form 3160-3		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		CONTACT RECEIV OFFICE FOR NUM OF COPIES REQUI (Other_inst;pagions of	BER	BLM Rosw	ell District	
IULY 1989)		í jhri	and the states of the states	referse s.d.)		Modified F		
tormerly 9-3310	2)	UNITED S	TATES			NM060-31	6()-2	
	C	EPARTMENT OF	THE INTERIOR			N LEASE DES	IGNATION AND) SERIAL NO.
		BUREAU OF LAND	MANAGEMENT			10-06	7715	
APPLI 1a. TYPE OF WORK	CATION FOR P	ERMIT TO DRILL,		LUG BACK		6. IF INDIAN,	ALLOTTEE OR	TRIBE NAME
b. TYPE OF WELL	DRILL	DEEPEN	× Re-Entry	PLUG BACK		7. UNIT AGRE	EMENT NAME	5-34109
OIL WELL 2. NAME OF OPERA	GAS X WELL	OTHER	SINGLE ZONE X	MULTIPLE ZONE			ease name a Federal	
2. NAME OF OPERA		RATA PRODUCTIO		rea Code & Phone No 05 622 11		9. WELL NO. #2		
3. ADDRESS OF OP		O. Box 1030					POOL, OR WI	ILDCAT
I. LOCATION OF W At surface	ELL (Report location clearly	swell, New Mexic		RID NO.2/		11. SEC., T., R.	Ke Bone , M., OR BLK. EY OR AREA	Spring
At proposed prod. z	ione	0' FSL & 990' FE	- COD				28-235-	-34E
	ILES AND DIRECTION F	rom nearest town or f New Mexico	4PI NO. 34	-025-	34109	12. COUNTY O	R PARISH	13. STATE NM
15. DISTANCE FROM LOCATION TO N PROPERTY OR L	A PROPOSED * EAREST EASE LINE FT		16. NO. OF ACRES IN LEAS	E	17. NO. OF TO THIS	ACRES ASSIGN	ED	INIW
(Also to nearest drig		660'	640.00				40.00	
TO NEAREST WE	LL, DRILLING, COMPLET	ED 660'	19. PROPOSED DEPTH 9000'		20. ROTARY	Y OR CABLE TO		
	how whether DF, RT, GR, etc					22. APPROX. D	ATE WORK WI	
<u></u> 23.		PROPOSED CA	SING AND CEMEN			F	ebruary 1,	, 1999
HOLE SIZE	CASING SIZE	WEIGHT/FOOT	GRADE	THREAD TYPE	5	SETTING DEPTH	I QUA	NTITY OF CEMENT
<u>17 1/2"</u> 11'	13 3/8"	48#	H-40	8 RD STC	WITN			00 sacks
7 7/8"	8 5/8" 5 1/2"	<u>32#</u> 17#	HCK-55/J-55 J-55	8 RD LTC 8 RD LTC		4763' 9000'		50 sacks
7 7/8" 5 1/2" 17# J-55 8 RD LTC 9000' Tie back to 300' into 8 5/8" casing Strata Production Company proposes to Re-Enter and Deepen well to a depth sufficient to test the Bone Spring formation. If productive, 5 1/2" casing will be set. If non-productive, the well will be plugged and abandoned in a manner consistent with Federal Regulations. Specific programs as set out in Onshore Oil and Gas Order #1 are outlined in the following attachments:								
	Sta Sta Ho Sur	OCD Form C-102 tement of Respons tement of Private S le Prognosis face Use and Open hibit "A" Equipment	sibility Surface Owner's Ag rating Plan	_	aPF	ROVALS		TO AENTS ANI
		nibit "B" Planned Ac	•			CIAL ST		
	Ext	nibit "C" One Mile R	adius Map			CHED		
N ABOVE SPACE DES		nibit "D" Drilling Rig	-			.,		
ive pertinent data on su 4.	bsurface locations and measur	RAM: If proposal is to deepen or ed and true vertical depths. Give	plug back, give data on present p blowout preventer program, if an	roductive zone and pro	oposed new pro	oductive zone. If pr	roposal is to drill o	r deepen directionally,
SIGNED	Carel (D. Dercin	TITLE PRO		ORDS M	ANAGER	DATE	12/29/98
PERMIT NO.7		,						
///	(ORIG. SGD.) ARM	ANDO A. LOPEZ	Acting	PPROVAL DATE Assistant Fi	eld Offi	ce Manage	• • • • • • • • •	
APPROVID BY CONDITIONS OF A			Acung	Lands and I	Minerals	ee Manage	DALE JAN	28 1999
			*See Instructions (On Reverse Siz	la			_

District I PO Box 1980, Hobbs, NM \$7241-1980 District II PO Drawer DD, Artenia, NM \$8211-9719 District III 1000 Rio Brazos Rd., Anne, NM \$7410 District IV PO Box 1083, Santa Fe, NM \$7504-2085

.

.

Sizie of New Mexico Earry, Marina & Natural Roources Copertments

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088 Form C-102-Revised February 10, 1994 Instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

