

UTAH OIL AND GAS CONSERVATION COMMISSION

REMARKS WELL LOG ELECTRIC LOGS FILE WATER SANDS LOCATION INSPECTED SUB REPORT/abd

DATE FILED **11-16-90**

LAND FEE & PATENTED STATE LEASE NO PUBLIC LEASE NO INDIAN **8702-1116**

DRILLING APPROVED **11-29-90 (Exception Location)**

SP. LOGGED IN

COMPLETED PUT TO PRODUCING

INITIAL PRODUCTION

GRAVITY API

GOR **10.7 - 1.18**

PRODUCING ZONES

TOTAL DEPTH

WELL ELEVATION

DATE ABANDONED **11-7-90**

FIELD **GREATER ANETH**

UNIT

COUNTY **SAN JUAN**

WELL NO **SAGUARD 2E #1** API NO. **43-037-31576**

LOCATION **2280' FNL** FT FROM IN(S) LINE **950' FWL** FT FROM (E) W LINE **SW NW** 1/4 - 1/4 SEC **2**

TWP	RGE	SEC	OPERATOR
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TWP	RGE	SLC	OPERATOR
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41S	23E	2	CHUSKA ENERGY CO.
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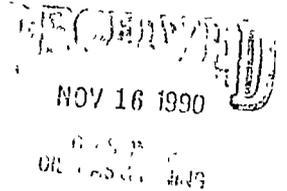
CHUSKA ENERGY COMPANY

3315 BLOOMFIELD HIGHWAY • FARMINGTON, NEW MEXICO 87401 • PHONE (505) 326-5525

P.O. BOX 780 • FARMINGTON, NEW MEXICO 87499

16 November, 1990

State of Utah Department of Natural Resources
Division of Oil, Gas and Mining
355 West North Temple
3 Triad Building, Suite 350
Salt Lake City, Utah 84180-1203



Ref: Application for Permit to Drill
Saguaro 2E-1 Well, San Juan County, Utah

Gentlemen

Attached for your examination and approval is the original and two copies of an Application for Permit to Drill the Saguaro 2E Well No. 1 in San Juan County, Utah. This well will be drilled as part of an ongoing exploration and development program.

The location for this well falls outside the guidelines for the State of Utah spacing requirements. However, the well has been located in a position which will allow the well bore to penetrate geological structures which have been identified by seismic interpretation. We therefore apply for an exception to the General State Spacing requirements. Chuska Energy controls the acreage surrounding the proposed site, as indicated on the attached land plat

Please advise if you require additional information concerning this application. Chuska Energy will greatly appreciate your prompt consideration.

Sincerely,


Larry G. Sessions
Operations Manager

LGS/csw
File: C:\WP51\SAGUARO.2E\APDCOVER

encl.

STATE OF UTAH
DIVISION OF OIL, GAS AND MINING

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1. Type of Work
 DRILL DEEPEN PLUG BACK

2. Name of Operator
 Chuska Energy Company

3. Address of Operator
 P.O. Box 780, Farmington, New Mexico 87499

4. Location of Well (Report location clearly and in accordance with the state requirements)
 At Surface 2280' FNL, 950' FWL

5. At proposed prod. zone Same

6. Distance to office and direction from nearest town or post office
 3 1/2 miles WSW of Montezuma Creek, Utah

7. Distance from proposed location to nearest property or lease line, ft.
 (Also to nearest drip line, if any) 1,610'

8. Distance from proposed location to nearest well, drilling, completed, or applied for, on this lease, ft.
 3,956'

9. Elevations (Give whether Dr., St., G.C., etc.)
 4,528' GR

10. No. of acres in lease 49,997

11. Proposed depth 5,913' GR Akah

12. Nature or cable tool Rotary

13. Approx. date work will start 4-3-91

3. Lease, Designation and Serial No.
 NOG 1-102-1116

4. If Title (Initial or Title Date)
 Navajo Tribal

5. Well Agreement Date

6. Name of Lease Area
 Saguaro 2E

7. Well No. 1

8. Field and Pool, or Wildcat
 Wildcat Auth 365

9. Sec., T., R., A., or S.W. and Survey or Area
 S2 T41S R23E

10. County or Parish San Juan

11. State Utah

14. PROPOSED CASING AND CEMENTING PROGRAM

Size of Hole	Size of Casing	Weight per foot	Setting Depth	Quantity of Cement
12 1/4"	8 5/8"	24 lb	500'	371 cu. ft. of 2 1/2 Gal.
7 7/8"	5 1/2"	15.5 lb	5,913'	822 cu. ft. of 65:35 Poz + 6% Gel

Refer to attached 10-Point Drilling Plan etc.

