Form 3160-3
(December 1990)

OPER. OGRID NO. 147179
PROPERTY NO. 33229
POOL CODE 96242
EFF. DATE 12/14/03
API NO. 30-025-36514

...on Division, District I
...h Drive
...8240

Form approved.

APPLICA

la. TYPE OF WORK: DI

b. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ Other ___ SINGLE ZONE ☐ MULTIPLE ZONE ☐

CONFIDENTIAL – TIGHT HOLE

5. LEASE DESIGNATION AND SERIAL NO.
NMNM 108478

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
WILLIAM 14 FEDERAL 1

9. API WELL NO.
30-025-36514

10. FIELD AND POOL, OR WILDCAT

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
14-15S-35E NM

2. NAME OF OPERATOR
CHESAPEAKE OPERATING, INC. Attn. Sharon Dries

3. ADDRESS AND TELEPHONE NO.
P.O. BOX 18496 OKLAHOMA CITY, OK 73154 405-879-7985

4. LOCATION OF WELL (*Report location clearly and in accordance with any State requirements*)*
At surface 1869 FNL 660 FWL SWNW

At top proposed prod. zone 1869 FSL 660 FEL SWNW Unit E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*	12. COUNTY OR PARISH	13. STATE
Approximately 25 miles Northeast of Roswell, NM	LEA	NM

15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line if any)	16. NO. OF ACRES IN LEASE	17. NO. OF ACRES ASSIGNED TO THIS WELL
660	320	320

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.	19. PROPOSED DEPTH	20. ROTARY OR CABLE TOOLS*
	13900	ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)		22. APPROX. DATE WORK WILL START*
3979	LEA COUNTY CONTROLLED WATER BASIN	SEPTEMBER 15, 2003

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
"	"	#	'	+/-
"	"	#	'	+/-
	"	#	'	+/-

Chesapeake Operating, Inc. proposes to drill a well to 13,900' to test the Morrow and Mississippi Lime formations. If productive, casing will be run and the well completed. If dry, the well will be plugged and abandoned as per BLM and NM OCD requirements.

Attached please find the Surface Use Plan and Drilling Plan as required by Onshore Order No. 1. Also Exhibits A through F.

Please be advised that Chesapeake Operating, Inc. is considered to be the Operator of the above mentioned well. Chesapeake Operating, Inc. agrees to be responsible under the terms and conditions of the lease for the operations conducted upon the lease lands.

Bond coverage for this well is provided by Chesapeake Operating, Inc. under their Nationwide Bond No. NM2634.

RECEIVED
AUG 2003
Hobbs
OCD

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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 J. Mark Lester TITLE Sr. Vice President Exploration DATE August 6, 2003

J. Mark Lester

***(This space for Federal or State office use)**

PERMIT NO. _____ APPROVAL DATE 12/24/03

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

CONDITIONS OF APPROVAL, IF ANY:

APPROVED BY /s/ Joe G. Lara TITLE ACTING FIELD MANAGER DATE 22 DEC 2003

See Instructions On Reverse Side

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

APPROVAL FOR 1 YEAR

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

1. EXISTING ROADS

   a. Existing county roads will be used to enter proposed access road.
   b. Driving directions to the well are: From the intersection of Gum Street and 3rd Street in Lovington, go north on 3rd Street for 3 miles. Turn left (west) on Stansill Road and go 2 miles. Then turn right (north) through locked gate. Go 0.7 mile to the location on the right.
   c. See Exhibit A-3 for proposed access road.
   a. Access and vicinity plats attached hereto. See Exhibits A1 through A3.

2. PLANNED ACCESS ROADS

   a. A new access road 3736.1' in length and 14' in travel way width with a maximum disturbance area of 30' will be built coming off the existing county road in a northerly direction.
   b. Any turnouts will be constructed according to BLM Permanent Resource Road Requirements.
   c. A locking gate will be installed at the site entrance.
   d. Any fences cut will be repaired. Cattle guards will be installed, if needed.
   e. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed, will be approved in advance.
   f. The driving directions to the William 14 Federal 1 are north from Lovington on 3rd St, on Reed Road go north 3 miles then turn west on Stansuld Road. West 2 miles turn north for .7 miles then east 640' to propose well site.

3. LOCATION OF EXISTING WELLS WITHIN A 1-MILE RADIUS OF THE PROPOSED LOCATION – see Exhibit B.

4. LOCATION OF PRODUCTION FACILITIES

   It is anticipated that production facilities will be located on location. See Exhibit C.

5. LOCATION AND TYPE OF WATER SUPPLY

Water will be obtained from a private water source. Chesapeake Operating, Inc. will ensure all proper notifications and filings are made with the state.

6. CONSTRUCTION MATERIALS

All material (i.e. shale) will be acquired from private or commercial sources.

7. METHODS FOR HANDLING WASTE DISPOSAL

A lined earthen pit will be utilized during the drilling of this well. All wastes accumulated during drilling operations will be contained in a portable trash cage and removed from location and deposited in an approved sanitary landfill. Sanitary wastes will be contained in a chemical porta-toliet and then hauled to an approved sanitary landfill.

8. ANCILLARY FACILITIES

None

9. WELLSITE LAYOUT

The proposed site layout plat is attached showing rig orientation and equipment location. See Exhibit D.

10. PLANS FOR RECLAMATION OF THE SURFACE

The location will be restored to as near as original condition as possible. Reclamation of the surface shall be done in strict compliance with the existing New Mexico Oil Conservation Division regulations.

Backfilling leveling, and contouring are planned as soon as the drilling rig and steel tanks are removed. Wastes and spoils materials will be buried immediately after drilling is completed. If production is obtained, the unused area will be restored as soon as possible. The rehabilitation will begin after the drilling rig is removed.

11. SURFACE OWNERSHIP

William McWhorter
Rt. 2, Box 120
Lovington, NM 88260

12. MINERAL OWNERSHIP
United States of America
Department of Interior
Bureau of Land Management

12. ADDITIONAL INFORMATION

A Class III cultural resource inventory report was prepared by Danny Boone of Boone Archaeological Services, LLC, for the proposed location and new access road. Clearance has been recommended. See Exhibit E.

13. OPERATOR'S REPRESENTATIVES

Drilling and Completion Operations
Colley Andrews
District Manager
P.O. Box 18496
Oklahoma City, OK 73154
405-879-9142 (OFFICE)
405-879-9530 (FAX)
candrews@chkenergy.com

Drilling Engineer
Rob Jones
P.O. Box 18496
Oklahoma City, OK 73154
405-810-2694 (OFFICE)
405-879-9571 (FAX)
405-623-5880 (MOBILE)
rjones@chkenergy.com

Regulatory Compliance
Sharon E. Dries
Regulatory Compliance Coordinator
Mailing Address: P.O. Box 18496
Oklahoma City, OK 73154
Street Address: 6100 N. Western
Oklahoma City, OK 73118
405-879-7985 (OFFICE)
405-879-9583 (FAX)
sdries@chkenergy.com

Field Representative
Lynard Barrera
5401 Carlsbad Hwy
Hobbs, NM 88240
(505) 391-1462 (OFFICE)
(505) 391-9568 (FAX)
(505) 631-4942 (MOBILE)
lbarrera@chkenergy.com

14. CERTIFICATION

I hereby certify that 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 surface use plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed will be performed by operator (including contractors and subcontractors) submitting the APD, in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

By: J. Mark Lester

Date: 8/6/03

ONSHORE OIL & GAS ORDER NO. 1
Approval of Operations on Onshore
Federal and Indian Oil and Gas Leases

All lease and/or unit operations are to be conducted in such a manner that full compliance is made with the applicable laws, regulations (CFR 43, Part 3160) and the approved Application for Permit to Drill. The operator is considered fully responsible for the actions of his subcontractors. A copy of the approved APD must be on location during construction, drilling and completion operations.

Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

1. FORMATION TOPS

The estimated tops of important geologic markers are as follows:

Formation	Depth	Subsea
San Andres	4640	-640
Glorietta	6210	-2210
Tubb	7460	-3460
Abo	8220	-4220
Wolfcamp	9830	-5830
Cisco Shale	10820	-6820
Cisco Limestone	11130	-7130
Canyon Pay	11630	-7630
Strawn	11830	-7830
Strawn Clastic	12050	-8050
Atoka Shale	12180	-8180
Brunson	12840	-8840
Morrow Lime	12900	-8900
Morrow Shale	13150	-9150
Lower Morrow Sand	13350	-9350
Austin	13400	-9400
Chester Shale	13560	-9560
Mississippi Lime	13740	-9740
Total Depth	**13900**	-9900

2. ESTIMATED DEPTH OF WATER, OIL GAS & OTHER MINERAL BEARING FORMATIONS

The estimated depths at which the top and bottom of the anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Substance	Formation	Depth
Oil	Cisco Limestone	11130
Oil	Canyon Pay	11630
Oil	Strawn	11830
Gas	Brunson	12840
Gas	Lower Morrow Sand	13350
Gas	Austin	13400

All shows of fresh water and minerals will be reported and protected.

3. BOP EQUIPMENT: 10,000**# System**

Chesapeake Operating, Inc.'s minimum specifications for pressure control equipment are as follows:

I. BOP, Annular, Choke Manifold, Pressure Test – Exhibit F-1 and F-2.

A. Equipment
1. The equipment to be tested includes all of the following that is installed on the well.
   (a) Ram-type and annular preventers,
   (b) Choke manifolds and valves,
   (c) Kill lines and valves, and
   (d) Upper and lower kelly cock valves, inside BOP's and safety valves.

B. Test Frequency
1. All tests should be performed with clear **water**,
   (a) when installed,
   (b) before drilling out each casing string,
   (c) at any time that there is a repair requiring a pressure seal to be broken in the assembly, and
   (d) at least once every **30 days** while drilling.

C. Test Pressure
1. In some drilling operations, the pressures to be used for low and high-pressure testing of preventers and casing may be different from those given below due to governmental regulations, or approved local practices.
2. If an individual component does not test at the low pressure, **do not,** test to the high pressure and then drop back down to the low pressure.
3. All valves located downstream of a valve being tested must be placed in the open position.

4. All equipment will be tested with an initial "low pressure" test at 250 psi.
5. The subsequent "high pressure" test will be conducted at the rated working pressure of the equipment for all equipment except the annular preventer.
6. The "high pressure" test for the annular preventer will be conducted at 70% of the rated working pressure.
7. A record of all pressures will be made on a pressure-recording chart.

D. Test Duration
1. In each case, the individual components should be monitored for leaks for **5 minutes,** with no observable pressure decline, once the test pressure as been applied.

II. Accumulator Performance Test

A. Scope
1. The purpose of this test is to check the capabilities of the BOP control systems, and to detect deficiencies in the hydraulic oil volume and recharge time.

B. Test Frequency
1. The accumulator is to be tested each time the BOP's are tested, or any time a major repair is performed.

C. Minimum Requirements
1. The accumulator should be of sufficient volume to supply 1.5 times the volume to close and hold all BOP equipment in sequence, **without recharging** and the **pump turned off**, and have remaining pressures of **200 PSI above the precharge pressure**.

2. Minimum precharge pressures for the various accumulator systems per **manufacturers recommended specifications** are as follows:

System Operating Pressures	Precharge Pressure
1,500 PSI	750 PSI
2,000 PSI	1,000 PSI
3,000 PSI	1,000 PSI

3. Closing times for the Hydril should be less than **20 seconds**, and for the ram-type preventers less than **10 seconds**.

4. System Recharge time should not exceed **10 minutes**.

D. Test Procedure
1. Shut accumulator pumps off and record accumulator pressure.

2. In sequence, close the annular and one set of properly sized pipe rams, and open the HCR valve.
3. Record time to close or open each element and the remaining accumulator pressure after each operation.

4. Record the remaining accumulator pressure at the end of the test sequence. Per the previous requirement, this pressure **should not be less** than the following pressures:

System Pressure	Remaining Pressure At Conclusion of Test
1,500 PSI	950 PSI
2,000 PSI	1,200 PSI
3,000 PSI	1,200 PSI

5. Turn the accumulator pumps on and record the recharge time. This time should not exceed **10 minutes.**

6. Open annular and ram-type preventers. Close HCR valve.

7. Place all 4-way control valves in **full open** or **full closed** position. **Do not leave in neutral position**.

4. CASING AND CEMENTING PROGRAM

a. The proposed casing program will be as follows:

Purpose	Interval	Hole Size	Casing Size	Weight	Grade	Thread	Condition
Surface	0'-400'	17-1/2"	13-3/8"	48	H-40	STC	New
Intermediate	0'- 4,660'	11"	8-5/8"	32	J-55	STC	New
Production	0' – 13,900'	7-7/8"	5-1/2"	17&20	L-80	LTC	New

b. Casing design subject to revision based on geologic conditions encountered.
c. The cementing program will be as follows:

Interval	Type	Amount	Yield	Washout	Excess
0'-400'	Class C + Additives	380	1.74	75	100
400'- 4,660'	Class C 50/50 Poz + Additives	900	2.37	75	100
4,660' – 13,900'	Class H + Additives	1300	2.3	10	30

5. MUD PROGRAM

a. The proposed circulating mediums to be used in drilling are as follows:

Interval	Mud Type	Mud Weight	Viscosity	Fluid Loss
0'-400'	Fresh Water	8.6-9.0	32-36	NC
400'- 4,660'	Salt	10	32-34	NC
4,660' – 13,900'	Fresh water Poly	8.6-9.0	36-45	NC-10

A lined earthen pit will be utilized during the drilling of this well. All fluids and cuttings will be disposed of in accordance with New Mexico Oil Conversation Division rules and regulations.

A mud test shall be performed every 24 hours after mudding up to determine, as applicable: density, viscosity, gel strength, filtration, and pH.

6. TESTING, LOGGING AND CORING

The anticipated type and amount of testing, logging and coring are as follows:

a. Drill stem tests are not planned.
b. The logging program will consist of Natural GR, Density, Neutron and Pe from TD to surface casing, then GR and Neutron to surface; Dual Laterolog from TD to surface casing.
c. Cores samples are not planned.

7. ABNORMAL PRESSURES AND HYDROGEN SULFIDE

a. The estimated bottom hole pressures is 7000 psi. No abnormal pressures or temperatures are anticipated.
b. Low levels of Hydrogen sulfide gas are expected to be encountered.

