

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
Revised March 17, 1999

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

¹ Operator Name and Address Sonoma Energy Corporation 17620 Hwy. 105 West Montgomery, TX 77356		² OGBID Number 175951
³ Property Code 29670		⁴ API Number 30 -037-05020
⁵ Property Name H. V. Doak		⁶ Well No. #1

⁷ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
9F	3	9N	31E		1986	North	2006	West	Quay

⁸ Proposed 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
⁹ Proposed Pool 1					¹⁰ Proposed Pool 2				

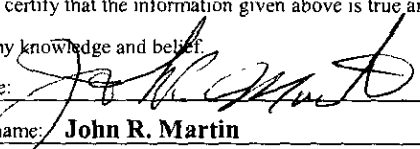
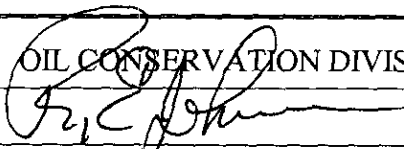
¹¹ Work Type Code E	¹² Well Type Code S	¹³ Cable/Rotary Rotary	¹⁴ Lease Type Code P	¹⁵ Ground Level Elevation 4319'
¹⁶ Multiple S	¹⁷ Proposed Depth 3000'	¹⁸ Formation Glorietta	¹⁹ Contractor unknown	²⁰ Spud Date 4/18/02

²¹ Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
unknown	10 3/4	28#/ft	1177'	Cemented to surface	
7 7/8	4 1/2	10 1/2#/ft	3000'	500	Cemented to surface

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. **Deepen - Drill 7 7/8" hole to 3000' from surface. Set casing to TD. Log for possible infield salt water disposal.**

23 Describe the blowout prevention program, if any. Use additional sheets if necessary.

I hereby certify that the information given above is true and complete to the best of my knowledge and belief.		OIL CONSERVATION DIVISION	
Signature: 		Approved by: 	
Printed name: John R. Martin		Title: DISTRICT SUPERVISOR	
Title: Petroleum Engineer		Approval Date: 4/17/02 Expiration Date: 4/17/03	
Date: 04/10/02	Phone: 936/441-1099	Conditions of Approval:	
		Attached <input type="checkbox"/>	

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State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-037-05020		² Pool Code	³ Pool Name Palo Duro Field
⁴ Property Code	⁵ Property Name H. V. Doak		⁶ Well Number 1
⁷ OGRID No.	⁸ Operator Name Sonoma Energy Corporation		⁹ Elevation 4319'