NOV 16 1990

15. ABOVE SPACE DESCRIBE PROPOSED PROGRAM if proposal is to deepen or plug back, give data on present productive zone and proposed non 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

16. I hereby certify that this report is true and complete to the best of my knowledge

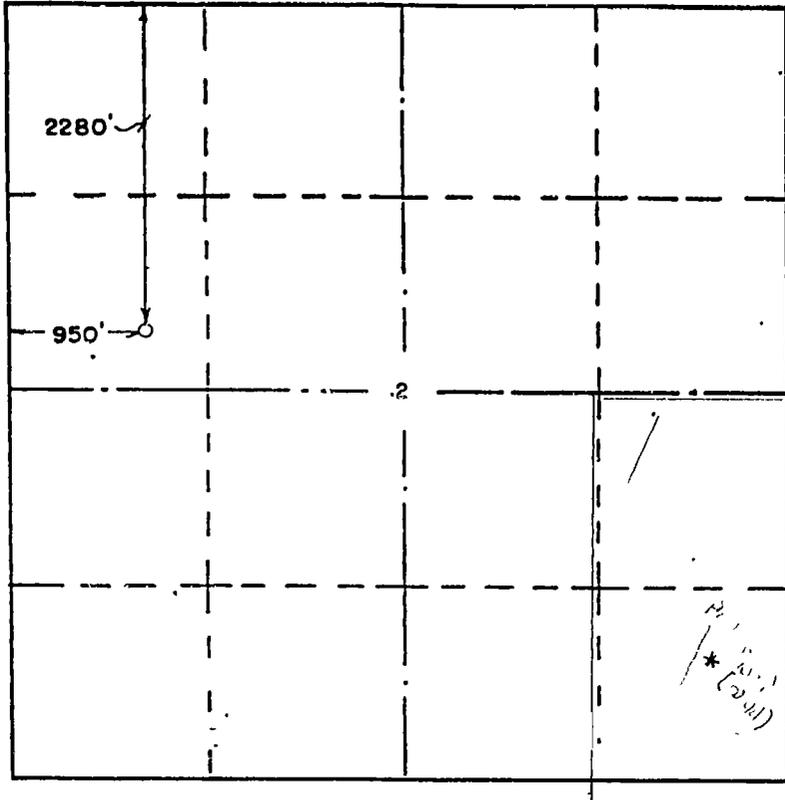
Signature: *[Signature]* Title: Petroleum Engineer Date: 16 November, 1990

API No: 43-037-3157U Approval Date: APPROVED BY THE STATE OF UTAH DIVISION OF OIL, GAS, AND MINING

Approved by: *[Signature]* Title: DATE: 11/29/90 BY: *[Signature]* WELL SPACING: R615-3-3

*See Instructions On Reverse Side

WELL LOCATION AND ACREAGE DEDICATION PLAT



WELL LOCATION DESCRIPTION:
CHUSKA ENERGY COMPANY, Saquaro 2 - E - 1
2280'FNL & 950'FWL
Section 2, T.41 S., R.23 E., SLM
San Juan, UT.
4538' ground elevation
State plane coordinates from seismic control:
x = 2,621,481 y = 220,343

The above plat is true and correct to my knowledge and belief.

09 November 1990

Gerald R. Huddleston
Gerald R. Huddleston, LS
HUDDLESTON
REGISTERED LAND SURVEYOR
STATE OF UTAH

CHUSKA ENERGY COMPANY

10 POINT DRILLING PLAN

Saguaro 2E Well No. 1
Section 2, Township 41S, Range 23E
2280' FNL, 950' FWL
San Juan County, Utah

1. SURFACE FORMATION

Geological name of surface formation: Morrison

2. ELEVATION

Surface elevation is 4,528' GR.

3. ESTIMATED FORMATION TOPS

<u>Depth</u>	<u>Formation</u>	<u>Sub Sea Elevation</u>	
Surface	Morrison	+ 4,538'	
645'	Navajo	+ 3,893'	
1,535'	Chinle	+ 3,003'	
2,560'	DeChelly	+ 1,978'	
2,723'	Organ Rock	+ 1,815'	
3,506'	Cedar Mesa	+ 1,032'	
4,545'	Hermosa	- 7'	
5,487'	Upper Ismay	- 949'	
5,579'	Lower Ismay	- 1,041'	Secondary Objective
5,648'	Desert Creek	- 1,110'	Primary Objective
5,838'	Akah	- 1,300'	
5,913'	Total Depth	- 1,375'	

4. PROPOSED CASING/CEMENTING PROGRAM

	<u>Depth</u>	<u>Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Coupling</u>
Surface	500'	8 5/8"	24 lb	K-55	STC
Production.	5,913'	5 1/2"	15.5 lb	K-55	STC

Surface Cementing:

371 sx (427 ft³) Class 'G' cement with 2% CaCl₂ and 1/4 lb/sk Celloflake Weight = 15.8 ppg, yield = 1.15 ft³/sk. Slurry volume calculated at 100% excess over annular volume.

Production Cementing:

First Stage

T.D. to 3,500' (stage collar @ \pm 3,500'). Lead with 181 sx Class 'G' cement, 65:35 Pozmix, with 6% gel, and 1/4 lb/sk Celloflake. Weight = 12.7 ppg, yield = 1.85 ft³/sk. Tail with 186 sx Class 'G' cement with 2% CaCl₂. Weight = 15.8 ppg, yield = 1.15 ft³/sk. Total of 549 ft³. Bring Class 'G' slurry to 500' above top of Upper Ismay. Cement volumes calculated at 30% excess in open hole. WOC 4 hours between stages.

Second Stage

3,500' to surface. Lead with 355 sx Class 'G' cement, 65:35 Pozmix with 6% gel and 1/4 lb/sk Celloflake. Weight = 12.7 ppg, yield = 1.85 ft³/sk. Tail with 100 sx Class 'G' cement with 2% CaCl₂. Weight = 15.8 ppg, yield = 1.15 ft³/sk. Total of 772 ft³. Cement volumes calculated at 30% excess in open hole.

