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

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MAR 09 2011
HOBBSOCD

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.

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: SWEPI LP OGRID #: 250036
Address: P.O. Box 567, Houston, TX 77001 (Local contact: Shell Exploration & Production Co. 4582 S. Ulster St. Pkwy., Suite 1400, Denver, CO 80237).
Facility or well name: ~~Stovall 1-13~~ Terry & Pamela Stovall Partnership 13 #1
API Number: 30-009-20022 OCD Permit Number: P1-03033
U/L or Qtr/Qtr B Section 13 Township 8N Range 53E County: Curry
Center of Proposed Design: Latitude 34.920650 Longitude 103.184706 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
CONFIDENTIAL
Temporary: ☐ Drilling ☒ Temporary Completions ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness 20 mil ☐ LLDPE ☒ HDPE ☐ PVC ☐ Other
☒ String-Reinforced
Liner Seams: ☒ Welded ☐ Factory ☐ Other Volume: 37,180 bbl Dimensions: L 225ft x W 110ft x D 14ft .

3.
☒ **Closed-loop System:** Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☒ Haul-off Bins ☐ Other
☐ Lined ☐ Unlined Liner type: Thickness mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other
Liner Seams: ☐ Welded ☐ Factory ☐ Other

4.
☐ **Below-grade tank:** Subsection I of 19.15.17.11 NMAC
Volume: bbl Type of fluid:
Tank Construction material:
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other
Liner type: Thickness mil ☐ 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.

11.
Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
- ☒ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
- ☒ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12.
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
- ☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
- ☒ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
- ☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
- ☒ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ *(Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)*

13.
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_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

14.
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 ☒ Temporary Completions

Proposed Closure Method:
- ☒ Waste Excavation and Removal (Temporary Completions Pit)
- ☒ 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)

15.
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

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): Michael L. Bergstrom Title: Senior Regulatory Advisor

Signature: Michael L Bergstrom Date: 3/4/2014

e-mail address: Michael.Bergstrom@shell.com Telephone: (303) 222-6347

20.
OCD Approval: ☐ Permit Application (including closure plan) ☐ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: _____ **Approval Date:** _____

Title: _____ **OCD Permit Number:** P1-03023

21.
Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

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

☐ **Closure Completion Date:** _____

22.
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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23.
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

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

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

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

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ 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

24.
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

25.
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: _____

SWEPI, LP Stovall 1-13, Section 13; Twp 8N; Rng 35E, Curry County, NM
Responses for FORM C-144 Section 10

GROUNDWATER

A search was conducted for recorded wells, in Twp 8N; Rng 35E, Curry County, NM, in the iWATERS on-line data base maintained by the New Mexico Office of the State Engineer. Six wells were identified in the search area but none of them are located in Section 13 and the nearest recorded well is located approximately 1.3 miles to the southeast. Well records from iWATERS indicate that each of these wells is screened in excess of 150 feet below ground level. Groundwater is, therefore, at least 150 feet below the bottom of the proposed temporary completion pit. In addition, a field reconnaissance conducted by Mr. David Janney of AMEC on February 14, 2011, identified three residences located between 1,700 and 4,000 feet of the proposed Stovall 1-13 gas exploration well. While water wells at these residences are not recorded in iWATERS, there are to be unrecorded stock and/or domestic wells at each of these locations. The construction details of these likely wells are not known. A copy of the iWATERS search results for Twp 8N; Rng 35E is included as Attachment 1.0.

SURFACE WATER

A review was conducted of the USGS 7.5 minute topographic quadrangle maps for Gato to assess the distance to the nearest continuously flowing stream. None were identified from the review. Buffalo Lake, however is an ephemeral playa, the center of which is located approximately 3,000 feet northwest of the proposed gas well location. In addition, a field reconnaissance was conducted by Mr. David Janney of AMEC on February 14, 2011. No continuously flowing streams we identified with 300 feet of the proposed well location. A copy of the topographic map showing Buffalo Lake and verification certificate of siting are included as Attachments 2.0 and 2.1.