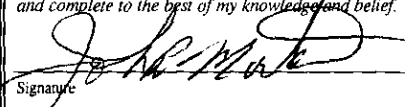
¹⁰ **Surface Location**

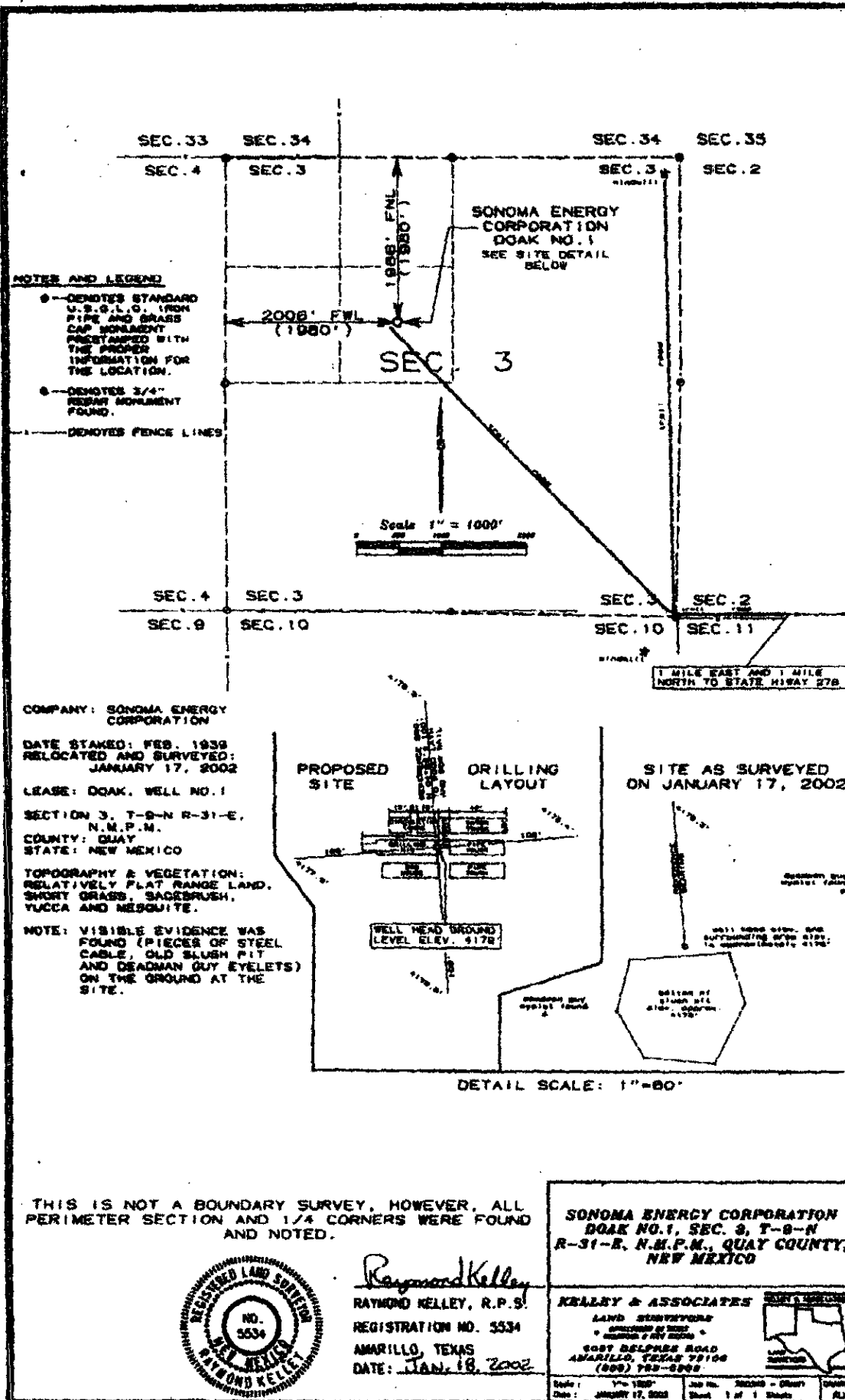
UL or lot no.	Section 3	Township 9N	Range 31E	Lot Idn	Feet from the 1986'	North/South line North	Feet from the 2006	East/West line West	County Quay
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¹¹ **Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code		¹⁵ Order No.					

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

¹⁶	See Attachment				¹⁷ OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.  Signature	
					John R. Martin Printed Name	
					Engineer	
					Title	
Date		04/10/02				
¹⁸ SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.	Date of Survey					
	Signature and Seal of Professional Surveyor:					
	Certificate Number					





New Mexico Bureau of Geology & Mineral Resources

A DIVISION OF
NEW MEXICO INSTITUTE OF MINING & TECHNOLOGY
801 Leroy Place
Socorro, NM 87801-4796

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Publications: 505-835-5410
<http://geoinfo@nmt.edu/>

January 24, 2002

Mr. Roy Johnson
New Mexico Oil Conservation Division
P.O. Box 6429
Santa Fe, NM 87505

Dear Roy:

Pursuant to your e-mail of January 24, I have enclosed a copy of our well records from the N.H. martin No. 1 Doak well, which was drilled in Sec. 3 T9N R31E, Quay County during 1939. Total depth was 2527 ft. We have an old sample log on the well that indicates the following formation tops:

Artesia Group (Permian): 1170 ft

San Andres Formation (Permian): 1915 ft

The well reached T.D. in the San Andres. Based on other wells in the region, the base of San Andres/top of Glorieta is probably another 200 ft below T.D. The driller's log indicates that an "air pocket" was encountered at 2480 ft (San Andres) which may have been noncombustible gas. There's lots of salt and anhydrite in the San Andres in this well, however, which gives it very good sealing capabilities.

