Prepared for:

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NORTHEAST CHURCH ROCK MINE
SITE ASSESSMENT

July 2003

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1.0 INTRODUCTION

This Site Assessment for United Nuclear Corporation's (UNCs) former Northeast Church Rock (NECR) Mine has been prepared in compliance with the requirements of Section 5.B of the New Mexico Mining Act. The Assessment is based on a review of historic mine permits and documents and discussions with mine personnel and was prepared using a site assessment check list provided by the Mining and Minerals Division (MMD) of the State of New Mexico Energy, Minerals and Natural Resources Department during a project meeting on March 19, 2003.

The uranium ore mined at the NECR Mine was transported to UNCs noncontiguous Church Rock Mill located approximately one mile southeast of the mine on State Highway 566. The mine was operated by UNC from 1968 until 1982 when it was placed on standby due to depressed uranium prices. The majority of the mine property was operated by UNC under the terms of a mineral lease with the predecessors of what is now Newmont Gold Corporation (NGC), current owner of the mineral estate. Closure activity at the site was approved by the NRC, and the site was released for unrestricted use as detailed in an NRC memorandum dated October 31, 1989. The mineral lease was terminated in 1992. Surface ownership of the mine area is held in trust by the federal government for the Navajo Indian Tribe and parcel of Bureau of Land Management (BLM) land. UNC's ownership at the site is limited to several patented claims encompassing a small area on the southwest side of the mine site.

2.0 SITE ASSESSMENT

2.1 MINE STATUS

The NECR Mine, formerly operated by UNC, is a closed underground uranium mine, which was found to meet the definition of an existing mining operation pursuant to the Act. Closure of the NECR Mine was performed between 1986 and 1993 and included removal of equipment and buildings, sealing of the mine shafts and vent holes, removal and disposal of some non-economical mine materials, trash and debris, and removal of other waste materials in areas regulated by the U.S. Nuclear Regulatory Commission (NRC). During mine operations, mine tailings were pumped underground as sand fill pursuant to an NMEID permit. Following cessation of operations, the tailings stockpile underwent cleaning, scanning and testing, after which it was released from the NRC radioactive materials license number UN-UNC-ML for unrestricted use. In 2002 the New Mexico Court of Appeals adjudicated the mine to be an existing mine subject to the New Mexico Mining Act.

2.2 PROPOSED PERMIT AREA

The NECR Mine Site is located approximately 16 miles northeast of Gallup, New Mexico, as shown on Figure 1, and is accessed via State Highway 566. The mine was located in Sections 34 and 35, Township 17 North, Range 16 West and Section 3, Township 16 North, Range 16 West in McKinley County, New Mexico. The permit area, shown in the hatched pattern of Figure 2, encompasses approximately 37 acres and includes the NECR-1 and NECR-2 Mine Shaft areas, mine support facilities, the pile for deposition of non-economical materials and overburden, vent holes and mine roads. Not included in the permit area are the NRC-regulated areas consisting of the pond and sandfill locations. For these areas, licensing and regulatory authority were returned to the NRC by the State of New Mexico. NRC found that UNC adequately removed NRC-regulated material from the mine site and concluded that no further action in these areas was necessary. Individual areas for the permitted components of the site are listed in Table 2.1, *Permit Area Surface Components.*

TABLE 2.1
PERMIT AREA SURFACE COMPONENTS

Description	Surface Area (Acres)
NECR- 1	13.6
Parking Area	3.9
Fuel Oil Storage	1.6
Powder Magazine Area	1.1
NECR-2	3.9
Vent Hole 7	0.2
Storage Yard	1.0
Non-economic Material Storage Area	1.6
Bone Yard	1.1
Vent Hole 6	0.3
Vent Hole 9	0.3
Vent Hole 10	0.3
Vent Hole 3	0.7
Vent Hole 8	3.4
Primary Roads (20' wide)	2.0
Secondary Roads (12' wide)	2.0
Total Surface Area	**37.0**

Closure of the NECR Mine was performed pursuant to the terms of UNC's mineral lease, and included backfilling of the NECR-1 and NECR-2 Mine Shafts with non-economical mine materials; sealing of the two mine shafts and associated vent holes with reinforced concrete caps; removal of buildings and equipment and cleanup and burial of solid debris. Certain surface features within the proposed permit area were left to satisfy the conditions of the mining lease. These are limited to the mine pad areas, several small buildings, concrete foundations, a pile where non-economical materials were deposited, power lines, and primary and secondary mine roads. As the mine shafts and supporting facilities have been decommissioned, the design limits for each area are the same as the permit areas shown on Figure 2.