RESIDENCES OR INSTITUTIONS

A review was conducted on a Google Earth aerial photographic image of the area to assess the distance to the nearest residence. No residences were identified within 300 feet of the proposed drilling location. A copy of the Google Earth image showing the area within 1,700 feet of the proposed well location is included as Attachment 3.0.

MUNICIPAL BOUNDARIES

A review was conducted on a Google Earth aerial photographic image of the area to assess the distance to the nearest municipal boundary or municipal fresh water well field. The nearest unincorporated municipality is Grady, New Mexico which is located approximately 10 miles to the southwest. In addition, a field reconnaissance was conducted by Mr. David Janney of AMEC on February 14, 2011. No municipalities were identified within more than 10 miles of the proposed well location. A copy of the verification certificate is included as Attachment 2.1.

WETLANDS

A search was conducted of the US Fish and Wildlife Wetland Identification Map on-line system. No wetlands were identified within 500 feet of the proposed drill location. In addition, a field reconnaissance was conducted by Mr. David Janney of AMEC on February 14, 2011. No wetlands we identified with 500 feet of the proposed drill location. A copy of the US Fish and Wildlife wetlands search page and the verification certificate are included as Attachments 4.0 and 2.1.

New Mexico Office of the State Engineer

Point of Diversion by Location

(with Owner Information)

(acre ft per annum) (quarters are 1=NW 2=NE 3=SW 4=SE) (quarters are smallest to largest) (NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Grant	Source	q q q 64 16 4	Sec	Tws	Rng	X	Y
CC 01212		STK	0	HARRY D. COOPER	CU	CC 01212			4 4 4	34	08N	35E	663130	3859604*
CC 01490		STK	3	ROY FORD	CU	CC 01490		Shallow	1 1 3	23	08N	35E	663281	3863436*
CC 01890		STK	3	STAN FURY	CU	CC 01890		Shallow	4 2 2	21	08N	35E	661558	3863965
CC 02108		STK	3	C J BLACKBURN	CU	CC 02108 POD1		Shallow	4 4 2	11	08N	35E	664683	3866801
CC 02151		STK	3	BEVERLY NITZ	CU	CC 02151 POD1		Shallow	2 4 2	24	08N	35E	666333	3863835
CC 02167		STK	3	KELLY BONEY	CU	CC 02167 POD1			3 3 3	03	08N	35E	661620	3867584

Record Count: 6

PLSS Search:

Township: 08N **Range:** 35E

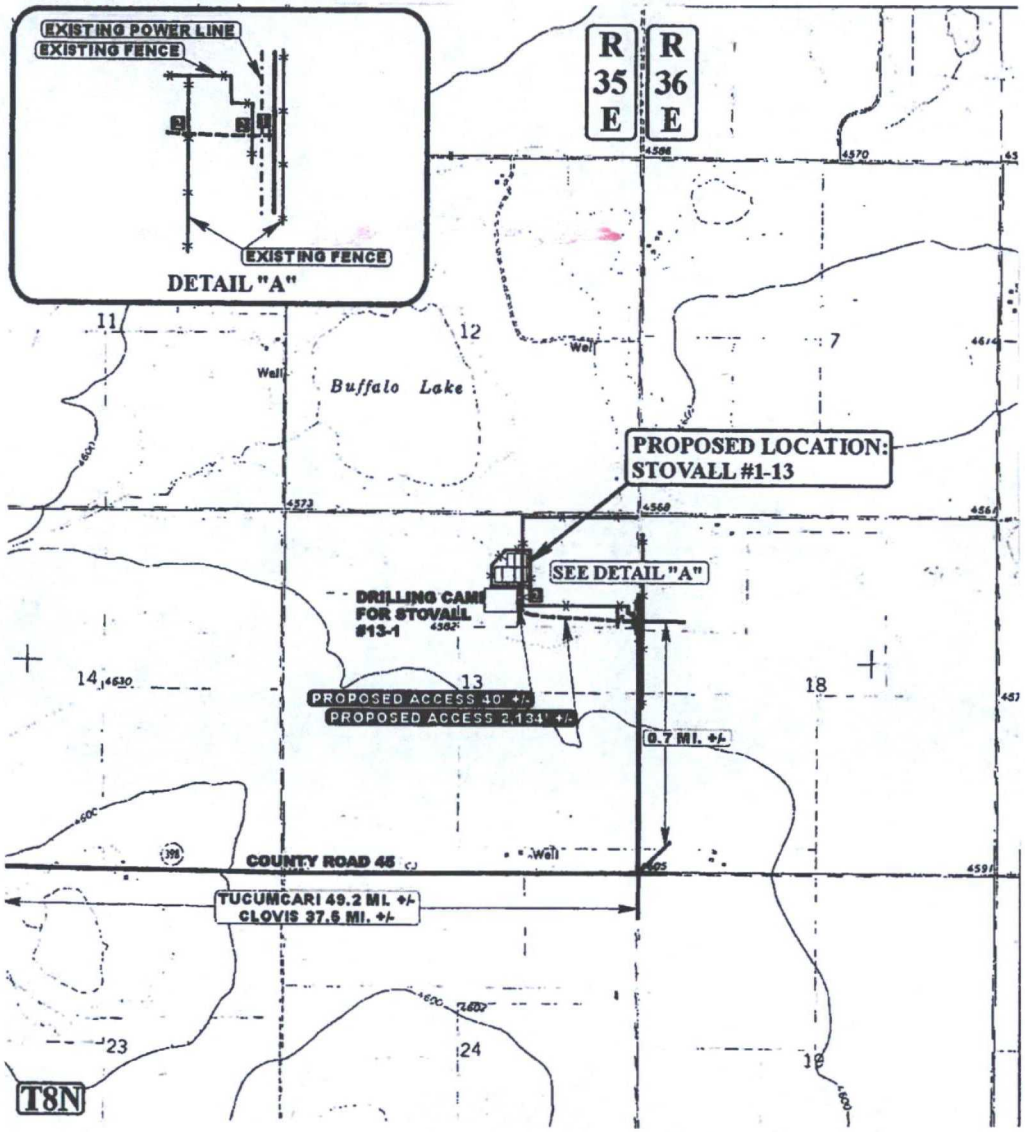
Sorted by: File Number

*UTM location was derived from PLSS - see Help

CONFIDENTIAL

CLIENT LOGO	CLIENT: SWEPI LP	DWN BY: RLR/JR CHKD BY: JR DATUM: N/A PROJECTION: N/A SCALE: N/A	PROJECT: STOVALL 1-13 GAS EXPLORATION WELL CURRY COUNTY, NEW MEXICO TITLE: IWATERS DATA BASE SEARCH TOWNSHIP 8 NORTH RANGE 35 EAST	REV NO.: - DATE: 03/04/2011 PROJECT NO.: HQ10160270 ATTACHMENT 1.0

AMEC Earth & Environmental
8519 Jefferson, NE
Albuquerque, New Mexico 87113



CONFIDENTIAL

CLIENT LOGO	CLIENT: SWEPI LP	DWN BY: RLRJR	PROJECT: STOVALL 1-13 GAS EXPLORATION WELL CURRY COUNTY, NEW MEXICO	REV NO.: -
		CHKD BY: JR		DATE: 03/04/2011
AMEC Earth & Environmental 8519 Jefferson, NE Albuquerque, New Mexico 87113	amec	DATUM: N/A PROJECTION: N/A SCALE: N/A	TITLE: TOPOGRAPHIC MAP SHOWING BUFFALO LAKE TOWNSHIP 8 NORTH RANGE 35 EAST	PROJECT NO.: HO10160270 ATTACHMENT 2.0

ATTACHEMENT 2.1

Certification of Siting Criteria, Stovall 1-13 Gas Well, Sec 13; Twp 8N; Rng 35E, Curry County, New Mexico