30-025-34109 5/30 BELL LAKE BONE SPRING Preparty Code BONANZA PEDERAL 2 020262 BONANZA PEDERAL 'Operator Name 'Ecretation 021712 STRATA PRODUCTION COMPANY 3475. "Derivative Name 'Surface Location 'Ecretation "Ct. or int sa. Section To enable Sate Control P 28 23-5 34-E 330 SOUTH 990 EAST LEA "Bettom Hole Location If Different From Surface "In the sate Section For from the New Surface Constr Constr "Dedicated Arrow "Joint or Infill "Commissional Construction of the Section Section For from the Law Work Sec Constr "Dedicated Arrow "Joint or Infill "Commissional Construction of the Section of The Section Section of	API Number			1	* Pool Code * Pool Na			ADC .				
1020262 BONANZA FEDERAL 2 021712 STRATA PRODUCTION COMPANY 3475. 1º Surface Location 1º Surface Location CLaring and Strate Production Company New 1º Surface Location Claring Terming Reage 28 23-5 34-E 10 fer trace is North/South Lise Fee trace is Location If Different From Surface UL or tot so. Settion Tormating Reage Let Ids Fee free is Location If Different From Surface UL or tot so. Settion Tormating Reage Let Ids Fee free is Location If Different From Surface Wester Infill "Compone Anno" Anno Allow Allow Ise Compone New Surface Model Location If Different From Surface Wester Infill "Compone New Surface Model Compone New Surface Monult Ise Surface Compone New	30-025-34109			5/30 BELL L				LAKE BON	AKE BONE SPRING			
OGRED Ne. 021712 STRATA PRODUCTION COMPANY 'Services 3475. 'Surface Location ''Surface Location 'Ler ist so. P Section Torothy Range La ista For ifrom the South South Soc For ifrom the South South Soc East West Soc Coreary ''Define the P 28 23-S 34-E La ista For ifrom the South Hole Location If Different From Surface Coreary ''Define the South Arrey 'South South South Soc For ifrom the South South Soc Coreary Coreary ''Define Arrey 'South South Soc For ifrom the South South Soc For ifrom the South South Soc East West Soc Coreary ''Define Arrey 'South South Soc For ifrom the South South Soc East West Soc Coreary ''Define Arrey 'South South Soc For ifrom the South South Soc For ifrom the South South Soc East West Soc Coreary ''Define Arrey 'South South Soc Coreary ''Define Arrey South Soc Coreary ''Define Arrey South South Soc ''Define Arrey South Soc Coreary Coreary ''Define Arrey South Soc Coreary ''Define Arrey South Soc Coreary ''Defin						י אי	n perty	Name				Weil Number
OLD THE 3475. 1 ¹⁹ SUFFACE LOCATION 1 ¹⁹ Sufface Location User is an intermediate in the intermediate	020262 BONANZ			NZA FEI	ERAL							2
In the set of the set o	OCRED	No.		** * *** **		' O p		Name	· · · · · · · · ·			"Ecracion
CL or lot so. Section Terminip Range Lat Ida Feet from the 330 South South State East Weak Lac Centry P 28 23-S 34-E 330 South South State Feet from the 990 EAST LEA "Bottoom Hole Location If Different From Surface "Bottom Hole Location If Different From Surface East Weat East Centry "Delicated Area "Terminip Ranger Lat Ida Feet from the Feet from the East Weat East Centry "Delicated Area "Joint or Iaft "Centry Ranger Lat Ida Feet from the Feet from the East Weat East Centry "Delicated Area "Joint or Iaft Ranger Lat Ida Feet from the Feet from the Feet from the Feet from the East Weat East Centry "Delicated Area "Joint or Iaft Ranger Lat Ida Feet from the Feet from the feet Infill Centry "O ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNTI HAS BEEN APROVED BY THE DIVISION If and or Iafter Area "O OPERATOR CERTIFICATION If area If and or Iafter Area If and or Iafter Area Section If area <t< td=""><td>02171</td><td>2</td><td>STRA:</td><td>CA PROD</td><td>UCTION</td><td>COMPANY</td><td>Y</td><td></td><td></td><td></td><td></td><td>3475.</td></t<>	02171	2	STRA:	CA PROD	UCTION	COMPANY	Y					3475.
P 28 23-S 34-E 330 SOUTH 990 EAST LEA "Bottom Hole Location If Different From Surface "Bottom Hole Location If Different From Surface Count	L <u></u>				·····	¹⁰ Sur	iace	Location				
¹¹ Bottom Hole Location If Different From Surface ¹¹ Uorioi no. ¹² Decision ¹³ Bottom Hole Location If Different From Surface ¹⁴ Uorioi no. ¹⁵ Bottom Hole Location If Different From Surface ¹⁶ Decision ¹⁷ OPERATOR CERTIFICATION ¹⁸ Nors ¹⁸ Decision ¹⁹ Decision ¹⁰ Decision ¹⁰ Decision ¹¹ OPERATOR CERTIFICATION ¹¹ Decision ¹¹ Decision ¹¹ Decision ¹¹ Decision ¹¹ Decision ¹² Decision ¹³ Decision ¹⁴ Decision ¹⁵ Decision ¹⁶ Decision ¹⁷ Decision ¹⁸ Decision	LL or lot so.	Section	Townsip	Range	Los Ida	Feet from	the .	North/South line	Foot from the	E LULI WO	د line	Consty
UL or lot so. Section Tornahip Range Lot Ida Feet from the North/South Lor Feet from the East West Line Constr "Decisional Across" "Joint or Infill "Consolidation Code "Orier No. "Decisional Across" "Joint or Infill "Consolidation Code "Orier No. NO ALLOWABLE WILL BE ASSIGNED TO THES COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS SEEN APPROVED BY THE DIVISION 10 10 10 10 10 10 10 10 10 10	Р	28	23-S	34-E		330		SOUTH	990	EAST	r	LEA
¹⁰ Dedicated Artra ¹¹ Joint of Infill ¹² Consolidation Code ¹³ Order No. ¹⁴ Dedicated Artra ¹⁴ Joint of Infill ¹⁵ Completion UNITH ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION ¹⁶ OPERATOR CERTIFICATION ¹ Array code of the biologeneau consisted for an is ¹⁷ OPERATOR CERTIFICATION ¹ Array code of the biologeneau consisted for an is ¹⁸ Order Of Caroline ¹⁹ December 29, 1998 ¹⁹ Director of the size of my homical ge out being ¹¹ SURVEYOR CERTIFICATION ¹ Array code of the size of my homical ge out being ¹¹ December 29, 1998 ¹¹ Director of the size of my homical ge out being ¹¹ SURVEYOR CERTIFICATION ¹ Array code of the size of my homical ge out being ¹¹ Director of the size of my homical ge out being ¹¹ Director of the size of my homical ge out being ¹² Director of the size of my homical ge out being ¹³ Director of the size of my homical ge out being ¹⁴ Director of the size of my homical ge out being ¹⁵ Director of the size of my homical ge out being ¹⁶ Director of the size of my homical ge out being ¹⁷ Director of the size of my homical ge out being ¹⁸ Director of the size of my homical generation of the plant of the size of my homical generation of the plant of the size of my homical generation of the plant of the size of my homical generation of the plant of the size of the si		<u> </u>	<u>.</u>	¹¹ Bot	tom Hole	e Locati	on If	Different Fro	om Surface			
HO NO ALLOWABLE WILL BE ASSIGNED TO THES COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION 10 10 10 10 10 10 11 12 12 13 14 15 15 16 17 18 19 19 19 10 10 10 10 10 10 11 12 13 14 15 15 16 17 18 19 19 10 10 11 11 11 12 13 14 14 15 15 16 17	UL or lot no.	Section	Township	Reage	Lot Ida	For Iroa	use	North/South line	For from the	E LUL WOU	tioe	Cousty