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-10
Revised February 10, 199
Submit to Appropriate District Offic
State Lease - 4 Copie
Fee Lease - 3 Copie

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPOR

API Number	Pool Code	Pool Name
30-025-36514	96242	Austin Miss. SW

Property Code	Property Name	Well Number
33229	WILLIAM 14 FEDERAL	1

OGRID No.	Operator Name	Elevation
147179	CHESAPEAKE OPERATING, INC.	3979'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	14	15-S	35-E		1869'	NORTH	660'	WEST	LEA

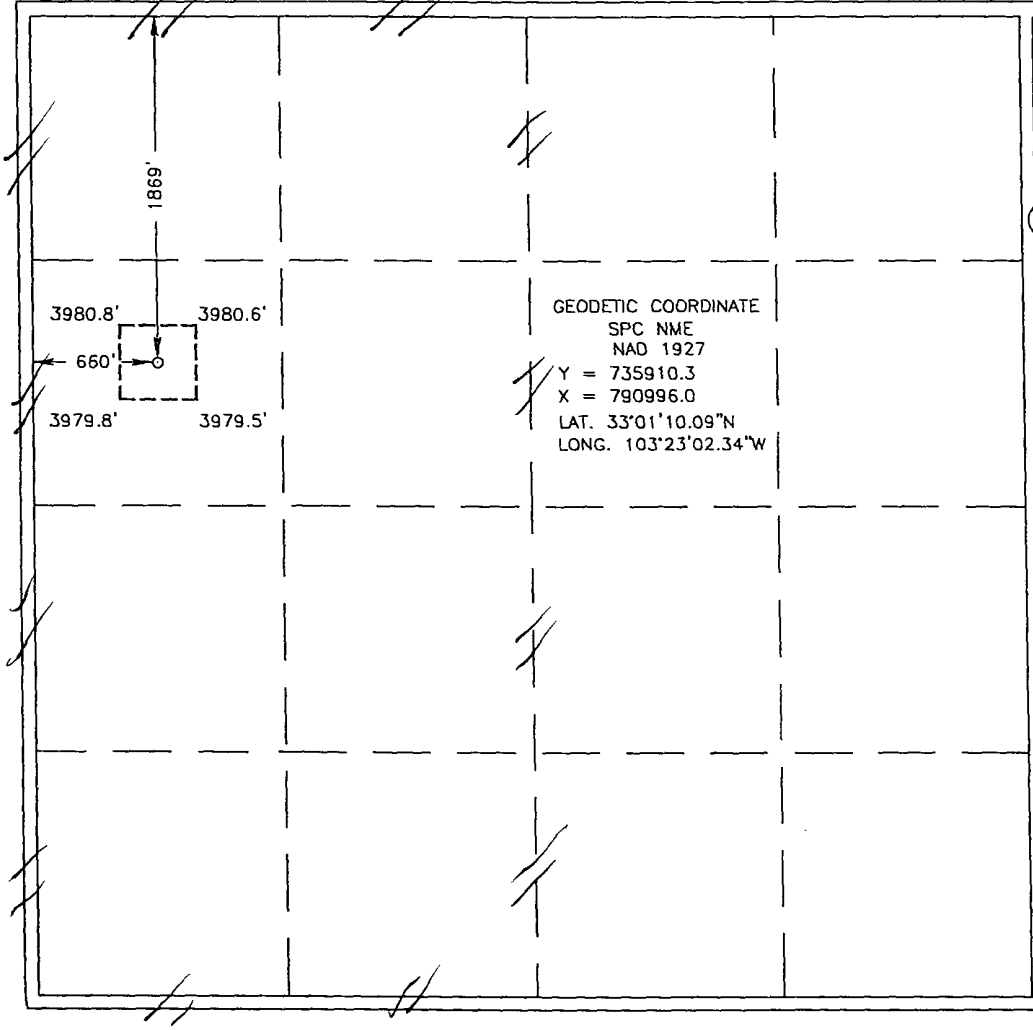
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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