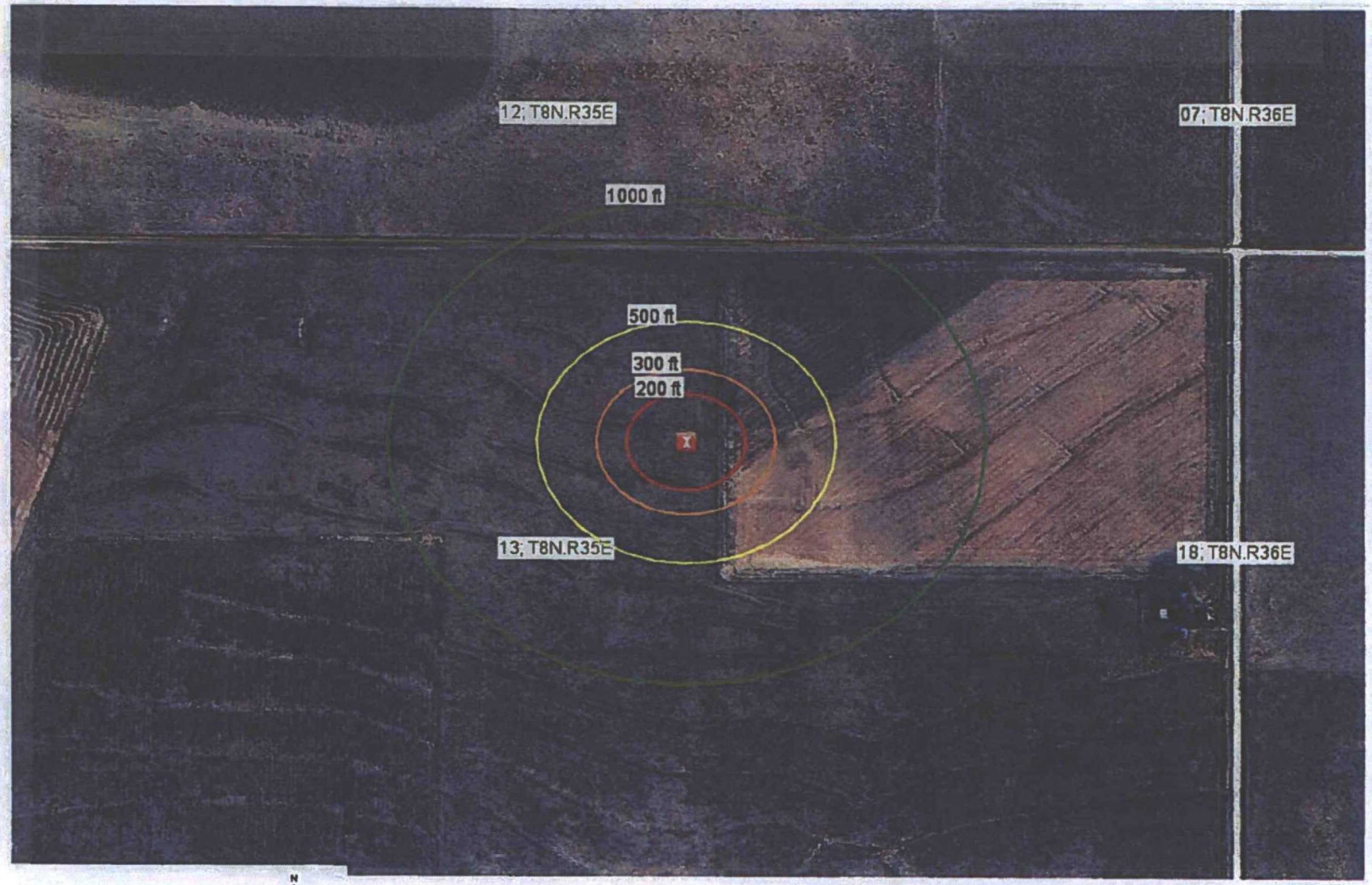
I, David Janney, have performed a site visit and visual inspection to look for the presence of continuously flowing watercourses, lakebeds, playa lakes, sink holes, residences, schools, hospitals, churches, evidence of underground mines, water wells, institutions, and incorporated municipal boundaries within the specified distances (listed below) of the proposed gas well location in Section 13, Township 8 North, Range 35 East, Curry County, New Mexico. I did not observe any of these features within the proposed well area or within the distances indicated in the items listed below (items i. through v.). Drilling will not take place within any of the restricted distances.