Note: Exact slurry volumes for the production string will be adjusted according to the caliper log which will be run prior to cementing. Special adjustments may be necessary if significant amounts of salt are drilled.

5. BLOWOUT PREVENTER (See attached schematics)

As abnormal pressure is not anticipated, a 2,000 psi BOP system would be sufficient for the drilling of this well. However, due to availability constraints, a 3,000 psi system will be used, as per the attached Exhibits "A" and "B". This will be a 10" x 900 Series double ram preventer, equipped with a set of pipe and blind rams.

An accumulator system, with a pressure capacity sufficient to operate the rams three complete cycles without rig power, will be required as part of the rig equipment.

6. PROPOSED MUD PROGRAM

Surface to 4,000'

Fresh water, gel, lime and native solids. Weight 8.3 - 8.7 ppg. Gel/lime sweeps as necessary for hole cleaning.

4,000' to T.D.

Low solids, non-dispersed polymer system. Weight 8.6 - 9.5 ppg. Gel/lime sweeps as hole conditions dictate for hole cleaning. Fluid loss to be maintained at 15 - 20 cc. Fluid loss to be further reduced to 15 cc or less prior to coring, logging or DSTs.

7. AUXILIARY EQUIPMENT

- A. A kelly cock will be installed during drilling operations, with handle available on the rig floor.
- B. Floor (stabbing) valves will be available, on the rig floor at all times, with necessary subs to fit all of the drilling assemblies.
- C. Mud will be the circulating fluid. No abnormal formation pressures are expected.

8. WELL EVALUATION

Open hole electric logging program will consist of a minimum program of DLL-MSFL-SP-GR-Cal, FDC-CNL-GR-Lithodensity from T.D. to 4,500'.

Coring and/or drill stem testing will be as per the wellsite geologist's recommendations, based on shows. A mud logging unit will be utilized during drilling operations from at least 500' above the Upper Ismay.

9. ABNORMAL PRESSURES/GAS

Abnormal pressures are not anticipated. Monitoring of gas and hydrocarbon shows will be by wellsite mud logging unit. H₂S gas is not anticipated, however regular checks will be made while drilling the well.

10. TIMING

The drilling and evaluation of this well is estimated to be 16 days. Anticipated spud date is 4-3-91.