Per LT



OPERATOR CERTIFICATION

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

Lynda F. Townsend
Signature

Lynda F. Townsend
Printed Name

Landman
Title

2-26-03
Date

SURVEYOR CERTIFICATION

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

FEBRUARY 17, 2003
Date Surveyed AWB

Signature & Seal of Professional Surveyor

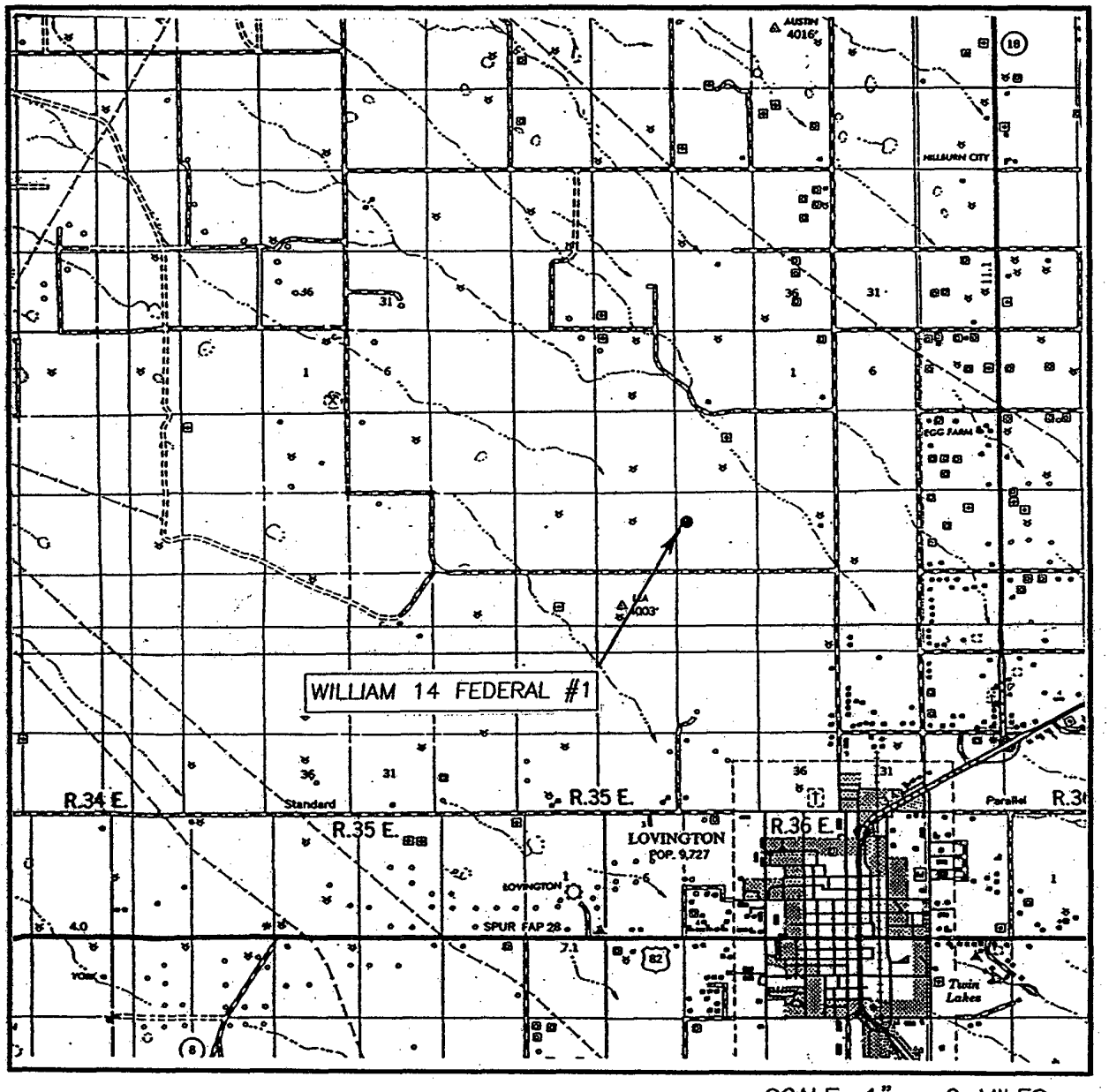
Gary L. Eidson 2/21/03

03.11.0195

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641

Exhibit A-1

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 14 TWP. 15-S RGE. 35-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1869' FNL & 660' FWL

ELEVATION 3979'

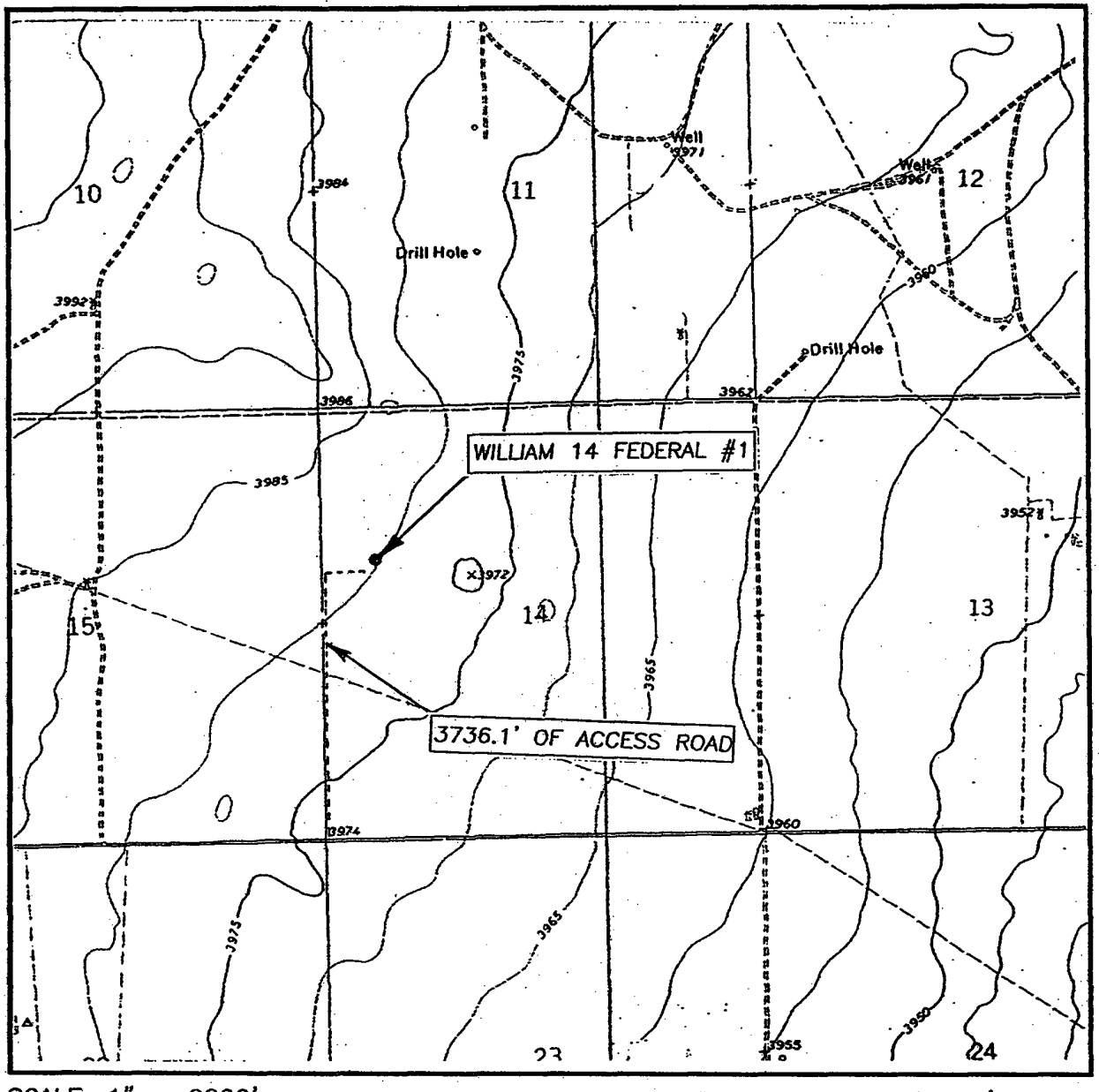
OPERATOR CHESAPEAKE OPERATING, INC.

LEASE WILLIAM 14 FEDERAL

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

Exhibit A-2

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 5'
HILLBURN CITY SW, N.M.

SEC. 14 TWP. 15-S RGE. 35-E

SURVEY N.M.P.M.

COUNTY LEA

DESCRIPTION 1869' FNL & 660' FWL

ELEVATION 3979'

