

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
 - Engineering Bureau -  
 1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

- [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
- [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
- [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
- [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
- [SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
- [EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

[1] **TYPE OF APPLICATION - Check Those Which Apply for [A]**

- [A] Location - Spacing Unit - Simultaneous Dedication  
 NSL  NSP  SD

Check One Only for [B] or [C]

- [B] Commingling - Storage - Measurement  
 DHC  CTB  PLC  PC  OLS  OLM

- [C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
 WFX  PMX  SWD  IPI  EOR  PPR

- [D] Other: Specify \_\_\_\_\_

[2] **NOTIFICATION REQUIRED TO: - Check Those Which Apply, or  Does Not Apply**

- [A]  Working, Royalty or Overriding Royalty Interest Owners
- [B]  Offset Operators, Leaseholders or Surface Owner
- [C]  Application is One Which Requires Published Legal Notice
- [D]  Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office
- [E]  For all of the above, Proof of Notification or Publication is Attached, and/or,
- [F]  Waivers are Attached

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note:** Statement must be completed by an individual with managerial and/or supervisory capacity.

Print or Type Name \_\_\_\_\_ Signature \_\_\_\_\_ Title \_\_\_\_\_ Date \_\_\_\_\_  
 e-mail Address \_\_\_\_\_

# BURLINGTON RESOURCES

SAN JUAN DIVISION

10/4/05

Mr. Michael Stogner  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, New Mexico 87505

Re: Cain #100 - API # - 30-045-33117  
Unit N, 1145' FSL 7 1510' FWL,  
Section 30, T29N, R9W, San Juan County, New Mexico

Sent Federal Express

RECEIVED

OCT 5 2005

OIL CONSERVATION  
DIVISION

Dear Mr. Stogner

This is a request for administrative approval for a non-standard gas well location in the Basin Aztec Pictured Cliffs pool. The Cain 100 will be a Fruitland Coal and Aztec Pictured Cliffs commingled well. The well is staked standard for the Fruitland Coal formation.

The Cain #100 was staked at an unorthodox location due to terrain and endangered plants. Endangered plants (Brack's Cactus) and rugged terrain encompass the majority of the area within the legal spacing window for the Pictured Cliffs formation. The original staked location was 1705' FSL & 865' FWL (legal window), but during the onsite inspection with the BLM the endangered Brack's Cactus was found and the location had to be moved. As a result, no suitable location could be found within the window. Consequently, this location was staked non-standard for the Pictured Cliffs formation, to best fit the terrain and Endangered plants. Production from the Pictured Cliffs is included in the 182.16 acre gas spacing unit, the W/2 dedication of Section 30, T29N, R9W.

To comply with the New Mexico Oil Conservation Division rules, we are submitting the following for your approval of this non-standard location:

1. C102 plat showing location of the well
2. Topo Map
3. Aerial map
4. Plat showing offset owners/operators of the affected side to the section.
5. Affidavit of notification of offset owner/operators
6. Biological Survey Report prepared by Ecosphere for the BLM indicating the endangered plants (Brack's Cactus).

A copy of this application is being submitted to all offset owners/operators by certified mail with a request that they furnish your office in Santa Fe a Waiver of Objection and return one copy to this office.

Sincerely,



Joni Clark  
Sr. Regulatory Specialist

Re: Cain #100S  
Unit N, 11415' FSL & 1510' FWL,  
Section 30, T29N, R9W, San Juan County, New Mexico  
API - 30-45-33117

I hereby certify that the following offset owners/operators have been notified by certified mail of our application for administrative approval for non-standard well location of the above well.

XTO Energy Inc.  
810 Houston St Ste 2000  
Fort Worth, TX 76102-6298

ConocoPhillips Company  
Attn: Chief Landman  
P.O. Box 2197  
Houston, TX 77252-2197

Energen  
605 Richard Arrington Jr.  
Birmingham, AL 35203-2707

BP America Production Company  
Attn: Bryan Anderson OSO Engineer  
San Juan BU  
West Lake 1 Room 19-114  
501 Westlake Park Blvd.  
Houston, TX 77079

**Waiver**

\_\_\_\_\_ Hereby waives objection to Burlington Resource's application for non-standard location for the Cain #100 as proposed above.

By: \_\_\_\_\_ Date: \_\_\_\_\_

DISTRICT I  
1685 N. French Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

DISTRICT II  
611 South First, Artesia, N.M. 88210

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 8 Copies

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410

OIL CONSERVATION DIVISION  
2040 South Pacheco  
Santa Fe, NM 87505

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

RECEIVED  
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

OCT 5 2005

*API Number 30-045-33117		*Pool Code 71629/71280		*Pool Name Basin Fruitland Coal/ Aztec		*Well Name Pitudo Cliffs	
*Property Code 18487		*Property Name CAIN				*Well Number DIVISION 100	
*OGEID No. 14538		*Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP				*Elevation 5644'	

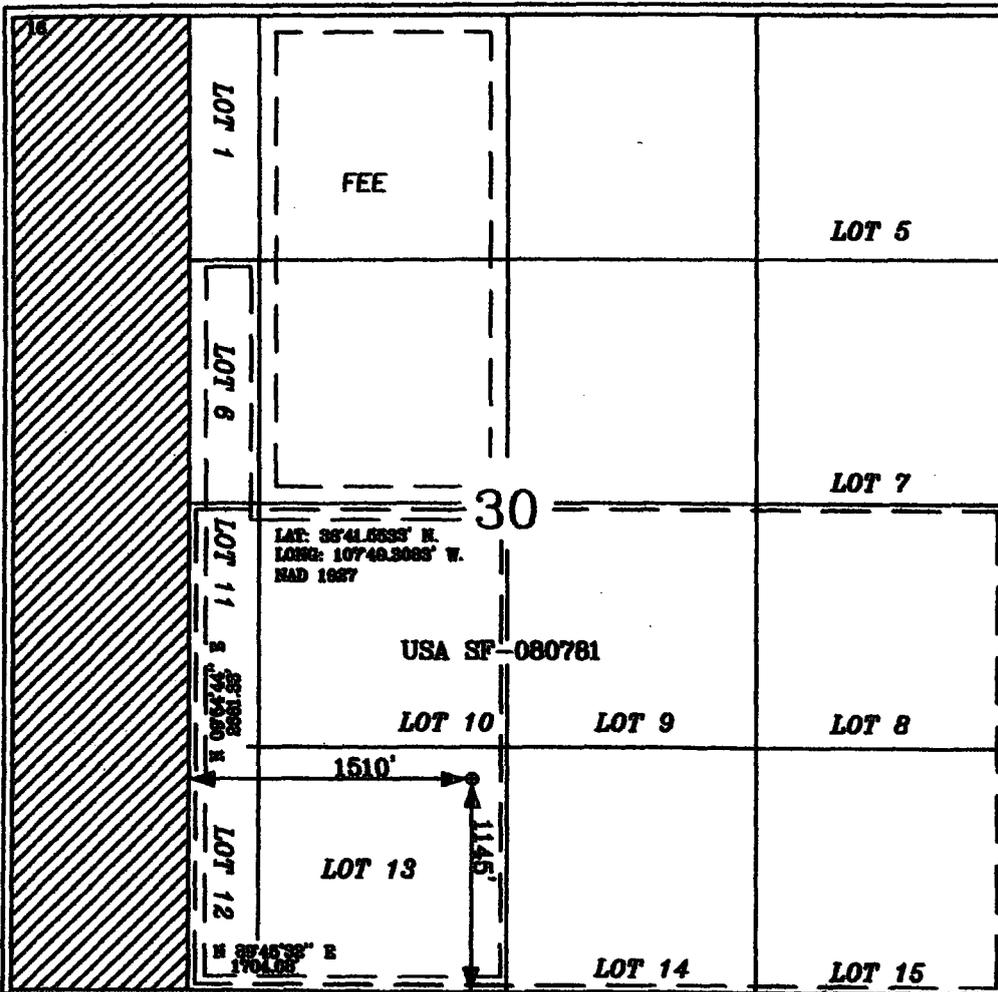
10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	30	29-N	9-W		1145'	SOUTH	1510'	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
*Dedicated Acres PC 182.16 FC 268.42 S2		*Joint or Infill Lots 6, 10, 13		*Consolidation Code		*Order No. R-3669 for PC NSP			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



