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October 20, 1999

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OCT 25 1999
DIV. OF OIL, GAS & MINING

John Baza
Division of Oil, Gas & Mining
1594 West North Temple
Salt Lake City, UT 84114-5801

Dear Mr. Baza:

Enclosed please find a copy of the report entitled "Cultural Resource Inventories of Eight Well Locations for Del-Rio/Orion in the Big Pack Mountain Area, Uintah County, Utah" (Report No. U-99-MQ-0575s). The inventory resulted in the documentation of three archaeological sites (42Un2645, 42Un2646, and 42Un2647) which are evaluated as eligible to the National Register of Historic Places.

Based on the findings, a determination of "no adverse effect" is recommended pursuant to Section 106, CFR 800 for this project. If you have any comments or questions about this project, please let me know.

Sincerely,

Keith R. Montgomery

Keith R. Montgomery
Principal Investigator

cc: Kenny Wintch, TLA Arachaeologist, SLC
James Dykmann, Compliance Archaeologist, SHPO, SLC
Larry Caldwell, Del-Rio/Orion, Las Vegas, NV

CULTURAL RESOURCE INVENTORIES OF EIGHT WELL LOCATIONS FOR DEL-RIO/ORION IN THE BIG PACK MOUNTAIN AREA UINTAH COUNTY, UTAH

Michael S. Wolfe
and
Keith R. Montgomery

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Cultural Resource Inventories of Eight Well Locations for Del Rio/Orion in the Big Pack Mountain Area Uintah County, Utah

By

Michael S. Wolfe
and
Keith R. Montgomery

Prepared For:
State of Utah
Schools and Institutional
Trust Lands Administration
Salt Lake City, Utah

Prepared Under Contract With:

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Prepared By:

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October 20, 1999

United States Department of Interior (FLPMA)
Permit No. 99-UT-60122

State of Utah Antiquities Project (Survey)
Permit No. U-99-MQ-575s

ABSTRACT

Cultural resource inventories were conducted by Montgomery Archaeological Consultants (MOAC) in October 1999, for eight proposed well locations, access routes, and pipeline corridors for Del-Rio/Orion. The project area is located just northeast of Chimney Rock in the Big Pack Mountain locality, Uintah County, Utah. The proposed well locations are Del-Rio/Orion State 32-2, 32-3, 32-6, 32-10, 32-11, 32-12, 32-13, and 32-14. The legal description is Township 13 South, Range 21 East, Section 31. Approximately 95 acres were inventoried for cultural resources on State of Utah School and Institutional Trust Lands Administration (TLA) land.

The cultural resource inventory resulted in the documentation of three archaeological sites (42Un2645, 42Un2646, and 42Un2647), and three isolated finds of artifacts (IF-A, IF-B, and IF-C). Site 42Un2645 is a Protohistoric (Numic) and early historic campsite containing several hearths. This multi-component site has potential for additional subsurface cultural remains. In particular the features could provide chronometric and subsistence-related data. The site is evaluated as eligible to the NRHP under Criterion (d). Site 42Un2646 is an Ute Indian affiliated temporary camp with a corral and sweat lodge. The structural features retain minimal structural integrity, although the sweat lodge is unique to the area in relation to the known archaeological record. The associated burned rock and ash features could yield additional information relative to chronology and subsistence. The site is considered eligible to the NRHP under Criterion (d). Specifically this site is significant in regards to off-reservation land use patterns engaged by the Ute Indians during the Early Reservation Period. Site 42Un2647 is an unique special-use storage facility locus attributed to the Ute Indian cultural tradition. It consists of several wood storage platforms constructed or placed in trees. This features have been described by Smith (1974) in the ethnographic literature as one of three storage practices employed by Northern Ute groups for storing supplies and food. The site is evaluated as eligible to the NRHP under Criterion (c), since the platforms are unusual and unique in regards to the archaeological record of the locality. The isolated finds of artifacts consist of a late Paleoindian or early Archaic stemmed projectile point (IF-A), a Stage II biface fragment (IF-B), and several hole-in-top tin cans (IF-C). These isolated occurrences exhibit prehistoric and historic use of the project area and are not considered significant due to their lack of additional research potential.

The inventory of Del Rio/Orion's eight well locations, access routes, and pipeline resulted in the documentation of three archaeological sites (42Un2645, 42Un2646, and 42UN2647). These sites are considered eligible to the NRHP. All of the significant sites will be avoided from project impacts related to this well development undertaking. Based on the findings, a determination of "no adverse effect" is submitted for this undertaking pursuant to Section 106, CFR 800.

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INTRODUCTION

Cultural resource inventories were conducted by Montgomery Archaeological Consultants (MOAC) in October 1999, for eight proposed well locations, access routes, and pipeline corridors for Del-Rio/Orion. The project area is located just northeast of Chimney Rock in the Big Pack Mountain locality, Uintah County, Utah. The proposed well locations consist of Del-Rio/Orion State 32-2, 32-3, 32-6, 32-10, 32-11, 32-12, 32-13, and 32-14. The survey was implemented at the request of Mr. Larry Caldwell of Del Rio/Orion, Las Vegas, Nevada The project is situated on State of Utah School and Institutional Trust Lands Administration (TLA) land.

The objective of the inventories was to locate, document, and evaluate any cultural resources within the project area in order to comply with Section 106 of 36 CFR 800, the National Historic Preservation Act of 1966 (as amended). Also, the inventories were implemented to attain compliance with a number of federal and state mandates, including the Archaeological and Historic Conservation Act of 1972, the Archaeological Resources Protection Act of 1979, the American Indian Religious Freedom Act of 1978 (AIRFA) and Utah State Antiquities Act of 1973 (amended 1990).

The fieldwork was performed on October 7 and 8, 1999, by Keith Montgomery, Michael "Red" Wolfe, and Gregory Nunn under the auspices of U.S.D.I. (FLPMA) Permit No. 99-UT-60122, and State of Utah Antiquities Permit (Survey) No. U-99-MQ-0575s issued to Montgomery Archaeological Consultants, Moab, Utah.

Prior to the fieldwork, a file search for previous cultural resource inventories and archaeological sites was conducted by Evie Seelinger at the Division of State History, Antiquities Section, Salt Lake City (October 7, 1999). Only one inventory has been completed in the area by Sagebrush Archaeological Consultants in 1999 for Federal Well V #12-21 located in Sections 21, 28 and 29, T 13S, R 21E (Polk 1999). No cultural resources have been documented in the vicinity of the project area.

DESCRIPTION OF PROJECT AREA

The project area is located northeast of Chimney Rock in the Big Pack Mountain locality, south of the town of Ouray, Utah. The eight proposed well locations with associated access and pipeline routes occur in Township 13 South, Range 21 East, Section 31 (Figure 1). The proposed well locations are designated Del Rio/Orion State 32-2, 32-3, 32-6, 32-10, 32-11, 31-11, 32-12, 32-13, 32-14. Table 1 presents the legal descriptions, access/pipeline lengths, and cultural resources.

Table 1. Del Rio/Orion Eight Well Locations, Access and Pipelines.

Well Location Designation	Legal Location	Access/Pipeline	Cultural Resources
Del-Rio/Orion State 32-2	T13S, R21E, S.32 NW/NE 613' FNL 1932' FEL	Access Road/Pipeline 200'	None
Del-Rio/Orion State 32-3	T13S, R21E, S.32 SE & NE/NW, 719'FNL 1856'FWL	Pipeline 1000' Access Road/Pipeline 600'	None
Del-Rio/Orion State 32-6	T13S, R21E, S.32 NW/NE	Pipeline 400' Access in 10 Acre	IF-A & IF-B
Del-Rio/Orion State 32-10	T13S, R21E, S.32 NW/SE	Access Road/Pipeline 400'	42Un2646 42Un2647
Del-Rio/Orion State 32-11	T13S, R21E, S.32 NE/SW	Pipeline 300' Access in 10 acre	IF-C
Del-Rio/Orion State 32-12	T13S, R21E, S.32 NW/SW	Access Road/Pipeline 200'	None
Del-Rio/Orion State 32-13	T13S, R21E, S.32 SW/SW	Pipeline 1200' Access Road/Pipeline 200'	42Un2645
Del-Rio/Orion State 32-14	T13S, R21E, S.32 SE/SW	Pipeline 500' Access Road/Pipeline 200'	None

Environment

The study area lies within the Book Cliffs-Roan Plateau physiographic unit, a tilted plateau which rises gradually southward and upward from the Uinta Basin (Stokes 1986:232). The major drainages in the project area flow north to empty into the Green River in the Uinta Basin which is the northernmost extension of the Colorado Plateau. Specifically, the survey area is situated on Big Pack Mountain, a prominent north trending ridge which divides Willow Creek to the east and Hill Creek to the west. The geology consists of Cretaceous and Tertiary age deposits which are represented by the Green River and Uinta formations. These represent deposits from Eocene lake beds and river and flood plain deposits, and comprise of interbedded sandstone, claystone and mudstone as well as fossil vertebrate turtles, crocodilians, and occasional fish remains. The elevation of the project area ranges from 6500 to 6600 feet a.s.l. The project occurs within the Upper Sonoran life zone and includes a pinyon-juniper woodland with an understory of mountain mahogany, sagebrush, saltbrush, squawbush, prickly pear cactus and various grasses.

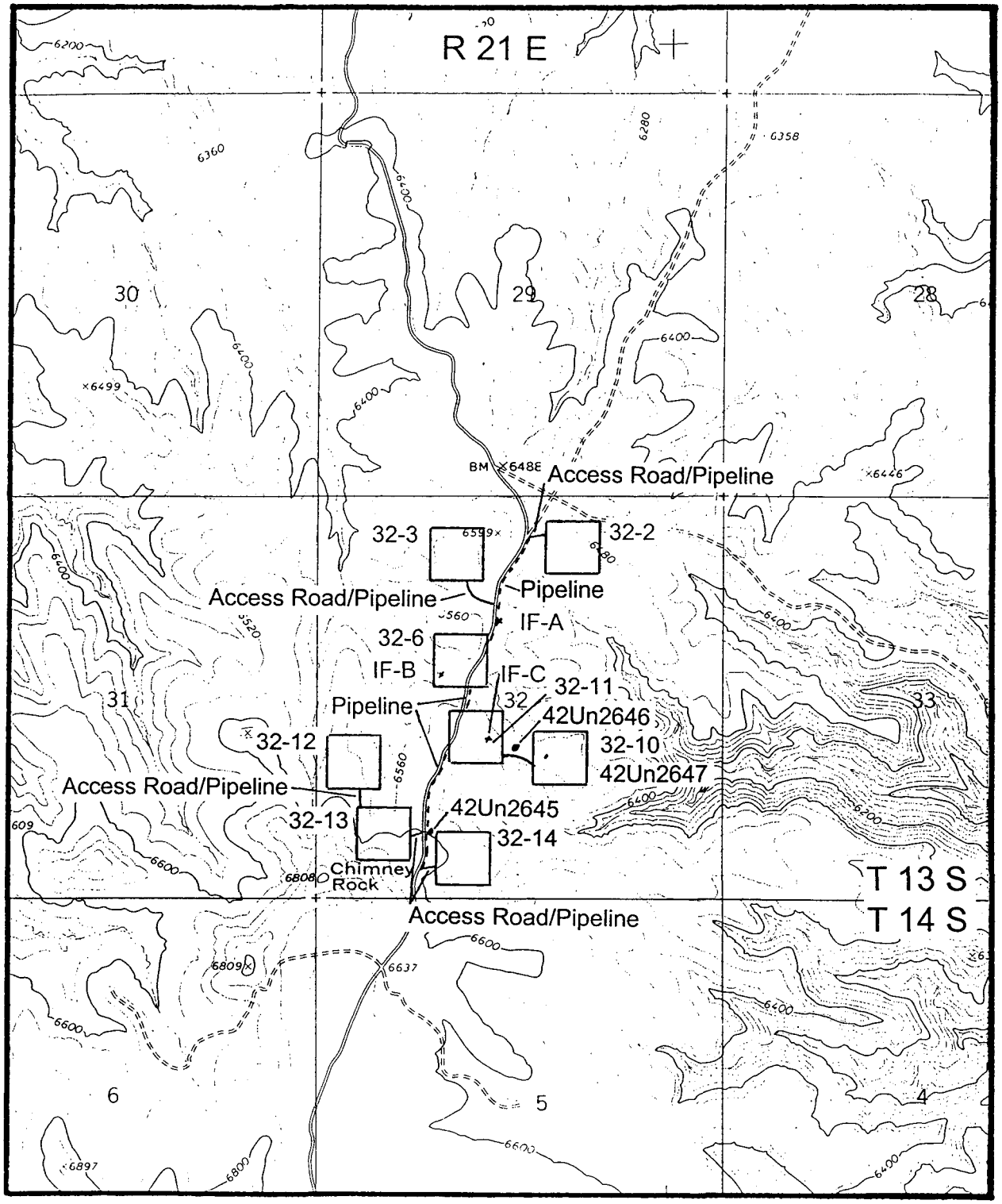

Figure 1. Inventory Area of Eight Well Locations with Cultural Resources for Del Rio/Orion in the Big Pack Mountain Area, Uintah County, UT. USGS 7.5 Agency Draw NE, UT 1966. Scale 1:24000.

Cultural-Historical Overview

The cultural-chronological sequence represented in the study area includes the Paleoindian, Archaic, Fremont, Protohistoric, and Euro-American stages. The earliest inhabitants of the region are representative of the Paleoindian stage (ca. 12,000-8,000 B.P.). This stage is characterized by the adaptation to terminal Pleistocene environments and characterized by the exploitation of big game fauna. The presence of Paleoindian hunters in the Uinta Basin region is implied by the discovery of Clovis and Folsom fluted points (ca. 12,000 B.P. - 10,000 B.P.), as well as the more recent Plano Complex lanceolate projectile points (ca. 10,000 B.P. - 7,000 B.P.). However, no such artifacts have been recovered in stratigraphic or chronometrically controlled contexts in northeastern Utah.

The Archaic stage (ca. 8,000 B.P. - 1,500 B.P.) is characterized by peoples depending on a foraging subsistence strategy, seasonally exploiting a wide spectrum of plant and animal species in different ecozones. The shift to an Archaic lifeway was marked by the appearance of new projectile point types perhaps reflecting the development of the atlatl in response to a need to pursue smaller and faster game (Holmer 1986). In northeastern Utah, evidence of widespread Early Archaic exploitation is relatively sparse compared to the subsequent Middle and Late Archaic periods. Early Archaic (ca. 6000 to 3000 B.C) sites in the basin include sand dune sites and rockshelters clustered mainly in the lower White River drainage as well as along the Green River in the Browns Park and Flaming Gorge area (Spangler 1995:373). Projectile points recovered from northeastern Utah Pinto Series, Humboldt, Elko Series, Northern Side-notched, Hawken Side-notched, Sudden Side-notched and Rocker Base Side-notched points. The Middle Archaic period (ca. 3000 to 500 B.C.) is characterized by improved climatic conditions and increased human populations on the northern Colorado Plateau. Several stratified Middle Archaic sites have been excavated and dozens of sites have been documented in the study area. Middle Archaic sites in the area reflect cultural influences from the Plains, although a Great Basin and/or northern Colorado Plateau influence is represented in the continuation of the Elko Series projectile points. The Late Archaic period (ca. 500 B.C. to A.D. 550) in the area is distinguished by the continuation of Elko Series atlatl points with the addition of semi-subterranean residential structures at base camps. By about A.D. 100, maize horticulture and Rose Springs arrow points had been added to the Archaic lifeway.