David Janney
David Janney
Senior Geologist

CONFIDENTIAL

2-14-2011
Date

i. ***Within 200 feet of a continuously flowing watercourse, lakebed, sinkhole, or playa lake;***
ii. ***Within 500 feet of a private domestic fresh water well or spring;***
iii. ***Within, or within 500 feet of, a wetland;***
iv. ***Within the area overlying a subsurface mine;***
v. ***Within 300 feet from the nearest permanent residence, school, hospital, institution or church; or.***
vi. ***Within an incorporated municipality or municipal fresh water well field.***



CLIENT LOGO	CLIENT: SWEPI LP	DWN BY: RLR/JR	PROJECT: STOVALL 1-13 GAS EXPLORATION WELL CURRY COUNTY, NEW MEXICO	REV NO.: -
		CHKD BY: JR		DATE: 03/04/2011
AMEC Earth & Environmental 8519 Jefferson, NE Albuquerque, New Mexico 87113	amec	DATUM: N/A PROJECTION: N/A SCALE: N/A	TITLE: NEW MEXICO PRRC RESIDENCES WITHIN 1,000 FEET SEARCH TOWNSHIP 8 NORTH RANGE 35 EAST	PROJECT NO.: HO10160270 ATTACHMENT: 3.0

U.S. Fish and Wildlife Service

National Wetlands Inventory

WETLANDS NEAR SOVALL 1-13

Mar 4, 2011

Wetlands

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

CONFIDENTIAL

User Remarks:

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

CLIENT LOGO	CLIENT: SWEPI LP	DWN BY: RLRJR CHKD BY: JR DATUM: N/A PROJECTION: N/A SCALE: N/A	PROJECT: STOVALL 1-13 GAS EXPLORATION WELL CURRY COUNTY, NEW MEXICO TITLE: US FISH AND WILDLIFE WETLANDS SEARCH RESULTS TOWNSHIP 8 NORTH RANGE 35 EAST	REV NO.: – DATE: 03/04/2011 PROJECT NO.: HO10160270 ATTACHMENT 4.0
AMEC Earth & Environmental 8519 Jefferson, NE Albuquerque, New Mexico 87113	amec			

RE Subsurface Mines Check.txt

From: Tompson, Mike, EMNRD [Mike.Tompson@state.nm.us]
Sent: Friday, March 04, 2011 9:13 AM
To: Janney, David
Subject: RE: Subsurface Mines Check

David,

We haven't started the Cerrillos project yet. We are dealing with some contractual issues. Hope to
get through that soon.

The Abandoned Mine Land Program knows of no abandoned mines in the section you described.

Hope all is well with you as well.

Mike Tompson

From: Janney, David [mailto:david.janney@amec.com]
Sent: Thursday, March 03, 2011 6:04 PM
To: Tompson, Mike, EMNRD
Subject: RE: Subsurface Mines Check

Greetings Mike:

I hope you are doing well.

Is the Cerrillos project about to kickoff?

I need a favor from you if you have the time. If not, can you please direct me to someone who can help
me?