HO NO ALLOWABLE WILL BE ASSIGNED TO THES COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION 10 10 10 10 10 10 11 12 12 13 14 15 15 16 17 18 19 19 19 10 10 10 10 10 10 11 12 13 14 15 15 16 17 18 19 19 10 10 11 11 11 12 13 14 14 15 15 16 17												
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION IS IS IS IS IS IS IS IS IS I	13 Dedicated Acr	a Joint	or Infill " (منتعة يتصعوه	a Code " O	raer No.						
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION 10 10 10 10 10 10 10 10 10 1	40											
19 19 19 19 19 19 19 19 19 19	NO ALLOY	VABLE V	VILL BE A	SSIGNE	о то тн	S COMPL	ETIO	N UNTIL ALL	NTERESTS H	AVE BEE	IN CON	ISOLIDATED
I hardy carly bes the information constitued here is it free and complete to the best of my homizite and being it and complete to the best of my homizite and being Signature CAROL J. GARCIA Privated Nase PRODUCTION RECORDS MANAGER Tube December 29, 1998 Dise I SURVEYOR CERTIFICATION I hereby cardy that the well boards thom on this plat we placed from field naise of scale in the same is the effect on the start of the same is the effect of the same is the special distribution and the same is the effect of the same is the same is the effect of the same is the same is the same is the effect of the same is the same is the same is the effect of the same is the effect of the same is the same is				NON-ST	NDARD	UNIT HA	S BE	EN APPROVED				
Prie and complex to the best of my knowledge and belief Carol J. Garcia Signature CAROL J. GARCIA Printed Name PRODUCTION RECORDS MANAGER Tale Tale Tale Tale Tale 14 SURVEYOR CERTIFICATION 1 horsity certify that the well location shown on this plat we y placed from field name of acade in purpor made by me or under my supervision, and that the some is one as and correct to the best of any belief. Disc of Service Tale and a Disc of the some is one and correct to the best of any belief. Disc of Service Tale and a Disc of the some is one and correct to the best of any belief. Disc of Service Tale and a Disc of the best of any best of any best of Signature of Salved The correct of the best of any best of any best of Signature of Salved The correct of the best of any best of any best of Signature of Salved The correct of the best of any best	10						•					1
Signaire Signaire CAROL J. GARCIA Friated Name PRODUCTION RECORDS MANAGER Tide DECEMBER 29, 1998 Dres 1 ¹⁵ SURVEYOR CERTIFICATION 1 Arrity certify that the well location shown on this plat we plead from field near of acade in prover and by the me or under my upervision, and that the store is the and correct to the best of my belief. IMPL 20, 5 197 Dres Server Signame des Stall of Provinced Story or: Signame des Story or: Signame des Story or: Story or Story or Story or: Story or Story or Story or Story or: Story or Story or St							1		I hereby conj true and comp	y that the inj wate to the b	cormanion i est of my k	nomialse and belief
Signature CAROL J. GARCIA Printed Name PRODUCTION RECORDS MANAGER Title DECEMBER 29, 1998 Date									, i i i i i i i i i i i i i i i i i i i			
Signature CAROL J. GARCIA Printed Name PRODUCTION RECORDS MANAGER Title DECEMBER 29, 1998 Date	1											,
Signature CAROL J. GARCIA Printed Name PRODUCTION RECORDS MANAGER Title DECEMBER 29, 1998 Date									-		. 1	
Signature CAROL J. GARCIA Printed Name PRODUCTION RECORDS MANAGER Title DECEMBER 29, 1998 Date					<u> </u>				- Car	ol (1. D.	arcia
Printed Name PRODUCTION RECORDS MANAGER Tide DECEMBER 29, 1998 Date 1 ¹³ SURVEYOR CERTIFICATION I hereiny confy that the well location shown on this plat was ploaded from field noise of easilit surveys made by me or under my supervision, and that the some is one and correct to the best of any billing. Date Sand' of Protocord Surveys Signature des Sand' of Protocord Surveys Surveys and the some des Sand' of Protocord Surveys Signature des Sand' of Protocord Surveys Surveys and the some des Sand' of Protocord Surveys Surveys										U		
PRODUCTION RECORDS MANAGER Tule DECEMBER 29, 1998 Due ¹³ SURVEYOR CERTIFICATION I hereiry certify that the well location thom on this plat was ploaded from field notes of actual nurrys made by me or under my supervision, and that the same is one and correct to the best of my bellef: <u>Due</u> 20 - 997 Due of SuperV Signame bid Sull'of Protocoreal Surveyor: Signame bid Sull'of Protocoreal Surveyor:								//		<u></u>		
Tide DECEMBER 29, 1998 Dite 14 SURVEYOR CERTIFICATION 1 her place from field notes of exact shown on this plat was placed from field notes of exact shown on this plat was placed from field notes of exact shown and the prove me or water ny supervision, and that the same is one and correct to the best of my belief. UNCY 20 1997 Date of Secret Date of Secret Signature and Suit of Protectional Surveyor: No		1									ECORDS	5 MANAGER
Due It'SURVEYOR CERTIFICATION I hericry corrify that the well location shown on this plat was ploaded 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 bellif: UNT 20. 597 Due of Servey 10 0 Signature and Station Surveyor: Signature and Station Surveyor:									Tule			
1 ¹⁸ SURVEYOR CERTIFICATION 1 hereiry certify that the well location shown on this plat was ploated from field note of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my beligt. JURY 20. Day Date of Seal of Protectional Surveyor: Signature and Seal of Protectional Surveyor:										BER 2	9, 1	998
I hereiny ceruly that the weil location shown on this plat was placed 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 beligt. ULT 20, 20, 20, 20, 20, 20, 20, 20, 20, 20,												
A splaced from field notes of assume is one me or under my supervision, and that the same is one and correct to the best of my belief. JURY 20, - 997 Date of Seat of From		i							"SURV	EYOR	CERTI	FICATION
Gas T									I hereby cerefy	that the we	l location	shown on this plas
and correct to the best of any belief. JUST 20 - 1997 Date of Seatt of Professional Surveyor: Signature and Seatt of Professional Surveyor:									me or under	m field notes v supervision	of accusal. I, and that	surveys made by the same is true
									JURY	20-1	997	
									Date Servity		02	
							1		Signature and	San of block		reje:
									11/11	, , ,		
								^ - '	1	i e na li i		
								0 P	-			
									Carlo a Neg	· · · · · · · · · · · · · · · · · · ·	<u> </u>	