The Formative stage (A.D. 500-1300) is defined by Spangler (1993, 1995) by the Tavaputs Plateau adaptation which includes Formative peoples of the Book Cliffs, East Tavaputs and West Tavaputs Plateau (primarily Nine Mile, Range Creek, Hill Creek and Willow Creek) which have been traditionally assigned to the San Rafael or Uinta variant by Marwitt (1970). According to Spangler (1995:499) although groups in both areas (e.g., Uinita Basin and Tavaputs Plateau) were semisedentary, manufactured pottery, and practiced maize horticulture, such traits such as architectural styles, storage strategies, settlement patterns, chronology, and rock art styles were significantly different. The narrow temporal range of tree-ring dates from Nine Mile, Willow Creek and Hill Creek Canyons

suggest a more constricted occupational span between about A.D. 1000 and 1200 by Fremont horticulturalists perhaps migrating from the San Rafael region to the south (Spangler 1995:499). Differences between these two Fremont cultural adaptations are likely due to environmental differences between the two regions. The Tavaputs Plateau is dominated by deeply incised canyons while the Uintah Basin topography is characterized as relatively flat lowlands, sloping surfaces, and wide shallow valleys (Stokes 1986). In the Tavaputs Plateau area, habitation sites are usually confined along stream terraces and on outcrops in deeply striated canyon such as Hill Creek and Willow Creek Canyons (Spangler 1995:502). Locational factors in this area include proximity to permanent water, access to pinyon-juniper resources and arable land. In terms of material culture, the calcite or limestone tempered Uinta Gray ceramics are abundant from residential sites in the Uintah Basin after A.D. 550, opposed to the ceramic assemblage dominated by Emery Gray types found on sites in the Tavaputs Plateau area (Spangler 1995:515).

Archaeological evidence suggests that Numic peoples appeared in east-central Utah at approximately A.D. 1100 or shortly before the disappearance of Formative-stage peoples (Reed 1994). Numic or Numic-speakers may have coexisted with sedentary Fremont populations. The demise of the Fremont may have been nothing more than a shift in subsistence strategies from primarily horticulture to exclusively hunting/gathering (Simms 1979,1990) rather than an actual arrival of new people. The archaeological remains of Numic-speaking Utes consist primarily of lithic scatters with low quantities of brown ware ceramics, rock art, and occasional wickiups. The brown ware ceramics appear to be the most reliable indicator of cultural affiliation, as Desert Side-notched and Cottonwood Triangular points were manufactured by other cultural groups beside the Ute (Horn, Reed, and Chandler 1994:130). The Protohistoric Utes are the decedents of these (Numic-speaking) hunter and gatherers whom exploited various fauna and flora resources. The cultural history of the Eastern Ute, comprising the bands living east of the Green River, has been divided into four phases (Reed 1988). The earliest and most tenuous phase is the Chipeta Phase, dated between ca. 1250 and 1400. Diagnostic artifacts include Desert Side-notched, Cottonwood Triangular, and small corner-notched arrow points and possibly Shoshonean knives. The Canalla phase (ca. A.D. 1400-1650) designates the period between the appearance of well-dated Uncompahgre brown ware ceramics and the adoption of an equestrian lifeway. Diagnostic artifacts include Uncompahgre Brown Ware ceramics, Desert Side-notched and Cottonwood Triangular points, and Shoshonean knives. The pedestrian hunter and gatherers probably lived in wickiups. Near the end of the phase, some groups may have obtained trade items from Spanish settlements in New Mexico (Horn, Reed, and Chandler 1994:131). The Antero phase (ca. A.D. 1650-1881) represents a shift to a fully equestrian lifestyle and integration of Euroamerican trade goods into Ute material culture. The horse permitted hunting of bison on the Plains and led to an increase in the importance of raiding for economic gain (ibid:131). Euroamerican trade goods became important, and tepees as well as wickiups were inhabited. A number of Protohistoric (Numic) sites have been documented to the east in Seep Ridge Study Tract identified mainly by Desert Side-notched points (Larralde and Chandler 1981). Most of these sites are short-term camps or limited activity areas situated on ridges and within sand dunes (Ibid: 137-138).

The early Utes in Uintah County were Uinta-ats, a small band of a few hundred members (Burton 1996:20). In pre-horse days, Ute family groups lived largely independently of others with key gathering, hunting, and fishing sites being communal and granted to all, within both the local and extralocal Ute communities (Ibid 340). According to Smith's (1974) informants both deer and buffalo were important game for the White River Ute band. Before the buffalo became extinct in the Uintah Basin in the 1830s, the Ute would make trips northeast of Fort Bridger in the vicinity of what is now Rock Springs and Green River, Wyoming using the horse to surround and drive the buffalo over a precipice (Smith 1974; Callaway, Janetski, and Stewart 1986). Small mammals, rodents, fish, birds and insects were also procured, although this subsistence strategy was more evident among the Uintah Utes than among the Yampa or Uncompahgre Utes (Spangler 1995:742). All Ute groups made tripod or conical houses with a three or four-pole foundation and a circular ground plan some 10-15 feet in diameter with covering brush or bark and cooking or heating fires in shallow pits both inside and outside of the huts (Smith 1974). The utilization of these structures apparently continued even after the introduction of the tipi (Spangler 1995:745). Most Ute bands employed the sweat lodge usually made of willows struck in the ground in a circular pattern and tied at the top to create a dome-shaped structure (Smith 1974:43). Sweat lodges were 8 to 10 feet in diameter and 4 to 5 feet in height. The top was covered with a buffalo robe, tipi cover or willow brush with rabbit-skin blanket over the top. Stones were heated outside the structure and brought into a central hearth three or four stones at a time with water applied to the stones, creating steam (Spangler 1995:747). According to Smith's (1974:44) Northern Ute informants the lodge was sometimes used before going on a hunting trip or in general to promote health and cleanliness. If someone was not feeling well, some sagebrush might be placed on the hot stones (Ibid:44). Three types of storage facilities were used by Ute groups in the area. One involved the construction of pits in cliff overhangs or shelters with rawhide or woven sagebrush bark bags containing food items stashed within them (Spangler 1995:746). The storage pit was then covered with soil and a fire was constructed over the top to destroy evidence the pit had been excavated (Smith 1974:67). A second strategy involved the construction of platforms made of sticks of coniferous trees with foliage thick enough to protect the cache from inclement weather (Spangler 1995:746). When the sacks had been placed on the platform they were usually covered with cedar bark, so that the rain would drain off (Smith 1974:67). A third strategy involved storage platforms about 5 feet high placed outside the brush shelters and tipis (Spangler 1995:746). These platforms, erected on poles, were either slightly sloping or flat and hollowed out with the platforms made of bound together sagebrush (Smith 1974:68).

On May 5, 1864, Congress passed a law confirming the 1861 executive order setting up the Uintah Reservation (Burton 1996:24). This treaty provided that the Ute people give up their land in central Utah and move within one year to the Uintah Reservation without compensation for loss of land and independence. The Uinta-ats (later called Tavaputs), PahVant, Tumpanawach, and some Cumumba and Sheberetch of Utah were gathered together at the Uintah agency during the late 1860s and early 1870s to form the Uintah Band (Burton 1996:18-19). In the 1880 treaty council the White River Utes, who had participated in the Meeker Massacre, were forced to sell all their land in Colorado and

were moved under armed escort to live on the Uintah Reservation (Callaway, Janetski, and Stewart 1986:339). Shortly thereafter, 361 Uncompahgre Utes were forced to sell their lands, relocated to the Ouray Reservation adjacent to the southern boundary of the Uintah Reservation. This area embraced a tract of land to the east and south of the Uintah Reservation below Ouray lying east and south of the Uintah Reservation below Ouray lying east of the Green River. A separate Indian Agency was established in 1881 with headquarters at Ouray, erected across the river from where the first military post, Fort Thornburgh was located. The infantry who participated in the relocation of the Colorado Indians ensured that the Uncompahgre and White River Utes remained on the two reservations (Burton 1996:28). The Dawes Severalty Act of 1887, opened the reservation to mineral exploration. When gilsonite was discovered in the Uintah Basin in the late 1800s, Congress was persuaded to apportion 7,040 acres from the reservation so the mineral could be mined.

Cattle raising was the first industry in northeastern Utah with large herds from Texas established as early as 1950 in Brown's Park (Burton 1996:108). When the Uintah Railway was built to Dragon (1904) and later extended to Watson (1911) livestock were shipped from the county to market, ending the long cattle drives. Sheep were first introduced to the Uintah Basin in 1879 and survived the hard winters better than cattle (Burton 1996:111). Wool soon became one of the regions most important industries as the sheep herds multiplied. In 1906 the Uintah Railway Company built shearing pens on the Green River to encourage shipping of wool by train. Between 1912 and 1929 the sheep shearing industry increased with additional corrals established at Bonanza, Dragon, Jensen, and by 1929 Watson had a large shearing plant (Burton 1996:111).

SURVEY METHODOLOGY

An intensive pedestrian survey was performed for this project which is considered 100% coverage. At the proposed well locations, a 10 acre square was defined, centered on the well pad center stake. The interior of the well locations was examined for cultural resources by the archaeologists walking parallel transects spaced no more than 10 meters apart. An 100 foot wide corridor was inventoried along the access or pipeline routes, and a wider corridor (150 foot) was inspected along the access/pipeline routes. Ground visibility at most of the well locations was good. Modern disturbances include livestock grazing, roads, and oil/gas development. A total of 95 acres was inventoried on State of Utah School and Institutional Trust lands.

INVENTORY RESULTS

The inventory of the eight well locations, access roads and pipelines resulted in the location of three archaeological sites (42Un2645, 42Un2646 and 42Un2647) and three isolated finds of artifacts (IF-A, IF-B and IF-C).

Archaeological Sites

Smithsonian Site No.: 42Un2645
Temporary Site No.: MOAC 575 R/1
Legal Description: T 13S, R 21E, S. 32
NRHP Evaluation: Eligible
Description: This is a historic and prehistoric component site situated on the side of a the primary ridge which separates Willow Creek and Hill Creek. This ridge is a major north/south travel route for this area, evidenced by the terrain and an old unbladed road. The prehistoric component consists of a light scatter of lithic debitage, a biface fragment an utilized flake, two Intermountain Brown Ware ceramic sherds, and two small hearths This component likely represents a temporary campsite used by Ute peoples during the Protohistoric period. The historic component represents occupation between the late 1880s and early 1900s by either Utes or Euroamericans. The artifacts consist of three tobacco cans, a sanitary coffee can, a sanitary food can, and three hole-in-top fruit or vegetable cans. Other cultural materials include a metal band and parts of a cast iron stove. Along the northern edge of the site is a single-episode dump containing out-of-period sanitary tin cans as well as burned oil shale. The site has good physical integrity with potential for additional buried features and cultural materials.

Smithsonian Site No.: 42Un2646
Temporary Site No.: MOAC 575 R/2
Legal Description: T 13S, R 21E, Sec. 32
NRHP Evaluation: Eligible
Description: This is a historic Ute Indian affiliated temporary camp with a sheep corral and a sweat lodge dated between 1872 and 1912. The site is located on the south slope of an east trending spur ridge, situated off a major ridge which separates Willow Creek and Hill Creek. In the north portion of this site is a corral (Feature 1) most likely used for containing sheep and horses. The rectangular enclosure is constructed from stacked logs which incorporated live trees with an opening in the southwest corner. In the southwest part of the site is the remains of a collapsed sweat lodge (Feature 2) consisting of ten axe-cut juniper branches. Associated with this structure are a pile of fire-cracked limestone (Feature 3), an ash/charcoal stain (Feature 4), and a hearth (Feature 5) which represent rock heating and disposal features. Most of the artifacts occur in this portion of the site and include a scatter of mainly baking powder containers, a 45/70 caliper cartridge shell, a thimble, a buckle, pieces of a ceramic platter, and a snap button. In addition a single-handed sandstone mano was documented along the northeast edge of this site. The use of groundstone implements (mano and metate) by the Northern Utes for various grinding tasks is documented in the ethnographic record during the occupational span of this site.

Smithsonian Site No.: 42Un2647
Temporary Site No.: MOAC 575 R/3
Legal Description: T 13S, R 21E, Sec. 32
NRHP Evaluation: Eligible

Description: This is a special-use Ute affiliated site located along the northwest slope of an east trending spur on a prominent ridge which separates Willow Creek and Hill Creek. Remnants of three wood storage platforms (Features 1, 2 and 3) were documented at this locality. The features are constructed from axe-cut wood branches built or placed in the crotches and limbs of both live and dead trees. The platforms occur about four feet above the modern ground surface with wood pieces scattered beneath the features. The only associated artifact is a modified hole-in-top can with a bailing wire handle (pre-dates 1920). These platforms likely functioned as storage facilities as described by Smith (1974) for the Northern Ute groups. According to Alvin Ignacio, (local Ute resident), during the 1930s an Ute woman sheepherder maintained a number of camps in the Chimney Rock area in which she employed wood platforms for caching material goods. These storage features appear to be unique in the archaeological record of the area and contribute to the data base pertaining to Ute Indian subsistence activities, located outside of the reservation.

Isolated Finds of Artifacts

Isolated Find A (IF-A) is situated in the NW/SE//NW 1/4 of S.32, T 13S, R 21E (UTM 620880E-4389200N). The artifact is a stemmed projectile point manufactured from reddish-brown opaque chert. It has an expanding stem, convex edges, rounded tangs, and a slightly convex base (4.1 x 2.5 x 0.5 cm). The point exhibits evidence of percussion flake scars with pressure retouch and sharpening scars along lateral margins, as well as an impact fracture. The isolated find is situated on a ridge top overlooking a branch of Willow Creek. The hunting implement is similar to Scottsbluff variant dart points which exhibit prominent shoulders and cross-dates to the Late Paleoindian or Early Archaic temporal periods (Frison 1978:191).

Isolated Find B (IF-B) is situated in the SW/SE/NW 1/4 of S.32, T 13S, R 21E (UTM 620650E-4388990N). This is a Stage II biface fragment of beige opaque mottled chert (2.7 x 2.5 x 0.5 cm). The biface exhibits pressure flakes removed unifacially along one lateral margin.