17 OPERATOR CERTIFICATION

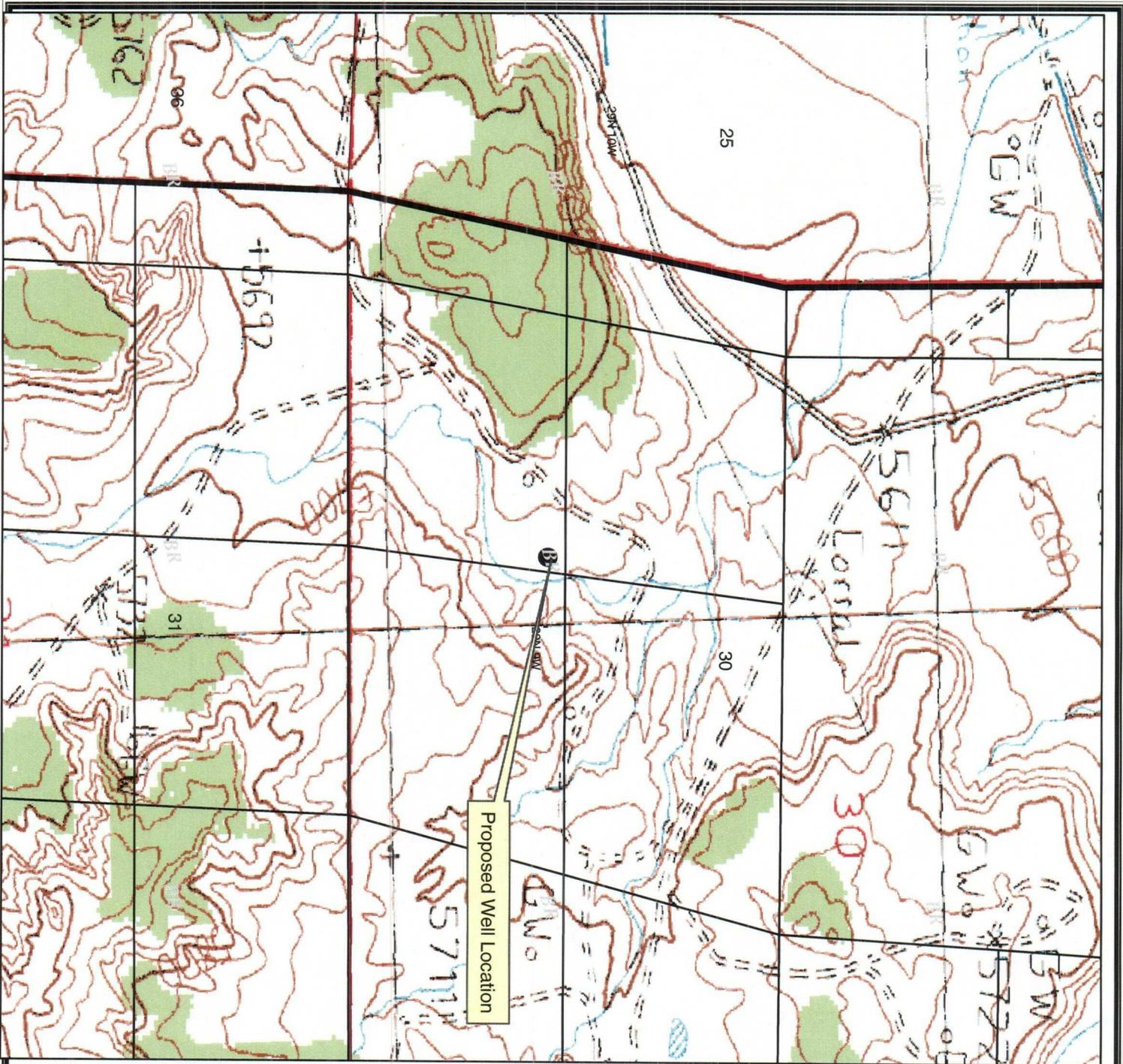
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*Amanda Sandoval*  
Signature  
Amanda Sandoval  
Printed Name  
Regulatory Assistant II  
Title  
7-13-05  
Date

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: 7-13-05  
Signature: *Glen W. Russell*  
GLEN W. RUSSELL  
NEW MEXICO  
15703  
LICENSED PROFESSIONAL SURVEYOR  
*Glen W. Russell*  
Certificate Number: 15703