POST OFFICE DRAWER 1030 ROSWELL, NM 88202-1030



TELEPHONE (505) 622-1127 FACSIMILE (505) 623-3533

200 WEST FIRST STREET, ROSWELL PETROLEUM BUILDING, SUITE 700 ROSWELL, NEW MEXICO 88201

STATEMENT OF RESPONSIBILITY

The undersigned, on behalf of Strata Production Company, accepts all applicable terms, conditions, stipulations and restrictions concerning the operations conducted on the leased lands or portions thereof as described below:

Federal Lease Number LC-067715 <u>Township 23 South, Range 34 East</u> Section 28 Lea County, New Mexico Formation: Bone Spring and Delaware Bond: Statewide Bond Number: OGB-233 Bonanza Federal

STRATA PRODUCTION COMPANY

December 29, 1998

Date

1. Darcia

Carol J. Garciá Production Records Manager

POST OFFICE DRAWER 1030 ROSWELL, NM 88202-1030



TELEPHONE (505) 622-1127 FACSIMILE (505) 623-3533

200 WEST FIRST STREET, ROSWELL PETROLEUM BUILDING, SUITE 700 ROSWELL, NEW MEXICO 88201

STATEMENT OF PRIVATE SURFACE OWNER'S AGREEMENT

Strata Production Company hereby confirms that it has been unsuccessful in negotiating a mutually acceptable Private Surface Owner's Agreement with respect to the drilling and possible completion of the referenced well. Despite Strata's good faith efforts, the new Surface Owner refuses to accept consideration consistent with area prices, fair market value and amounts paid to the previous Surface Owner.

> Federal Lease Number LC-067715 <u>Township 23 South, Range 34 East</u> Section 28 Lea County, New Mexico Formation: Bone Spring and Delaware Bond: Statewide Bond Number: OGB-233 Bonanza Federal

> > STRATA PRODUCTION COMPANY

December 29, 1998 Date

Carol J. Garcia^{*V*} Production Records Manager

HOLE PROGNOSIS FORM 3160-3 APPLICATION FOR PERMIT TO DRILL STRATA PRODUCTION COMPANY BONANZA FEDERAL #2 WELL 330' FSL & 990' FEL SECTION 28-23S-34E LEA COUNTY, NEW MEXICO

In conjunction with Form 3160-3, Application for Permit to Drill, Strata Production Company submits the following items in accordance with Onshore Oil and Gas Order Numbers 1 and 2, and all other applicable federal and state regulations.

1. <u>Geologic Name of Surface Formation</u>:

Permian

2. Estimated Tops of Geologic Markers:

Rustler Anhydrite	920′	"B-1" Sand	7470′
B. Anhydrite	5040′	"K" Sand	8300′
Delaware	5110′	Bone Spring	8610′
"AAA" Sand	6850′	TD	9000′
"A" Sand	7190′		

3. Estimated Depths of Anticipated Fresh Water, Oil or Gas:

Surface	150′	Fresh Water
Delaware	5610' - 9000'	Oil or Gas

No other formations are expected to produce oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by the 13 3/8" casing and cement set at 555'. Shallower zones above TD which contain commercial quantities of oil and/or gas will have cement circulated across the zone by inserting a cementing stage tool into the 5 1/2" production casing which will be run at TD.

4. <u>Casing Program</u>:

Hole Size	<u>Interval</u>	<u>OD Csg</u>	Weight, Grade, Jt. Cond, Type
17 1/2" 11"	0- 555′ 0-4763′	8 5/8"	48#, H-40, ST&C, New 32#, J-55 & HCK-55, LT&C, New
7 7/8"	0- TD	5 1/2"	17#, J-55, LT&C, New

Cementing Program:

Surface Casing: 13 3/8" casing was set at 555' and cemented with 800 sacks of Class "C" cement with 2% CaCL and additives per sack.

- Intermediate Casing: 8 5/8" casing was set at 4763' and cemented with 1150 sacks of 35/65 Poz "C" with 15# salt and additives per sack, and 200 sacks Class "C" with 2% CaCl.
- Production Casing: If appropriate, 5 1/2" casing will be set at Total Depth. Strata utilizes cement in sufficient quantities to circulate cement into the 8 5/8" intermediate casing in two (2) stages. The first stage to be cemented with approximately 250 sacks 50/50 Poz "H" with 5# salt and additives per sack. The second stage to be cemented with approximately 350 sacks of 50/50 Poz "H" with 5# salt and additives per sack.