Isolated Find C (IF-C) is situated in the NE/NE/SW 1/4 of S.32, T 13S, R 21E (UTM 620850E-4388705). It consists of two smashed hole-in-top can measuring approximately 4½ inches long with a cap diameter of 1 1/2 inches. One of the cans has a "No 7" embossed on the cap. Both have cut around openings.

NATIONAL REGISTER OF HISTORIC PLACES EVALUATION

The National Register Criteria for Evaluation of Significance and procedures for nominating cultural resources to the National Register of Historic Places (NRHP) are outlined in 36 CFR 60.4 as follows:

> The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects of State and local importance that possess integrity of location, design, setting, material, workmanship, feeling, and association, and that they:
>
> a)...are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b)...are associated with the lives of persons significant to our past; or
>
> c)...embody the distinctive characteristics of a type, period, or method of construction; or that represents the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d)...have yielded or may be likely to yield information important in prehistory or history.

The cultural resource inventory resulted in the documentation of three archaeological sites (42Un2645, 42Un2646, and 42Un2647), and three isolated finds of artifacts (IF-A, IF-B, and IF-C). Prehistoric sites are usually evaluated in terms of their potential for yielding information important to the prehistoric research domains of the area. Historic sites lacking association with important individuals are examined in terms of their structural integrity or their place in the broad patterns of American history. Site 42Un2645 is a Protohistoric (Numic) and early historic campsite containing several hearths. This multi-component site has potential for additional subsurface cultural remains. In particular the features could provide chronometric and subsistence-related data. The site is evaluated as eligible to the NRHP under Criterion (d), since additional investigations could provide relevant data to the research domains of the region. Site 42Un2646 is an Ute Indian affiliated temporary camp with a corral and sweat lodge. The structural features retain minimal structural integrity, although the sweat lodge is unique to the area in relation to the known archaeological record. The associated burned rock and ash features could yield additional information relative to chronology and subsistence. The site is considered eligible to the NRHP under Criterion (d) based on its additional research potential in addressing such research domains as site function, settlement patterns, and ideology. Specifically this site is significant in regards to off-reservation land use patterns engaged by the Ute Indians during the Early Reservation Period. Site 42Un2647 is an unique

special-use storage facility locus attributed to the Ute Indian cultural tradition. It consists of several wood storage platforms constructed or placed in trees. This features have been described by Smith (1974) in the ethnographic literature as employed by Northern Ute groups for storing supplies and food. The site is evaluated as eligible to the NRHP under Criterion (c), since the platforms are unusual and unique in regards to the archaeological record of the locality. In addition the site is deemed significant in context to the theme of early historic Ute Indian settlement/subsistence practices.

The isolated finds of artifacts consist of a late Paleoindian or early Archaic stemmed projectile point (IF-A), a Stage II biface fragment (IF-B), and several hole-in-top tin cans (IF-C). These isolated occurrences exhibit prehistoric and historic use of the project area and are not considered significant due to their lack of additional research potential.

MANAGEMENT RECOMMENDATIONS

The inventory of Del Rio/Orion's eight well locations, access routes, and pipeline resulted in the documentation of three archaeological sites (42Un2645, 42Un2646, and 42UN2647). These sites are considered eligible to the NRHP. All of the significant sites will be avoided from project impacts related to this well development undertaking.

Based on the findings, a determination of "no adverse effect" is submitted for this undertaking pursuant to Section 106, CFR 800.

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APPENDIX A

SITES 42UN2645, 42UN2646 AND 42UN2647
INTERMOUNTAIN ANTIQUITIES COMPUTER SYSTEM (IMACS) SITE FORMS

On File At:

Utah Division of State History
Salt Lake City, Utah

Form OGC-1a

001

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS, AND MINING

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

5. Lease Designation and Serial No.
ML-47437

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

6. If Indian, Allottee or Tribe Name
N/A

1a. Type of Work
DRILL [XX] DEEPEN [ ] PLUG BACK [ ]

7. Unit Agreement Name
N/A

b. Type of Well
Oil Well [XX] Gas Well [XX] Other Single Zone [ ] Multiple Zone [ ]

8. Farm or Lease Name
Chimney Rock

2. Name of Operator
Del-Rio Resources, Inc.

9. Well No.
#32-2

3. Address of Operator
P.O. Box 459 Vernal, UT 84078 (435)789-8162

10. Field and Pool, or Wildcat
Wildcat

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface
613' FNL 1932' FEL
621,196 E
4,389,504 N
At proposed prod. zone

11. Sec., T., R., M., or Blk. and Survey or Area
Sec. 32, T13S, R21E, SLB&M

14. Distance in miles and direction from nearest town or post office*
See Topo Map "A" (Attached)

12. County or Parrish
Uintah

13. State
UT

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. line, if any) 613'

16. No. of acres in lease
640

17. No. of acres assigned to this well
40

18. Distance from proposed location* to nearest well, drilling, completed, or applied for, on this lease, ft. 1550'

19. Proposed depth
6384'

20. Rotary or cable tools
Rotary

21. Elevations (Show whether DF, RT, GR, etc.)
6482' GR

22. Approx. date work will start*

23. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per Foot	Setting Depth	Quantity of Cement
12 1/4"	9 5/8"	36#	300'	See Attached Drilling Plan
8 3/4"	7"	~~26#~~ 29#	6384'	See Attached Drilling Plan

per L.C. 1-13-00 RDH

1. M.I.R.U.
2. Drill to T.D. 6384'
3. Run 7" casing if commerical production is indicated.
4. If dry hole, well will be plugged and abandoned as instructed by the State.
5. Well will be drilled with fresh water to 1800', then Chem Gel Mud to T.D. Mud will be in place to run 7" casing.

I hereby certify that I am responsible by the terms and conditions of the Lease to conduct Lease Operations. Bond Coverage pursuant to 43 CFR 3104 for Lease Activities is being provided by First Security Bank in the form of a Certificate of Deposit. CD #0629992985402

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
Signed Laurence C. Caldwell Title President Date 12-9-99

(This space for Federal or State office use)

Permit No. 43-047-33441 Approval Date

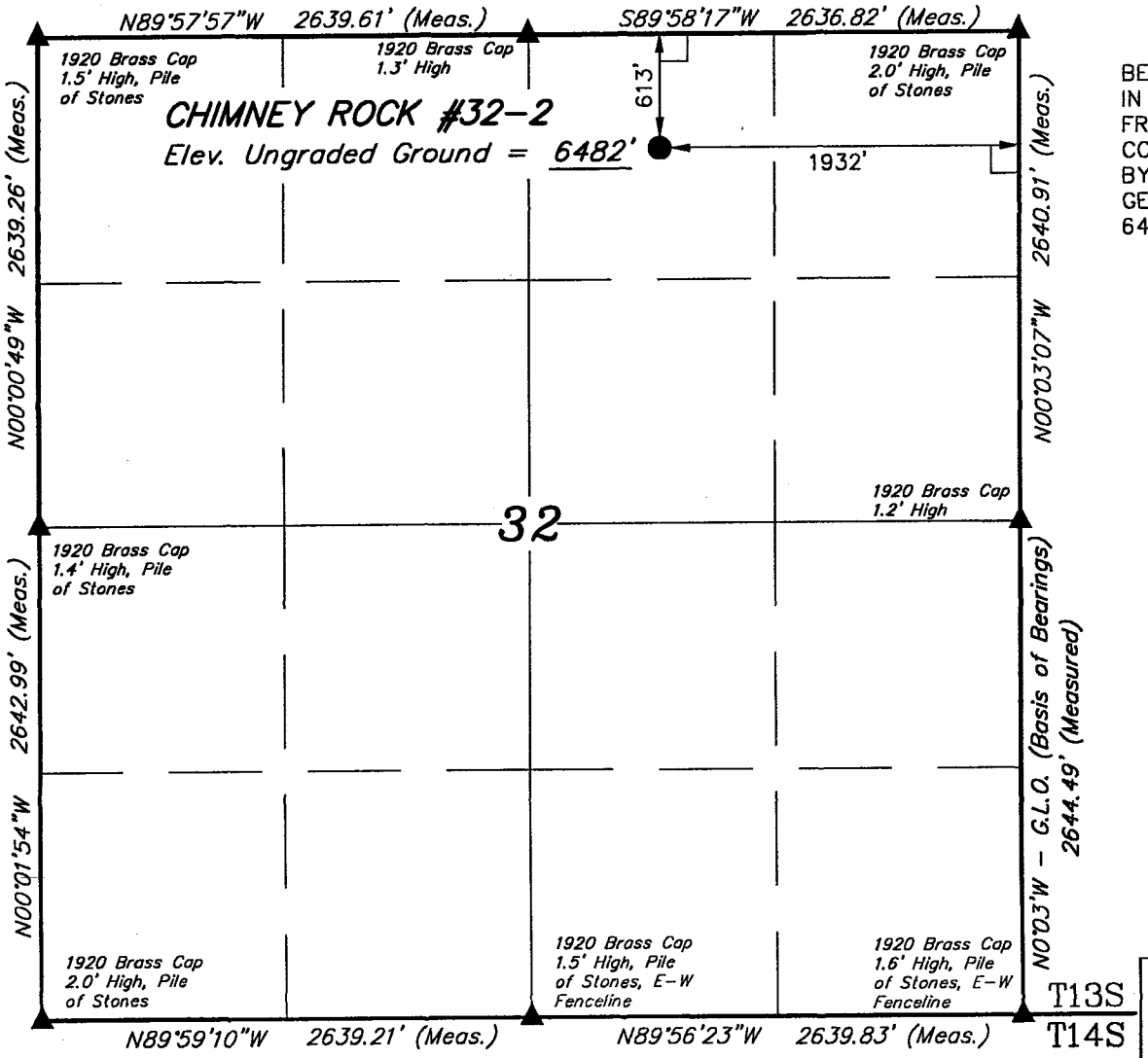
Approved by Bradley G. Hill Title BRADLEY G. HILL RECLAMATION SPECIALIST III Date 1/27/00

Conditions of approval, if any:

RECEIVED
DEC 13 1999
DIVISION OF OIL, GAS & MINING

*See Instructions On Reverse Side

T13S, R21E, S.L.B.&M.

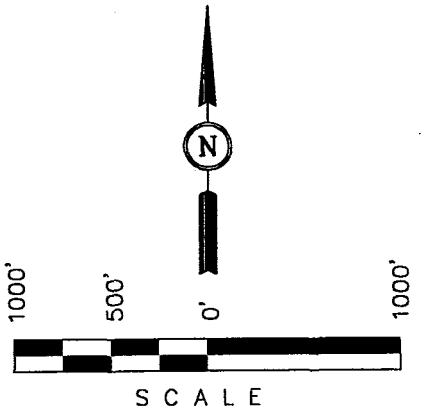


DEL-RIO RESOURCES, INC.

Well location, CHIMNEY ROCK #32-2, located as shown in the NW 1/4 NE 1/4 of Section 32, T13S, R21E, S.L.B.&M. Uintah County, Utah.

BASIS OF ELEVATION

BENCH MARK (63 WF) 1952 LOCATED AT A ROAD INTERSECTION IN THE SW 1/4 OF SECTION 29, T13S, R21E, S.L.B.&M. TAKEN FROM THE AGENCY DRAW NE, QUADRANGLE, UTAH, UINTAH COUNTY, 7.5 MINUTE QUAD. (TOPOGRAPHIC MAP) PUBLISHED BY THE UNITED STATES DEPARTMENT OF THE INTERIOR, GEOLOGICAL SURVEY. SAID ELEVATION IS MARKED AS BEING 6488 FEET.



CERTIFICATE

THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 161319
STATE OF UTAH

REG. NO. 161319 LAND SURVEYOR KAY STATE OF UTAH

LEGEND:

└ = 90° SYMBOL

● = PROPOSED WELL HEAD.

▲ = SECTION CORNERS LOCATED.

LATITUDE = 39°38'55"

LONGITUDE = 109°35'16"

UINTAH ENGINEERING & LAND SURVEYING
85 SOUTH 200 EAST - VERNAL, UTAH 84078
(435) 789-1017

SCALE 1" = 1000'	DATE SURVEYED: 09-23-99	DATE DRAWN: 10-19-99
PARTY K.K. R.W. D.COX	REFERENCES G.L.O. PLAT	
WEATHER WARM	FILE DEL-RIO RESOURCES, INC.	

DEL-RIO RESOURCES, INC.
DRILLING PLAN FOR THE
CHIMNEY ROCK #32-2

I. DRILLING PLAN:

1. Geological Surface Formation: Green River

2. Estimated Tops:

Name	Top	Prod. Phase Anticipated
Wasatch	1905'	
Mesa Verde	4010'	⇓
Nelsen	5402'	⇓
Castlegate	6064'	Oil/Gas

3. CASING PROGRAM:

	Depth	Hole Size	Csg. Size	Type	Weight
Surface	300'	12-1/4"	9-5/8"	K-55 (LT&C)	36#/ft (new)
Prod.	6384'	8-3/4"	7"	N-80 (LT&C)	29#/ft (new)

4. Operator's Specification for Pressure Control Equipment:

A. 3,000 psi W.P. Double Gate BOP (Schematic attached).

B. Functional test daily.

C. All casing strings shall be pressure-tested (0.2 psi/foot or 1500 psi, whichever is greater) prior to drilling the plug after cementing; test pressure shall not exceed the internal yield pressure of the casing.

D. All ram-type preventers and related control equipment shall be tested at the rated working pressure of the stack assembly or at 70 percent of the minimum internal yield pressure of the casing, whichever is less. Tests shall be done at the time of installation, prior to drilling out, and weekly. All tests shall be for a period of 15 minutes.

5. Auxiliary Equipment:

A. Kelly Cock - yes.

B. Float at the bit - no.

C. Monitoring equipment on the mud system - Mud Logger.

D. Full opening safety valve on rig floor - yes.

E. Rotating head - yes.

6. Proposed Circulating Medium:

Depth	Mud Type	Density (lb./gal)	Viscosity	Water Loss
0'-1800'	Fresh Water	8.4	30	no control
1800'-TD	Chem Gel	9.0	37-38	12 cc or less

7. Testing, Logging, and Coring Program:

A. Cores - None.

B. DST - none anticipated.

C. Logging - DIFL/SP/GR (TD to surface).
ZDL/CN/CAL w/DFIL (TD to 2000' from surface).
MRIL (TD to 3000' from Surface)

D. Formation and Completion Interval: Mesa Verde

Final determination of completion will be made by analysis of logs.
Stimulation - Stimulation will be designed for the particular area of interest as encountered.