EXHIBIT "A" BLOWOUT PREVENTER

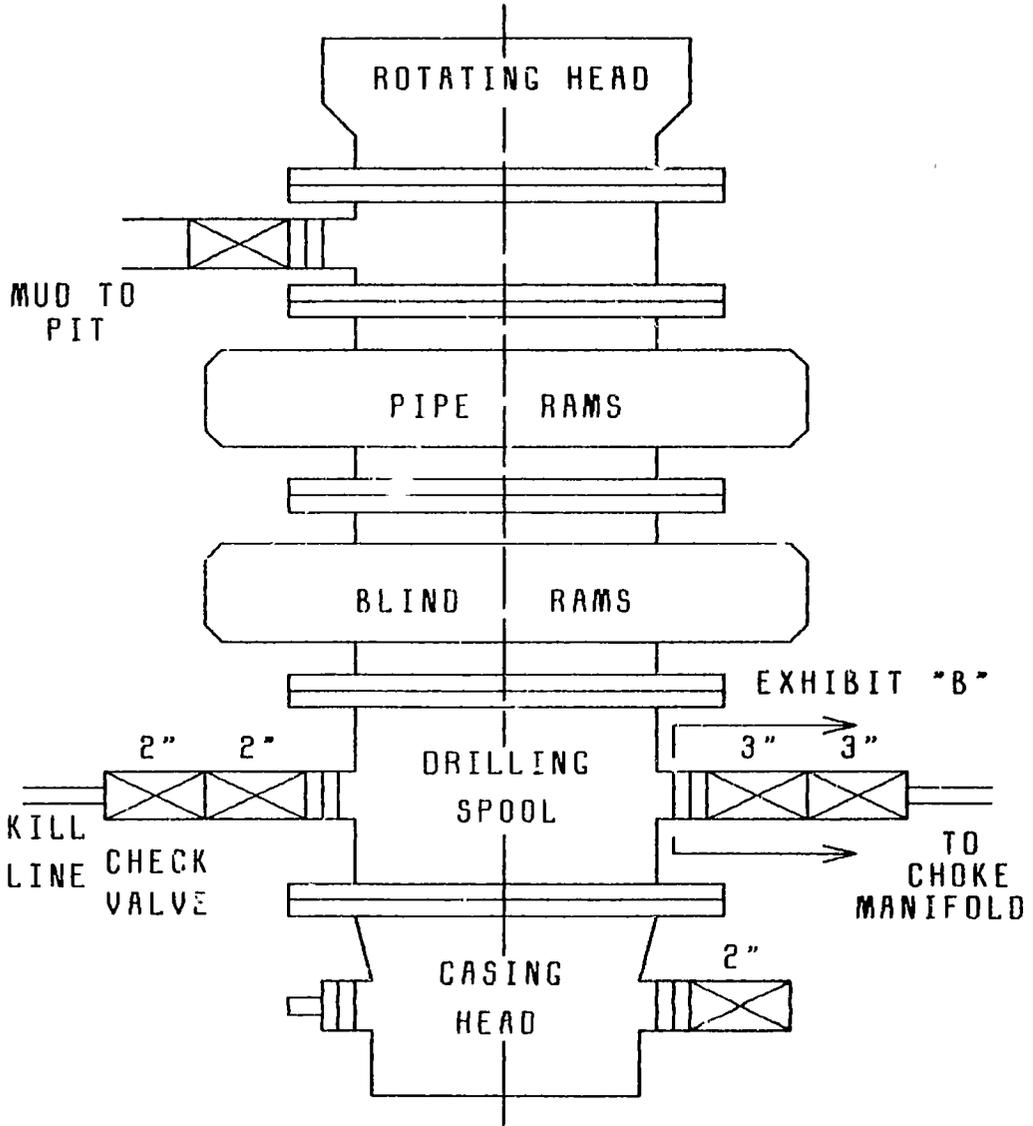
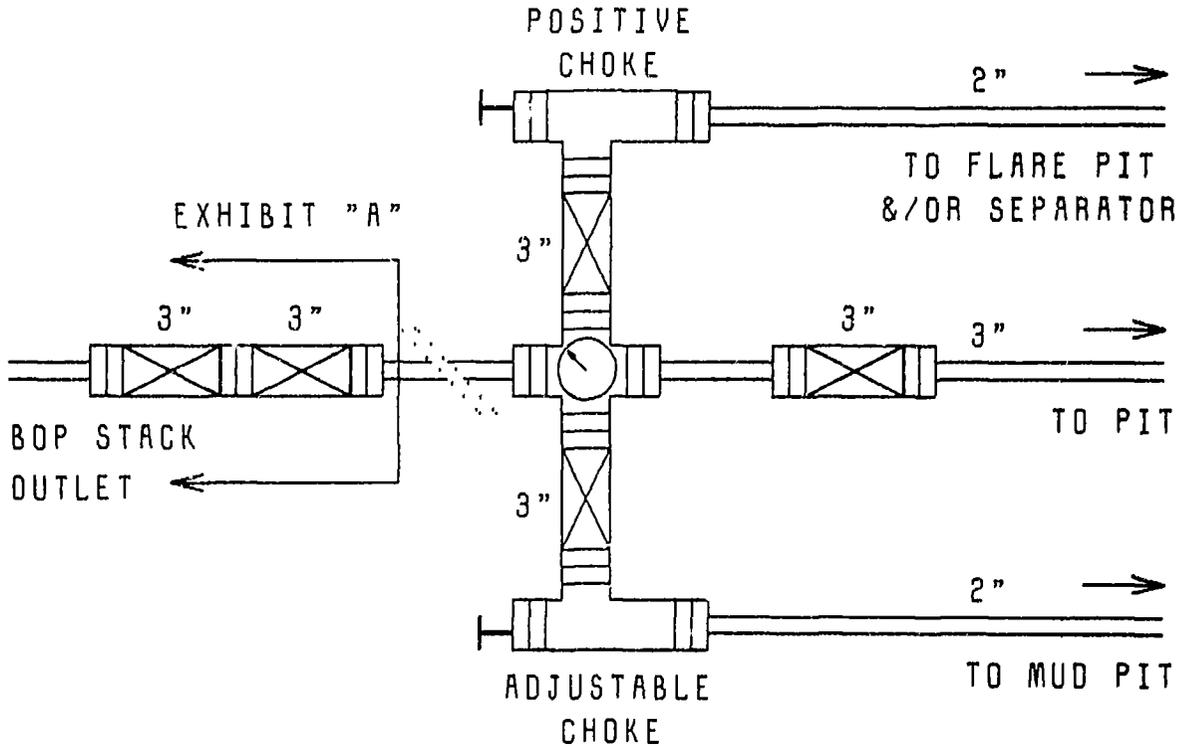


EXHIBIT "B"
CHOKE MANIFOLD



DETAILED DRILLING PROGRAM

DATE: 16 November, 1990

WELL NAME: Saglaro 2E WELL NO.: 1

LOCATION: Section 2, Township 41S, Range 23E
2280' FNL, 950' FWL
San Juan County, Utah

ELEVATION 4,528' GR

TOTAL DEPTH: 5,913' GR

PROJECTED HORIZON: Primary target is Desert Creek at 5,648'.
Secondary target is Lower Ismay at 5,579'.

DRILLING, CASING AND CEMENTING PROGRAM

1. Move in and rig up rotary tools. Notify BLM of time of spud and intent to run surface casing.
2. Drill mouse hole and rat hole. Mix mud prior to spudding well.
3. Drill 12 1/4" hole to \pm 500'. Use fresh water gel/lime spud mud for drilling surface hole. Well bore inclination is not to exceed 1' at 500'. Deviation surveys will be run at least at 250' and at casing point.
4. Run 8 5/8", 24 lb/ft, K-55, STC casing to T.D. Cement with 371 sx (427 ft') of Class 'G' cement with 2% CaCl₂ and 1/4 lb/sk Celloflake (sufficient slurry volume to circulate cement to surface).
5. W.O.C. a minimum of 4 hours prior to nipping up BOP stack and related equipment. See BOP schematics for details.
6. Ensure that plug has been down at least 8 hours prior to commencing pressure testing procedures. Pressure test BOP to 2,000 psig for 30 minutes. Pressure test manifold and all related equipment to 2,000 psig. Pressure test casing to 1,500 psig for 30 min.
7. Drill out surface casing with 7 7/8" bit. Drill 7 7/8" hole to T.D. Deviation surveys are to be taken every 500' or on a bit trip, whichever occurs first. Maximum allowable deviation will be 5' at T.D., with the maximum allowable rate of change to be 1"/100'.
8. Run open hole logs and evaluate. Coring and/or drill stem testing will be as per wellsite geologist's recommendation.
9. If the well is determined to be productive, run 5 1/2", 15.5 lb/ft, K-55, STC casing to T.D. Set stage cementing collar at \pm 3,500'. In addition to placing centralizers over potential

production zones, they will also be run to cover the aquifer sands of the Navajo and DeChelly formations, as per BLM stipulations. Cement production casing in two stages as per cementing program in 10-point Drilling Plan.