Proposed Well Location

**BURLINGTON**  
RESOURCES



**PLAT**

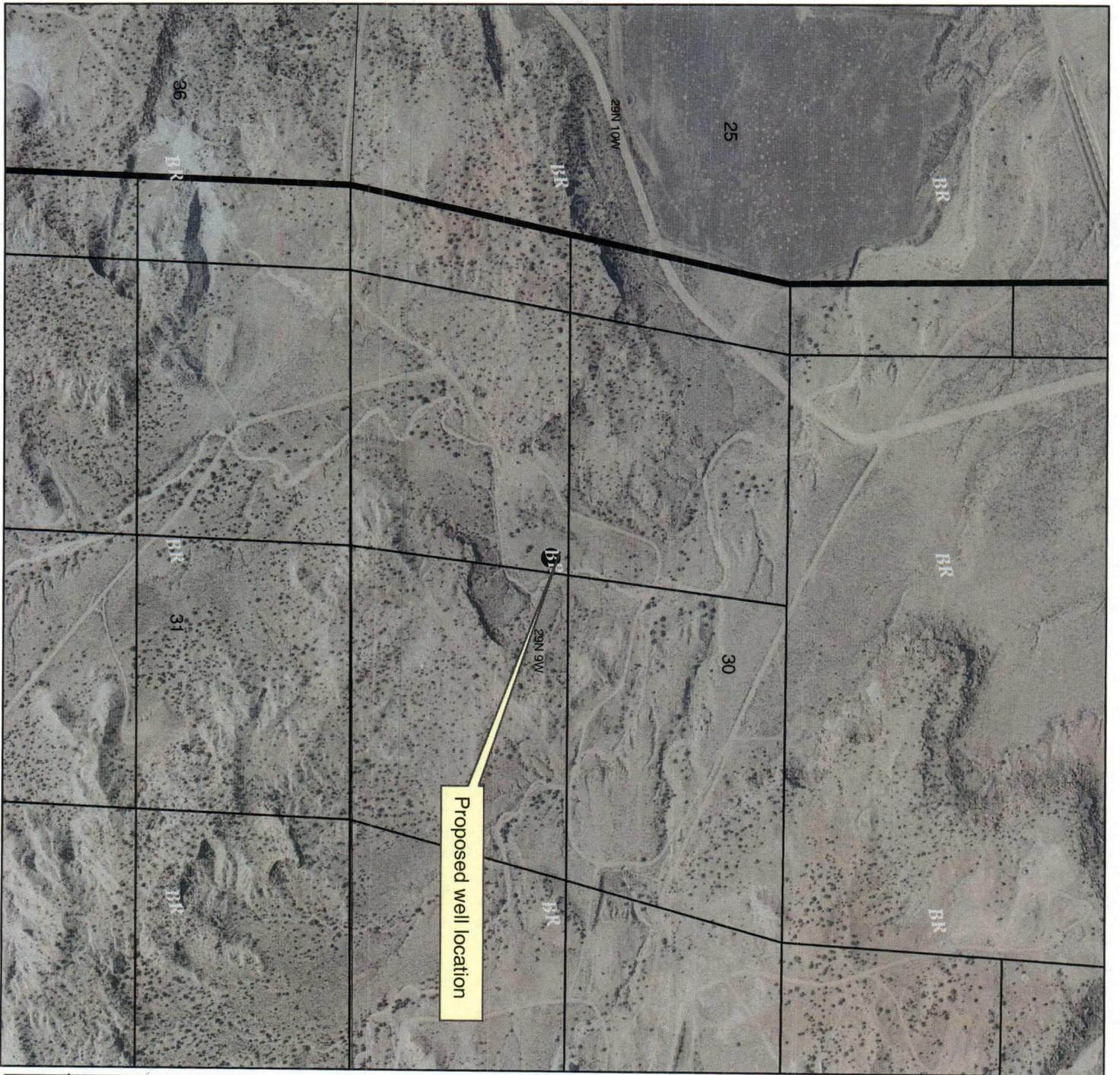


**BURLINGTON RESOURCES**  
*San Juan*

**Cain 100 NSL**

Sec. 30, T29N, R9W

Prepared By: dlc1 Date: 8/30/2005  
 File Number: Revised Date: 8/30/2005  
 File Name: E:\a\dlc1\Projects\28-6.dwg info\28-6.dwg info.mxd



**BURLINGTON**  
RESOURCES



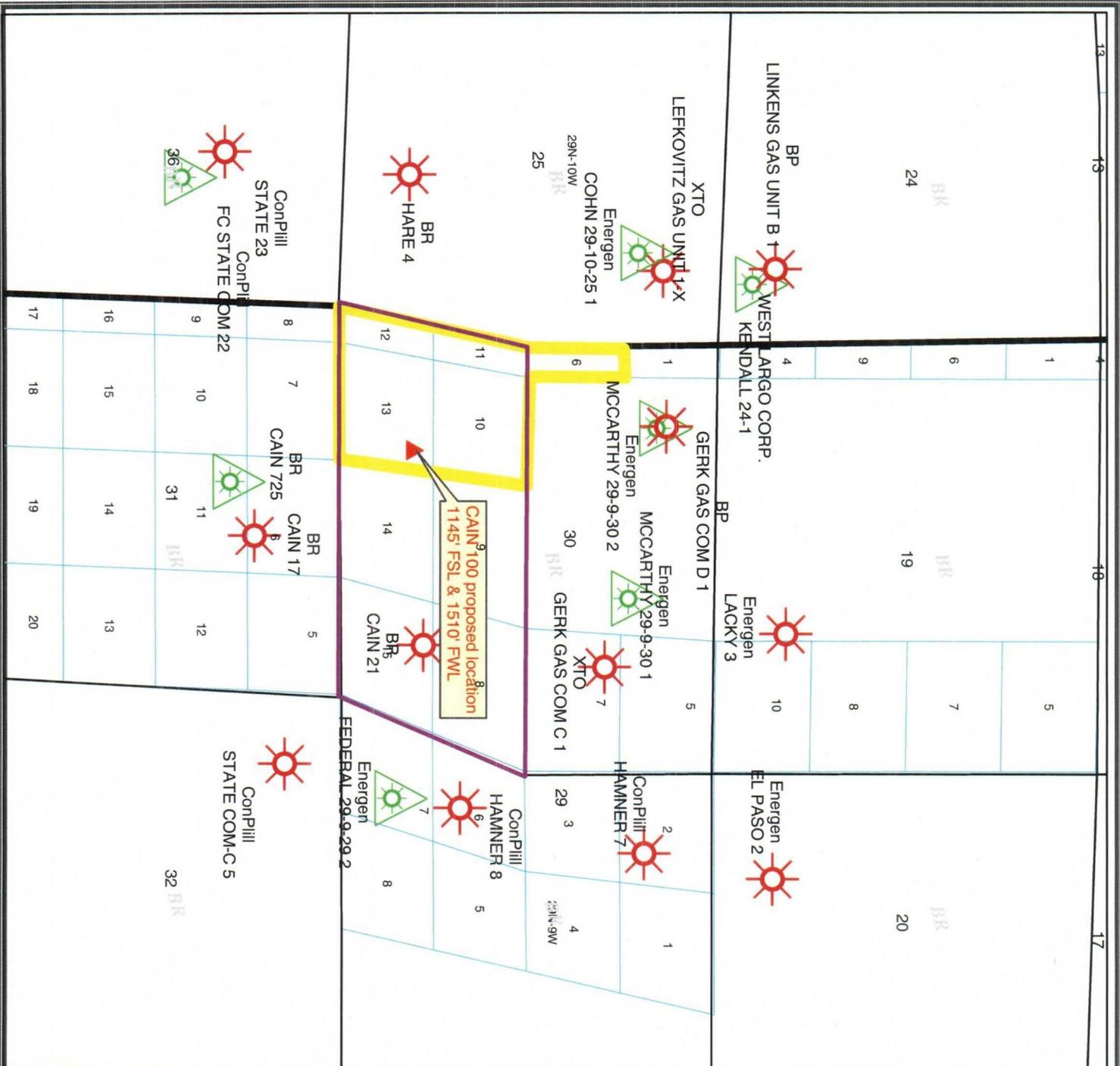
**BURLINGTON RESOURCES**

*San Juan*

**Cain #100**

Sec. 30, T29N, R9W

Prepared By:	DJL	Date:	8/30/2005
File Number:	NSL Cain	Revised Date:	8/30/2005
File Name:			