E. Frac gradient - approximately .75 psi/ft.

8. Cementing Program:

Casing	Volume	Type & Additives
Surface	190 sx	Class "G" w/2% CaCl2 (based on 100% access)
Production	1600 sx	800 sx Class "G" followed by 800 sx 50/50 poz. mix. — 1.28 ft³/sk 14.2 ppg per L.C. 1-13-00 RSK

Cement Characteristics:

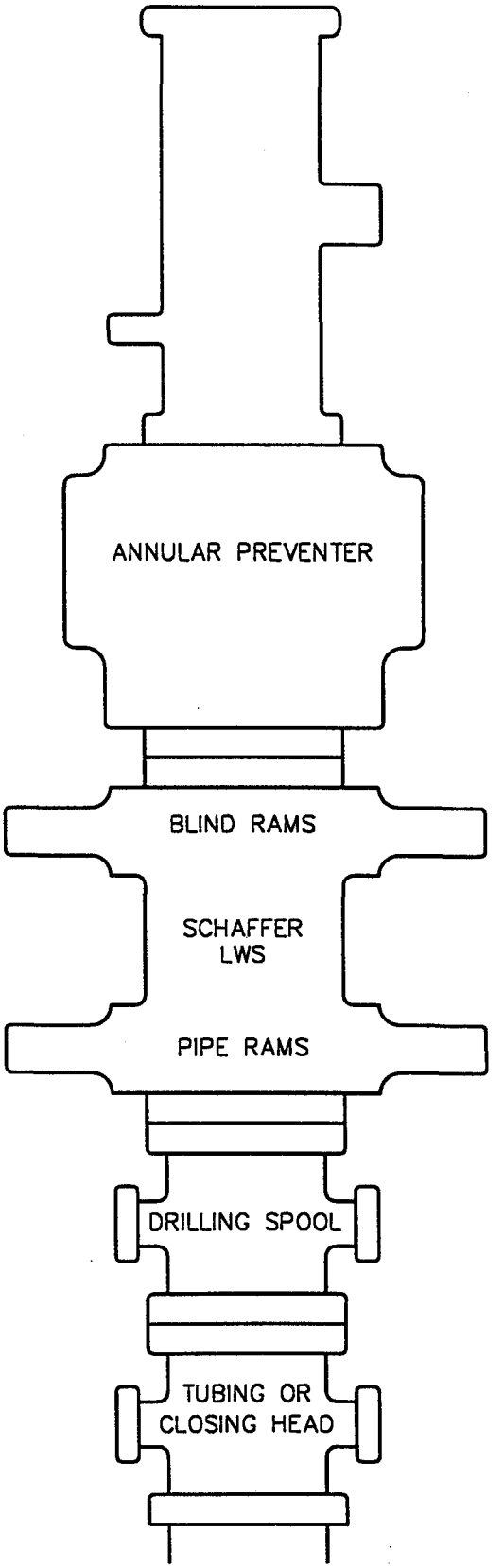
Class "G" - yield = 1.18 cu.ft. per. sack
weight = 15.8 lb./gal
strength = 3200 psi in 72 hrs @125 degrees

* Final cement volumes to be calculated from caliper log with an attempt to be made to circulate cement to 3000' from the surface. A bond log will be run across the zone of interest and across zones as required by the authorized officer to insure protection of natural resources.

9. Anticipated Abnormal Pressures and Temperatures, Other Potential Hazards:

No abnormal temperatures or pressures are anticipated. No H_2S has been encountered in or known to exist from previous wells drilled to similar depths in the general area. Maximum anticipated bottom hole pressure equals approximately 1,500 psi (calculated at 0.235 psi/ft) and maximum anticipated surface pressure equals approximately 96 psi (bottom hole pressure minus the pressure of a partially evacuated hole calculated at 0.22 psi/ft).

CLASS III BLOWOUT PREVENTER STACK



II. SURFACE USE PLAN
DEL-RIO RESOURCES, INC.
CHIMNEY ROCK #32-2

1. Existing Road:

   A. Topo Map "A" is the vicinity map, showing the access routes from Ouray, Utah.

   B. Topo Map "B" shows the proposed access road to each individual well. It also shows existing roads in the immediate area.

   C. Occasional maintenance blading and storm repairs will keep roads in good condition.

   D. There shall be no mud blading on the access road. Vehicles may be towed through the mud provided they stay on the roadway.

2. Planned Access Roads:

   The proposed access road, will be crowned, ditched, and dipped.

   A. Maximum grade will be 8% or less, unless otherwise stated.

   B. No turnouts will be required.

   C. Road surface material will be that native to the area.

   D. No cattle guard will be required.

   E. The proposed access road was flagged at the time the location was staked.

   F. The area authorized officer will be contacted at least 24 hours prior to commencing construction of the access road and well pad.

G. The back slopes of the proposed access roads will be no steeper than vertical or 1/4:1 in rock; and 2:1, elsewhere.

The operator or his contractor will notify the State office at least 48 hours prior to commencement of any work on these locations, roadways, or pipelines.

3. Location of Existing Wells:

See existing Drill Holes on Topo Map "C"

4. Location of Existing and/or Proposed Facilities:

A. All Petroleum Production Facilities are to be contained within the proposed location sites.

B. In the event that production of these wells is established, the following will be shown:

1. Proposed location and attendant lines, by flagging, if off well pad.

2. Dimensions of facilities.

3. Construction methods and materials.

C. The area used to contain the proposed production facilities will be built using native materials. If these materials are not acceptable, then other arrangements will be made to acquire them from private sources. These facilities will be constructed using bulldozers, graders, and workman crews to construct and place the proposed facilities.

D. All permanent facilities placed on the locations shall be painted a non-reflective color which will blend with the natural environment.

E. A dike shall be constructed around the tank battery, of sufficient capacity to adequately contain at least 110 percent of the storage capacity of the largest tank within the dike.

F. All buried pipelines if needed shall be covered to a depth of 3 feet except at road crossings where they shall be covered to a depth of 4 feet.

G. Construction width of the road right-of way/pipeline corridor route if needed shall be restricted to 30 feet of disturbance.

H. Pipeline location warning signs shall be installed within 90 days upon completion of construction.

5. Location and Type of Water Supply:

Water to be obtained from Willow Creek at a P.O.D. located in the SE 1/4 SE 1/4 of Section 29, T12S, R21E, S.L.B.&M. and transported by truck along the access roads which are shown on the attached topo maps.

Application #T72431 - Water Right #49-1637 (Held by Tu & Frum, Inc.)

No water wells are to be drilled.

6. Source of Construction Materials:

A. No construction materials are needed for drilling operations. In the event of production, the small amount of gravel needed for facilities will be hauled in by truck from a local gravel pit over existing access roads from the area. No special access other than for drilling operations and pipeline construction is needed.

B. All disturbance for this well site is located on Utah State Trust Lands Lands

All Construction material for these location sites and access roads shall be borrow material accumulated during the construction of the location sites and access roads. No additional construction material from other sources is anticipated at this time, but if it is required, the appropriate actions will be taken to acquire it from private sources.

7. Methods for Handling Waste Disposal:

A. Drill cuttings will be buried in the reserve pit when covered.

B. Drilling fluids will be contained in the reserve pit.

C. Any hydrocarbon liquids produced while production testing will be contained in a test tank. Any unavoidable spills of oil or other adverse substances or materials will be removed immediately during drilling progress or during completion operations.

D. Portable chemical toilets will be provided and serviced by a local commercial sanitary service.

E. Garbage and trash will be collected in a trash cage and its contents hauled to a sanitary landfill.

All wastes caused by the construction activities shall be promptly removed and disposed of in a sanitary landfill or as directed by the authorized officer.

F. Prior to commencement of drilling, the reserve pit will be lined with a minimum 12 mil. liner with sufficient straw bedding and will be fenced on three sides using 39-inch net wire with at least one (1) strand of barbed wire. All wire is to be stretched before attaching to corner posts. When drilling activities are completed it will be fenced on the fourth side and allowed to dry (if liquids are present). After drying, the fences will be removed and the pit shall be buried. Reclamation will be undertaken no later than the fall of the year after all drilling activity has ceased.

8. Ancillary Facilities:

No air strips, camps, or other living facilities will be built off the location. Housing and office trailers will be on the location as seen on the location layout.

9. Well Site Layout:

   A. See attached cutsheet.

   B. The areas authorized officer will be contacted at least 24 hours prior to commencing construction of the access road and well pad.

   C. The authorized officer has determined that the pit is to be lined, and type of material to be used.

   D. Topsoil shall be stripped to a depth of 12 inches and stockpiled as shown on the location layout plat.

   E. The back slopes of the locations will be no steeper than vertical or 1/4:1 in rock, and 2:1 elsewhere.

   F. The upper edges of all cut banks on the access roads and well pads will be rounded.

10. Plans for Restoration:

   A. Immediately upon completion, the location and surrounding area will be cleared of all debris, materials, trash and junk not required for production.

   B. Before any dirt work to restore the location takes place, the reserve pit must be completely dry. The reserve pit will be reclaimed within 90 days from the date of well completion.

   C. The area officer shall be notified at least 48 hours prior to commencing reclamation work.

   D. All disturbed areas will be seeded with the a mixture which is found suitable by the State.

E. The seed bed will be prepared by disking, following the natural contour. Drill seed on contour at a depth no greater than ½ inch. In areas that cannot be drilled, the seed will be broadcast at double the seeding rate and harrowed into soil. Certified seed is recommended.

F. Fall seeding will be completed after September, and prior to prolonged ground frost.

G. If the well is a producer, access roads will be upgraded and maintained as necessary to prevent soil erosion, and accommodate year round traffic. Areas unnecessary to operations will be reshaped, topsoil distributed, and seed distributed according to the above mixtures. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.

H. If the well is abandoned or is a dry hole, the access road and location will be restored to approximate the original contours. During reclamation of the site the fill material will be pushed into cuts and up over the backslope. No depressions will be left that would trap water or form ponds. Topsoil will be distributed evenly over the location and seeded according to the above mixture. The access road and the location shall be ripped or disked prior to seeding. Perennial vegetation must be established. Additional work shall be required in case of seeding failures, etc.

I. Annual or noxious weeds shall be controlled on all disturbed areas. Method of control shall be by an approved mechanical method or an Environmental Protection Agency (EPA) registered herbicide. All herbicide application proposals must be approved. Application of herbicides must be under direct field supervision of an EPA certified pesticide applicator.

11. Other Information:

A. All activity shall cease when soils or road surfaces become saturated to a depth of three inches, unless otherwise approved by the Authorized Officer.

If any fossils are discovered during construction, the operator shall cease construction immediately and notify the Authorized Officer so as to determine the significance of the discovery.

B. A Class III cultural resource inventory has been completed prior to disturbance by a qualified professional Archaeologist.

C. The State considers the development of groundwater resources to be necessary and frequently indispensable to effective land management. Therefore, any groundwater intercepted by the party conducting mineral exploration shall be reported to the authorized officer immediately including approximate quantities and a sample in a sealed quart container. The State shall have the first opportunity to file State water rights for the intercepted groundwater. The undersigned may file for water rights only with a written waiver from the State.

D. The operator is responsible for informing all persons in the area who are associated with this project that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during construction, the operator is to immediately stop work that might further disturb such materials and contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

whether the materials appear eligible for the National Register of Historic Places;
the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary); and a time frame for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, an operator will then be allowed to resume construction.

E. Less than 10,000 pounds of any chemical(s) from EPA's Consolidated list of Chemicals Subject to Reporting Under Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986, and less than threshold planning quantity (TPQ) of any extremely hazardous substances(s), as defined in 40 CFR, would be used, produced, transported, stored, disposed, or associated with the proposed action.

12. Lessee's or Operator's Representative:

Mr. Lawrence C. Caldwell II
President
Del-Rio Resources, Inc.
P.O. Box 459
Vernal, Utah
Telephone #(801)789-8162
Cell #(801)790-8578

Del-Rio Resources, Inc.
Chimney Rock #32-2

13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drillsite(s) and access route(s); that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by **Del-Rio Resources, Inc.**, and its contractors and subcontractors in conformity with the plan and the terms and conditions under which it is approved.

This statement is subject to the provision of 18 U.S.C. 1001 for the filing of a false statement.

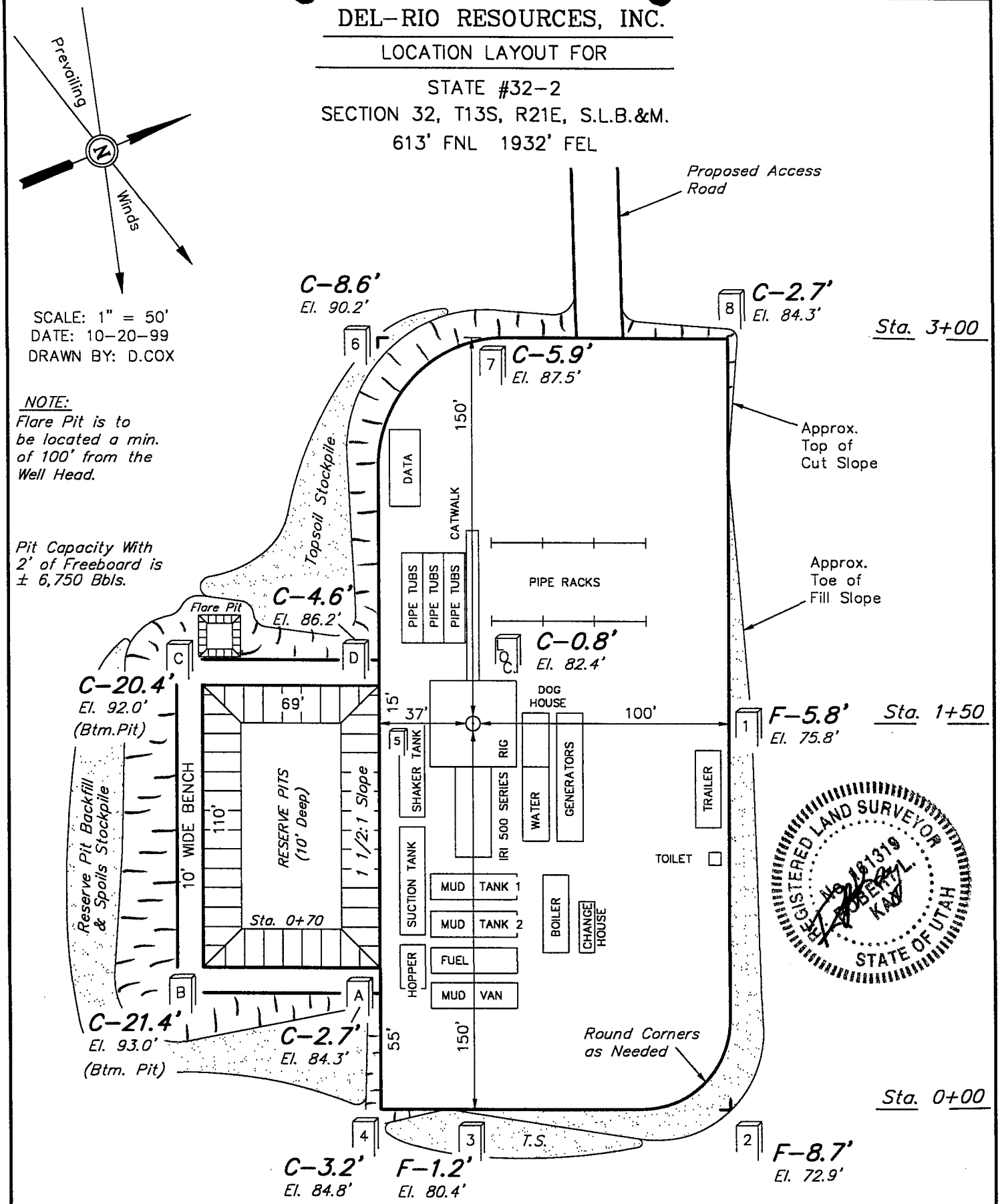
12-9-99
Date

Lawrence C. Caldwell II
President

DEL-RIO RESOURCES, INC.