2.3 EXISTING PERMITS

Although there are not currently any effective permits, the NECR Mine was regulated under various permits during active operations. During water discharge operations from 1967 to 1982, National Pollutant Discharge Elimination System (NPDES) Permit No. NM 0020401 was issued by the U.S. Environmental Protection Agency (EPA), authorizing the discharge of treated mine water. Backfilling of coarse tailings sands in the mine shafts, and operation of an ion-exchange plant were conducted under Radioactive Material License UN-UNC-ML issued by the NRC. Tailings sand filling operations were subject to the NMEID permit and included air and water monitoring. The NPDES permit lapsed in 1993 concurrent with the expiration of the mineral lease. Radioactive licensing and authority were returned to the NRC in 1986. There are not currently any active permits at the site.

2.4 REGULATORY REQUIREMENTS

As required by the NPDES permit during operations, water was monitored for flow rate and was sampled and analyzed for pH, total suspended solids, radionuclides and trace metals at the discharge pipe and at two downstream locations. Water quality data were reported to the New Mexico Environmental Department (NMED) and EPA in quarterly discharge reports. With closure of the mine complete, the site is not subject to NPDES permit regulations and further discharge water quality monitoring is not required. If required, a stormwater discharge permit will be obtained prior to implementation of the Closeout Plan.

2.5 SURFACE AND GROUNDWATER DESCRIPTION

During active operations, mine water was pumped to the surface, treated to remove suspended solids followed by stripping of uranium and other radionuclide metals, and discharged to an unnamed arroyo pursuant to the NPDes permit. The unnamed arroyo flowed into the Pipeline Arroyo and eventually into the North Fork of the Rio Puerco, a large, ephemeral drainage. The treated mine water provided a watering source for both domestic animals and wildlife during operations.

The site is located in the San Juan Hydrologic Basin where the sandstones such as the Gallup Sandstone and the Morrison Formation are regional aquifers. In the immediate area of the NECR site the Upper Gallup Formation was not a producing aquifer. The thick shale units, particularly the Mancos Formation, behave as aquitards. Formations that consist of sandstone and shale, such as the Dilco Member of the Crevasse Canyon Formation, transmit water in the predominantly sandy zones but are not considered important aquifers in the region. The lithologic profile of the site is shown on Figure 3.

2.5.1 Surface Water

Surface water discharge was discontinued at the site in 1983, and currently all flows originating from the site are ephemeral and occur only after major precipitation events.

2.5.2 Groundwater

According to the log for NECR Mine shaft, which was sunk in 1968 and 1969, ground water was first encountered at an elevation of 6,700 feet in the lower portion of the First Gallup Sandstone Member of the Gallup Formation. This is approximately 400 feet below the surface of the mine. Inflow of water from this formation was small, amounting to only 30 gpm. Water was also encountered at a low inflow rate of 50 gpm in the Second Gallup Sandstone Member. Water was not encountered again until the Dakota Formation was reached at the base of the Mancos Shale. Ground water inflows from the Dakota Formation were at 800 gpm prior to grouting. Water inflows from the underlying Westwater Canyon Member were even larger, averaging from 1,500 to 2,100 gpm during shaft construction. Water from the Westwater Canyon Member is of good quality and was used as a potable water supply for the mill.

Water pumped from the mine was treated prior to discharge to reduce suspended solids and radionuclide levels as required by the NPDES permits. Water quality analyses of the NECR Mine water discharge were performed as required by the NPDES permit and submitted quarterly to NMED.

Water samples from the Gallup Sandstone Formations have not been collected in the immediate vicinity of the mine due to the largely unsaturated conditions of the formations.

A water quality sample was collected in the area of the Church Rock Mill from the Westwater Canyon Member in July, 2002 from a domestic well located in Section 2. This water quality sample is from the same unit that the tailings sand backfill was completed in. Data from this analysis are presented in Table 2.2, *Church Rock Mill Domestic Water Quality.*