- Offset Operators:
  - XTO
  - Energen
  - BP America
  - ConocoPhillips
  - Burlington
- \* PICTURED CLIFFS WELL
- FRUITLAND COAL WELL
- SJD New Mexico Lots
- Sections\_(SJD)
- FC DEDICATION S/2
- PC DEDICATION Lots 6, 10-13

**BURLINGTON RESOURCES**

0 600 1200 2400 3600 4800 Feet

1:24,147 - 1" equals 2,012'

GCS North American 1927

**BURLINGTON RESOURCES**  
San Juan

**CAIN 100 NSL**

SEC 30 T29N R9W  
San Juan County, NM

Prepared By: bgm1 Date: 10/4/2005  
 File Number: Revised Date: 10/4/2005  
 File Name: c:\platt\bgm1\Projects\CAIN\_100 NSL.mxd

**Addressee Listing -- By Last Name    CAIN 100**

04-Oct-05

First Name	Last Name	Address Line1	City	State
Company Name		Address Line2	Zip	Phone1
Code		Code2	Internal Code	
BP AMERICA		WEST LAKE 1 ROOM 19-114	HOUSTON	TX
ATTN BRYAN ANDERSON	OSO E	501 WESTLAKE PARK BLVD	77079	
CAIN 100 - NSL				
CONOCOPHI			HOUSTON	TX
ATTN CHIEF LANDMAN			77252-2197	
CAIN 100 - NSL				
ENERGEN			BIRMINGHAM	AL
		<i>605 Richard Arrington JR.</i>	352032707	
CAIN 100 - NSL				
XTO ENERGY			FORT WORTH	TX
		<i>810 Houston St Ste 2000</i>	76102-6298	

**BIOLOGICAL SURVEY REPORT  
BURLINGTON RESOURCES OIL AND GAS COMPANY, LP  
CAIN #100 PROPOSED WELL PAD PROJECT**



**Figure 1. Cain #100 Proposed Well Pad Looking West**

This report describes the potential for federal, State of New Mexico, and Bureau of Land Management (BLM) listed threatened, endangered, candidate, and other designated sensitive flora and fauna to occur on the action area. The BLM defines the action area as any area that may be directly or indirectly impacted by the proposed action. This report is prepared in accordance with the BLM's biological survey guidelines (John Kendall, T&E Specialist, BLM, pers. comm.) and is intended to provide the agency with information to make determinations of effect on species with special conservation status.

### **PROJECT DESCRIPTION**

**Location:** The proposed project is located on public lands administered by the BLM approximately 2 miles south of Blanco, New Mexico. Legal coordinates for the proposed project are 1145' FSL and 1,510' FWL in Section 30, Township 29 North, Range 10 West, New Mexico Principal Meridian (NMPM), San Juan County, New Mexico (Appendix A). A project area map showing the location of the proposed action on the Blanco, New Mexico, U.S. Geological Survey (USGS) 7.5-minute topographical map is provided as Appendix B.

**Disturbance:** The proposed action is a 305-ft x 340-ft well pad including a 50-ft wide temporary use area (TUA) around the perimeter of the well pad for a surface disturbance of 2.38 acres. The project will also require 200 ft of new road construction for an additional disturbance of 0.09 acres. Total disturbance for the entire project is 2.47 acres. Noise and vehicle traffic will increase for this area and may continue afterward during operation and maintenance of the well.

**Previous Disturbance:** The project is located primarily on undisturbed terrain with a pre-existing pipeline corridor bordering the eastern portion of the TUA. Minor disturbances include an existing well pad and road approximately 50-75 feet from the eastern boundary of the TUA.

## METHODOLOGY

**Off-site Methods:** Prior to conducting fieldwork, Ecosphere biologists compiled a list of federally listed New Mexico state-listed, and BLM sensitive and special management species with potential to occur in San Juan County (Ecosphere 2004, unpublished document). Federally listed species were obtained from the U.S. Fish and Wildlife Service Southwest Region (<http://ifw2es.fws.gov/EndangeredSpecies/lists/ListSpecies.cfm>) endangered species list (Table 1). BLM Sensitive species and New Mexico state listed fauna were compiled from the BLM Farmington Field Office (BLM/FFO) Resource Management Plan and the New Mexico Natural Heritage Program (NMNHP) Biological and Conservation Data System ([http://nmnhp.unm.edu/query\\_bcd/query.html](http://nmnhp.unm.edu/query_bcd/query.html)). Additional BLM Special Management Species were determined by the BLM/FFO. A list of New Mexico flora was compiled from the NMNHP Biological and Conservation Data System ([http://nmnhp.unm.edu/query\\_bcd/query.html](http://nmnhp.unm.edu/query_bcd/query.html)) and the 1999 New Mexico Rare Plant Technical Council (<http://nmrareplants.unm.edu>).

**On-site Methods:** An on-site pedestrian survey of the proposed Cain #100 well pad, TUA, and access road was conducted on 27 April 2005 from 1000-hr to 1230-hr. Parallel transects spaced about 10-ft apart were walked covering the entire project area. Skies were partly cloudy and ambient temperatures were in the mid 60's (°F). This survey was conducted during the daylight when bats typically roost; therefore, no bats were observed. All plant and wildlife species and sign observed were recorded (Appendix C) and a digital picture was taken (Figure 1). Binoculars were used to survey for raptors and potential nest habitat. The habitat was evaluated for all federal, BLM, and state of NM species with special conservation status to occur or have the potential to occur in the project area or action area (Tables 1, 2).

## ACTION AREA

**Action Area:** The action area consists of the proposed project area (well pad, TUA, and access road) and the surrounding terrain within 1/3 mile of the project area.

**Physical Description:** The project area is located within a region characterized by low, eroded terraced-mesas interspersed by narrow, flat canyons. The proposed project is positioned along the upper floodplain of a narrow canyon with a gentle (2-3%) north-facing slope. Canyon walls rising about 60-80 feet above the proposed project are located about 600-700 feet from the project area. The southwestern portion of the proposed project area is adjacent to the base of an existing well pad contour. The surface geology of the project area consists of floodplain and channel deposits along dry arroyos and washes. An ephemeral wash occurs along the eastern TUA of the proposed well pad; it is about 10-20 feet wide from top of bank (TOB) to TOB and about 1-8 feet deep, the drainage bank varies from mild to vertical. No cryptobiotic soil crusts were observed in the proposed project area.