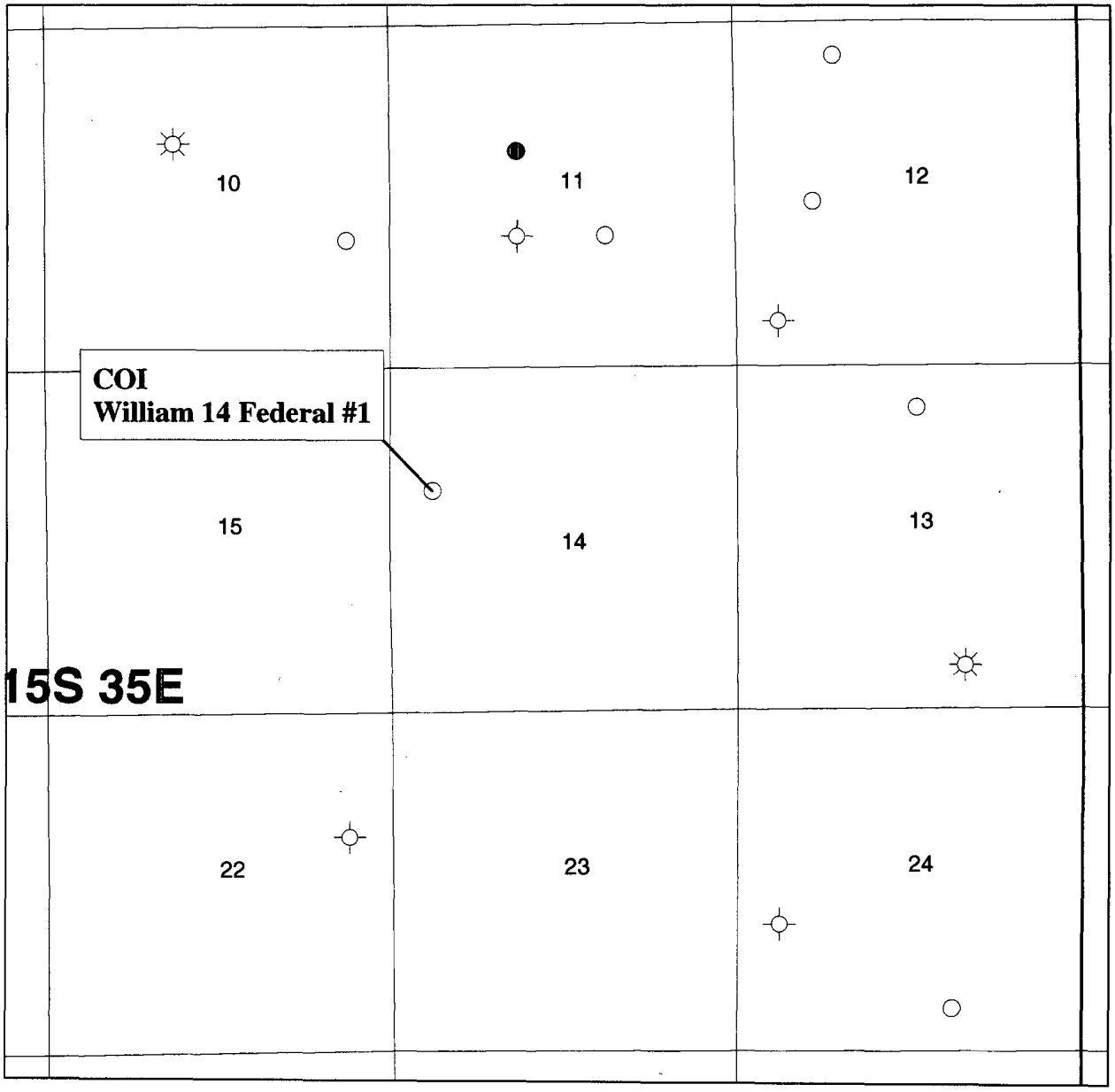
OPERATOR CHESAPEAKE OPERATING, INC.

LEASE WILLIAM 14 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
HILLBURN CITY SW, N.M.

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

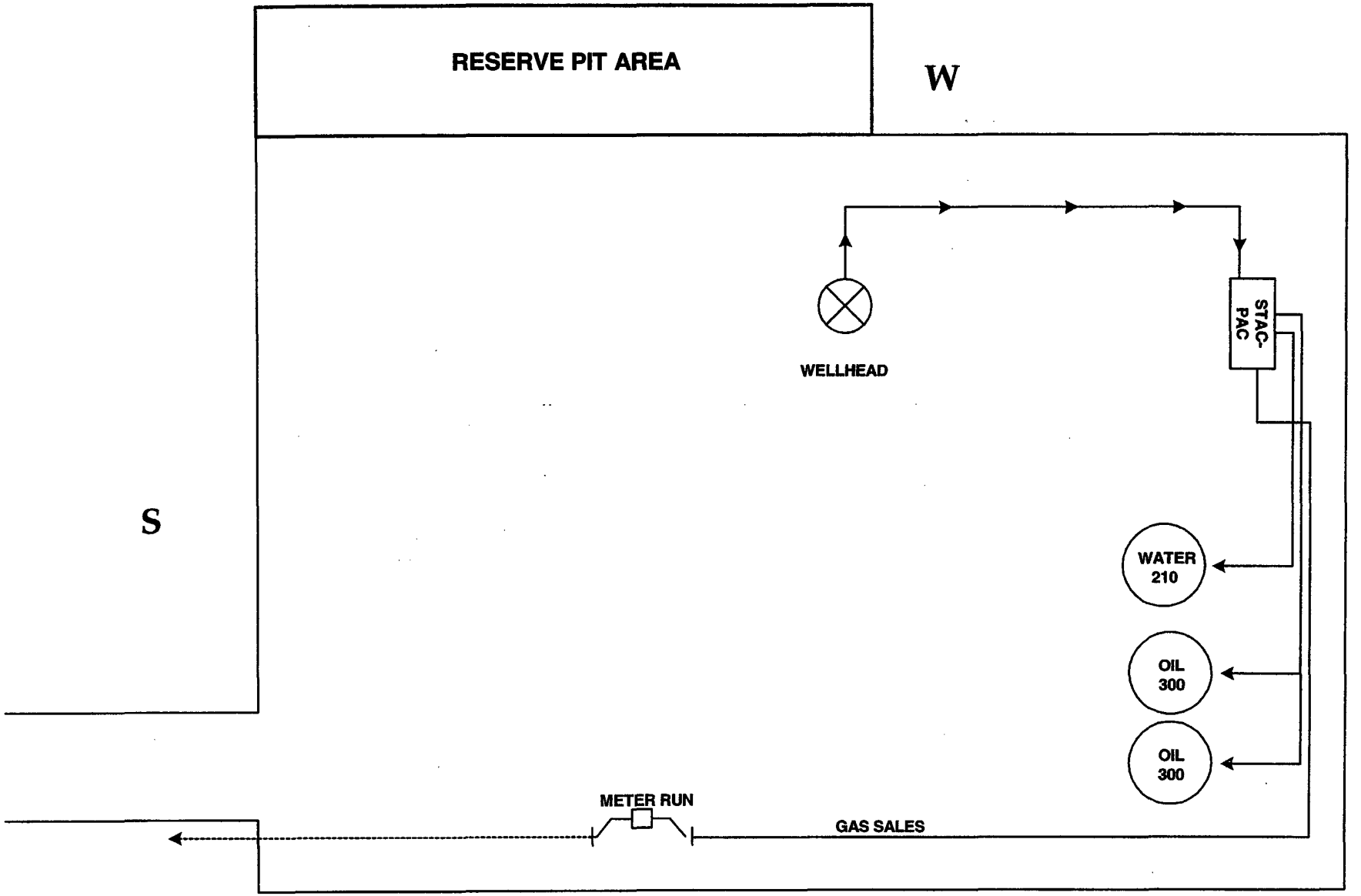
Exhibit A-3



Chesapeake Natural Gas. Natural Advantages.	CHESAPEAKE OPERATING, INC.
WILLIAM 14 FEDERAL #1 Location Plat All Wells	
Date: 22 April, 2003	Geologist: Godsey

Exhibit B

Exhibit C



CHESAPEAKE OPERATING, INC.
OKLAHOMA CITY, OK

Chesapeake Natural Gas. Natural Advantages.