10. Nipple down BOPE. Set 5 1/2" casing slips and cut off casing. Install well head. Release drilling rig and move rig off location.
11. If well is non-productive it will be plugged and abandoned as per State, BLM and Navajo Tribal stipulations.

Saguaro 2E Well No. 1
Section 2, Township 41S, Range 23E
2280' FNL, 950' FWL
San Juan County, Utah

GENERAL COMPLETION PROCEDURE

If the well is determined to be productive, move in completion rig. Perforate, acidize, and test each productive porosity zone. Completion work will commence after Sundry Notice approval is received. Detailed procedures will follow.

PLUGGING AND ABANDONMENT

If the well is determined not to be productive, the well bore will be plugged as per BLM, State and Navajo Tribal requirements.

Saguaro 2E Well No. 1
Section 2, Township 41S, Range 23E
2280' FNL, 950' FWL
San Juan County, Utah

SURFACE USE PLAN

1. EXISTING ROADS

Shown on the attached topographic map are the existing roads in the immediate area. Outlined is the route to be followed from Montezuma Creek. Existing roads will be maintained, as necessary, while operations are in progress.

2. PLANNED ACCESS ROAD

The access road will be as shown on the attached topographic map. The road will be flat bladed, constructed 14' in width and will be maintained as necessary to prevent excessive damage to the existing terrain. The road will be upgraded if commercial production is established. Since the access to the well location from the main road follows an existing seismic line, it is not anticipated that any new road will need to be constructed to the location pad.

3. LOCATION OF EXISTING WELLS & TANK BATTERIES

There are no other producing wells or facilities in the immediate area.

4. LOCATION OF EXISTING AND PROPOSED FACILITIES

No production facilities are presently in place. Should the well prove to be productive, facilities (tank battery etc) will be sited on the drilling location pad.

5. LOCATION & TYPE OF WATER SUPPLY

Water will be acquired from the San Juan River and will be hauled using Chuska Energy Company water trucks, under State of Utah Division of Water Rights Permit Number 09-1724, (T64796).

6. SOURCE OF CONSTRUCTION MATERIALS

The need for additional construction materials is not anticipated. In the event that additional materials are required, they will be acquired either from private sources or with the approval of the Navajo Nation.

7. METHODS OF HANDLING WASTE MATERIAL

Trash will be contained on location in an enclosed bin. It will be hauled to an approved disposal site or burned on location if a burning permit is granted. The reserve pit will be lined, with an approved 7 mil liner, for containing drilling fluids. The pit will also be fenced. All drilling fluids, cuttings and chemical waste will be stored in the reserve pit. Liquid hydrocarbons will be stored in temporary storage tanks and hauled from location to approved sales facilities. The reserve pit will be emptied, back filled and restored to natural terrain status upon completion of drilling operations.

8. ANCILLARY FACILITIES

Chemical portable toilet facilities will be provided on location during drilling and completion operations. No camps or air strips are planned for this well.

9. WELL SITE LAYOUT

Attached is a surveyor's staking plat, cut and fill diagram and a schematic of the proposed rig layout.

10. PLANS FOR RESTORATION OF THE SURFACE

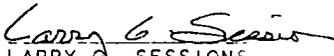
The location is laid out on a south west/north east trend and will require up to 14' of cut in the reserve pit (up to 3' of cut in the western corner of the location pad) and up to 4' of fill in the eastern corner of the location pad. Top soil removed from the pad will be stored at the well site. A reserve pit will be built on terrain containing sparse native vegetation. After drilling operations are complete, drilling fluid in the reserve pit will be allowed to evaporate. All remaining fluid in the pit will be disposed of into an approved disposal site. The reserve pit will remain fenced during the evaporation and disposal process. The pit will then be covered and the topsoil will be returned to the disturbed area. The terrain will be returned as near to its original condition as possible. Following operations, rehabilitation seeding will be in accordance with APD/BLM/BIA stipulations. There are no residents in the immediate area of the site.

11. OPERATORS REPRESENTATIVE

CHUSKA ENERGY COMPANY
3315 BLOOMFIELD HIGHWAY
FARMINGTON, NEW MEXICO 87402
LARRY G. SESSIONS

12. CERTIFICATION

I hereby certify that either I or persons under my direct supervision have inspected the proposed drill site and access route: 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 planned will be performed by Chuska Energy, or its sub-contractors, in conformity with the terms and conditions under which it is approved.