TABLE 2.2
CHURCH ROCK MILL DOMESTIC WATER QUALITY

Parameter – (units)	Analytical Results	Reporting Limit
Calcium (mg/L)	16.0	1.0
Magnesium (mg/L)	4.2	1.0
Sodium (mg/L)	644	1.0
Potassium (mg/L)	3.5	1.0
Bicarbonate (mg/L)	225	0.10
Sulfate (mg/L)	1100	1.0
Chloride (mg/L)	160	1.0
Ammonium as N (mg/L)	0.50	0.05
Nitrate + Nitrate as N (mg/L)	< 0.10	0.10
TDS (mg/L)	2090	10
pH (standard units)	8.34	0.10
Aluminum (mg/L)	< 0.10	0.10
Arsenic (mg/L)	< 0.001	0.001
Beryllium (mg/L)	< 0.01	0.01
Cadmium (mg/L)	< 0.005	0.005
Cobalt (mg/L)	< 0.01	0.01
Lead (mg/L)	< 0.05	0.05
Manganese (mg/L)	0.05	0.01
Molybdenum (mg/L)	< 0.10	0.10

TABLE 2.2 CHURCH ROCK MILL DOMESTIC WATER QUALITY		
Nickel (mg/L)	< 0.05	0.05
Selenium (mg/L)	< 0.001	0.001
Vanadium (mg/L)	< 0.10	0.10
Uranium, dissolved (mg/L)	0.0700	0.0003
Radium 226 (pCi/L)	0.7	0.2
Radium 228 (pCi/L)	2.7	1.0
Thorium 230 (pCi/L)	< 0.02	0.2
Lead 210 (pCi/L)	< 1.0	1.0
Gross Alpha (pCi/L)	< 1.0	1.0

2.6 IMPACTS OF OPERATION ON SURFACE AND GROUNDWATER

2.6.1 Surface Water Impacts

Impacts to surface drainage at the site include discharge water ponds that were left in place and mine roads that cross the drainage through the canyon in several locations. The ponds continue to hold water after spring snow melt and summer rains, and presently provide a water source for wildlife. Where roads cross the drainage, culverts have been installed to allow runoff to pass without obstruction. The culverts are currently in good condition.

2.6.2 Groundwater Impacts

Mining of the Westwater ore body required constant pumping of the underground workings. This pumping resulted in an areal draw-down of the Westwater Formation waters in the vicinity of the mine. After pumping was discontinued, the ground water returned to its original water level elevation. This was evident during closure activities when ground water was encountered in the mine shafts at an elevation above the Dakota and Westwater Formations.

As the ground water returned to its original water level elevation, the underground mine was flooded. At that time, the oxidized surfaces of the mine workings would have released soluble constituents into the ground water causing a temporary impact to ground water quality. This dissolution would have been short-lived because resaturation of the material would quickly convert the rock surfaces from an unsaturated to a saturated state thereby limiting the further solubility of these constituents to natural conditions. Based on the large size and productivity of the Westwater Formation, no measurable long-term water quality impacts are expected to have occurred from mine flooding.

The only other impact to the area's hydrology and hydrologic balance was the creation of temporary artificial aquifers in the near-surface formations located downgradient of the mine. Monitoring wells located between the mine and mill show that water levels in the alluvial soils and upper Gallup Sandstone Formation increased gradually from 1977 until discharge operations ceased. Since the mid-1980s when discharge operations ceased, these water levels have been declining and many of the monitoring wells in this area have gone dry.

2.7 SITE GEOLOGY

The NECR Mine is located in a canyon at an elevation of 7,100 to 7,200 feet. The surrounding cliffs are comprised of white, medium- to coarse-grained sandstone from the Dalton Sandstone Member of the Crevasse Canyon Formation. The mine shafts and facilities are located in the center of the canyon on pads constructed out of the alluvial soils and non-economical mine materials.

Figure 3 shows the geologic stratigraphy at the site from the surface to the bottom of the mine shafts. The two mine shafts at the NECR Mine extend to a depth of approximately 1,800 feet where they intersect the uranium ore body in the Westwater Canyon Sandstone Member of the Morrison Formation. The Westwater Member consists of fine- to coarse-grained sandstone.

2.8 SITE WASTE DESCRIPTION

2.8.1 NECR-1 Mine Area

The NECR-1 Mine Area is shown on Figure 2 and consists of a level pad of approximately 13.6 acres constructed by cut and fill methods. The southeast portion of the pad is built on top of native soils and the northwest portion is built of non-economical mine materials. The pile of the non-economical materials is a maximum of 20 to 30 feet thick along the northwest perimeter of the pad. The majority of the buildings and equipment originally present in the main portion of the NECR-1 pad have been removed as a result of mine closure activities. Power poles and lines plus the main office, another small office and a shop are the only structures remaining. The foundation slabs for the head frame, compressor and hoist building, warehouse, administrative offices, change house, and storage sheds are all that remains of other mine buildings. The NECR-1 Shaft is located near the north end of the pad area and has been backfilled with non-economical mine materials and sealed with a 14-foot diameter reinforced concrete cap. The concrete cap for Vent Hole 1 is also present in the immediate vicinity of the NECR-1 shaft.