LOCATION LAYOUT FOR

STATE #32-2
SECTION 32, T13S, R21E, S.L.B.&M.
613' FNL 1932' FEL



SCALE: 1" = 50'
DATE: 10-20-99
DRAWN BY: D.COX

NOTE:
Flare Pit is to be located a min. of 100' from the Well Head.

Pit Capacity With 2' of Freeboard is ± 6,750 Bbls.

Elev. Ungraded Ground at Location Stake = 6482.4'
Elev. Graded Ground at Location Stake = 6481.6'

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East * Vernal, Utah 84078 * (435) 789-1017

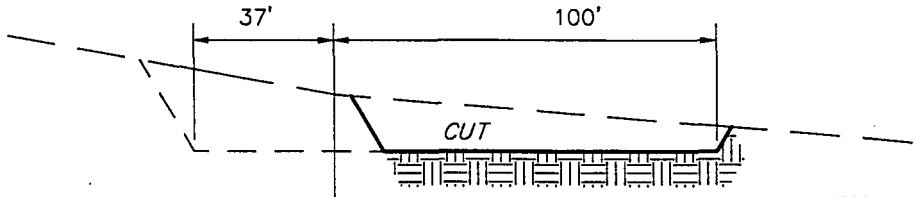
DEL-RIO RESOURCES, INC.

TYPICAL CROSS SECTIONS FOR

STATE #32-2
SECTION 32, T13S, R21E, S.L.B.&M.
613' FNL 1932' FEL

1" = 20'
X-Section Scale
1" = 50'

DATE: 10-20-99
DRAWN BY: D.COX



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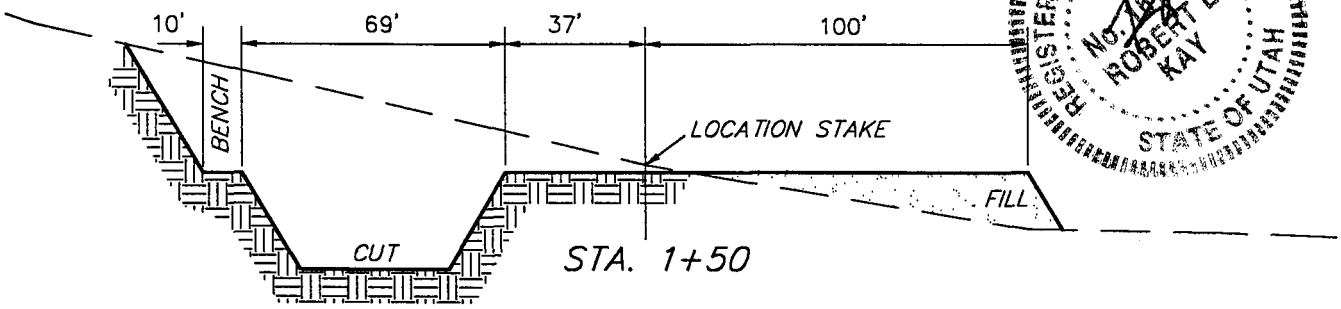

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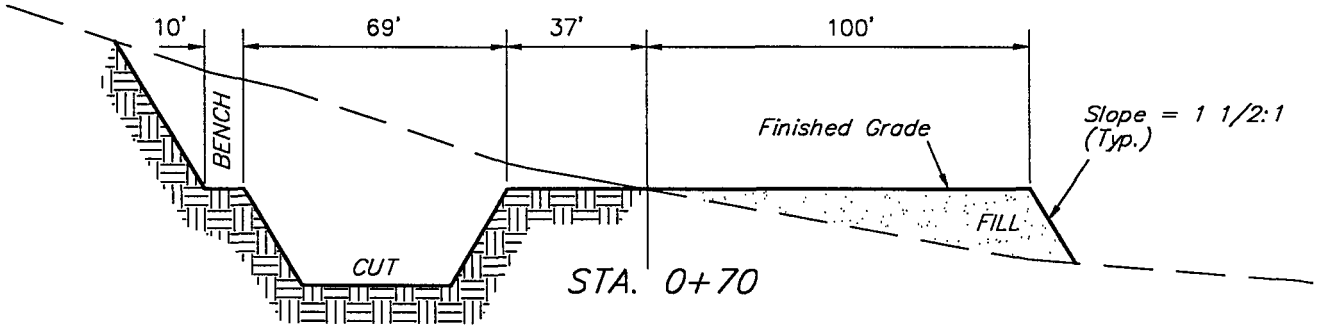
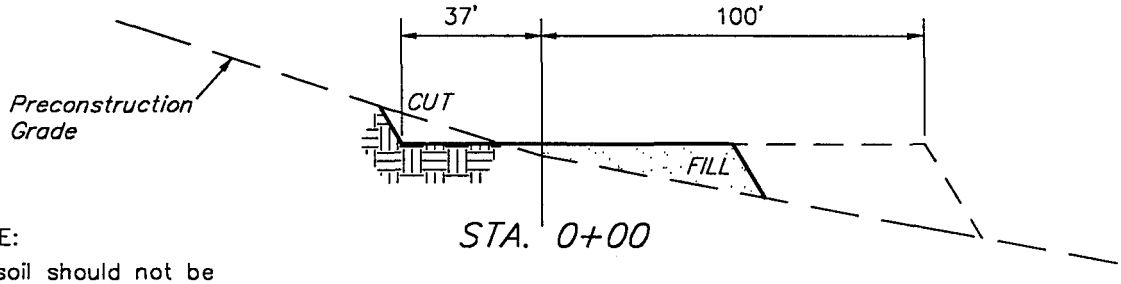


STA. 0+70



STA. 0+00

NOTE:
Topsoil should not be Stripped Below Finished Grade on Substructure Area.

REGISTERED LAND SURVEYOR
No. 161319
ROBERT L. KAY
STATE OF UTAH

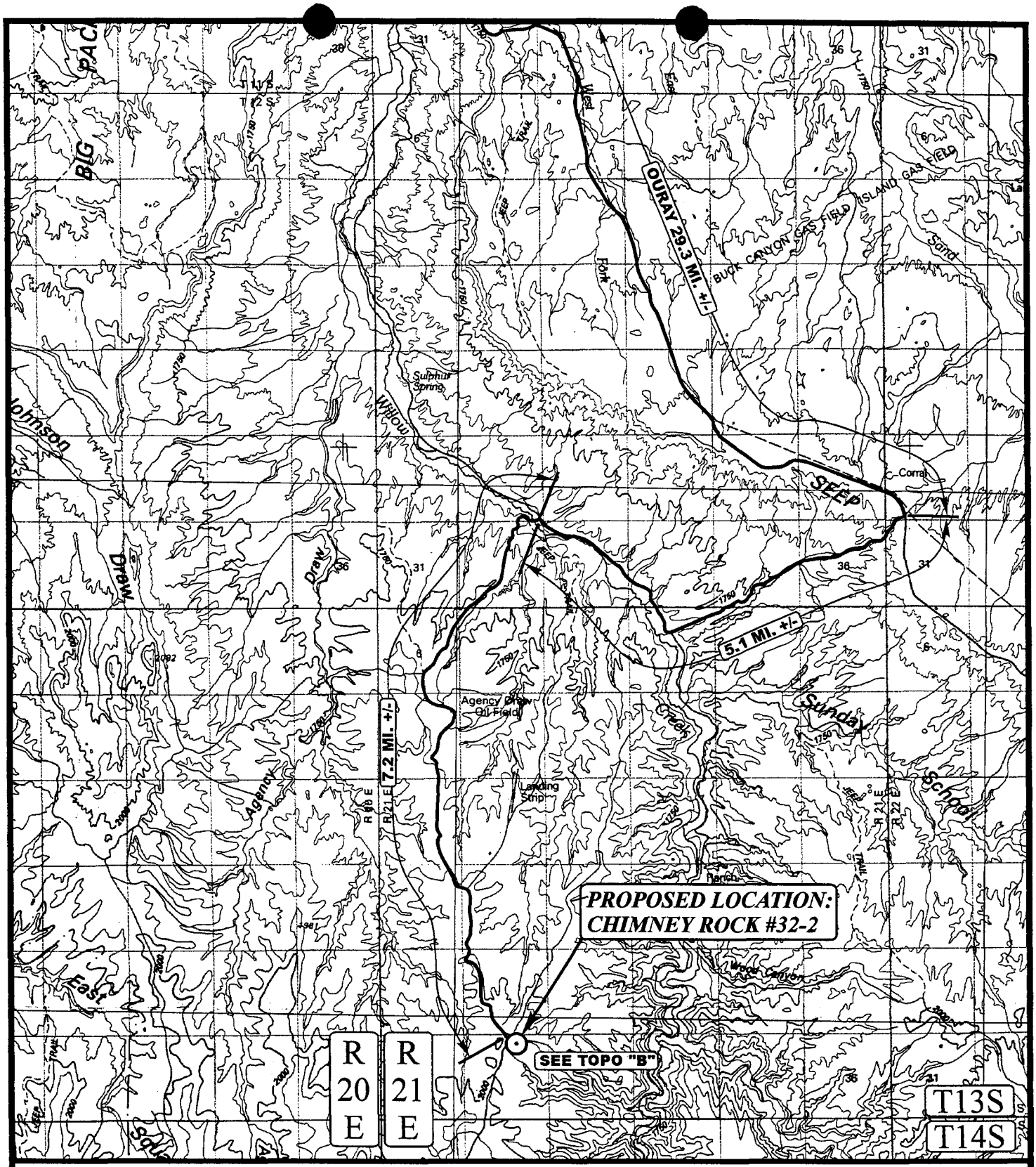
APPROXIMATE YARDAGES

CUT

(6") Topsoil Stripping	= 900	Cu. Yds.
Remaining Location	= 7,450	Cu. Yds.
TOTAL CUT	= 8,350	CU.YDS.
FILL	= 3,130	CU.YDS.

EXCESS MATERIAL AFTER 5% COMPACTION	= 5,060	Cu. Yds.
Topsoil & Pit Backfill (1/2 Pit Vol.)	= 1,870	Cu. Yds.
EXCESS UNBALANCE (After Rehabilitation)	= 3,190	Cu. Yds.

UINTAH ENGINEERING & LAND SURVEYING
85 So. 200 East • Vernal, Utah 84078 • (435) 789-1017



LEGEND:

⊙ PROPOSED LOCATION

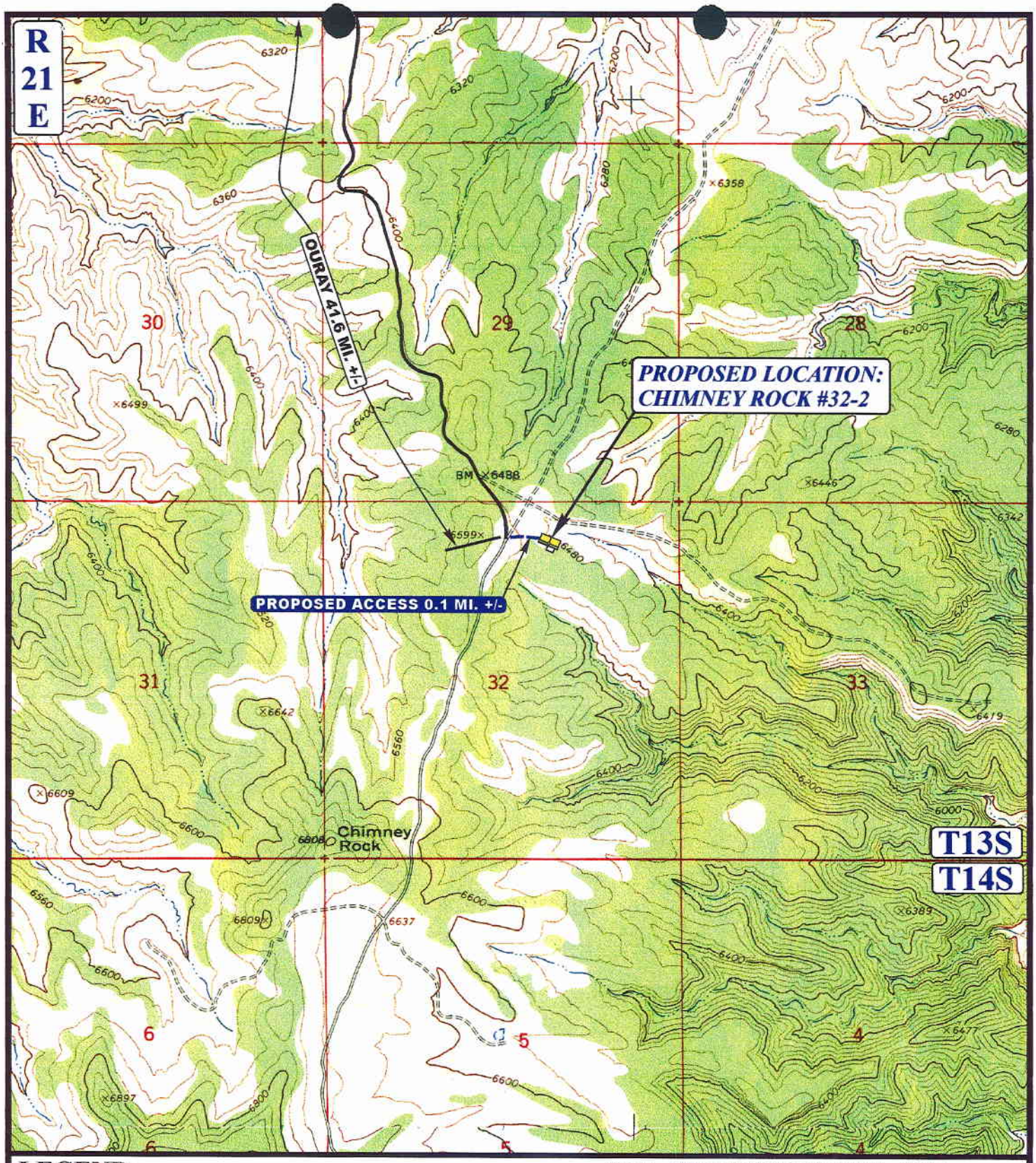
N

DEL-RIO RESOURCES, INC.