**Biological Description:** The action area is located within a bottomland shrub/grassland community. Dominant species in the vegetative community include broom snakeweed (*Gutierrezia sarothrae*),

Rubber rabbitbrush (*Chrysothamnus nauseosus*), Redstem stork's bill (*Erodium cicutarium*), and Tansy mustard (*Descurainia pinnata*). The project area consists of 10 Utah juniper (*Juniperus osteosperma*) trees currently within the proposed well pad site. Vegetation cover was variable range from about 15-20%. Salt cedar (*Tamarix pentandra*), a class C invasive weed monitored by the BLM/FFO were recorded in the project area. A complete list of plants and wildlife sign observed during the field survey is included in Appendix C.

**Special Management Areas:** The action area is located in potential habitat for the state-listed Aztec gilia (*Aliciella formosa*), Brack's hardwall cactus (*Sclerocactus cloveriae* ssp. *brackii*), and narrow-mouth penstemon (*Penstemon breviculus*), as designated in the Bureau of Land Management Farmington Field Office (BLM/FFO).

## SURVEY RESULTS

**Federal T&E Species:** According to the U.S. Fish and Wildlife Service, there are ten federally listed threatened, endangered, or candidate species with potential to occur in San Juan County, New Mexico. Table one lists these species, their conservation status, habitat requirements, and potential to occur to in the project or action area. No federally listed species was identified during the on site field survey.

**BLM and NM State Sensitive Species:** BLM and NM State Sensitive Species: Of the 36 BLM listed Sensitive (S) and Special Management Species (SMS) and New Mexico state-listed Threatened (T) and Endangered (E) species with potential to occur in San Juan County, New Mexico (Ecosphere 2004, unpublished document), one have the potential to occur in the project or action area. Those species determined to have the potential to occur in the project or action area are summarized in Table 2. None of these species was observed, and their potential to occur is based upon evaluation of the habitat within project and action area and the known habitat requirements of the listed species.

The remaining species do not have the potential to occur in the area because the project or action area does not provide suitable habitat. They were eliminated from consideration by evaluating the habitat of the action area, described above, in comparison to the habitats required by each species (Ecosphere 2004, unpublished document).

## DISCUSSION

The proposed Cain #100 project would have no direct negative effects on federally listed species. The project has potential to impact several BLM and New Mexico state-listed species

The occurrence of mature juniper trees within the action area provides roosting habit for 4 BLM sensitive bat species that could potentially use the action and project areas for roosting and foraging. These include the small-footed bat (*Myotis ciliolabrum meloanorhinus*), long-legged bat (*Myotis volans interior*), fringed myotis (*Myotis thysanodes*) and long-eared myotis (*Myotis evotis*). These species are all associated with tree roosting sites within semi-arid and forested habitats that include piñon-juniper communities (Gannon 1998). Available water is a limiting factor for bat populations; seasonal irrigation canal (Hammond Ditch) 0.75 miles of the site. Because the project will require the removal of 10 trees, direct impacts to these bat species is expected to include loss of potential

tree roosts. Indirect impacts would include temporary avoidance of habitat surrounding the site during construction. Nocturnal surveys would be necessary to determine whether any of the four sensitive bat species are currently utilizing habitats within the action area.

Ferruginous Hawks often nest in lone junipers within shrub-grassland landscapes. In foraging areas devoid of trees, they will even nest on the ground (Becherd and Schmutz 1995). Therefore, the action area is characteristic of ferruginous hawk nesting habitat. No ferruginous hawks were seen during the on-site survey, and BLM records indicate that there are no known ferruginous hawk nest sites within 5.0 miles of the site (BLM 2004, unpublished). Because the proposed project requires tree removal, direct impacts to ferruginous hawks are likely and include the loss of potential nesting trees and perching. Indirect impacts would include avoidance of the action area during construction.

The landscape of the action area provides habitat for a variety of small mammals including black-tailed jackrabbits (*Lepus californicus*), desert cottontails (*Sylvilagus audubonii*) and ground squirrels (*Spermophilus variegates*), the preferred prey for ferruginous hawks (Wheeler 2003

The loggerhead shrike (*Lanius ludovicianus*), designated as sensitive by the BLM, is common to the region. The Loggerhead shrike prefers agricultural areas for breeding and foraging. No agricultural areas were observed within the project area; therefore, habitat for this species is limited to temporary perch locations. No loggerhead shrikes were observed during the biological field survey.

The proposed project is located within potential habitat for the BLM and state-listed Aztec gilia (*Aliciella formosa*), Brack's hardwall cactus (*Sclerocactus cloveriae* ssp. *brackii*), and narrow-mouth penstemon (*Penstemon breviculus*). Because the proposed project is located in channel deposits along a dry arroyo and wash within a floodplain, no suitable habitat was found in the project area for Aztec gilia, Brack's hardwall cactus, or narrow-mouth penstemon.

Because the proposed well pad is on undisturbed terrain, vegetation removal, including up to 10 trees, will result in a loss of habitat for a variety of ground and tree-nesting birds protected under the Migratory Bird Treaty Act (MBTA). Direct impacts to these species are expected to be greater if construction occurs during the breeding season from April to August when nest destruction is possible.

## CERTIFICATION

Conclusions are based on actual field examinations and are correct to the best of my knowledge.

Signature of Field Biologist:  Date: 5-13-2005

John Dodge, Biologist  
Ecosphere Environmental Services  
4801 N. Butler Avenue Suite 15101  
Farmington, N.M. 87401  
(505) 327-3088

## LITERATURE CITED AND REFERENCES

- Bechard M.J., and J.K. Schmutz. 1995. Ferruginous Hawk (*Buteo regalis*). In *The Birds of North America*, Number 172 (A Poole and F Gill, Eds.). Academy of Natural Sciences, Philadelphia, Pennsylvania, and the American Ornithologists' Union, Washington, D.C.
- Buehler, D. A. 2000. Bald Eagle (*Haliaeetus leucocephalus*). In *The Birds of North America*, No. 506 (A. Poole and F. Gill, eds.). The Birds of North America, Inc., Philadelphia, PA.
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- New Mexico Natural Heritage Program. 2004. [http://nmmhp.unm.edu/query\\_bcd/query.html](http://nmmhp.unm.edu/query_bcd/query.html). Department of Biology, University of New Mexico, Albuquerque, New Mexico.
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- Reeves, Tim. 1999. Gray vireo distribution survey on BLM Farmington District lands in McKinley, Rio Arriba, San Juan Counties, New Mexico. 45 pp.
- USDI. Fish and Wildlife Service. 1995. Recovery plan for the Mexican spotted owl: Vol. I. Albuquerque, New Mexico. 172 pp.
- USDI. Fish and Wildlife Service. 1998. Black-footed ferret (*Mustela nigripes*) fact sheet. <http://endangered.fws.gov/i/A07.html>.
- USDI Fish and Wildlife Service. 2002. Southwestern Willow Flycatcher recovery plan. Albuquerque, New Mexico. i-ix + 210 pp., Appendices A-O.
- USDI Fish and Wildlife Service (USFWS) .W.S. 2004. <http://ifw2es.fws.gov/EndangeredSpecies/lists/ListSpecies.cfm>.