WILLIAM FEDERAL 1-14
SECTION 14-15S-35E
LEA COUNTY, NEW MEXICO

DATE: 8/5/03
DRAWN BY: JAK
Not To Scale

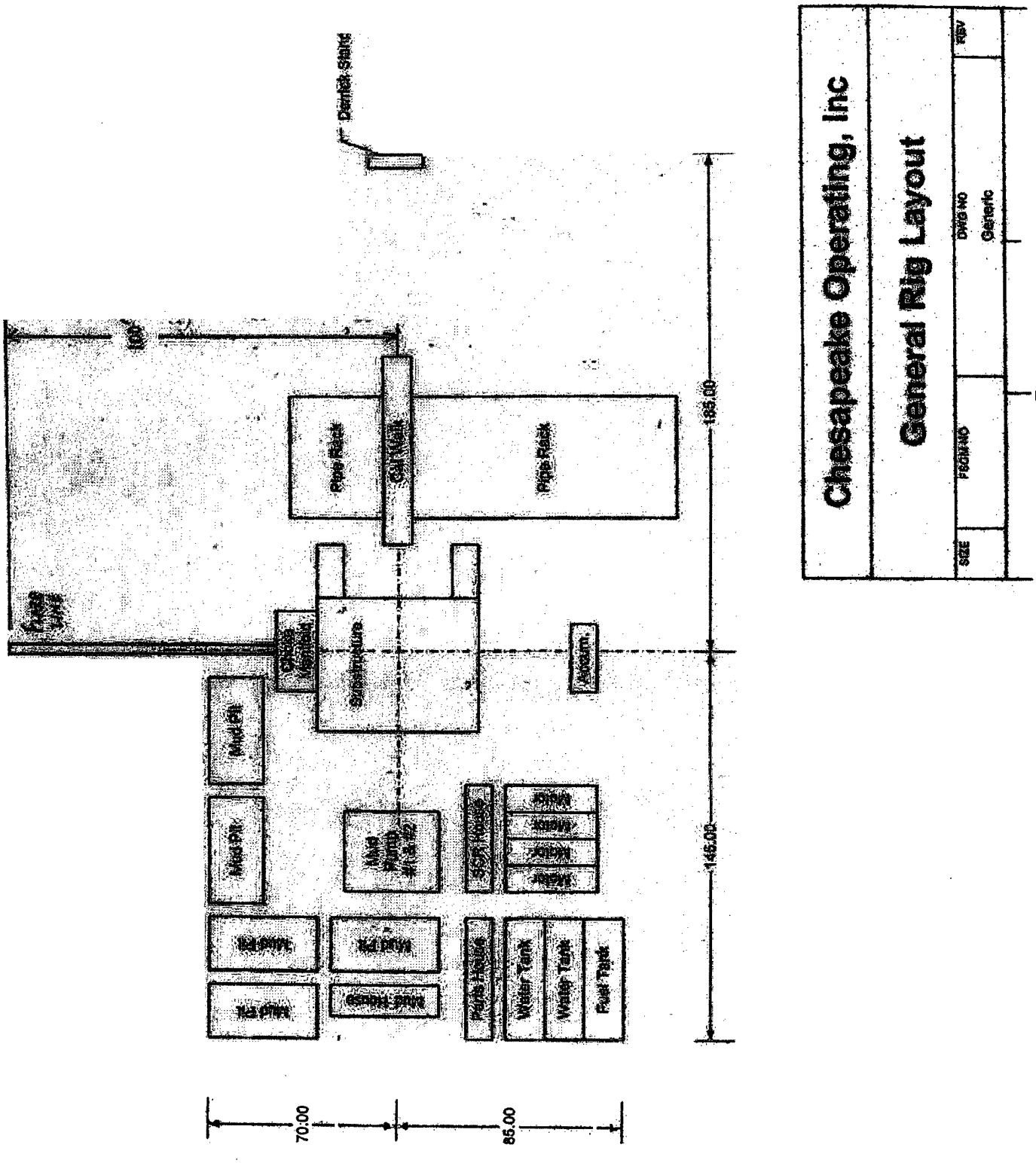

Chesapeake Operating, Inc
General Rig Layout
SIZE
DWG NO
Generic
REV
Derrick Stand
Pipe Rack
Cat Walk
Pipe Rack
Office
Weather
Substructure
Accum.
Mud Pit
Mud Pit
Mud Pump #1
Mud Pump #2
SCR House
Water
Water
Water
Water
Mud Pits
Mud Pits
Mud Pits
Mud Pits
Parts House
Water Tank
Water Tank
Fuel Tank
185.00
145.00
70.00
85.00

Exhibit D

TITLE PAGE/ABSTRACT/
NEGATIVE SITE REPORT
CFO/RFO

1/03

1. BLM Report No.	2. Reviewer's Initials/Date_____ ACCEPTED ( ) REJECTED ( )	3. NMCRIS No.: 83221

4. Type of Report: Negative(X) Positive ( )

5.Title of Report:
Class III archaeological survey of a pad and access road for the William "14" Fed. well No. 1.

Author(s): Ann Boone

6. Fieldwork Date(s) from 29 April, 2003 to

7. Report Date 30 April, 2003

8. Consultant Name & Address:
Boone Archaeological Services
2030 North Canal
Carlsbad, NM 88220
Direct Charge: Danny Boone
Field Personnel Names: Dany Boone
Phone: (505) 558-1352

9. Cultural Resource Permit No.
190-2920-03-C

10. Consultant Report No.
BAS 04-03-26

11. Customer Name: Chesapeake Operating, Inc.
Responsible Individual: Sharon Dries
Address: P.O. Box 18496
Oklahoma City, Oklahoma 73154-0496
Phone: (405) 848-8000

12. Customer Project No.:

13. Land Status	BLM	STATE	PRIVATE	OTHER	TOTAL
a. Area Surveyed (acres)	0	o	16.7 (+/-)	0	16.7 (+/-)
b. Area of Effect (acres)	0	0	6.25 (-/+)	0	6.25 (-/+)

14. Linear: Length; 3,736.1' Width; 100' and 150' (See 16 b.)
Block: 600' x 600'

15. Location: (Maps Attached if Negative Survey)
a. State: New Mexico
b. County: Lea
c. BLM Office: Carlsbad
d. Nearest City or Town: Lovington, NM
e. Legal Location: T 15S, R 35E, Sec. 14 (Priv. Surface Fed. Min.), Pad, SW¼ NW¼; Access Road, SW¼ SW¼ NW¼, NW¼ NW¼ SW¼, SW¼ NW¼ SW¼, NW¼ SW¼ SW¼, SW¼ SW¼ SW¼:
f. Well Pad Footages: 1869' FNL, 660' FWL
g. USGS 7.5 Map Name(s) and Code Number(s): Hillburn City, SW (Photo-Revised 1984) 33103-A4

Exhibit E

16. Project Data:

a. Records Search: Date(s) of BLM File Review: 28 April, 2003 Name of Reviewer (s): Ann Boone

Date(s) of ARMS Data Review: 28 april, 2003 Name of Reviewer (s): Danny Boone

Findings (see Field Office requirements to determine area to be reviewed during records search):

No sites or previous projects within 1.0 miles.

b. Description of Undertaking:

The pad location is staked at 400' x 400' and was surveyed at 600' x 600'. The access road begins at a point approximately 50' inside of the 400' x 400' staked pad area and trends west for 485' (+/-) then turns south to junction with a paved Lea County Road. The east / west (305' +/-) portion of the proposed road between the west pad suvey boundary and where the road turns south was a 150' wide survey. The north / south portion (3,226' +/-) of the proposed road is staked approximately 25' to the east side of a livestock fence which has a buried pipeline immediately on the west side of it. Because of the barrier formed by the fence (also property line), 25' was surveyed on the west side of staked centerline and 75' on the east side resulting in a 100' wide survey. Impact for the project is an estimation. A plat is attached to this report.

c. Environmental Setting (NRCS soil designation; vegetative community; etc.):

Topography: Flat, featurless plain of shallow soils with frequent outcroppings of caliche, currently used for livestock grazing.