5. <u>Minimum Specifications for Pressure Control</u>:

The blowout preventer equipment (BOP) shown on Exhibit "A" will consist of a double ram-type (3000 psi WP) preventer and a bag-type (hydril) preventer (3000 psi WP). Both units will be hydraulically operated and the ram-type preventer will be equipped with blind rams on top and 4 1/2" drill pipe rams on bottom. Both BOPs will be nippled up on the 13 3/8" surface casing and used continuously until TD is reached. All BOPs and accessory equipment will be tested to 1000 psi before drilling out of surface casing. Before drilling out of intermediate casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the hydril to 70% of rated working pressure (2100 psi).

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be included in the drilling spool located below the ram-type BOP. Other accessories to the BOP equipment will include a kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

6. <u>Types and Characteristics of the Proposed Mud System</u>:

- 0' to 550' Fresh water with lime and gel with paper and fiber for seepage will be used for drilling purposes. Anticipated mud properties are as follows: MW 8.4-8.6, Vis 29-36, Ph > 8, WL N/C.
- 550' to 4700' Saturated brine water purchased from commercial sources with paper and fiber for seepage will be utilized. Anticipated mud properties are as follows: MW 8.6-10.5, Vis 32-34, Ph 10, WL N/C.
- 4700' to 9000' 3% KCL water with 20-50 PPM Nitrates, CL 30,000 PPM, caustic for PH control, paper for seepage and starch for fluid loss control will be utilized. Anticipated mud properties are as follows: MW 8.5-8.9, Vis 29-34, Ph 9-10, WL NC-50.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the wellsite at all times.

7. Auxiliary Well Control and Monitoring Equipment:

- A. A kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.

8. <u>Testing, Logging and Coring Program</u>:

A two (2) man Mudlogging unit will be on location from the Delaware formation to TD. Mudlogging unit will be employed from approximately 7500' (Delaware) to 9000' (Total Depth).

If indicated, Dual Laterolog MSFL, Compensated Neutron Litho-Density Gamma Ray logs and Caliper logs will be run at TD. The Dual Laterolog will be run from TD back to the intermediate casing and the Compensated Neutron Litho-Density Log will be run from TD back to surface. In some cases, Strata may elect to run rotary sidewall cores from selected intervals from approximately 7500' to 9000' dependent upon logging results.

9. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The anticipated bottomhole pressure is 3500# PSI.

Loss of circulation is possible in the Delaware section of the hole, however, no major loss circulation zones have been reported in offsetting wells.

Strata has drilled and completed seven (7) wells in the immediate area. To date, Hydrogen Sulfide has not been encountered. However, if Hydrogen Sulfide is encountered, a Hydrogen Sulfide alarm on the drilling rig would be activated. All personnel have had Hydrogen Sulfide training and appropriate breathing apparatus is located on site. If necessary, the well can be shut in utilizing the blow out preventer and other equipment to prevent the migration of Hydrogen Sulfide to the surface.

10. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated re-entry date is February 1, 1999. Once commenced, the drilling operation should be completed in approximately 10 days. If the well is productive, an additional 15 days will be required for completion and testing before a decision is made to install permanent facilities.

SURFACE USE PLAN FORM 3160-3 APPLICATION FOR PERMIT TO DRILL STRATA PRODUCTION COMPANY BONANZA FEDERAL #2 WELL 330' FSL & 990' FEL SECTION 28-23S-34E LEA COUNTY, NEW MEXICO

Submitted with Form 3160-3, Application For Permit to Drill covering the above captioned well. The purpose of the plan is to describe the location, the proposed construction activities, the operations, the surface disturbance involved, and the rehabilitation of the surface after completion of said well so that an appraisal can be made of the environment affected by this well.

1. <u>Existing Roads</u>:

- A. The Well Location and Acreage Dedication Plat for the proposed well has been staked by Dan R. Reddy, Engineer, Carlsbad, New Mexico and is attached.
- B. All roads to the location are shown in Exhibit "B". The existing roads are illustrated in red and are adequate for travel during drilling and production operations. Upgrading of the road prior to drilling will be done where necessary as determined during the on-site inspection.
- C. Directions to location: From Jal, New Mexico, the well is located approximately 21 miles to the northwest on County Road #21.
- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as operations continue on the lease.

2. Proposed Access Road:

A new access road will not be required as shown on Exhibit "B". The road will be constructed from the existing East West road to the Bonanza Federal #1 location as follows:

- A. The average grade will be less than 5%.
- B. No turnouts will be necessary.
- C. No culverts, cattleguards, gates, low-water crossings or fence cuts are necessary.
- D. Surfacing material will consist of native caliche. If required, road across pad will be surfaced with a minimum of 6" of caliche. Caliche will be obtained from the nearest BLM approved caliche pit. Any additional materials that are required will be purchased from the dirt contractor.

3. Location of Existing Wells:

All existing wells within a one mile radius of proposed well are shown on Exhibit "C".

4. Location of Existing and/or Proposed Facilities:

In the event the proposed well proves to be productive, Strata Production Company will furnish maps or plats showing On Well pad facilities and Off Well pad facilities (if necessary) by Sundry Notice before beginning the construction of the facilities.

5. Location and Type of Water Supply:

The well will be drilled with a combination of brine and fresh water mud systems as outlined in the Hole Prognosis. The water will be purchased from commercial water stations in the area and trucked to the location by transport over the existing and proposed access roads as shown on Exhibit "B". If a commercial fresh water source is nearby, fasline may be laid along existing road ROWs and fresh water pumped to the well. No water well will be drilled on the location.

6. <u>Source of Construction Materials</u>:

All caliche required for construction of the drill pad and the proposed new access road (approximately 2500 cubic yards) will be obtained from a BLM approved caliche pit. All roads and pads will be constructed of 6" rolled and compacted caliche.