State Highway 566 terminates at the entrance to the NECR-1 Mine Area. The entrance is fenced and secured with a locked gate. The transformers and switch gear from the substation have been removed, leaving only the power poles and lines that extend to various points within the mine site.

The former parking area for mine employees is located immediately northeast of the mine entrance and was originally filled with non-economical mine materials to create a level pad for parking. The materials from this area have since been removed and were used as backfill for the mine shafts and as borrow material in reclamation activities at the Church Rock Mill's tailings disposal area. The parking area was graded to the approximate original contours and was seeded during 1994.

A former fuel oil storage area is also located near the mine entrance and consists of a bermed area where above-ground fuel oil storage tanks were located. The concrete saddles (i.e., platforms) for a butane tank and the mine water tank are also present in the immediate area.

2.8.2 NECR-2 Mine Area

The NECR-2 Mine Area contains the NECR-2 Shaft and is located further up the canyon and to the southwest of the NECR-1 Mine as shown on Figure 2. The pad encompasses approximately 3.9 acres and, unlike the NECR-1 pad, is constructed primarily of native soils.

The NECR-2 Mine Shaft has been backfilled with non-economical mine materials and sealed with a 10-foot diameter reinforced concrete cap. Power poles and power lines plus concrete foundation slabs for the hoist house, head frame and change house remain in place.

A short underground adit was located near the west end of the pad area. It was used to store explosives and was constructed by mining into the surrounding sandstone cliffs to a depth of approximately 30 feet. This adit has been backfilled, sealed with a cement slab and covered with soil.

Ancillary facilities located near the NECR-2 Mine Area include a storage yard, a small material pile and a former boneyard. The storage yard is located in a narrow strip of land between a secondary mine road and the surrounding cliffs and was reclaimed in 1994 by removing sheds, buildings, and other structures. The material pile lies south of the storage yard and consists of overburden and gray, silty-clayey rock that was determined to be non-economical in nature. The pile is small and covers about 1.6 acres and has an average material thickness of 5 feet. The north end of the pile was covered with graded riprap to prevent erosion, and approximately one foot of soil was placed over the entire pile prior to reseeding in 1994. The former bone yard is located immediately south of the non-economical materials storage area and was used to store old equipment, tires, wood pallets and other miscellaneous materials. The materials were either removed from the site or buried in the immediate area. The reclaimed area was covered with one foot of soil and was reseeded in 1994.

2.9 IMPACT OF SITE WASTE

The environmental impacts from operation of the NECR Mine are limited because the mining occurred underground rather than on the surface, and only a small volume of mom-economical mine materials were disposed of at the surface. All of the ore that was mined from the NECR Mine was transported off-site for processing. Disturbed areas were reclaimed by either regrading or removing materials, capping with topsoil and reseeding.

2.9.1 Hydrologic Balance and Drainage Impacts

The NECR-1 pad area, which is partially constructed of non-economical mine materials, extends into the canyon bottom but does not obstruct the natural drainage. Minor erosion exists on the flank of this pad area from surface runoff. The non-economical material storage area, located northwest of the NECR-2 pad area in a small draw, is situated in the original surface drainage through that area. The surface drainage has been diverted so that it flows along the east edge of the pile. The north end of the pile has been covered with graded riprap to prevent erosion, and the entire dump has been covered with soil and reseeded.

Impacts to the ground and surface water regimes from ground water pumping and discharge were also limited in extent and duration. Since the mine has shut down, both the surface and ground water systems have returned to their original, pre-mining hydraulic conditions.

2.9.2 Air Quality Impacts

The impact of the mine on air quality during operations consisted primarily of the generation of fugitive dust during transport of ore and non-economical mine materials. However, generation of dust was minimal because the primary mine roads were treated with a dust suppressant and the state highway connecting the mine to the mill was paved.

Currently, reseeding and existing vegetation in the Central Canyon area have helped to stabilize the various surface areas of the mine and limit the amount of dust that can be generated.