Vegetation: Overall groundcover is approximately 40%, mainly various grasses, walking stick cholla cactus, yucca cactus, broom snakeweed and mesquite.

NRCS: Kimbrough-Lea association: Nearly level and gently sloping, gravelly and loamy soils that are moderately deep to indurated caliche

d. Field Methods: (transect intervals; crew size; time in field, ect.):

Transects: For the pad a grid of parallel transects spaced 15 meters or less, for the road two parallel zig-zag transects spaced 15 meters or less.

Crew Size: One

Time in Field: 5.0 hrs.

e. Artifacts Collected (?): None

17. Cultural Resource Findings:

a. Identification and description: None

b. Evaluation of significance of Each Resource: NA

18. Management Summary (Recommendations):

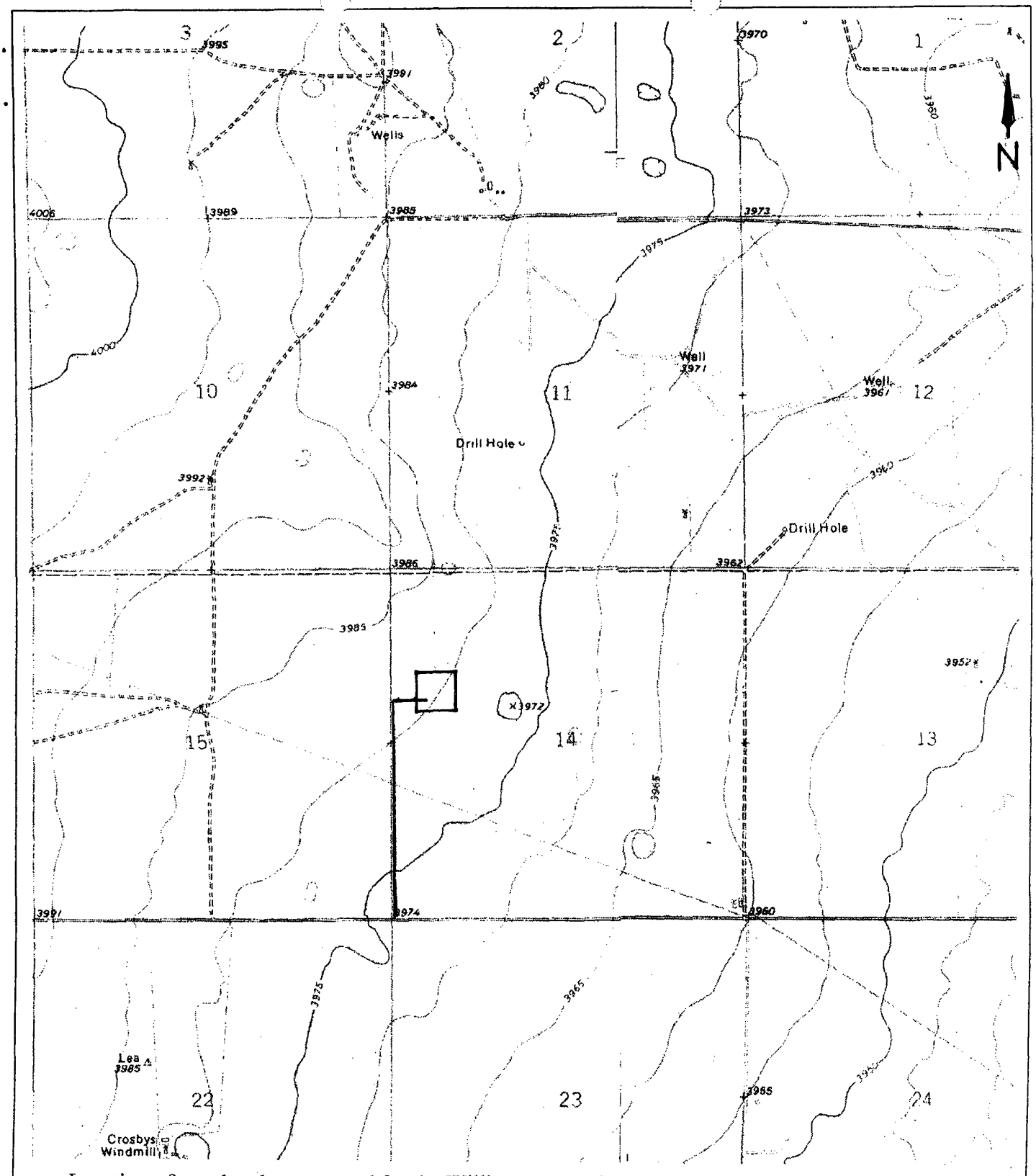
No cultural resources were encountered on this project, therefore archaeological clearance of a pad and access road for the William "14" Fed. well No. 1 as presently staked is recommended. If cultural resources are encountered at any time all activity should cease and the BLM Archaeologist notified immediately.

19.

I certify that the information provided above is correct and accurate and meets all appreciable BLM standards.

Responsible Archaeologist Dany Boone 1 May, 2003

Signature Date



Location of a pad and access road for the William "14" Fed. well No. 1 in Section 14, T 15S, R 35E, NMPM, Lea County, NM.
Map Reference: USGS 7.5' Series, Hillburn City, SW (Photo-Revised 1984) 33103-A4

BAS

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

WELL : **William Federal 1-14**

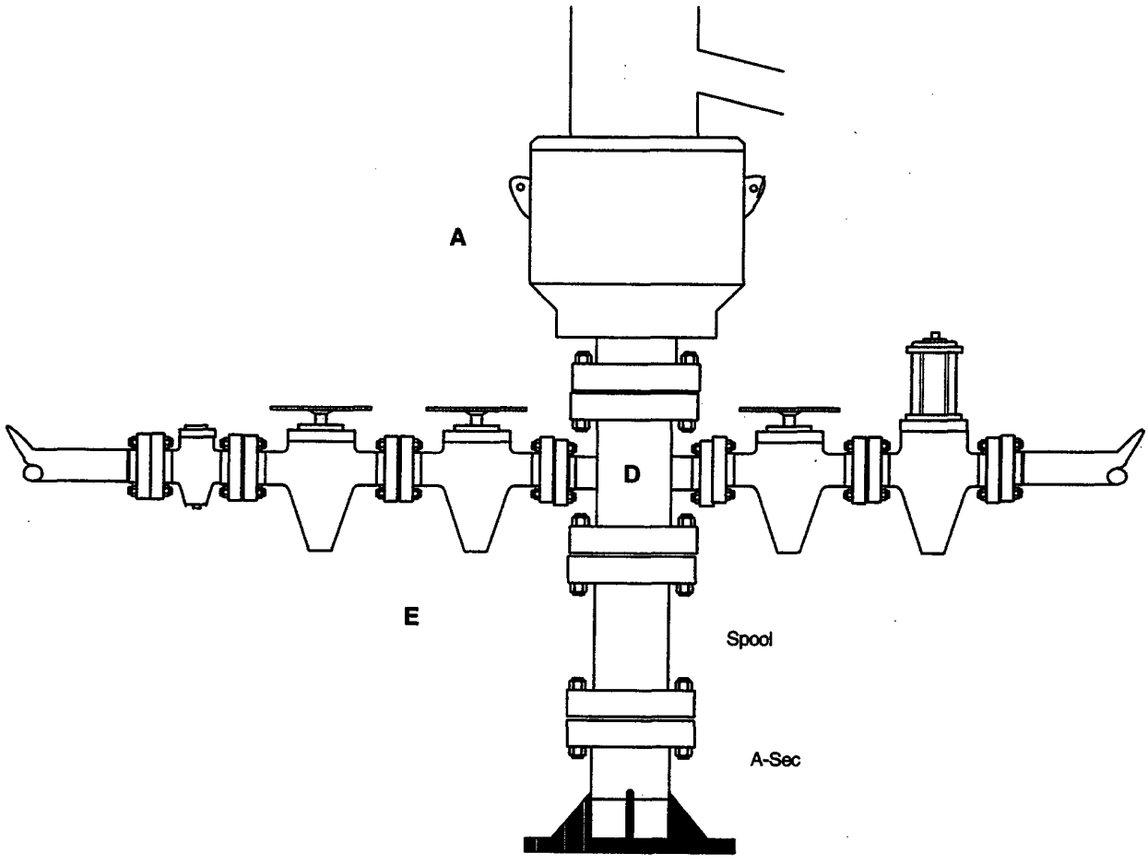
FIELD :