**Table 1.** Species listed by the United States Fish and Wildlife Service (USFWS) under the authority of the Endangered Species Act of 1973 for San Juan County, New Mexico (E = endangered; T = threatened; C = candidate).

SPECIES	CONSERVATION STATUS	HABITAT ASSOCIATIONS	POTENTIAL TO OCCUR IN THE PROJECT OR ACTION AREA
<b>MAMMALS</b>			
Black-footed ferret ( <i>Mustela nigripes</i> )	E	Open grasslands with year-round prairie dog colonies.	No prairie dog colonies identified in the project or action area (AA).
<b>BIRDS</b>			
Southwestern willow flycatcher ( <i>Empidonax traillii extimus</i> )	E	Breeds in dense, shrubby riparian habitats, usually in close proximity to surface water or saturated soil.	AA contains no riparian habitat
Bald eagle ( <i>Haliaeetus leucocephalus</i> )	T	Nests in forested areas adjacent to large bodies of water.	AA is one mile from the San Juan river: may forage but is unlikely.
Mexican spotted owl ( <i>Strix occidentalis lucida</i> )	T	Nests in caves, cliffs, or trees in steep-walled canyons of mixed conifer forests.	AA contains no mixed conifer forests.
Yellow-billed cuckoo ( <i>Coccyzus americanus</i> )	C	Breeds in riparian woodlands with dense, understory vegetation.	AA contains no riparian habitat.
<b>FISH</b>			
Colorado pikeminnow ( <i>Ptychocheilus lucius</i> )	E	Large rivers with strong currents, deep pools, and quiet backwaters.	AA contains no rivers or perennial water sources.
Razorback sucker ( <i>Xyrauchen texanus</i> )	E	Medium to large rivers with silty to rocky substrates. Prefers strong currents and deep pools	AA contains no rivers or perennial water sources.
<b>PLANTS</b>			
Knowlton's cactus ( <i>Pediocactus knowltonii</i> )	E	Alluvial deposits that form rolling, gravelly hills in piñon-juniper and sagebrush communities (6,200-6,400 ft.).	AA contains no alluvial deposits.
Mancos milkvetch ( <i>Astragalus humillimus</i> )	E	Cracks of Point Lookout Sandstone of the Mesa Verde series (5,000-6,000 ft.).	Mesa Verde sandstone does not occur in the AA.
Mesa Verde cactus ( <i>Sclerocactus mesae-verde</i> )	T	Highly alkaline soils in sparse shale or adobe clay badlands of the Mancos and Fruitland formations (4,000-5,550 ft.)	AA contains neither badland topography nor Mancos or Fruitland geology.

Source: USFWS Southwest Region Ecological Services Endangered Species Lists (<http://ifw2es.fws.gov/EndangeredSpecies/lists/default.cfm>; accessed Dec. 2004).

**Table 2.** Species listed by the Bureau of Land Management (BLM) as S = sensitive; SMS = special management status, and the State of New Mexico (NM) as E = endangered; T = threatened, that occur or have the potential to occur in the project area or action area.

SPECIES	CONSERVATION STATUS		HABITAT REQUIREMENTS	POTENTIAL TO OCCUR IN PROJECT OR ACTION AREA
	BLM	NM		
<b>MAMMALS</b>				
Big free-tailed bat ( <i>Nyctinomops macrotis</i> )	S		Rugged, rocky, arid habitats, such as desert-shrub, forests, and woodlands. Roosts in cliff crevices, trees, caves, and man-made structures.	Open Desert shrub and juniper in the action area provides suitable foraging and roosting habitat.
Spotted bat ( <i>Euderma maculatum</i> )	S	T	Piñon-juniper, and riparian habitats with rock cliffs, forest openings. Roosts on cliff-faces.	Open Juniper in the action area provide suitable foraging habitat.
Small-footed bat ( <i>Myotis ciliolabrum melanorhinus</i> )	S		Common in deserts, badlands, and semiarid habitats associated with cliffs, scree fields, and prairies in the vicinity of clay buttes and steep riverbanks. May also be found at higher elevations in more mesic habitats in the southern portion of its range.	Open Juniper in the action area provide suitable foraging habitat.
Fringed myotis ( <i>Myotis thysanodes</i> )	S		Grasslands, woodlands, deserts, and coniferous forest. Roosts in caves, mines, rock crevices, buildings, bridges, and large snags. Hibernates in buildings and mines.	Open Juniper in the action area provide suitable foraging habitat.
<b>BIRDS</b>				
Ferruginous hawk ( <i>Buteo regalis</i> )	S		Flat or rolling terrain in grasslands, shrub-steppes, and deserts; may occur in the periphery of piñon-juniper or other forests. Prefers elevated nest sites (e.g., buttes, utility poles, trees) but also nests on the ground.	Bottomland shrub/grassland and open juniper in the action area provides suitable foraging and nesting habitat.
Loggerhead shrike ( <i>Lanius ludovicianus</i> )	S		Open habitats with short vegetation (e.g. pastures, roadsides, agricultural fields, open woodlands, golf courses, and riparian areas).	The bottomland shrubs/grassland and open juniper in the action area may provide foraging habitat

## APPENDIX A. PROJECT PLATS

DISTRICT I  
1825 N. French Dr., Hobbs, N.M. 88240

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 15, 2000

DISTRICT II  
811 South First, Artesia, N.M. 88210

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

DISTRICT III  
1009 Rio Brazos Rd., Arden, N.M. 87410

**OIL CONSERVATION DIVISION**  
2040 South Pacheco  
Santa Fe, NM 87505

AMENDED REPORT

DISTRICT IV  
8840 South Pacheco, Santa Fe, NM 87505

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

*API Number		*Pool Code	*Pool Name
*Property Code	*Property Name CAIN		*Well Number 100
*Oiled No.	*Operator Name BURLINGTON RESOURCES OIL AND GAS COMPANY LP		*Elevation 5644'