2.10 SITE IMPACT TO LOCAL COMMUNITIES

The impact of the mine operation on local communities was primarily economic in nature. The operation of the NECR Mine and other uranium projects in this area of New Mexico helped the local communities to prosper economically in the 1970's and early 1980's. At peak production, the mine employed approximately 1,200 people with most commuting from the Gallup and Grants areas. The average wage of these mine employees was considerably higher than that being paid in

other occupations at that time. Detailed demographic data supporting these conclusions are provided in the Environmental Report License No. NM-UNC-ML (United Nuclear, 1981b).

At the present time, there is no continuing community impact resulting from mine activities because the facility does not represent a source of income. The remaining United Nuclear personnel working in the area are employed at the mill site and comprise only a skeleton crew.

2.11 WILDLIFE AND WILDLIFE HABITAT

2.11.1 Wildlife

An inventory of wildlife species and sign of wildlife was made on the site during August 23-26, 1974. Signs of mule deer were observed in the pinyon-juniper type vegetation south and east of the mill area. Some tracks were also observed along the flood control dam on Pipeline Arroyo. Mourning doves were observed using the Pipeline Arroyo floodplain to feed and consume gravel. No rare or endangered avian predators were observed. A listing of wildlife species or signs observed at the mill and mine site is presented on Table 2.3. *Fauna and Signs of Fauna on or Near the NCRM Property.*

TABLE 2.3
FAUNA AND SIGNS OF FAUNA ON OR NEAR THE NCRM PROPERTY

Mammals	Scientific Name	Number observed
Black-tailed jackrabbit	Lepus californicus	2
Desert cottontail	Sylvilagus auduboni	3
Cliff Chipmunk	Eutamias dorsalis	3
Deer mouse	Peromyscus maniculatus	29
Pinyon mouse	Peromyscus truei	1
Western harvest mouse	Reithrodontomys megalotis	1
Little pocketmouse	Perognathus longimembris	2
Birds		
Red tailed hawk	Buteo jamaicensis	1
Common raven	Corvus corvax	6
Sparrow hawk	Falco sparverius	2
Mourning dove	Zenaidura macroura	18
Pinyon jay	Gymnorhinus cyanocephala	Numerous
Brewer's blackbird	Euphagus cyanocephalus	11
Red-shafted flicker	Colaptes cafer	1
Western kingbird	Tyrannus verticulis	7
Western bluebird	Sialia mexicana	11
Cliff swallow	Petrochelidon pyrrhonota	5
Chipping sparrow	Spizella passerina	8
Rock wren	Salpinctes obsoletus	5
Reptiles		
Prairie lizard	Sceloporus undulatus consobrinus	1
Wildlife Signs Noted		
Mule deer	Odocoileus hemionus	6 sets of tracks
Coyote	canis latranis	1 set of tracks
Porcupine	Erethizon dorsatum	Numerous
Badger	Taxidea taxus	4 burrows
Wood rat	Neotoma	3 dens

Source:
Inventory of wildlife species and signs of wildlife conducted August 23-26, 1974. The information was reported in the Environmental Report on the Church Rock, New Mexico Uranium Mill and Mine (United Nuclear, 1975).

2.11.2 Vegetation

The site is categorized as having pinyon-juniper type vegetation. The trees have an areal cover of approximately 15 percent and include oneseed juniper and pinyon pine. Ground cover varies from sparse to fairly dense where broom snakeweed and sages are common. However, in some areas there are only bare ground and rocks under the trees.

Grasses are the most common under-story plants and are dominated by blue grama and galleta over much of the area, with Indian rice-grass being common in part of the area. Forbs comprise over one-third of the composition, but contribute very little to the areal cover. Pingue and baby-white aster both contribute over 10 percent to the total under-story composition while gilia and James wild buckwheat are commonly found in parts of the pinyon-juniper vegetation. Nine vegetative transects were completed in the area for under-story and over-story plant composition, and the results are summarized in Table 2.4, *Plant Composition and Areal Cover by Species for Pinyon – Juniper Sites.*