RIG : **Unknown**

COUNTY : **Lea** **STATE: New Mexico**

OPERATION: Drill out below 13-5/8" Casing

	SIZE	PRESSURE	DESCRIPTION
A	13-5/8"	5,000#	Annular
D	13-5/8"	10,000#	Mud Cross
Spool		13-5/8" 3M x 13-5/8" 10M	
A-Sec		13-5/8" SOW x 13-5/8" 3M	



Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	10,000#	Check Valve
2"	10,000#	Gate Valve
2"	10,000#	Gate Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
4"	10,000#	Gate Valve
4"	10,000#	HCR Valve

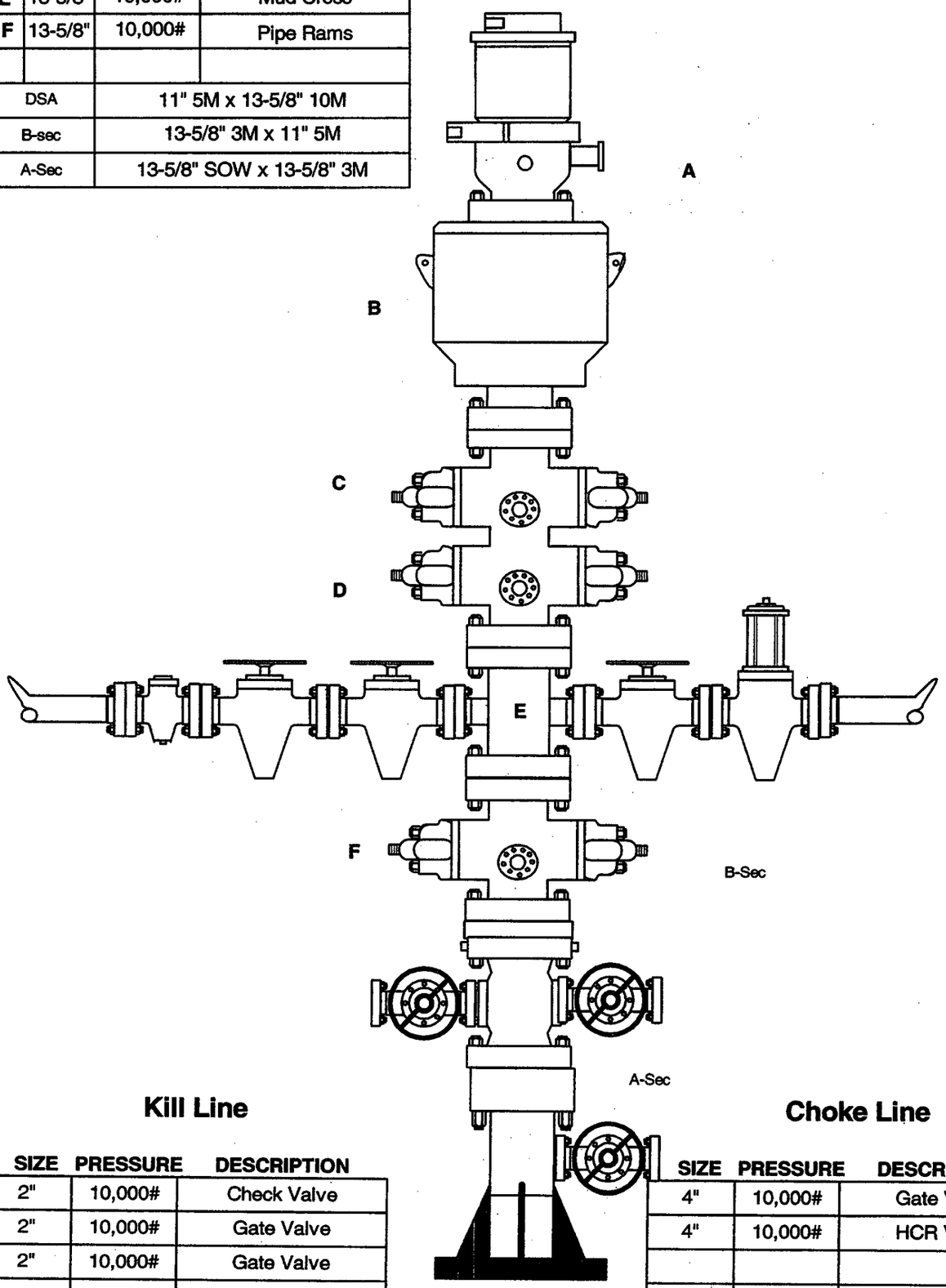
Exhibit F-1

BLOWOUT PREVENTOR SCHEMATIC

CHESAPEAKE OPERATING INC

WELL : **William Federal 1-14**
FIELD :
RIG : **Unknown**
COUNTY : **Lea** **STATE: New Mexico**
OPERATION: Drill out below 8-5/8" Casing

	SIZE	PRESSURE	DESCRIPTION
A	13-5/8"	500#	Rot Head
B	13-5/8"	5,000#	Annular
C	13-5/8"	10,000#	Pipe Rams
D	13-5/8"	10,000#	Blind Rams
E	13-5/8"	10,000#	Mud Cross
F	13-5/8"	10,000#	Pipe Rams
DSA		11" 5M x 13-5/8" 10M	
B-sec		13-5/8" 3M x 11" 5M	
A-Sec		13-5/8" SOW x 13-5/8" 3M	



Kill Line

SIZE	PRESSURE	DESCRIPTION
2"	10,000#	Check Valve
2"	10,000#	Gate Valve
2"	10,000#	Gate Valve

Choke Line

SIZE	PRESSURE	DESCRIPTION
4"	10,000#	Gate Valve
4"	10,000#	HCR Valve

Exhibit F-2