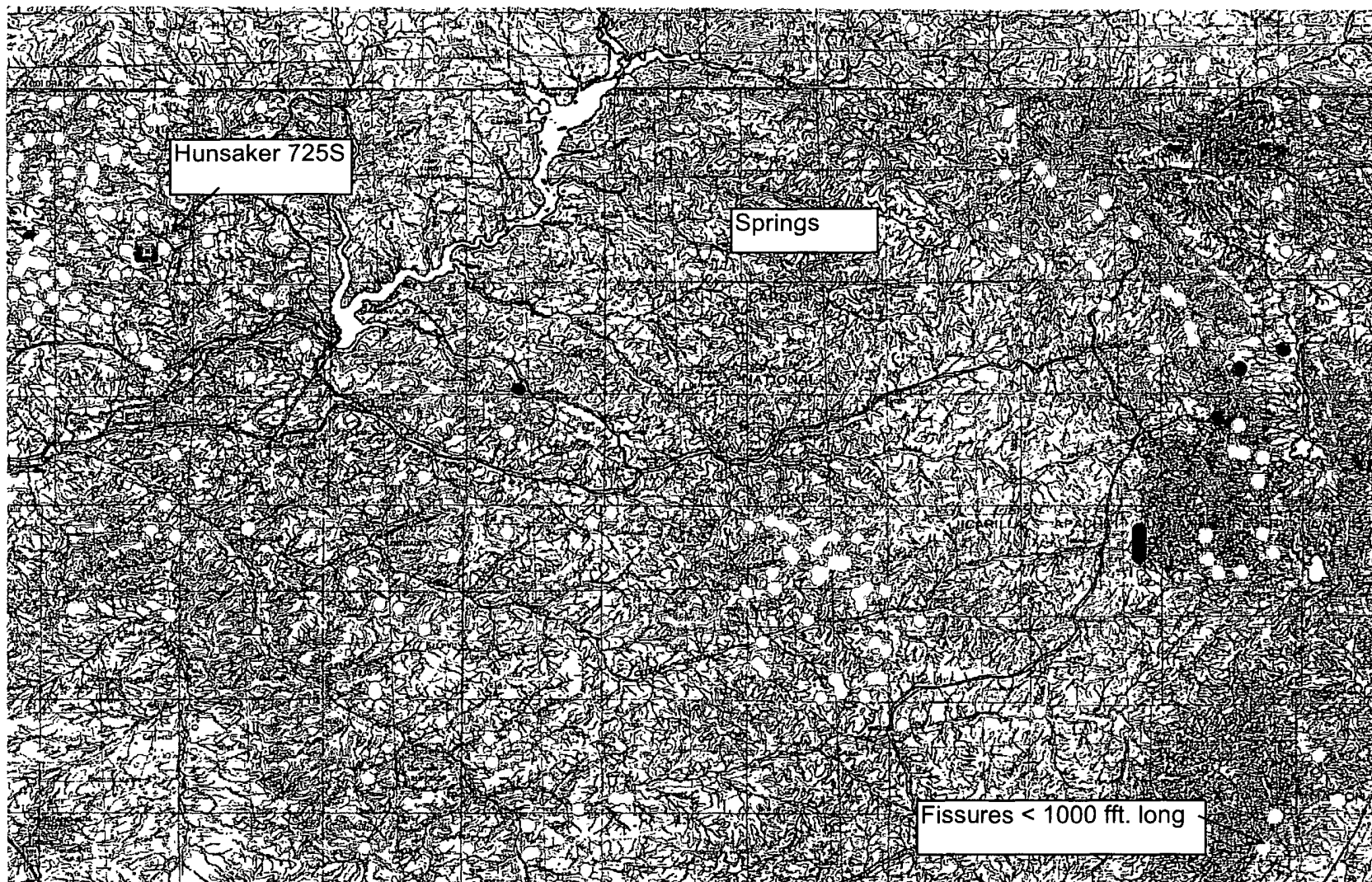
AERIAL - HUNSAKER 725 S

Figure: 03

E-Sec 26, 31N, 09W

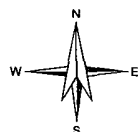
Nov 26, 2011

API 30-045-32526



Distance (ft): 200 300 500 1000

0 5 10mi



Petroleum Recovery  
Research Center

KARST - HUNSAKER 725 S

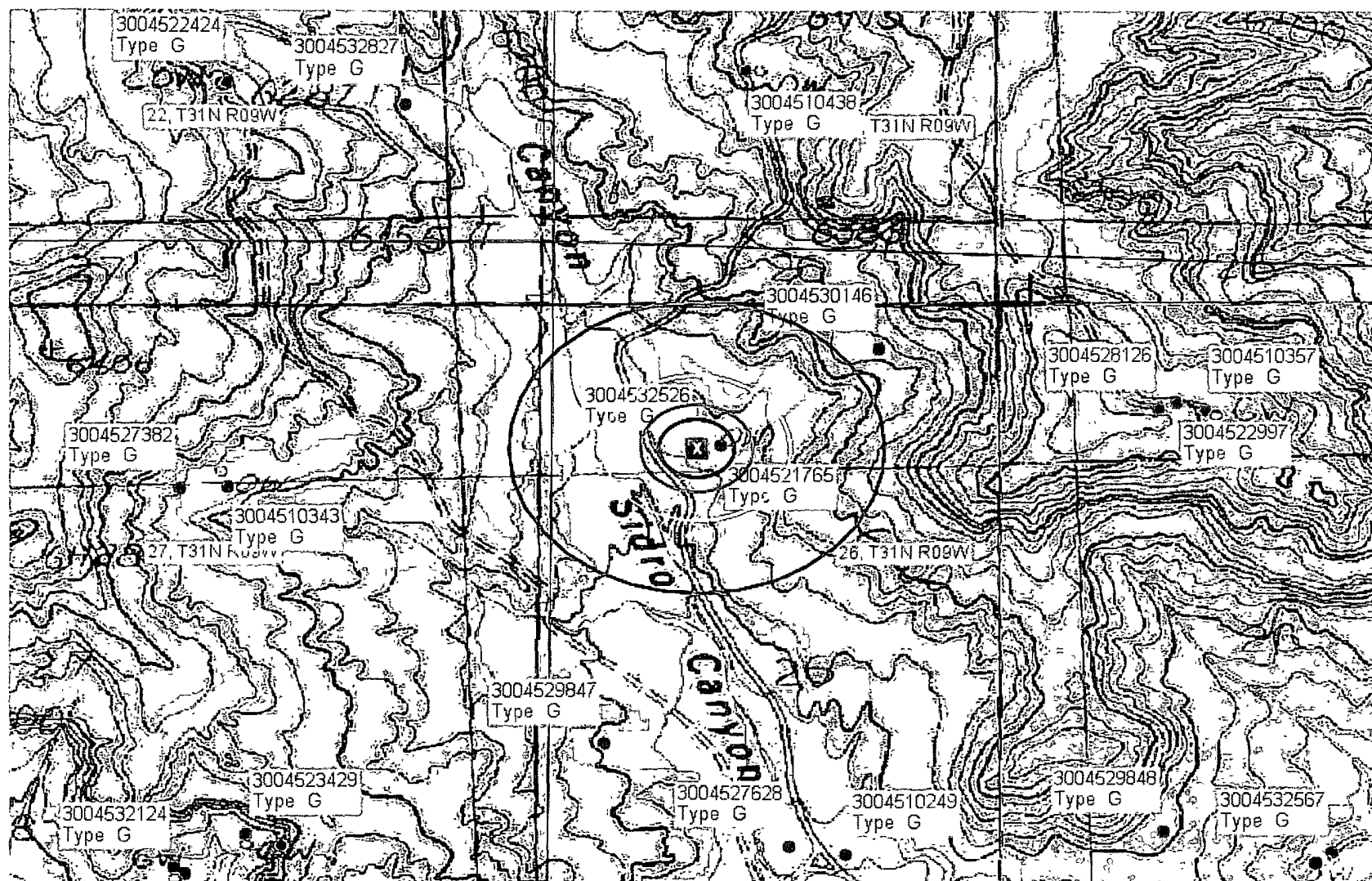
Figure: 03

E-Sec 26, 31N, 09W

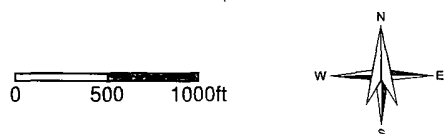
Nov 26, 2011

API 30-045-32526





**Distance (ft):** ☐ 200 ☐ 300 ☒ 500 ☐ 1000



Petroleum Recovery  
Research Center

Offset Gas Wells - HUNSAKER 725S

Figure: 02A

UL E, SEC 26, 21N, 09W

Dec 20, 2011

API 30-045-32526