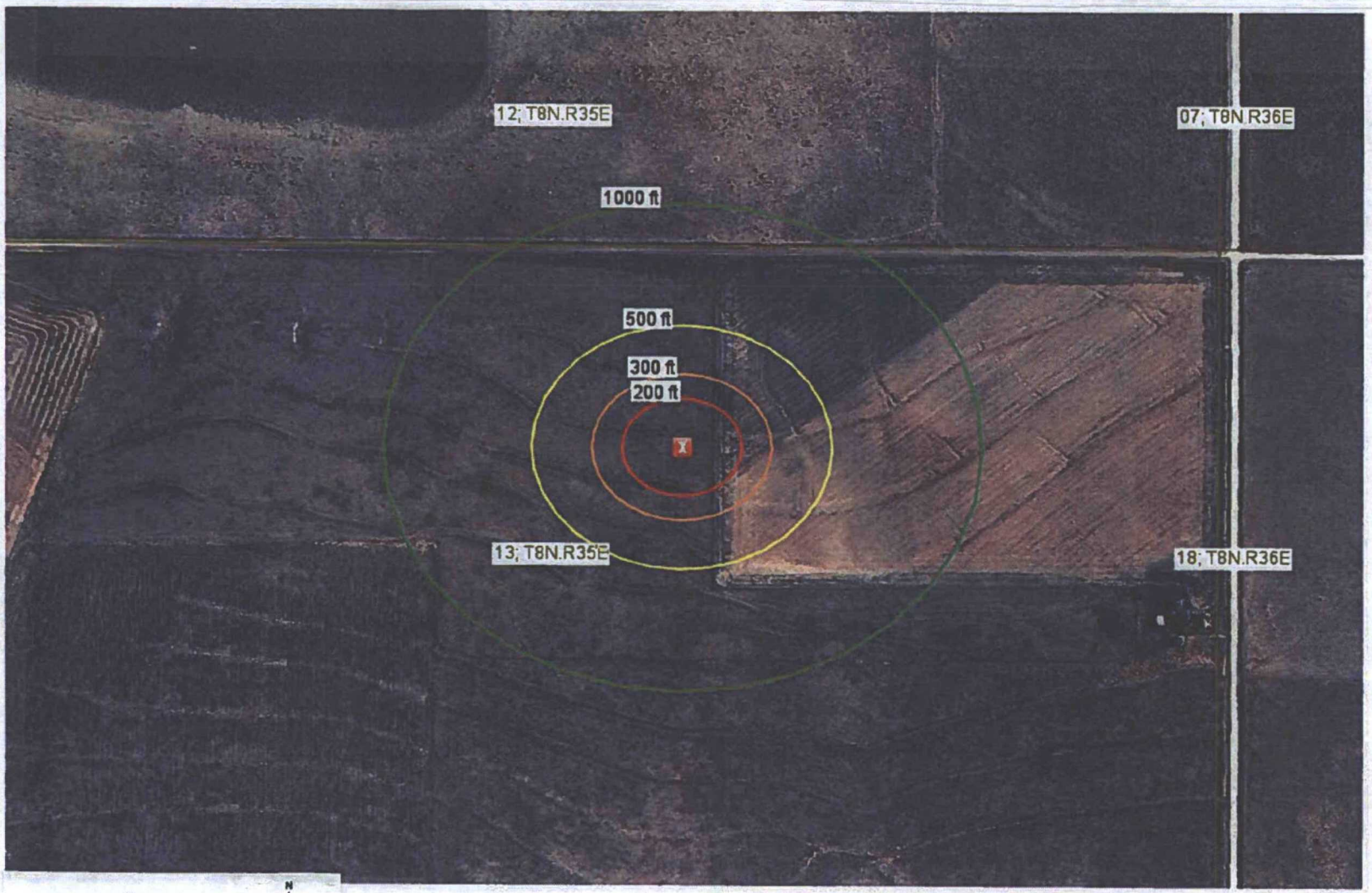
I need to confirm that there are no subsurface mines in Sec 13, Twp 8N, Range 35E in Curry County, just
northeast of Grady. I did the search on the PRRC data base and none appeared in the Section. Can you
please confirm that your records also indicate there are no mines in the Section? I have attached the
figure I downloaded from the PRRC database.