CHIMNEY ROCK #32-2
SECTION 32, T13S, R21E, S.L.B.&M.
613' FNL 1932' FEL

UEIS
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	10 MONTH	12 DAY	99 YEAR	A TOPO
SCALE: 1 : 100,000	DRAWN BY: C.G.	REVISED: 00-00-00		



LEGEND:

---------- PROPOSED ACCESS ROAD
———— EXISTING ROAD

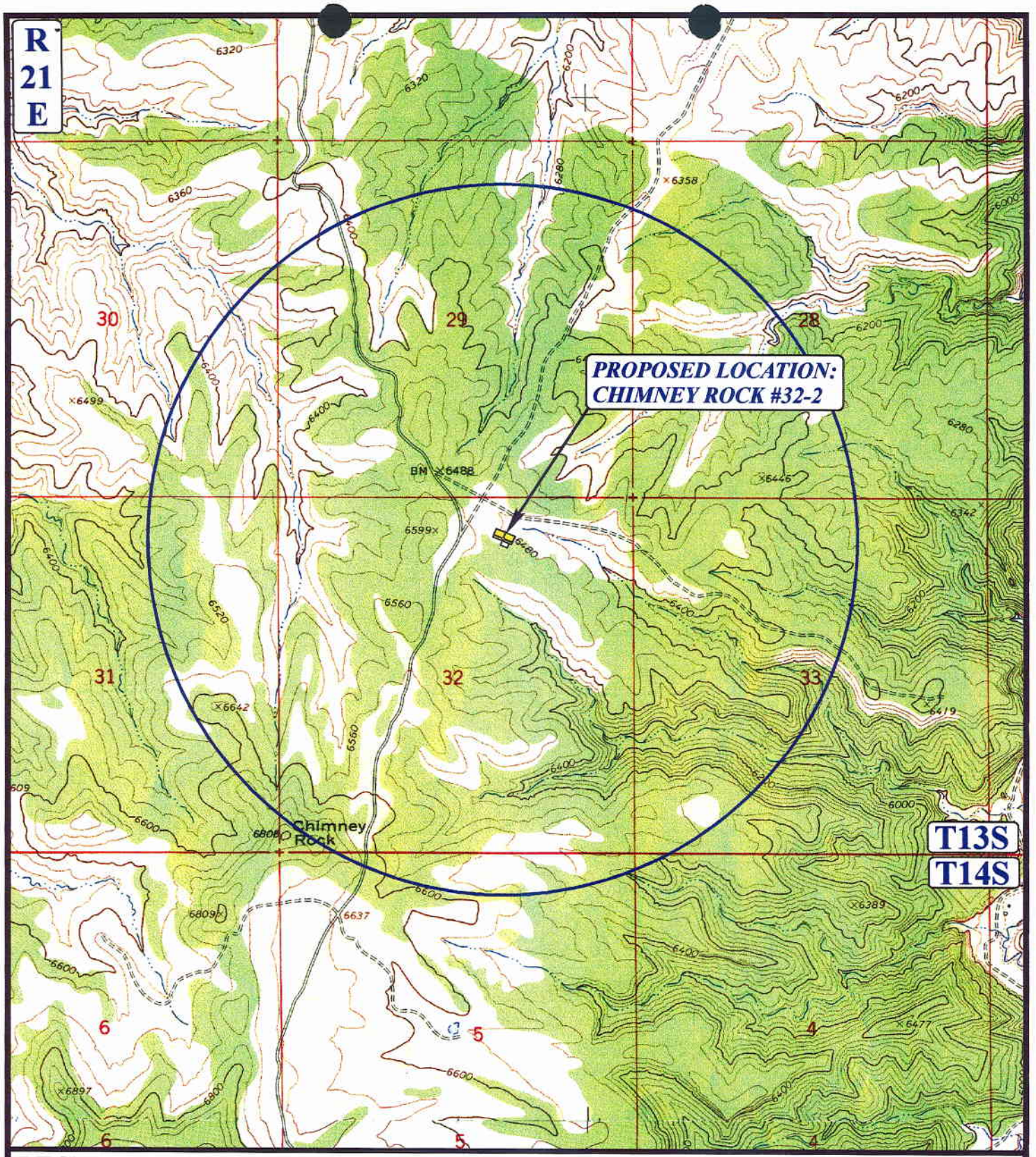
N

DEL-RIO RESOURCES, INC.

CHIMNEY ROCK #32-2
SECTION 32, T13S, R21E, S.L.B.&M.
613' FNL 1932' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	10 MONTH	12 DAY	99 YEAR	B TOPO
SCALE: 1" = 2000'	DRAWN BY: C.G.	REVISED: 00-00-00		



LEGEND:

- DISPOSAL WELLS
- PRODUCING WELLS
- SHUT IN WELLS
- WATER WELLS
- ABANDONED WELLS
- TEMPORARILY ABANDONED

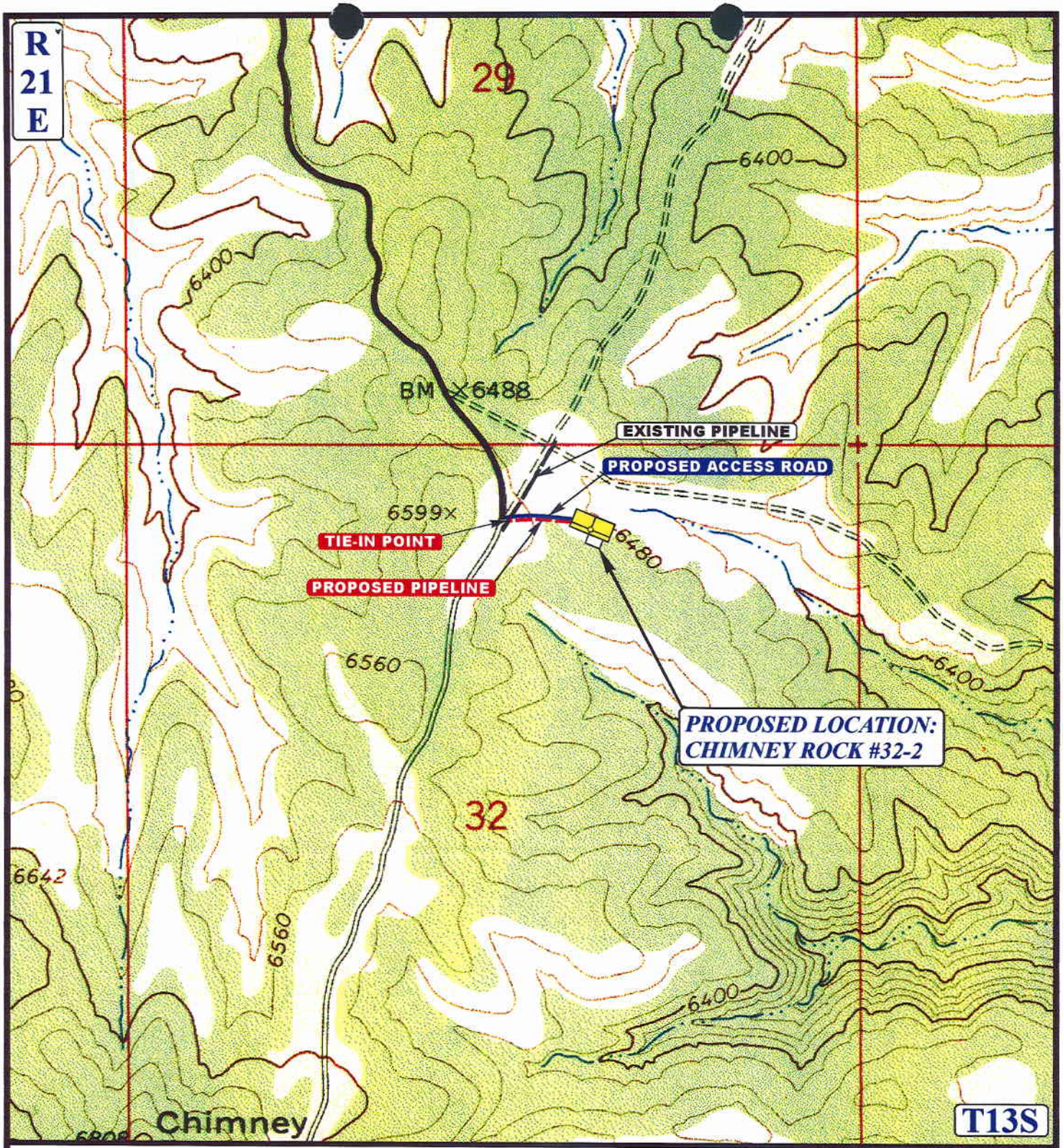
N

DEL-RIO RESOURCES, INC.

CHIMNEY ROCK #32-2
SECTION 32, T13S, R21E, S.L.B.&M.
613' FNL 1932' FEL

Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	10 MONTH	12 DAY	99 YEAR	C TOPO
SCALE: 1" = 2000'	DRAWN BY: C.G.	REVISED: 00-00-00		



APPROXIMATE TOTAL PIPELINE DISTANCE = 500' +/-

LEGEND:

- EXISTING PIPELINE
- PROPOSED PIPELINE
- PROPOSED ACCESS

N

DEL-RIO RESOURCES, INC.

CHIMNEY ROCK #32-2
SECTION 32, T13S, R21E, S.L.B.&M.
613' FNL 1932' FEL

UEIS
Uintah Engineering & Land Surveying
85 South 200 East Vernal, Utah 84078
(435) 789-1017 * FAX (435) 789-1813

TOPOGRAPHIC MAP	10 MONTH	12 DAY	99 YEAR	D TOPO
SCALE: 1" = 1000'	DRAWN BY: C.G.	REVISED: 00-00-00		

004

WORKSHEET
APPLICATION FOR PERMIT TO DRILL

APD RECEIVED: 12/13/1999

API NO. ASSIGNED: 43-047-33441

WELL NAME: CHIMNEY ROCK 32-2

OPERATOR: DEL-RIO RESOURCES INC (N0330)

CONTACT: LARRY CALDWELL

PHONE NUMBER: 435-789-8162

PROPOSED LOCATION:

NWNE 32 130S 210E

SURFACE: 0613 FNL 1932 FEL

BOTTOM: 0613 FNL 1932 FEL

UINTAH

WILDCAT (1)

LEASE TYPE: 3 - State

LEASE NUMBER: ML-47437

SURFACE OWNER: Ø3 per SITLA 12-16-99

PROPOSED FORMATION: CSLGT

INSPECT LOCATN BY: / /

Tech Review	Initials	Date
Engineering	RJK	1-13-00
Geology		
Surface		

RECEIVED AND/OR REVIEWED:

✓ Plat

✓ Bond: Fed[] Ind[] Sta[3] Fee[]
(No. 2985402)

N Potash (Y/N)

N Oil Shale (Y/N) *190 - 5 (B)

✓ Water Permit
(No. 49-1637)

Y RDCC Review (Y/N)
(Date: DOGM Ltr. 12-29-99 / Comments Due 1-25-00

N/A Fee Surf Agreement (Y/N)

LOCATION AND SITING:

____ R649-2-3. Unit _____

✓ R649-3-2. General
Siting: _____

____ R649-3-3. Exception

____ Drilling Unit
Board Cause No: _____
Eff Date: _____
Siting: _____

____ R649-3-11. Directional Drill

COMMENTS: Need Presite. (DONE 1/4/00)

STIPULATIONS: (1) STATEMENT OF BASIS

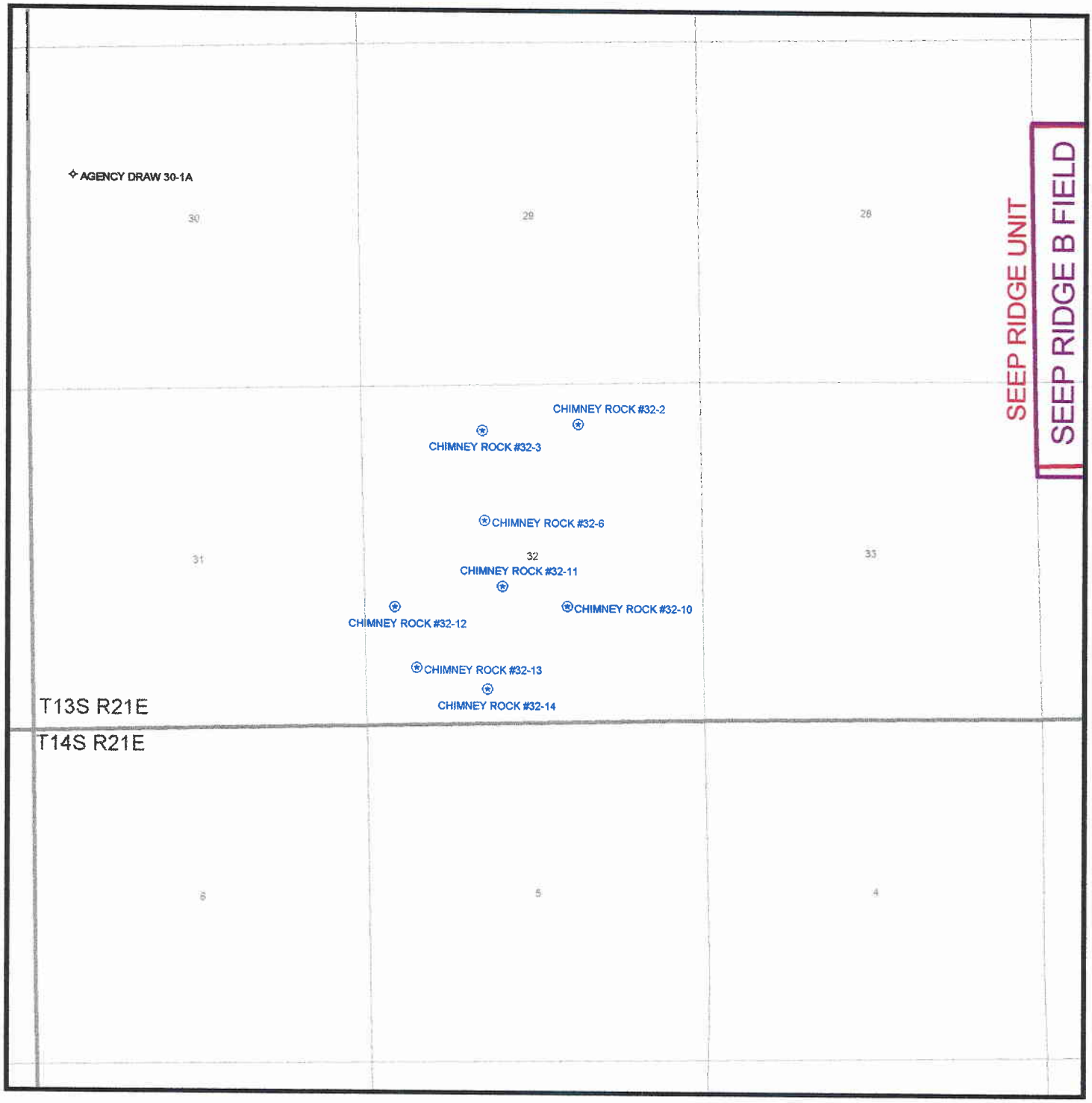
Division of Oil, Gas & Mining

OPERATOR: DEL-RIO PERTOLEUM (N0330)

FIELD: WILDCAT (001)

SEC. 32, TWP 13 S, RNG 21 E

COUNTY: UINTAH UNIT: NONE



PREPARED
DATE: 15-DEC-1999

RESOURCE DEVELOPMENT COORDINATING COMMITTEE

January 25, 2000

Agenda

I. Land Exchange

1. UT000106-010 — Parks and Recreation/Davis County: Center Street Corporation Land Exchange. (Sec. 3, T1N, R1W). Comments due 1/30/00.