TABLE 2.4
PLANT COMPOSITION AND AREAL COVER BY SPECIES FOR PINYON-JUNIPER SITES

Common Names	% Composition	% Cover	Common Names	% Composition	% Cover
Grasses			**Forbs (continued)**		
Blue Grama	20.8	2.8	Wild Buckwheat, James	3.1	
Bottlebrush Squirreltail	0.1		Wild Lettuce	(a)	
Fescue	0.4		Wright Deervetch	(a)	
Galleta	10.1	1.2	Yucca, Datil	(a)	
Indian Ricegrass	6.0	0.1	Yucca, Soaptree	0.3	
Muhly		0.1	**Total Forbs**	**35.6**	
Sand Dropseed	1.5	0.1	**Shrubs**		
Western Wheatgrass	(a)		Big Sagebrush	4.7	1.9
Total Grasses	**39.0**	**4.2**	Black Sagebrush	(a)	
Forbs			Broom Snakeweed	12.7	1.4
Aster	0.8		Condalia	(a)	
Aster, Babywhite	10.0		Fringed Sagewort	6.3	0.4
Cholla	(a)		Gambrel Oak	(a)	
Deer's Tongue	2.5		Gray Horsebrush	(a)	
Four-O'-Clock	0.1		Mexican Cliffrose	0.2	
Gilia	4.5		Mountain Mahogany	0.1	
Globemallow, Scarlet	(a)		Rubber Rabbitbrush	0.2	0.1
Hedgehog Cactus	(a)		Whitethorn Acacia	(a)	
King Lupine	(a)		Winterfat	(a)	
Mentzelia	0.4		Wright Sagewort	0.3	0.1
Milkvetch, Rusby	0.9		**Total Shrubs**	**24.5**	**3.9**
Pingue	10.6		**Trees**		
Salsify	(a)		Oneseed Juniper		3.9
White Margin Spurge	(a)		Pinyon Pine		11.5
White Prairie Clover	(a)		Ponderosa Pine	(a)	
Wholeleaf Indian Paintbrush	(a)		**Total Trees**		**15.4**

Note: (a) Indicates that the species was found growing in the vegetational site, but was not recorded on any transect--generally these species are not common. Source of data: Environmental Report on the Church Rock, New Mexico, Uranium Mill and Mine (United Nuclear, 1975).

2.12 IMPACT TO WILDLIFE AND WILDLIFE HABITAT

The impacts of the mine on wildlife during active operations were primarily displacement of the wildlife from the immediate mine area and decreasing the vegetative cover. The high percentage of open land of a similar nature to that occupied by the mine means that most of the displaced wildlife probably moved to nearby areas. In contrast, the surface water flow created by mine water

discharge probably attracted wildlife to those areas located south of the mine in Pipeline Arroyo. There is essentially no human activity at the mine site and tracks and droppings observed indicate that various wildlife species frequent the area. The discharge water ponds continue to collect surface runoff and enhance the wildlife habitat by providing a local water source.

2.13 OPERATIONAL DESIGN LIMITS

The NECR-1 and NECR-2 Mine areas, vent holes and ancillary facilities and were reclaimed as part of the decommissioning of the site. UNC has no further plans for mining operations at the site, and as such the permit boundaries shown on Figure 2 generally represent the ultimate limits of each area.

Roads at the site consist of primary and secondary roads. Many of these roads existed prior to mining activities and it is anticipated that the surface owners will keep most of these roads for post-mining use.