Sincerely,

David Janney

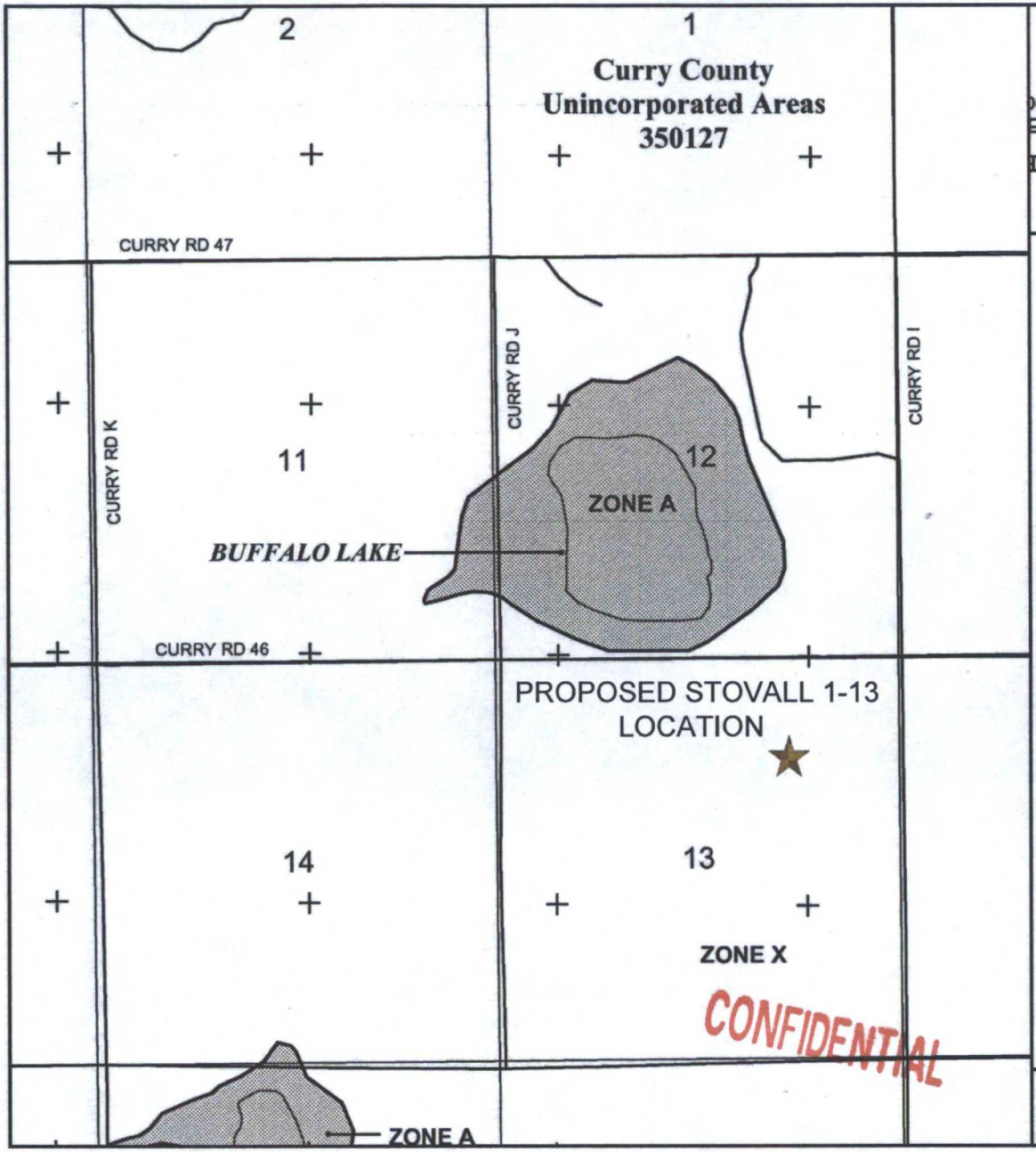
CONFIDENTIAL

CLIENT LOGO	CLIENT: SWEPI LP	DWN BY: RLR/JR CHKD BY: JR DATUM: N/A PROJECTION: N/A SCALE: N/A	PROJECT: STOVALL 1-13 GAS EXPLORATION WELL CURRY COUNTY, NEW MEXICO	REV NO.: - DATE: 03/04/2011
AMEC Earth & Environmental 8519 Jefferson, NE Albuquerque, New Mexico 87113	amec		TITLE: EMNRD NO SUBSURFACE ABANDONED MINE CONFIRMATION TOWNSHIP 8 NORTH RANGE 35 EAST	PROJECT NO.: HO10160270 ATTACHMENT: 5.0