There is 8 1/2 inch casing to a depth of 1177 ft which means, if the entire casing string is intact, that the water zones in the Triassic are sealed off. Several water-bearing sandstones were encountered in the Triassic while the well was being drilled. Most of the water probably came from the Cuervo and Santa Rosa sandstones.

Should anyone wish additional data about potential reservoirs in this well, we have a set of cuttings from 650 to 2503 ft.

Regards,

Ron Broadhead

[illegible]LOCATION SEA NW

428

1980N, 660M LUS. 6.5. 31E
SEC. T. R.

ELEVATION	SOURCE
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STRATIGRAPHIC POINT

DEPTH

ELEV.

FORMATION

DEPTH

THICKNESS

R-P
B.S. Rosa

5517

[illegible]

7

CASING RECORD

INITIAL PROD.

1242

551

COMMENCED

100-600

0709	5/30/01
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COMPLETED

11-22-59

1011	7/68
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PAY HORIZ

1

OTHER OWNERSHIP

1

Att 5-12-59

New Mexico
Institute of Mining and Technology
STATE BUREAU OF MINES AND MINERAL RESOURCES
Socorro, New Mexico

CASING RECORD
Diam. in/Bottom
12-1/2 150
10" 730
8-1/4 1177

ELEVATION:
IP: P&A

COUNTY: Quay
FIELD: Wildcat
COMPANY: N.H. Martin & Son et al
LEASE: H.V. Doak #1
LOCATION: 1980 from N Line
1980 from W Line
SEC: 3 T. 9N R. 31E
COMMENCED: 2/27/39
COMPLETED 4/1/39

FORMATION	BOTTOM, FEET	FORMATION	BOTTOM, FEET
Brown shale	180	Salt & shale	1593
Water sand	190	Salt & shale	1650
Red bed	273	Anhydrite	1655
Red bed	298	Salt	1670
Water sand	320	Rock salt	1675
Brown shale	365	Sand hard	1695
Red shale	465	Salt & rock	1705
Brown shale	480	Anhy.-hard	1725
Red shale	580	Salt & shale	1800
Blue shale	585	Salt	1815
Water sand	593	Gyp rock	1835
Red shale	643	Salt	1915
Red shale	663	Anhydrite	1955
Water sand H.F.W.	720	Salt & shale	1980
Water sand	730	Lime hard	1987
Red shale	895	Anhydrite	2000
Blue shale	910	Lime & blue shale	2012
Hard sand	920	Lime & anhydrite	2030
Blue shale	935	Lime blue	2055
Red rock	955	Anhy - hard	2068
Blue shale	972	Lime & anhydrite	2080
Lime	975	Anhydrite	2100
Blue shale	980	Anhydrite & salt	2115
Sand water	1010	Salt & blue shale	2180
Blue shale	1015	Anhydrite	2195
Sand water	1030	Anhydrite & salt	2205
Shale blue	1035	Salt	2225
Sand water	1053	Anhydrite, hard	2240
Blue shale	1060	Black lime	2250
Hard lime	1063	Anhydrite	2270
Red shale	1110	Lime & anhydrite	2280
Lime shells	1115	Anhydrite	2285
Sandy shale	1145	Salt	2470
Shale blue	1150	Red shale (air pocket)	2480
Sand water, H.F.W.	1155	Salt & Blue shale	2490
Lime brown	1167	Salt	2498
Shale and anhydrite	1177	Lime	2503
Red rock & anhydrite	1250	Black Lime	2527 T.D.
Anhydrite & red shale	1305		
Salt & shale	1375		
Salt & shale	1465		
Salt & shale, red	1520		