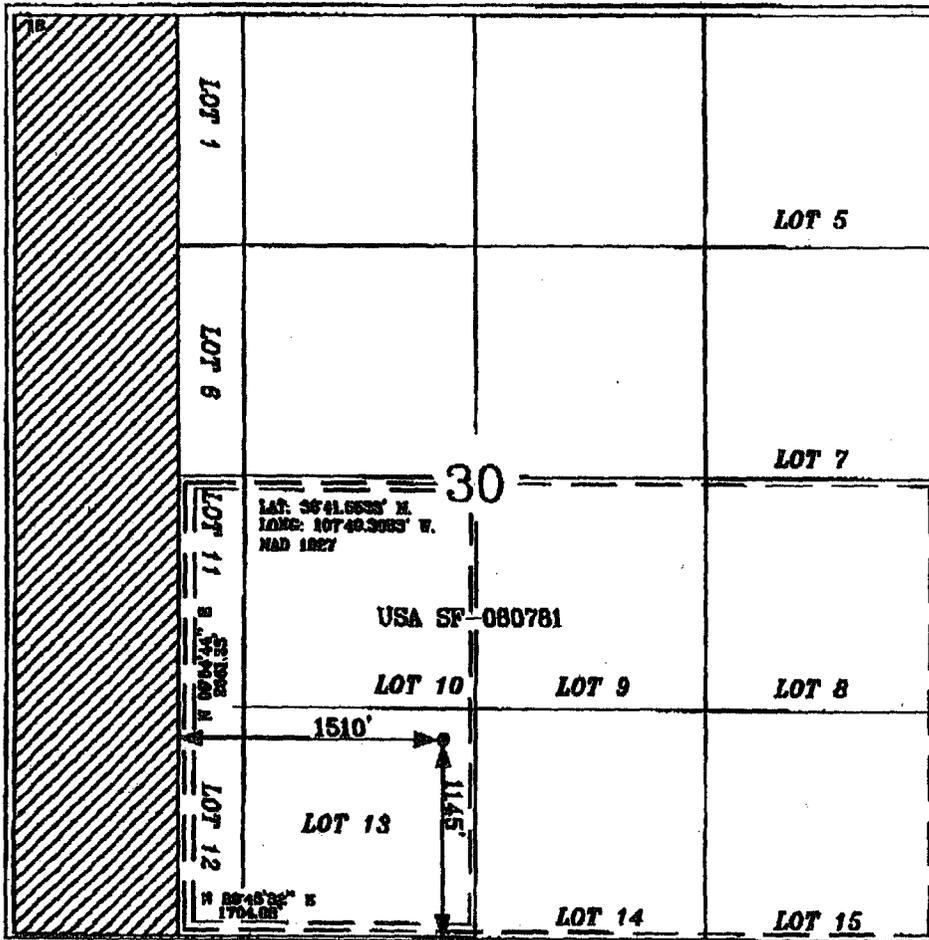
**10 Surface Location**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West Line	County
N	30	29-N	8-W		1145'	SOUTH	1510'	WEST	SAN JUAN

**11 Bottom Hole Location if Different From Surface**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South Line	Feet from the	East/West Line	County
*Dedicated Acres		*Total or Luff		*Consolidation Code		*Order No.			

**NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION**



**17 OPERATOR CERTIFICATION**

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature \_\_\_\_\_  
Printed Name \_\_\_\_\_  
Title \_\_\_\_\_  
Date \_\_\_\_\_

**18 SURVEYOR CERTIFICATION**

I hereby certify that the well location shown on this plat was plotted from field notes of actual survey made by me or under my supervision, and that the same is true and correct to the best of my belief.

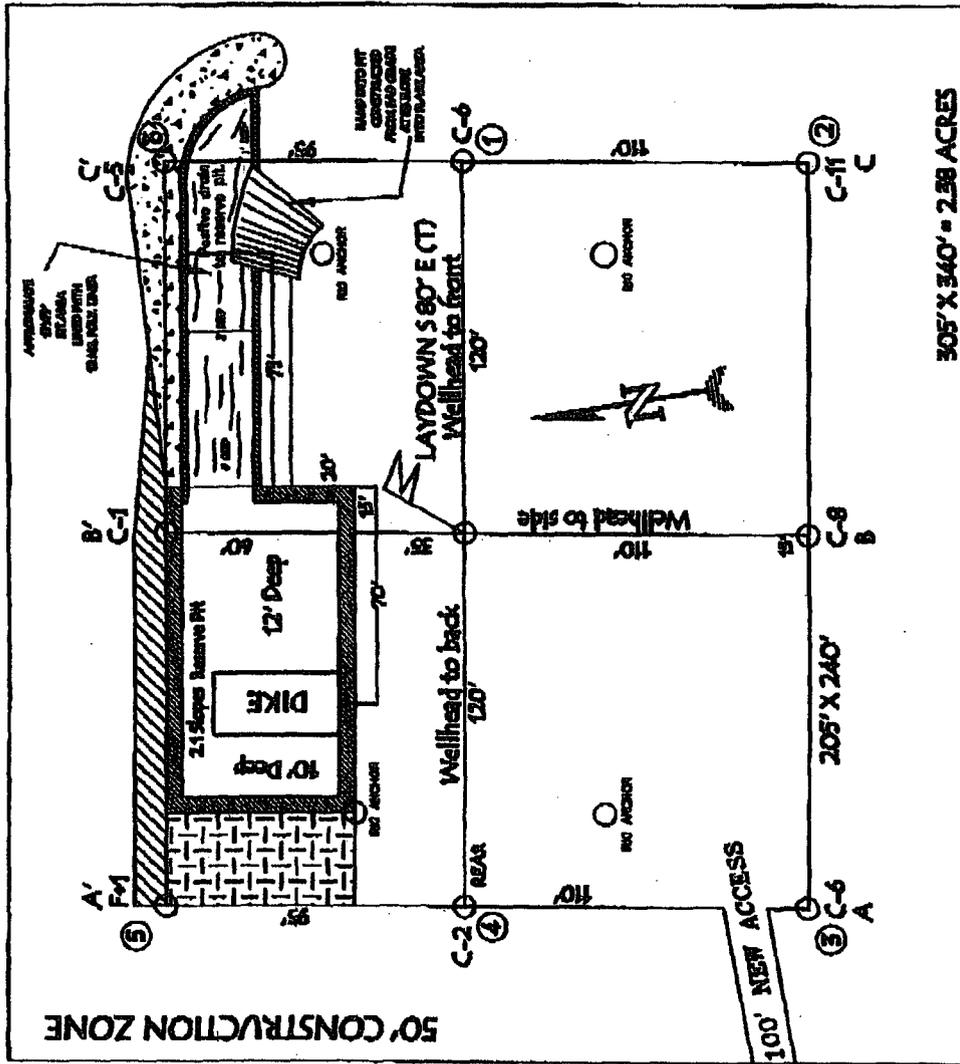
Date of Survey: 2-11-2005

Signature: \_\_\_\_\_



Certificate Number: 15703

**BURLINGTON RESOURCES OIL & GAS COMPANY LP**  
**CAIN 100, 1145' FSL & 1510' FWL**  
**SECTION 30, T-29-N, R-9-W, NMPM, SAN JUAN COUNTY, NM**  
**GROUND ELEVATION: 5644', DATE: APRIL 27, 2005**