CONFIDENTIAL

CLIENT LOGO	CLIENT: SWEPI LP	DWN BY: RLR/JR CHKD BY: JR DATUM: N/A PROJECTION: N/A SCALE: N/A	PROJECT: STOVALL 1-13 GAS EXPLORATION WELL CURRY COUNTY, NEW MEXICO	REV NO.: - DATE: 03/04/2011 PROJECT NO.: HO10160270 ATTACHMENT: 6.0
AMEC Earth & Environmental 8519 Jefferson, NE Albuquerque, New Mexico 87113	amec		TITLE: NEW MEXICO PRRC MINES SEARCH TOWNSHIP 8 NORTH RANGE 35 EAST	



MAP SCALE 1" = 2000'

0 2000 4000 FEET

0 600 1200 METERS

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0050D

FIRM

FLOOD INSURANCE RATE MAP

CURRY COUNTY, NEW MEXICO AND INCORPORATED AREAS

PANEL 50 OF 775

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CURRY COUNTY, UNINCORPORATED AREAS	350127	0050	D

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
35009C0050D

EFFECTIVE DATE
AUGUST 5, 2010

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

CLIENT LOGO	CLIENT: SWEPI LP	DWN BY: RLRJR	PROJECT: STOVALL 1-13 GAS EXPLORATION WELL CURRY COUNTY, NEW MEXICO	REV NO.: –	
		CHKD BY: JR		DATE: 03/04/2011	
AMEC Earth & Environmental 8519 Jefferson, NE Albuquerque, New Mexico 87113	amec	DATUM: N/A PROJECTION: N/A SCALE: N/A	TITLE: FEMA FLOOD PLAIN SEARCH RESULTS TOWNSHIP 8 NORTH RANGE 35 EAST	PROJECT NO.: HO10160270	ATTACHMENT 7.0a

LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V, and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

ZONE A	No Base Flood Elevations determined.
ZONE AE	Base Flood Elevations determined.
ZONE AH	Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
ZONE AO	Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
ZONE AR	Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
ZONE A99	Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
ZONE V	Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
ZONE VE	Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

ZONE X Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

flood.

OTHER AREAS

ZONE X Areas determined to be outside the 0.2% annual chance floodplain.
ZONE D Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D Boundary
- CBRS and OPA Boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 (EL 987) — Base Flood Elevation line and value; elevation in feet*; Base Flood Elevation value where uniform within zone; elevation in feet*

*Referenced to the North American Vertical Datum of 1988

- A — A: Cross section line
- 23 — 23: Transect line
- 97° 07' 30", 32° 22' 30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4276000m E — 1000-meter Universal Transverse Mercator grid values, zone 13
- 600000 FT — 5000-foot grid ticks: New Mexico State Plane coordinate system, East Zone (FIPSZONE 3001), Transverse Mercator projection
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index.

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
AUGUST 5, 2010

EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

CLIENT LOGO	CLIENT: SWEPI LP	DWN BY: RLRJR	PROJECT: STOVALL 1-13 GAS EXPLORATION WELL, CURRY COUNTY, NEW MEXICO	REV NO.: -
		CHKD BY: JR		DATE: 03/04/2011
AMEC Earth & Environmental, 8519 Jefferson, NE, Albuquerque, New Mexico 87113	amec	DATUM: N/A	TITLE: FEMA FLOOD PLAIN SEARCH RESULTS, TOWNSHIP 8 NORTH RANGE 35 EAST	PROJECT NO.: HO1016070
		PROJECTION: N/A		ATTACHMENT: 7.0b
		SCALE: N/A		