- 7. <u>Methods of Handling Water Disposal</u>:
 - A. Drill cuttings not retained for evaluation purposes will be disposed into the reserve pit.
 - B. Drilling fluids will be contained in steel mud tanks. The reserve pit will contain any excess drilling fluid or flow from the well during drilling, cementing and completion operations. The reserve pit will be an earthen pit approximately 150' x 150' x 6' deep and fenced on three sides prior to drilling. It will be fenced on the fourth side immediately following rig removal. The reserve pit will be plastic lined (5-7 mil thickness) to minimize loss of drilling fluids and saturation of the ground with brine water. Drilling fluids will be allowed to evaporate in the reserve pits until dry.
 - C. Water produced from the well during completion may be disposed into the reserve pit or a steel tank (depending upon rates). After the well is permanently placed on production, produced water will be collected in tanks (fiberglass or steel) until hauled to an approved disposal system or a separate disposal application will be submitted to BLM for approval. Produced oil will be collected in steel tanks until sold.
 - D. A portable chemical toilet will be provided on the location for human waste during the drilling and completion operations. Compliance with current laws and regulations pertaining to the disposal of human waste will be observed.

- E. Garbage and trash produced during drilling or completion operations will be disposed in a separate trash trailer on location. All waste material will be contained to prevent scattering by the wind. All water and fluids will be disposed into the reserve pit. Salts and other chemicals produced during drilling or testing will be disposed into the reserve pit. No toxic waste or hazardous chemicals will be produced by the operation.
- F. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. No adverse materials will be left on the location. The reserve pit will be completely fenced and kept closed until dried. When the reserve pit has dried sufficiently to breakout and fill, and as weather permits, the unused portion of the wellsite will be leveled and reseeded as per BLM specifications. Only that part of the pad required for production facilities will remain in use. In the event of a dry hole, only a dry hole marker will remain.
- 8. <u>Ancillary Facilities</u>:

No airstrip, campsite or other facility will be built as a result of the operations of the proposed well.

- 9. <u>Well Site Layout</u>:
 - A. The drill pad layout with elevations, as staked by Dan R. Reddy, Engineer, is shown on Exhibit "D". Dimensions of the pad, pits and location of major rig components are shown. Top soil, if available, will be stockpiled per BLM specifications as determined at the on-site inspection. Since the pad is fairly level, no major cuts will be required.
 - B. The planned orientation of the rig and associated drilling equipment, reserve pit, trash pit, pipe racks, turn-around and parking areas, and access road are shown on Exhibit "D". No permanent living facilities are planned, however, a temporary foreman/toolpusher's trailer will be on location during drilling operations.

- C. The reserve pit will be lined with a high quality plastic sheeting (5-7 mil thickness).
- 10. Plan for Restoration of the Surface:
 - A. Upon completion of the proposed operations, should the well be abandoned, the pit area, after allowed to dry, will be broken out and leveled. The original top soil will be returned to the entire location, and leveled and contoured to the original topography as nearly as possible.

All trash, garbage and pit lining will be removed in order to leave the location in an aesthetically pleasing condition. All pits will be filled and the location leveled within 120 days after abandonment.

- B. The disturbed area will be revegetated by reseeding during the proper growing season with a seed mixture of native grasses as recommended by the BLM.
- C. Three sides of the reserve pit will be fenced prior to and during drilling operations. At the time the rig is removed, the reserve pit will be fenced on the rig (fourth) side to prevent livestock or wildlife from being entrapped. The fencing will remain in place until the pit area is cleaned and leveled. No oil will be left on the surface of the fluid in the pit.
- D. Upon completion of the proposed operations, should the well be productive, the reserve pit area will be treated as outlined above within the same prescribed time. The caliche from an area of the original drillsite not needed for production operations or facilities will be removed and used for construction of thicker pads or firewalls for the tank battery installation. Any additional caliche required for facilities will be obtained from a BLM approved caliche pit. Topsoil removed from the drillsite will be used to recontour the pit area and unused portions of the drill pad to the original natural level and reseeded as per BLM specifications.

11. Surface Ownership:

The wellsite and lease are located entirely on Fee surface.

12. <u>Other Information</u>:

- A. The topography around the wellsite is rolling terrain with vegetation of sagebrush and native grass. The vegetation cover consists of prairie grasses and flowers. Wildlife in the area includes those typical of semi-arid desert land.
- B. The soils are clayey sand over caliche base.
- C. There are no permanent or live water in the immediate area.
- D. There are no residences and other structures in the area.
- E. The land in the area is used primarily for grazing purposes.
- F. An archaeological study has been conducted for the location and new access road. The report has been submitted separately.
- 13. Lessee's and Operator's Representative:

FRANK MORGAN P. O. BOX 1030 ROSWELL, NEW MEXICO 88202-1030 PHONE NUMBER: (505) 622-1127-OFFICE 365-7757-CELLULAR

14. <u>Certification</u>:

I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site which currently exists; that the statements made in the plan are to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed by Strata Production Company and its contractors and sub-contractors in conformity with the plan, and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 USC 1001 for the filing of a false statement.

STRATA PRODUCTION COMPANY

Carol J. Barini

CAROL J. GARCIA PRODUCTION RECORDS MANAGER DATE: <u>December 29, 1998</u>

EXHIBIT "A"

EQUIPMENT DESCRIPTION

All equipment should be at least 3,000 psi WP or higher unless otherwise specified.