I. Other Proposed Actions

A. State

B. Federal

2.. UT000105-010 — USDA/Forest Service/Garfield, Kane Counties: Dixie National Forest - Initial Analysis and Scoping Document Sunrise/Sunset, Special Use Permits and Forest Creek Fence and Pipeline. Comments due 1/30/00.

II. 404 Permits

III. Short Turnaround

Please note! Due to the short turnaround please comment directly to the Agency with a copy to GOPB.

A. State

3. UT000104-010 — DOGM/Uintah County: Application for Permit to Drill - proposal to drill the Chimney Rock State #32-2 well (wildcat) on State lease ML-47437(Sec. 32, T13SA, R21E) (contact person John Baza - 801/538-5340). Comments due 1/25/00.

STATE ACTIONS

Mail to:
RDCC Coordinator
116 State Capitol
Salt Lake City, Utah 84114

1. ADMINISTERING STATE AGENCY
OIL, GAS AND MINING
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, Utah 84114-5801

2. STATE APPLICATION IDENTIFIER NUMBER:
(assigned by State Clearinghouse)

3. APPROXIMATE DATE PROJECT WILL START:
Upon Approval

4. AREAWIDE CLEARING HOUSE(s) RECEIVING STATE ACTIONS:
(to be sent out by agency in block 1)
Uintah Basin Association of Governments

5. TYPE OF ACTION: /_/ Lease /X/ Permit /_/ License /_/ Land Acquisition
/_/ Land Sale /_/ Land Exchange /_/ Other _____

6. TITLE OF PROPOSED ACTION:
Application for Permit to Drill

7. DESCRIPTION:
Del Rio Resources proposes to drill the Chimney Rock State #32-2 well (wildcat) on state lease ML-47437, Uintah County, Utah. This action is being presented to RDCC for consideration of resource issues affecting state interests. The Division of Oil, Gas and Mining is the primary administrative agency in this action and must issue approval before operations commence.

8. LAND AFFECTED (site location map required) (indicate county)
NW NE, Section 32, Township 13 South, Range 21 East, Uintah County, Utah

9. HAS THE LOCAL GOVERNMENT(s) BEEN CONTACTED?
No

10. POSSIBLE SIGNIFICANT IMPACTS LIKELY TO OCCUR:
Degree of impact is based on the discovery of oil or gas in commercial quantities.

11. NAME AND PHONE NUMBER OF DISTRICT REPRESENTATIVE FROM YOUR AGENCY NEAR PROJECT SITE, IF APPLICABLE:

12. FOR FURTHER INFORMATION, CONTACT:
John R. Baza
PHONE: 538-5334

13. SIGNATURE AND TITLE OF AUTHORIZED OFFICIAL:
John R. Baza
Associate Director
DATE: December 29, 1999

DIVISION OF OIL, GAS AND MINING
APPLICATION FOR PERMIT TO DRILL
STATEMENT OF BASIS

Operator Name: DEL-RIO RESOURCES, INC.
Well Name & Number: CHIMNEY ROCK 32-2
API Number: 43-047-33441
Location: 1/4,1/4 NW/NE Sec. 32 T. 13S R. 21E

Geology/Ground Water:

The proposed wellsite is located on eroded Green River Formation. The Green River Formation in this area is made up of interbedded sandstones, limestones and shales. The beds dip predominantly to the north and are deeply incised by active drainages. This area serves as a recharge area for Green River aquifers to the north. Depth to the moderately saline groundwater is estimated at 3000 feet at this location. A search of Division of Water Rights records show no water wells or points of diversion in section 32. The 300 feet of surface casing which is proposed for this well should adequately protect any groundwater resources.

Reviewer: Brad Hill
Date: 1/12/2000

Surface:

The pre-drill investigation of the surface was performed on 1/4/2000. This site is on state land with a state mineral lease. Ed Bonner with S.I.T.L.A. and Jack Lytle with D.W.R. were invited to attend this investigation on 12/21/99. Neither chose to attend. Access road to this site will cross an existing 8" gas pipeline running parallel to the county road. Only Del-Rio produced natural gas is transported through this pipeline, therefore no other operators are involved. Mr. Caldwell did not want this pipeline covered with dirt. The contractor who will build this location and access road suggested using railroad ties to build a bridge across this pipeline. I responded by suggesting using heavy wall steel casing split length wise, and covered with dirt. Mr. Caldwell agreed to this plan. This site is a legal location per general state siting rule.

Reviewer: David W. Hackford
Date: 1/7/2000

Conditions of Approval/Application for Permit to Drill:

1. Surface casing shall be cemented to ground surface.

ON-SITE PREDRILL EVALUATION
Division of Oil, Gas and Mining

OPERATOR: DEL-RIO RESOURCES, INC.
WELL NAME & NUMBER: CHIMNEY ROCK 32-2
API NUMBER: 43-047-33441
LEASE: ML 47437 **FIELD/UNIT:** WILDCAT
LOCATION: 1/4,1/4 NW/NE **SEC:** 32 **TWP:** 13S **RNG:** 21E
1932' **F E L** 613' **F N L**
LEGAL WELL SITING: **Statewide 400 foot window in center of 40 acre tract and no closer than 920 feet from another well; or Board Spaced area requiring 460 Setback and 920 From another well.**
GPS COORD (UTM): 12621088E 4389683N
SURFACE OWNER: STATE OF UTAH

PARTICIPANTS:
LAWRENCE CALDWELL (DEL-RIO), ROBERT KAY (UELS), DAVID HACKFORD (D.O.G.M.), ONE DIRT CONTRACTOR.

REGIONAL/LOCAL SETTING & TOPOGRAPHY:
SITE IS IN A SHALLOW BOWL AT THE HEAD OF A DRAW RUNNING TO THE EAST TOWARD WILLOW CREEK. CHIMNEY ROCK IS ONE MILE TO THE SOUTHWEST.

SURFACE USE PLAN:

CURRENT SURFACE USE: WILDLIFE AND LIVESTOCK GRAZING. HUNTING. FIREWOOD CUTTING.

PROPOSED SURFACE DISTURBANCE: LOCATION WOULD BE 300' BY 206' AND ACCESS ROAD WOULD BE 0.1 MILES.
LOCATION OF EXISTING WELLS WITHIN A 1 MILE RADIUS: SEE ATTACHED MAP FROM GIS DATABASE

LOCATION OF PRODUCTION FACILITIES AND PIPELINES:
ALL PRODUCTION FACILITIES WILL BE ON LOCATION AND ADDED AFTER DRILLING WELL. PIPELINE WILL FOLLOW ACCESS ROAD AND TIE INTO EXISTING PIPELINE 0.1 MILES TO THE WEST.

SOURCE OF CONSTRUCTION MATERIAL: ALL CONSTRUCTION MATERIAL WILL BE BORROWED FROM SITE DURING CONSTRUCTION OF LOCATION.

ANCILLARY FACILITIES: NONE WILL BE REQUIRED.

WASTE MANAGEMENT PLAN:

DRILLED CUTTINGS WILL BE SETTLED INTO RESERVE PIT. LIQUIDS FROM PIT WILL BE ALLOWED TO EVAPORATE. FORMATION WATER WILL BE CONFINED TO STORAGE TANKS. SEWAGE FACILITIES, STORAGE AND DISPOSAL WILL BE HANDLED BY COMMERCIAL CONTRACTOR. TRASH WILL BE CONTAINED IN TRASH BASKETS AND HAULED TO AN APPROVED LAND FILL.

ENVIRONMENTAL PARAMETERS:

AFFECTED FLOODPLAINS AND/OR WETLANDS: NONE

FLORA/FAUNA: NATIVE GRASSES, GREASEWOOD, SALT BRUSH, PINION, JUNIPER, SAGE: RODENTS, COYOTES, COUGAR, DEER, ELK, RABBIT, RAPTORS, WILD HORSES.

SOIL TYPE AND CHARACTERISTICS: LIGHT BROWN SANDY LOAM.

EROSION/SEDIMENTATION/STABILITY: VERY LITTLE NATURAL EROSION. SEDIMENTATION AND STABILITY ARE NOT A PROBLEM AND LOCATION CONSTRUCTION SHOULDN'T CAUSE ANY INCREASE IN STABILITY OR EROSION PROBLEMS.

PALEONTOLOGICAL POTENTIAL: NONE OBSERVED

RESERVE PIT:

CHARACTERISTICS: 110' BY 69' AND 10' DEEP.

LINER REQUIREMENTS (Site Ranking Form attached):
A LINER WILL NOT BE REQUIRED FOR RESERVE PIT.

SURFACE RESTORATION/RECLAMATION PLAN:

AS PER STATE OF UTAH.

SURFACE AGREEMENT: STATE TRUST LANDS.

CULTURAL RESOURCES/ARCHAEOLOGY: SITE WAS INSPECTED BY MONTGOMERY ARCHAEOLOGICAL CONSULTANTS ON 10/7/99. A REPORT OF THIS INVESTIGATION WILL BE PLACED ON FILE.

OTHER OBSERVATIONS/COMMENTS:

THE PRE-DRILL INVESTIGATION TOOK PLACE ON 1/4/2000, A COLD WINDY DAY WITH ONE INCH OF SNOW COVER.

ATTACHMENTS:

PHOTOS OF SITE WILL BE PLACED ON FILE.

DAVID W. HACKFORD	1/4/2000-10:15 AM
DOGM REPRESENTATIVE	**DATE/TIME**

Evaluation Ranking Criteria and Ranking Score
For Reserve and On-site Pit Liner Requirements

Site-Specific Factors	Ranking	Site Ranking
Distance to Groundwater (feet)		
>200	0	
100 to 200	5	
75 to 100	10	
25 to 75	15	
<25 or recharge area	20	0
Distance to Surf. Water (feet)		
>1000	0	
300 to 1000	2	
200 to 300	10	
100 to 200	15	
< 100	20	0
Distance to Nearest Municipal Well (feet)		
>5280	0	
1320 to 5280	5	
500 to 1320	10	
<500	15	0
Distance to Other Wells (feet)		
>1320	0	
300 to 1320	10	
<300	20	0
Native Soil Type		
Low permeability	0	
Mod. permeability	10	
High permeability	20	0
Fluid Type		
Air/mist	0	
Fresh Water	5	
TDS >5000 and <10000	15	
TDS >10000 or Oil Base	20	
Mud Fluid containing high levels of hazardous constituents		15
Drill Cuttings		
Normal Rock	0	
Salt or detrimental	10	0
Annual Precipitation (inches)		
<10	0	
10 to 20	5	
>20	10	0
Affected Populations		
<10	0	
10 to 30	6	
30 to 50	8	
>50	10	0
Presence of Nearby Utility Conduits		
Not Present	0	
Unknown	10	
Present	15	0
Final Score		15

SITE # 27
SEC 27

Well name:	**1-00 Del Rio CR 32-2**
Operator:	**Del Rio**
String type:	Surface
Location:	Uintah Co.
Project ID:	43-047-33441

Design parameters:

Collapse

Mud weight: 8.400 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: -3,529 psi

Internal gradient: 12.203 psi/ft

Calculated BHP 131 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 263 ft

Environment:

H2S considered? No

Surface temperature: 75 °F

Bottom hole temperature: 79 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 220 ft

Cement top: 0 ft

Non-directional string.

Re subsequent strings:

Next setting depth: 6,300 ft

Next mud weight: 8.500 ppg

Next setting BHP: 2,782 psi

Fracture mud wt: 19.250 ppg

Fracture depth: 6,300 ft

Injection pressure 6,300 psi

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	300	9.625	36.00	K-55	LT&C	300	300	8.765	21.4

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	131	2020	15.44	131	3520	26.90	9	489	51.72 J

Prepared by: RJK, Utah Dept. of Natural Resources

Phone:

FAX:

Date: January 13,2000

Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Collapse is based on a vertical depth of 300 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:	**1-00 Del Rio CR 32-2**
Operator:	**Del Rio**
String type:	Production
Location:	Uintah Co.
Project ID:	43-047-33441

Design parameters:

Collapse

Mud weight: 9.000 ppg

Design is based on evacuated pipe.

Burst

Max anticipated surface pressure: 0 psi

Internal gradient: 0.468 psi/ft

Calculated BHP 2,985 psi

No backup mud specified.

Minimum design factors:

Collapse:

Design factor 1.125

Burst:

Design factor 1.00

Tension:

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.50 (B)

Tension is based on buoyed weight.

Neutral point: 5,514 ft

Environment:

H2S considered? No

Surface temperature: 75 °F

Bottom hole temperature: 164 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 1,500 ft

Cement top: 1,896 ft

Non-directional string.

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	6384	7	29.00	N-80	LT&C	6384	6384	6.059	374.6

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	2985	7020	2.35	2985	8160	2.73	160	597	3.73 J

Prepared by: RJK, Utah Dept. of Natural Resources

Phone:

FAX:

Date: January 13,2000

Salt Lake City, Utah

ENGINEERING STIPULATIONS: NONE

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Collapse is based on a vertical depth of 6384 ft, a mud weight of 9 ppg The casing is considered to be evacuated for collapse purposes.