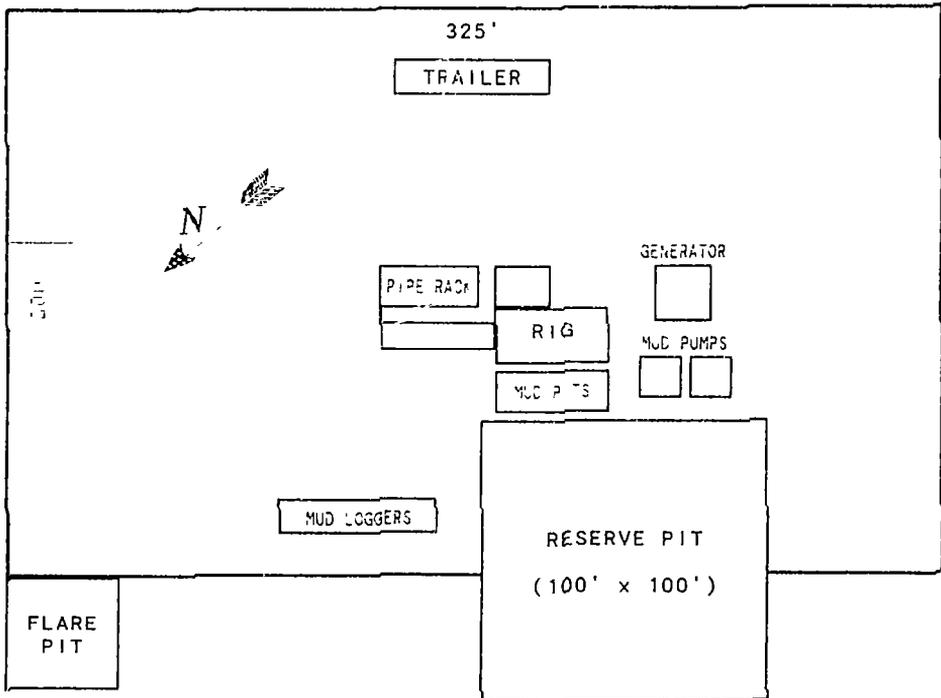

LARRY G. SESSION
Operations Manager

SAGUARO 2E-1

2280' FNL, 950' FWL

SECTION 2, TOWNSHIP 41S, RANGE 23E

SAN JUAN COUNTY, UTAH



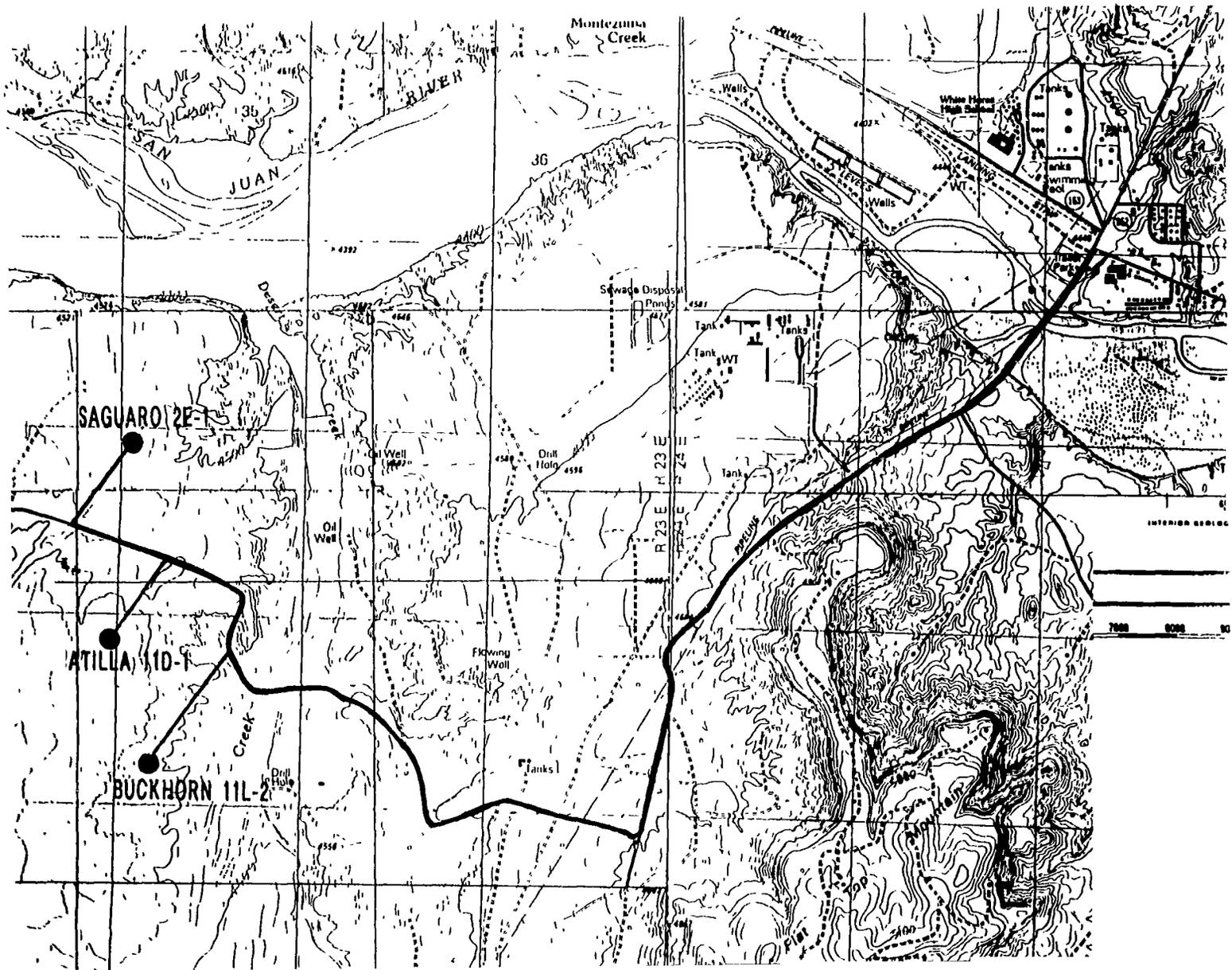
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18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