3.0 REFERENCES

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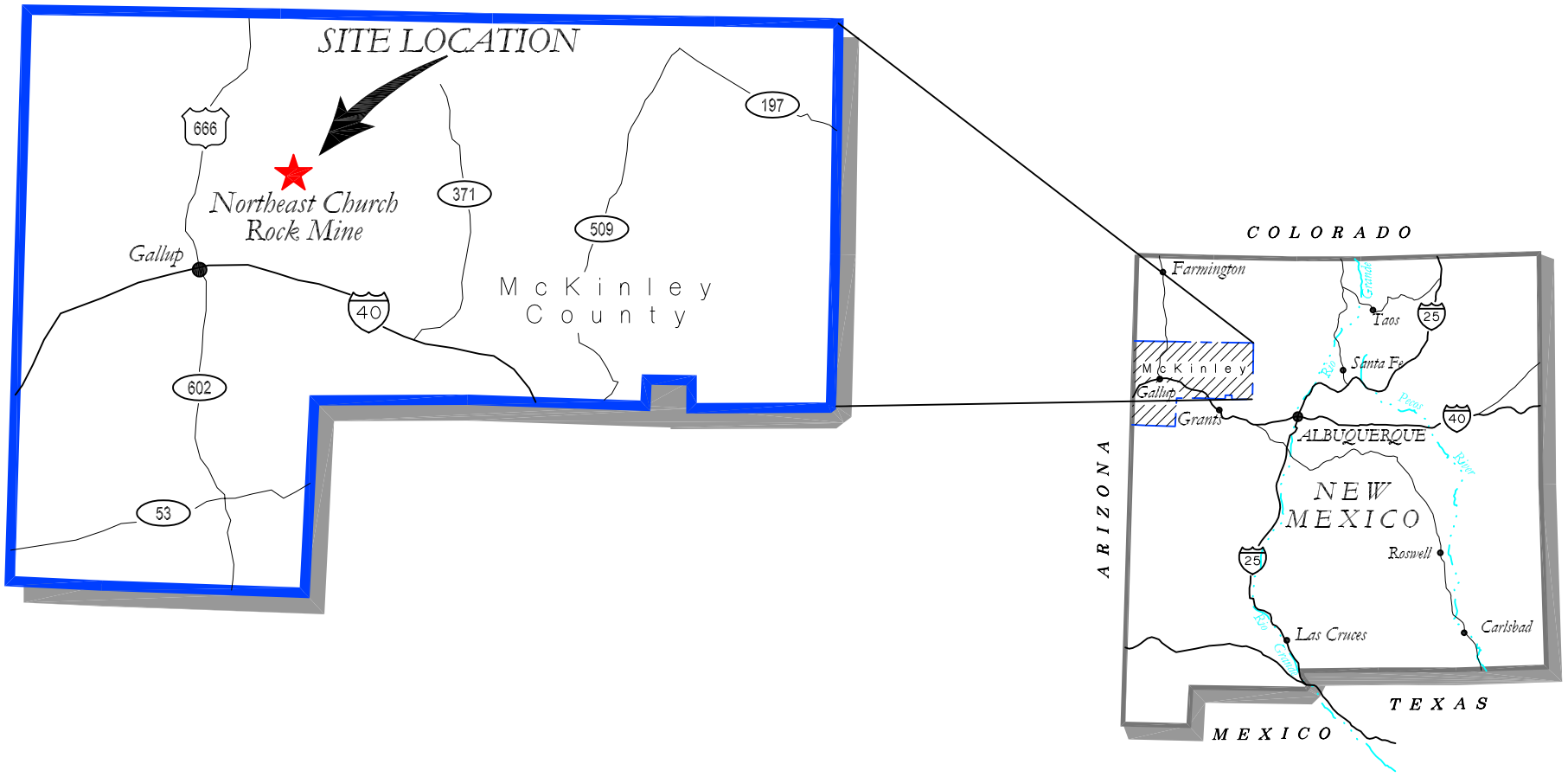
FIGURES



REV. No.	REVISIONS	DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
0	Issued for Review	4/03	M.Ross	N.Gonzalez	J.Redmond

MWH

PROJECT No.: 1003717

AutoCAD FILE: Churchrck genloc-fig 1

SCALE: Not to Scale

FIGURE No: 1

UNITED NUCLEAR CORPORATION

NORTHEAST CHURCH ROCK MINE
GENERAL LOCATION MAP

NAVAJO INDIAN RESERVATION

N

34 | 35

SECTION CORNER (TYP.)

VENT HOLE 8

SURFACE DRAINAGE

I-X PLANT

NECR-1

PARKING AREA

35 | 36

STATE HIGHWAY 566

MINE ENTRANCE

FUEL OIL STORAGE

SEDIMENT POND

POND 3

VENT HOLE 3

NECR MINE

POND 3A

SANDFILL NO. 1

STORAGE YARD

POND 1

INDIAN TRUST

VENT HOLE 7

POND 2

SANDFILL NO. 3

POWDER MAGAZINE AREA

MILL WATER TANKS

VENT HOLE 10

NON-ECONOMIC MATERIAL STORAGE AREA

BONE YARD

PRIMARY MINE ROAD (TYP.)

NECR-2

34 | 35

3

35

2

35 | 36

SANDFILL FILL NO. 2

VENT HOLE 6

CHURCH ROCK MILL

UNC

SECONDARY MINE ROAD (TYP.)

VENT HOLE 9

SCALE

500 0 500 FEET

LEGEND

- MINE PERMIT AREA
- FORMER NRC REGULATED AREA
- LAND OWNERSHIP - NAVAJO INDIAN RESERVATION
- LAND OWNERSHIP - UNC
- LAND OWNERSHIP - INDIAN TRUST

REV. No.	REVISIONS	DATE	DESIGN BY	DRAWN BY	REVIEWED AND SIGNED BY
0	Issued for Draft	6/03	M.Ross	N.Gonzalez	J.Redmond

UNITED NUCLEAR CORPORATION

PROJECT:

NORTHEAST CHURCH ROCK MINE

DRAWING TITLE:

SITE LAYOUT AND LAND OWNERSHIP

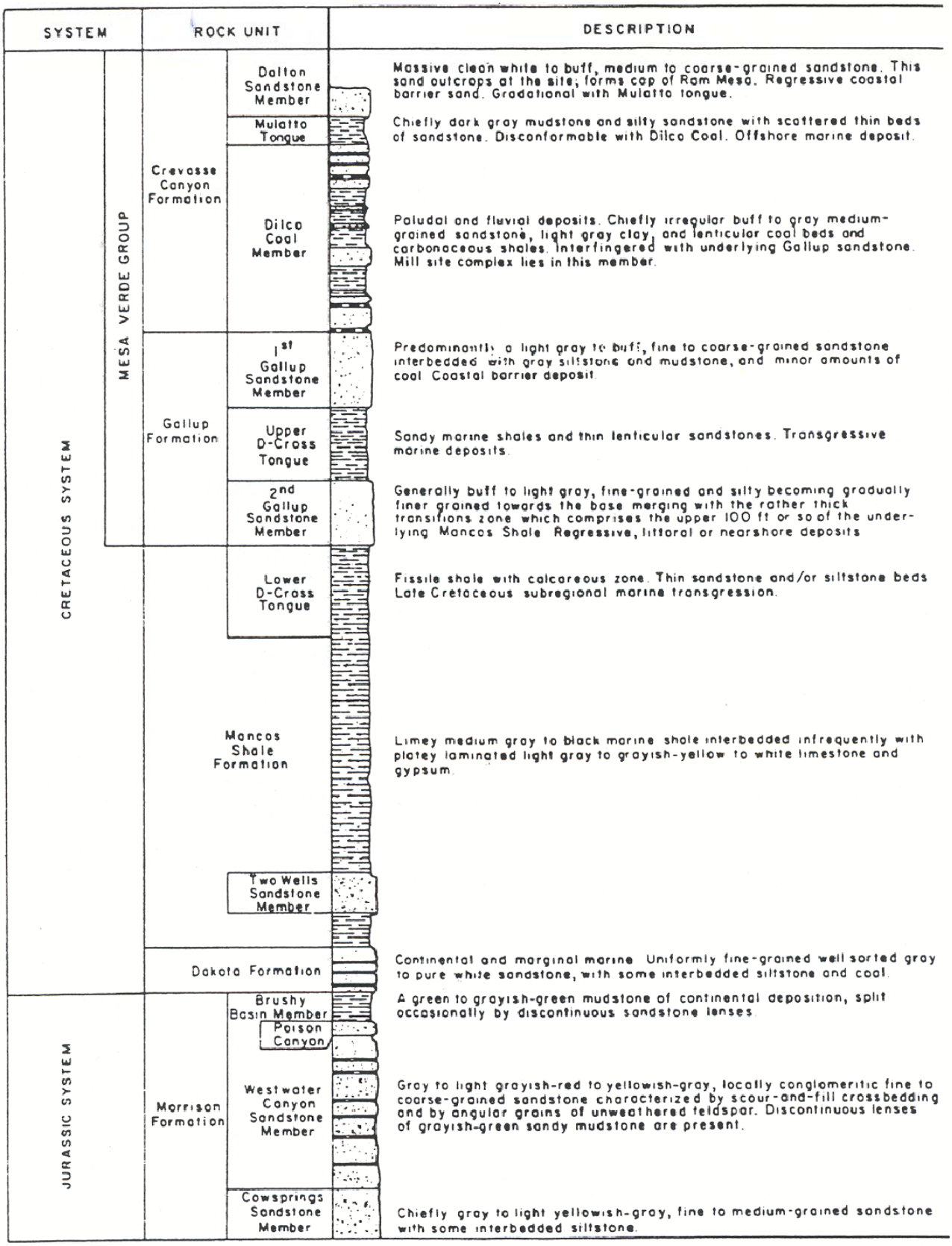
MWH

Sheet 1 Of 1 Sheets

SCALE: As Shown

FIGURE No. 2

AutoCAD FILE: Land Status-6-03 PROJECT NUMBER: 1003717.010102



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0	Issued for Review	4/03	M.Ross	N.Gonzalez	J.Redmond

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PROJECT No.: 1003717

AutoCAD FILE: GEOLOGY-FIG3

SCALE: Not to Scale

FIGURE No: 3

UNITED NUCLEAR CORPORATION

NORTHEAST CHURCH ROCK MINE SITE STRATIGRAPHIC COLUMN