- 1. Bell nipple
- 2. Hydril bag type preventer
- 3. Ram type pressure operated blowout preventer with blind rams.
- 4. Flanged spool with one 3"and one 2"(minimum) outlet.
- 5. 2"(minimum) flanged plug or gate valve.
- 6. 2"x 2"x 2"(minimum) flanged.
- 7. 3"gate valve.
- 8. Ram type pressure operated blowout preventer with pipe rams.
- 9. Flanged type casing head with one side outlet.
- 10. 2" threaded (or flanged) plug or gate valve. Flanged on 5000# WP, threaded on 3000# WP or less.
- 11. 3" flanged spacer spool.
- 12. 3"x 2"x²"x 2" flanged cross.
- 13. 2" flanged plug or gate valve.
- 14. 2" flanged adjustable choke.
- 15. 2" threaded flange.
- 16. 2" XXH nipple.
- 17. 2" forged steel 90`Ell.
- 18. Cameron (or equal) threaded pressure gauge.
- 19. Threaded flange.
- 20. 2" flanged tee.
- 21. 2" flanged plug or gate valve.
- 22. 2 1/2" pipe, 300' to pit, anchored.
- 23. 2 1/2" SE valve.
- 24. 2 1/2" line to steel pit or separator.

NOTES:

- 1). Items 3,4 and 8 may be replaced with double ram type preventer with side outlets between the rams.
- 2). The two valves next tho the stack on the fill and kill line to be closed unless drill string is being pulled.
- Kill line is for emergency use only. This connection shall not be used for filling.
- 4). Replacement pipe rams and blind rams shall be on location at all times.
- 5). Only type U, LSW and QRC ram type preventers with secondary seals are acceptable for 5000 psi WP and higher BOP stacks.
- 6). Type E ram-type BOP's with factory modified side outlets may be used on 3000 psi or lower WP BOP stacks.



hydraulie operating system which is to be a classed system. (2) Accumulators with a precharge of nitragen of not less than 750 PSI and connected so as to receive the aforementioned fluid charge. With the charging pumps shut down, the pressurized fluid volume stored in the accumulator must be sufficient to clase all the pressure-operated devices simultaneously within ________second; after clasure, the remaining accumulator pressure shall be not less than 1000 PSI with the remaining accumulator fluid volume at least _______ percent of the original. (3) When requested, an additional source of power, remote and equivalent, is to be available to operate the above pumps; or there shall be additional pumps operated by separate power and equal in parformance capabilities. pumps, driven by a continuous source of power, capable of fluid charging the total occumulator valume from the nitrogen precharge pressure to its rated pressure within _____ minutes. Also, the pumps are to be connected to the

A pressure reducer and regulator must be provided for operating the Hydril preventer. When requested, a second pressure reducer shall be available to limit operating fluid pressures to ram preventen. Gult Legian No. 38 hydraulic oil, an equivalent or better, is to be used as the fluid to operate the hydraulic equipment. The closing manifold and remote closing manifold shall have a separate control for each pressure-operated device. Controls are to be labeled, with control handles indicating open and closed positions

as straight as possible and without sharp bends. Easy and safe access is to be maintained to the chicke manifold. If deemed necessary, walkways and stairways shall be erected in and around the chicke manifold. All values are to be selected for operation in the presence of ail, gas, and dilling fluids. The choke flow line values and relief line values connected to the drilling spool and all ram type proventers must be equipped with stem extensions, universal joints if needed, and hand wheels which are to extend beyond the edge of the derick substructure. All other values are to be equipped The choke monifold, choke flow line, relief line, and choke lines are to be supported by metal stands and adequately anchored. The choke flow line, relief line, and choke lines shall be constructed with handles.

* To include derrick floor mounted controls.

: 1



Figure 1. Showing STRATA PRODUCTION COMPANY's proposed Bonanza Federal Well No. 2 in Section 28, T23S, R34E, NMPM, Lea County, NM. Map Reference: USGS 7.5' series, San Simon Sink, NM (1984)