CHUSKA ENERGY COMPANY

ACREAGE POSITION UNDER THE 1987 OPERATING AGREEMENT

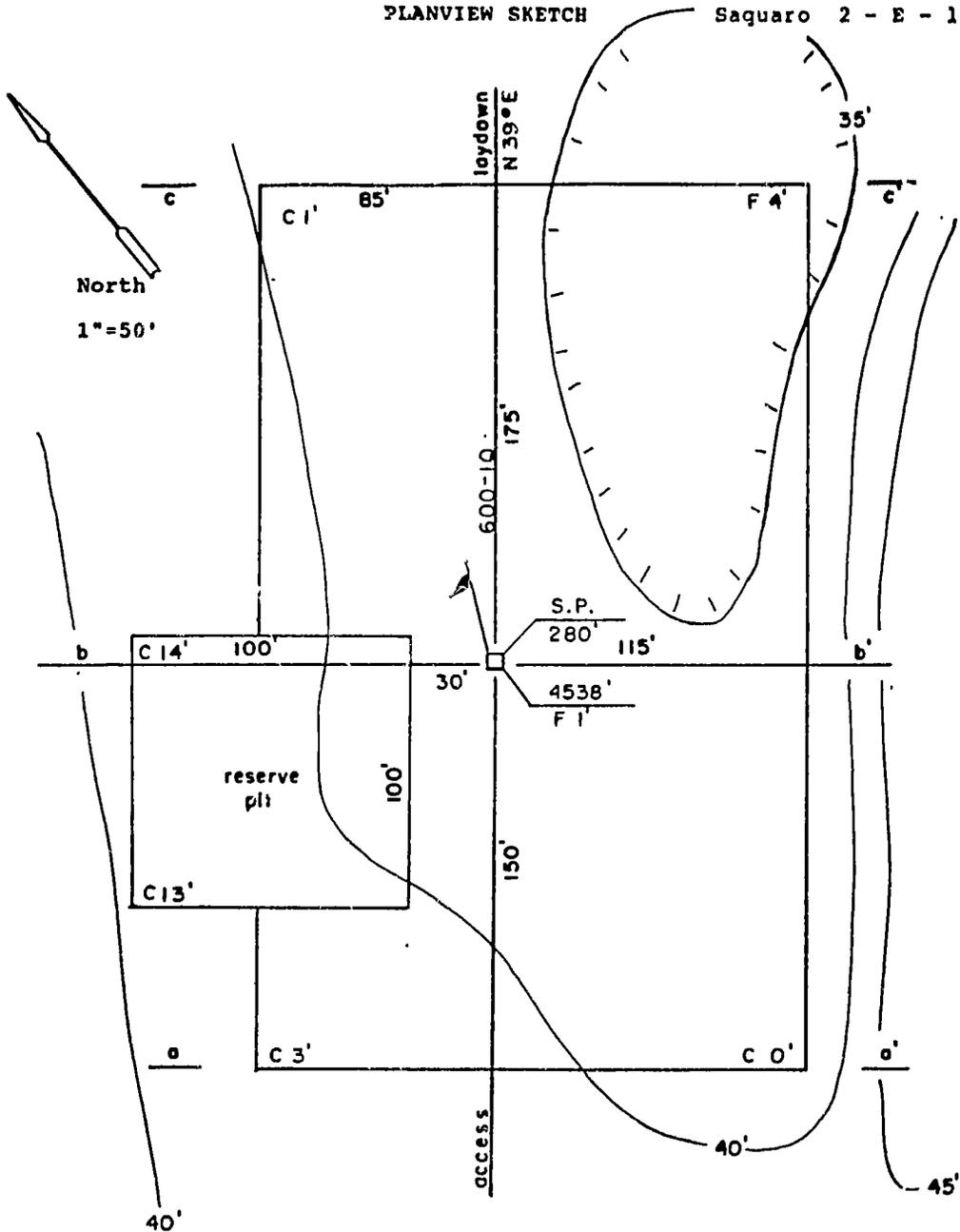


CHUSKA: T41S-R23E, SAN JUAN COUNTY, UTAH



PLANVIEW SKETCH

Saguaro 2 - E - 1



CROSS SECTION

Saquare 2 - E - 1

Cut // // // //
Fill 

1" = 50' vert. & horz.



c

c'



b

b'



a

a'

OPERATOR Chuska Energy Co. N-9090 DATE 11.07.90
WELL NAME Saguaro W E #1
SEC S44W T 41S R 03E COUNTY San Juan

43.037.31576
API NUMBER

(Indian (w))
TYPE OF LEASE

CHECK OFF:

PLAT

BOND

NEAREST WELL

LEASE

FIELD

POTASH OR OIL SHALE

PROCESSING COMMENTS:

Water Permit 09-1704 (TU4796)
Exception Location Requested

APPROVAL LETTER:

SPACING:

R615-2-3

N/A

UNIT

R515-3-2 (2)

Adm. Authority Adjacent to Unit cap Area

~~17 02-01-90~~
CAUSE NO. & DATE

R615-3-3

STIPULATIONS:

CC: BIA



State of Utah

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL, GAS AND MINING

Norman H. Bangerter

Governor

Dee C. Hansen

Executive Director

Dianne R. Nielson, Ph.D.