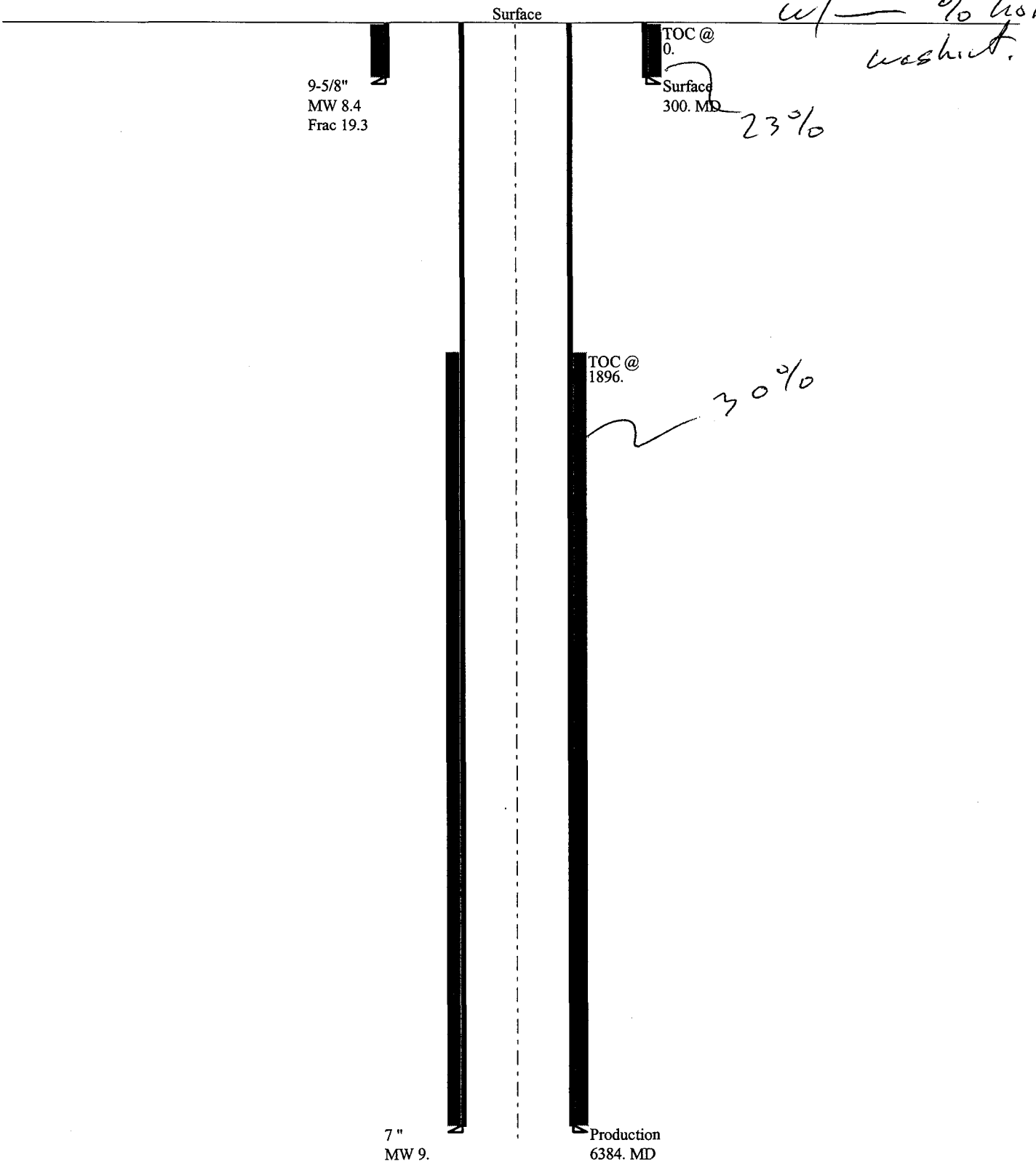
Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

1-00 Del Rio CR 32-2

Casing Schematic

Cement Tops w/ — % hole washout.



Del Rio Resources, Inc
584 South State Street
Orem, UT 84058
Phone: (801) 225-0038
Fax: (801) 225-3658

Del Rio Resources, Inc

Fax

To:	Lisha Cordova	**From:**	K.C. Shaw
Fax:	801-359-3940	**Date:**	January 27, 2000
Phone:	801-538-5296	**Pages:**	2
Re:	Designation of Operator for ML47437	**CC:**	

☐ **Urgent** ☐ **For Review** ☐ **Please Comment** ☐ **Please Reply** ☐ **Please Recycle**

•Comments:

Lisha,

Attached is a copy of the Designation of Operator sheet for **ML 47437** that I faxed to Dawnyell Gallien at State Trust Lands. I will forward the original to her in the mail.

Please contact me if you have any questions.

KC Shaw

002

DESIGNATION OF OPERATOR

The undersigned is, on the records of the School and Institutional Trust Lands Administration, holder of lease, ML 47437

and hereby designates

NAME: DEL-RIO Resources, Inc

ADDRESS: PO Box 459
Vernal, UT 84078

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the Director of the Administration or his representative may serve written or oral instructions in securing compliance with the Rules and Regulations Governing the Issuance of Mineral Leases with respect to (describe acreage to which this designation is applicable):

T 13 S R 21 E, SLB&M
Sec 32: ALL

RECEIVED
JAN 27 2000
DIV. OF OIL, GAS & MINING

Operator agrees to comply with all lease provisions, statutes, rules, and regulations, whether federal, state, or local, in its operations on the subject lease.

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Rules and Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Director, Trust Lands Administration or his representative.

The lessee agrees promptly to notify the Trust Lands Administration of any change in the designated operator.

(Signature of Lessee)

Dan K. SHAW

1/26/00
(Date)

4435 South Eastern Avenue
Las Vegas, NV 89193
(Address)

1/27/00
(Date)

(Signature of Operator)

TRANSACTION REPORT

P.01

FEB-15-2001 THU 04:47 PM

FOR: OIL, GAS & MINING 801 359 3940

DATE	START	RECEIVER	TX TIME	PAGES	TYPE	NOTE	M#	DP
FEB-15	04:47 PM	3550922	41″	2	SEND	OK	207	

TOTAL : 41S PAGES: 2

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

UTAH DIVISION OF OIL, GAS AND MINING
FACSIMILE COVER SHEET

DATE: Feb. 15, 2001

FAX #: 355-0922

ATTN: Ed Bonner

COMPANY: SITLA

DEPARTMENT:

NUMBER OF PAGES: (INCLUDING THIS ONE) 2

FROM: Lisha

006

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and hereby designates

NAME: DEL-RIO Resources, Inc

ADDRESS: PO Box 459
Vernal, UT 84078

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the Director of the Administration or his representative may serve written or oral instructions in securing compliance with the Rules and Regulations Governing the Issuance of Mineral Leases with respect to (describe acreage to which this designation is applicable):

T 13 S R 21 E, SLB&M
Sec 32: ALL

RECEIVED
JAN 27 2000
DIV. OF OIL, GAS & MINING

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It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Rules and Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Director, Trust Lands Administration or his representative.

The lessee agrees promptly to notify the Trust Lands Administration of any change in the designated operator.

(Signature of Lessee)
Dan K. SHAW

1/24/00
(Date)

4435 South Eastern Avenue
Las Vegas, NV 89193
(Address)

1/27/00
(Date)

(Signature of Operator)

005

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor

Kathleen Clarke
Executive Director

Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

January 27, 2000

Del-Rio Resources, Inc.
P.O. Box 459
Vernal, Utah 84078

Re: Chimney Rock 32-2 Well, 613' FNL, 1932' FEL, NW NE, Sec. 32, T. 13 S, R. 21 E, Uintah County, Utah

Gentlemen:

Pursuant to the provisions and requirements of Utah Code Ann. 40-6-1 et seq., Utah Administrative Code R649-3-1 et seq., and the attached Conditions of Approval, approval to drill the referenced well is granted.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date. The API identification number assigned to this well is 43-047-33441.

Sincerely,

John R. Baza
Associate Director

jb
Enclosures
cc: Uintah County Assessor
Bureau of Land Management, Vernal District Office

Operator: Del- Rio Resources, Inc.

Well Name & Number: Chimney Rock 32-2

API Number: 43-047-33441

Lease: ML-47437

Location: NW NE **Sec.** 32 **T.** 13 S. **R.** 21 E

Conditions of Approval

1. General

   Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

2. Notification Requirements

   Notify the Division of the following actions during drilling of this well:

   24 hours prior to cementing or testing casing
   24 hours prior to testing blowout prevention equipment
   24 hours prior to spudding the well
   within 24 hours of any emergency changes made to the approved drilling program
   prior to commencing operations to plug and abandon the well

Division contacts (please leave a voice mail message if person is not available to take the call):

Dan Jarvis at (801)538-5338
Robert Krueger at (801)538-5274 (plugging)
Carol Daniels at (801)538-5284 (spud)

3. Reporting Requirements

   All required reports, forms and submittals shall be promptly filed with the Division, including but not limited to the Entity Action Form (Form 6), Report of Water Encountered During Drilling (Form 7), Weekly Progress Reports for drilling and completion operations, and Sundry Notices and Reports on Wells requesting approval of change of plans or other operational actions.

4. Compliance with the State of Utah Antiquities Act forbids disturbance of archeological, historical, or paleontological remains. Should archeological, historical, or paleontological remains be encountered during your operations you are required to immediately suspend all operations and immediately inform the Trust Lands Administration and the Division of State History of the discovery of such remains.

5. Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis. (Copy Attached)

007

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47437
6. IF INDIAN, ALLOTTEE OR TRIBE NAME: N/A
7. UNIT or CA AGREEMENT NAME: N/A
8. WELL NAME and NUMBER: Del-Rio/Orion 32-2
9. API NUMBER: 4304733441
10. FIELD AND POOL, OR WILDCAT: Wildcat

1. TYPE OF WELL: OIL WELL ☑ GAS WELL ☑ OTHER _____

2. NAME OF OPERATOR: Del-Rio Resources, Inc.

3. ADDRESS OF OPERATOR: PO Box 459 CITY Vernal STATE UT ZIP 84078 PHONE NUMBER: (435) 789-5240

4. LOCATION OF WELL
FOOTAGES AT SURFACE: 613' FNL 1932' FEL COUNTY: Uintah
QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 32 13S 21E SLB+M STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start: _____	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☑ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☐ OTHER: _____
_____	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

We request that the approved APD for this well be extended one (1) year to allow us time to drill and complete this well.

RECEIVED
FEB 13 2001
DIVISION OF
OIL, GAS AND MINING

NAME (PLEASE PRINT) Larry Jorgensen TITLE Production Manager

SIGNATURE Larry Jorgensen DATE 2/10/2001

(This space for State use only)

COPY SENT TO OPERATOR
Date: 02-15-01
Initials: CHD

Approved by the
Utah Division of
Oil, Gas and Mining
Date: 02-15-01
By: Brad Hill

(5/2000)

(See Instructions on Reverse Side)

008

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

FORM 9

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.

5. LEASE DESIGNATION AND SERIAL NUMBER: ML-47437

6. IF INDIAN, ALLOTTEE OR TRIBE NAME:

7. UNIT or CA AGREEMENT NAME: Chimney Rock

1. TYPE OF WELL: OIL WELL ☐ GAS WELL ☑ OTHER

8. WELL NAME and NUMBER: Del-Rio/Orion 32-2

2. NAME OF OPERATOR: Del-Rio Resources, Inc.

9. API NUMBER: 4304733441

3. ADDRESS OF OPERATOR: PO Box 459 CITY Vernal STATE UT ZIP 84078

PHONE NUMBER: (435) 789-5240

10. FIELD AND POOL, OR WILDCAT: Wildcat

4. LOCATION OF WELL

FOOTAGES AT SURFACE: 613' FNL, 1932' FEL

COUNTY: Uintah

QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: NWNE 32 13S 21E S

STATE: UTAH

11. CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION		
☐ NOTICE OF INTENT (Submit in Duplicate)	☐ ACIDIZE	☐ DEEPEN	☐ REPERFORATE CURRENT FORMATION
Approximate date work will start:	☐ ALTER CASING	☐ FRACTURE TREAT	☐ SIDETRACK TO REPAIR WELL
	☐ CASING REPAIR	☐ NEW CONSTRUCTION	☐ TEMPORARILY ABANDON
	☐ CHANGE TO PREVIOUS PLANS	☐ OPERATOR CHANGE	☐ TUBING REPAIR
	☐ CHANGE TUBING	☐ PLUG AND ABANDON	☐ VENT OR FLARE
☑ SUBSEQUENT REPORT (Submit Original Form Only)	☐ CHANGE WELL NAME	☐ PLUG BACK	☐ WATER DISPOSAL
Date of work completion:	☐ CHANGE WELL STATUS	☐ PRODUCTION (START/RESUME)	☐ WATER SHUT-OFF
	☐ COMMINGLE PRODUCING FORMATIONS	☐ RECLAMATION OF WELL SITE	☑ OTHER: Request Extention
	☐ CONVERT WELL TYPE	☐ RECOMPLETE - DIFFERENT FORMATION	

12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.

Request a one year extension of the APD.

RECEIVED
MAR 13 2002
DIVISION OF
OIL, GAS AND MINING

NAME (PLEASE PRINT) Larry Jorgensen TITLE Production Manager

SIGNATURE Larry Jorgensen DATE 3/9/2002

(This space for State use only)

COPY SENT TO OPERATOR
Date: 03-15-02
Initials: CHD

(5/2000)

(See Instructions on Reverse Side)

Approved by the
Utah Division of
Oil, Gas and Mining
Date: 03-14-02
By:

009

State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Michael O. Leavitt
Governor
Robert Morgan
Executive Director
Lowell P. Braxton
Division Director

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
801-538-5340
801-359-3940 (Fax)
801-538-7223 (TDD)

March 14, 2002

Larry Jorgensen
Del-Rio Resources, Inc.
P. O. Box 459
Vernal, Utah 84078

Re: Chimney Rock 32-2 Well – NWNE Sec. 32, T. 13 South, R. 21 East, Uintah County, Utah, API No. 43-047-33441

Dear Mr. Jorgensen:

Please be advised that your request for a one-year Application for Permit to Drill ("APD") extension for the above referenced well is hereby granted. All conditions outlined in the original approval remain in effect.

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated there from, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for an extension is made prior to the expiration date.

Sincerely,

Brad Hill
Reclamation Specialist, Oil & Gas

cc: Well File

010

State of Utah
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

1594 West North Temple, Suite 1210
PO Box 145801
Salt Lake City, Utah 84114-5801
(801) 538-5340 telephone
(801) 359-3940 fax
(801) 538-7223 TTY
www.nr.utah.gov

Michael O. Leavitt
Governor
Robert L. Morgan
Executive Director
Lowell P. Braxton
Division Director

April 14, 2003

Casey Shaw
Del-Rio Resources Inc.
P.O. Box 459
Vernal UT 84078

Re: APD Rescinded – Chimney Rock 32-2, Sec. 32, T. 13S, R. 21E – Uintah County, Utah API No. 43-047-33441

Dear Mr. Shaw:

The Application for Permit to Drill (APD) for the subject well was approved by the Division of Oil, Gas and Mining (Division) on January 27, 2000. On February 15, 2001 and March 14, 2002 the Division granted a one-year APD extension. On April 11, 2003, you requested that the division rescind the approved APD. No drilling activity at this location has been reported to the division. Therefore, approval to drill the well is hereby rescinded, effective April 11, 2003.

A new APD must be filed with this office for approval prior to the commencement of any future work on the subject location.

If any previously unreported operations have been performed on this well location, it is imperative that you notify the Division immediately.

Sincerely,

Diana Mason
Engineering Technician

cc: Well File
Gil Hunt, Technical Services Manager

Utah!
Where ideas connect