- 1	Hudsonk Lewis etal HRP occis H.B.U. US Ufanich US W.	60 motrite, G t Corines 5.1.4 1 01244 0587 1 7.0.4 1 01.014 1 0.587 1 1 0.4 10 10 1 0.583 0.584 0.584 0.584 0.584 0.584 0.584 0.584 0.584 0.584 0.584 0.584 0.585 0.584 0.585 0.5	Jedeste 01244	н Санин стају Алайсо Hunt Dil , ча н5Р н9Р 15 ај 15142 - 22	-100 1/2 100 1/2 100 100 100 100 100 100 100 10	(Antrode) (Antrode) LG-485 (1) B1040 SI-800 (P) HE TO 13480' (645)L (1) Site (P) (645)L (1) Site (P) (645)L (1) Site (P) (645)L (1) Site (P) (75)Site (P) Site (P) (75)Site (P)
-	17/1/ elfers (1) State(s) Union Amerada H8P H8# E 5929 E-1935 2/4/t	рин т Сапса Сапса Сапса 5.1.41 J.1.58 065194 064881 Эни Т U.S.	Livestoc C. Genoco J.1.58 O64881 Hg Min. 1 Hanch Brus. (S)	T ¹⁷ C ¹¹ HBP E-1932 Curry Act Surg Act	Sere St U. 1945 (4 Wine Cristian St Under Store (4 Wine Cristian Store (5 4 Wine Cristian Store (5 4 Wine Cristian Store (5 4 4 4 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1	ET, Hudson U.S.) ETA Jugane Bra 19 19 20 Jugane Bra Har 10 19 20 19 507 4 484
	2 5 5 5 5 8 H K-1917/1 W L.S.N.GIEF 12 WI Stote M.1 Jank Bas.(S) Unix 1 45 1373 Stole	JITIL JE	Corril e. Taki, Haves Arilone 5 ³⁷ Frep. Unreve 5 ³⁷ Frep. Larrow 04c. C.3-6-78 Since	4.1.61 404849 258.551	U.S. MANAGE WITH AND	HACTING Store Store
	Yotes Pet, etal	BTA 11/14. TI 100 JUL DE Gridley, etcl 1 MJ. Chas T. Baltes, etcl, M.1 11/12. 11 10 1000	franzel Gaergy Garola 19167 1320 — [7 Confinentia]	Prinwell Erer. 1418 1 1001 - 1201 4 4793 100 00 16 16	Guinoco, etal HEP 18641 	Chevron 3 - 1 - 05 2 - 4 - 5 - 1 - 05 - 1
16.	Ameroda 54 8005 54 855 155 55 US MI State (8)	Continentatos Centinerad Continentatos Centinerad Continentation Continent Trata of Index Index Of Index Unit Hanich Bras. (5) Trata (1) RayWestall. M Continental (Parda)	5.1.1.2(1) 065194 HBU. U.S.	Sonia fe Ener. V. 1-35 V. 1-35 V. 1-35 V. 1-35 V. 1-36 V. 1-36	34 U.S. M.I Maart Braz, (S) Beloo feg.	15035 (Frail, 76(P/8) Supren-Fed U.S. Henich Bros.(S) Store
· 5	Amerada 94853 115 ഈ 24	Dé5194 Expl. chail (mil) Marte II FA 68820 Form i Art 11 Conti i Art 11 Ganta I Sellin Jaca J Sellin	(CDB)(0) 1830A (CDB)(0) 1830A 20 (Monumo) @	100723	J.C. Williamson thil (Estor11) 2 LS Tot1 (Estor1) 2 LS Tot1 (Estor1) 2 LS Tot1 (Estor1) 2 Curry - sr - 22 - OAs 11 de (Estor1) 12 Millionson (Estor1) 12 Million J.C. Williamson (Estor1) 12 Million	LG 1208 10400 / LG 1208 2010 / LG 1208 Constant Cons
	U.S., MI W.H.Brinninstool(S) J.C. Williamson 23485	Jarra, a Vales Pet Jarra, a Vales Pet Jarra, a Vales Pet Lass, 1-10 U.S. Jarra, a Ray Westall, etal 68821	Unit Carrier Service Carrier 1.1 tea 1.1 tea	Stare. MI Highth Brog. (5) Citation Ot. G 28	Citation Cilotion OF, G 27	*: C0 *: SMI.
33 7. 7. 7. 7. 7.	25 	JANA T Gardon J Gardon J	12 12 14 14 14 14 14 14 14 14 14 14	067715 (**) 8 283 Mil. ANTELOPE RIDGE UT. CITATION OBG (OPER U.S., MI Henrich Braz,(5) 0	(1.6 Mil) (Pr.8) ⁷ Xt (1.6 Mil) (1.6 Mil)	Amoco K 5235 (Robert 26 Hannifin) HBC Job H (Dot H Stoercor Stere
A23 	Kaiser - Francis E- 5076	Kaiser Francis E-3896 BALL LAKEUT. CONOCO(OPER	Keider-Frences E-3896 E-1937	FEDERAL #2 / totion 3 k 11 - 10 7 3 25 10 H B U Shull H B U Shull 222551 H B U Shull 19 22 19 10 19 10 10 10 10 10 10 10 10 10 10 10 10 10 1	Citation Q t.G 1-1-1-66 06:10 1 dig 1 di	50. Roy #(AR Aztec) 7/ V (vo) 580 770
2	US State Correl Unit - State To a Mill Stores State State State	JAWA I JAWA I TOTOLOGICAL ST Control St	BELLILAKE Stote Hanch Boos, (3) Bank Alima Jijana (11984)	Citation 0.6 [; ourse		Asher Li Enizeri Si Enizeri Si Mil (AzteciUR) Lisosi Stara Cilitte elevent Jissens Andre (M.
	Cenhrentia (Berl Lose Unity) Kaiser-Francis E-599 Ss. 20 7 A Mil Cantinentsi Kaiser-Francis (Lose Unity) Kaiser-Francis	13004 10	Tripor Oil Hér Clisson Keiser-Frencis	Charles 01422 07139	C (1, 011 H 8 U 01277 01277 1 (2277 1 (2377 1 (2) 1	(Prijfoca) Asher Ent, etal
	HBP E-490 Starte (Pichardson 0il) 	Althe Altonetics	U.S., MI D.T.Friddell Rubert Mackers Kaiser-Francis 9-1-59(1)	HBU Love Est. HBU Love Est. S J Workweck Citation 0.6.6 S-1-64(3)07199 U.S. Mi R. Manderg, drol LC.Ridordson.U., HBC N/2 J.C. etal., HBP HOR N/2 J.C.	4.5 Mil. Antelape Ridge E.E. Marriman Rubar Madara, etg Citation Or c San Francisco Anter San Francisco An	Althil) L BEER (Se Roy) Alther TIT Telmil, L BEER (Se Roy) Atoker TIT Telmil, "2" Form Rubert Maders (S) N.E. N.E. N.E. N.E. Description (² Ogg.)
~.	663993 Kulser- Francis	066633 (<u>Bentane Ur 5'</u> Janue 1 U.S., Mi Rubort MadRes (5) 7 (J.Nie 5 (J.Nie 5 (J.Nie) 1 (J.S.) 1	061374 Haiter-Francis 4.1-6421066653 U.S., MI Tripor Res HBP 0000 4.500	1644 (Speil) Peach, MB Asher Ent	Ot.G I Sandre Circl. I to 1: 54 I to 1: 54 I to 2:	HBP (Hanover Plant Marth 1977) (15922) (Hanover Plant Marth 1977) (Hobse of Perm.) U
-	EeriLake Unit Jonstin J.S. MI Robert Moders Statist Enron Kuytone (15 5 0 6 11 12 35	A v 21 + 83 A v Holland, etal, MI (5-30-58) Rubert Mageral 1144 (Mobil) Enmin, 1144 HBC US (Rebert Madama) 1244 HBC	U.S., MI Esta A Poge U.S., MI Esta A Poge R. Modero S Mocero etal (Norme JCS) (Eiller)	B 300 50 800 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ALL STR.	VIA FRODUCTION CC NANZA FEDERAL #2
	1 3 30 Grant	EG NIK Enron (1	Million 06651 Enron to 14500 (Moeil) 24 A	45 Cont. 45 4	1:12:32 33 5 SE	NAMLA FEDERAL #2 O'FSL & 990 'FEL C.28, T23S, R34E COUNTY. NEW MEXIC