Division Director

355 West North Temple

3 Triad Center Suite 350

Salt Lake City, Utah 84100-1203

801 538 5340

November 29, 1990

Chuska Energy Company
P. O. Box 780
Farmington, New Mexico 87499

Gentlemen:

Re: Saguaro 2E #1 - SV/ NW Sec. 2, T. 41S, R. 23E - San Juan County, Utah
2280' FNL, 950' FWL

Approval to drill the referenced well is hereby granted in accordance with Rule R615-3-3, Oil and Gas Conservation General Rules.

In addition, the following actions are necessary to fully comply with this approval:

1. Spudding notification within 24 hours after drilling operations commence.
2. Submittal of an Entity Action Form within five working days following spudding and whenever a change in operations or interests necessitates an entity status change.
3. Submittal of the Report of Water Encountered During Drilling, Form 7.
4. Prompt notification if it is necessary to plug and abandon the well. Notify R. J. Firth, Associate Director, (Office) (801) 538-5340, (Home) 571-6068, or Jim Thompson, Lead Inspector, (Home) 298-9318.
5. Compliance with the requirements of Rule R615-3-20, Gas Flaring or Venting, Oil and Gas Conservation General Rules.

Page 2
Chuska Energy Company
Saguaro 2E #1
November 29, 1990

6. Prior to commencement of the proposed drilling operations, plans for facilities for disposal of sanitary wastes at the drill site shall be submitted to the local health department. These drilling operations and any subsequent well operations must be conducted in accordance with applicable state and local health department regulations. A list of local health departments and copies of applicable regulations are available from the Division of Environmental Health, Bureau of General Sanitation, telephone (801) 538-6121.
7. This approval shall expire one (1) year after date of issuance unless substantial and continuous operation is underway or an application for an extension is made prior to the approval expiration date.

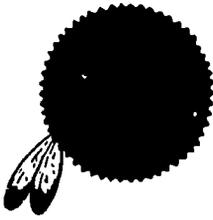
The API number assigned to this well is 43-037-31576.

Sincerely,



R. E. Firth
Associate Director, Oil & Gas

tas
Enclosures
cc: Bureau of Land Management
Bureau of Indian Affairs
J. L. Thompson
we14/1-6



CHUSKA ENERGY COMPANY

1775 SHERMAN STREET SUITE 1800 • DENVER, COLORADO 80203 • PHONE (303) 863 7021
FAX # (303) 863 7210

May 17, 1991

Ms. Vicki Kearney
Utah Oil & Gas Commission
355 West North Temple
Three Triad Center
Suite 350
Salt Lake City, Utah
84180-1203

Dear Ms. Kearney:

Please keep all Chuska Energy Company data confidential until further notice.

Thanks,

A handwritten signature in cursive script that reads "Herb".

Herbert P. Mosca
Chuska Staff Geologist

RECEIVED

MAY 20 1991

DIVISION OF
OIL GAS & MINING

ENTITY ACTION FORM - FORM 6

ADDRESS _____

ACTION CODE	CURRENT ENTITY NO.	NEW ENTITY NO.	API NUMBER	WELL NAME	WELL LOCATION				COUNTY	SPUD DATE	EFFECTIVE DATE
					QQ	SC	TP	RG			
A	99999	11553	43-037-31525	MEANDER 2D-1	NWNW	2	41S	21E	SAN JUAN		10-17-93
WELL 1 COMMENTS:											
A	99999	11554	43-037-31576	SAGUARO 2E-1 *	SWNW	2	41S	23E	SAN JUAN		10-19-93
WELL 2 COMMENTS:											
A	99999	11555	43-037-31619	LIZARD 4M	SWSW	4	41S	23E	SAN JUAN		10-19-93
WELL 3 COMMENTS:											
A	99999	11556	43-037-31574	OCATILLA 11D #1	NWNW	11	41S	23E	SAN JUAN		10-19-93
WELL 4 COMMENTS:											
A	99999	11557	43-037-31618	MULE 31-K-2	SESW	31	41S	24E	SAN JUAN		10-19-93
WELL 5 COMMENTS:											

ACTION CODES (See Instructions on back of form)

- A - Establish new entity for new well (single well only)
- D - Add new well to existing entity (group or unit well)
- C - Re-assign well from one existing entity to another existing entity
- B - Re-assign well from one existing entity to a new entity
- E - Other (explain in comments section)

L. CORDOVA (DOGM)
Signature
ADMIN. ANALYST 10-19-93
Title Date

NOTE. Use COMMENT section to explain why each Action Code was selected

Phone No ()

FEBRUARY 8, 1994

TO: WELL FILE

FROM: K. M. HEBERTSON

RE: Status, Saguro 2E-1 43-037-31576 2-41S-23E

Per telephone conversation with the operator concerning the status of this well, it was determined that the well will not be drilled and the operator has acknowledged that the APD has expired. The operator has been informed that the APD will need to be refiled in order to drill this well at a future date.

As of the above date the APD has been rescinded and the file sent to the LA archives.

KMH