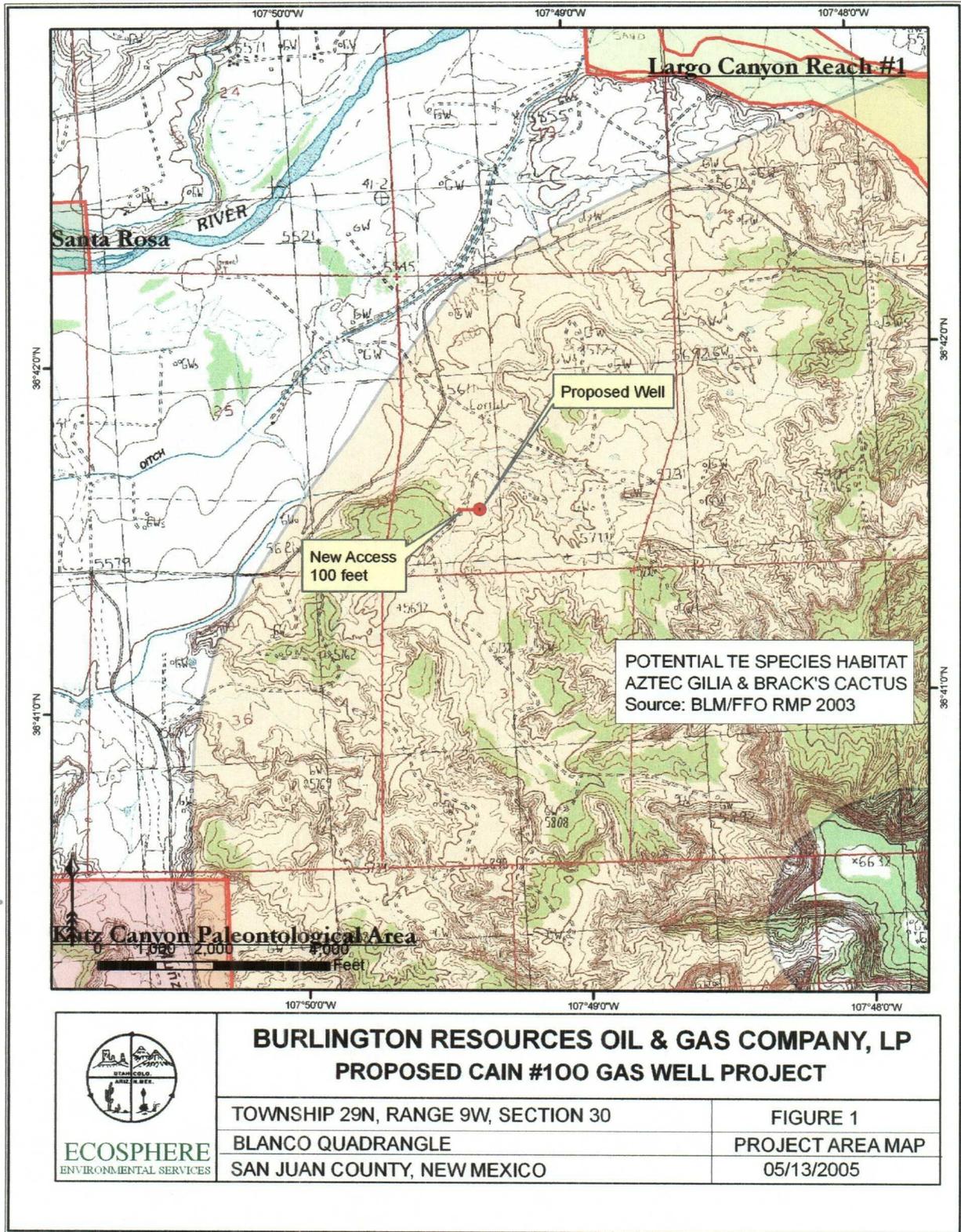


305' X 340' = 2.98 ACRES

LATITUDE: 36° 41.5553' LONGITUDE: 107° 49.3083' NAD27

RESERVE PT DIKS: TO BE 8' ABOVE DEEP SIDE (OVERFLOW - 8' WIDE AND 4' ABOVE SHALLOW SIDE).

# APPENDIX B. PROJECT MAP



 <p><b>ECOSPHERE</b> ENVIRONMENTAL SERVICES</p>	<b>BURLINGTON RESOURCES OIL &amp; GAS COMPANY, LP</b> <b>PROPOSED CAIN #100 GAS WELL PROJECT</b>	
	TOWNSHIP 29N, RANGE 9W, SECTION 30	FIGURE 1
	BLANCO QUADRANGLE	PROJECT AREA MAP
	SAN JUAN COUNTY, NEW MEXICO	05/13/2005

## APPENDIX C. PLANTS AND WILDLIFE FOUND IN THE PROJECT AREA

### Grasses

*Agropyron cristatum*

*Aristida purpurea*

*Bouteloua gracilis*

*Bromus tectorum*

*Hilaria jamesii*

*Hordeum pusillum*

*Oryzopsis hymenoides*

*Sporobolus airoides*

*Vulpia octoflora*

Crested wheat

Red three-awn

Blue grama

Cheatgrass

Galleta grass

Little barley

Indian ricegrass

Alkali sacaton

Six-weeks fescue

### Herbaceous forbs

*Alyssum minus*

*Atriplex powellii*

*Convolvulus arvensis*

*Cryptantha crassisejala*

*Cymopterys purpurascens*

*Descurainia pinnata*

*Dithyrea wislizenii*

*Erodium cicutarium*

*Ipomopsis pumila*

*Lupinus pusillus*

*Melilotus alba*

*Phacelia crenulata*

*Sisymbrium altissimum*

*Sphaeralcea coccinea*

*Streptanthella longirostris*

Annual alyssum

Annual saltbush

Field bindweed

Plains cryptanth

Biscuitroot

Tansy mustard

Spectacle-pod

Redstem stork's bill

Gilia

Lupine

White sweet clover

Scorpion weed

Tumblemustard

Globemallow

Twistflower

### Shrubs

*Artemisia tridentate*

*Atriplex canescens*

*Chrysothamnus Greenei*

*Chrysothamnus nauseosus*

*Chrysothamnus viscidiflorus*

*Gutierrezia sarothrae*

*Lycium pallidum*

*Tamarix pentandra*

Big sagebrush

Four winged saltbush

Rabbitbrush

Rubber rabbitbrush

Rabbitbrush

Broom snakeweed

Wolfberry, tomatilla

Saltcedar

### Trees

*Juniperus monosperma*

One-seed juniper

### Cacti

*Opuntia polyacantha*

Prickly pear cactus

### Mammals

*Canes latrines*

Coyote

*Odocoileus hemionus*  
*Sylvilagus audubonii*

**Birds**

*Silia mexicana*

Mule deer  
Desert cottontail

Western bluebird