- 1	:			10-429
	c	CD Hobbs		Υ.
Form 3160-3 (April 2004) UNITED STATE DEPARTMENT OF THE	E LEASE EXPIRES 06/01, RECEIVE ES MAY 2 4 2010 INTERIOR NAGEMENHOBBSOCD	/2010	FORM APPF OMB No. 100 Expires March Lease Serial No. <u>NM-104703</u> If Indian, Allotee or 7	4-0137 31, 2007
la. Type of work: XX DRILL REEN	TER	7	If Unit or CA Agreemen	•
lb. Type of Well: XXOil Well Gas Well Other	Single Zone Multir	ble Zone CA	Lease Name and Well CTUS "21" FED	No. 38163
2. Name of Operator ROBERT E. LANDRETH (432-684-4718) 3a. Address 110 MEST LOUISIANA SUITE 404	) <25827	7 9	the second s	-39756
3a. Address 110 WEST LOUISIANA SUITE 404 MIDLAND, TEXAS 79701	432-684-47:18		Field and Pool, or Expl ILDCAT-DELAWA	•
4. Location of Well (Report location clearly and in accordance with a At surface 660' FNL & 660' FEL SECTION At proposed prod. zone SAME $U_{\rm V}$	• • •		Sec., T. R. M. or Bik. ar ECTION 21 T2	-
14. Distance in miles and direction from nearest town or post office* Approximately 10 miles West of Jal 1	· ·	1	County or Parish LEA CO.	13. State NM
15. Distance from proposed* location to nearest property or lease line, ft. 660 ' (Also to nearest drig. unit line, if any)	16. No. of acres in lease 360	17. Spacing Ur	it dedicated to this well O	
18. Distance from proposed location* to nearest well, drilling, completed, NA applied for, on this lease, ft.	19. Proposed Depth         20. BLX           5500 '		Bond No. on file M-#2925	· · · · · · · · · · · · · · · · · · ·
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3230' GL		22. Approximate date work will start*     23. Estimated due       WHEN APPROVED     15		
	24. Attachments	<u>l</u>	15 Days	
<ol> <li>The following, completed in accordance with the requirements of Onsh</li> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office).</li> </ol>	<ul> <li>4. Bond to cover the litern 20 above).</li> <li>n Lands, the</li> <li>5. Operator certific</li> </ul>	ne operations un ation specific informa	m: aless covered by an exis tion and/or plans as may	-
25. Signature for T. Janua	Name (Printed/Typed)		Date 04/	15/10
Title Permit Eng.				
Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed) /s/ Don Pe	eterson	Dat	6
Title FIFID MANAGER	Office CARLSBA	D FIELD	) OFFICE	<del>MAY 2 0 2010</del>
Application approval does not warrant or certify that the applicant hol conduct operations thereon. Conditions of approval, if any, are attached.			ease which would entitle - FOR TWO YE	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a States any false, fictitious or fraudulent statements or representations as	crime for any person knowingly and w			
*(Instructions on page 2)	16	1, .	SEE ATTACHED F	
CARLSBAD CONTROLLED WATER BASIN	Y-s	Ć C	ONDITIONS OF APP	KUVAL
Witness Surface &		Approval & S	Subject to General pecial Stipulations	Requirements Attached

Witness Surface & Intermediate Casing

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		RECE	VED		State	of New	w Mexico			
DESTRICT I 1625 N. FRENCH DR., 1	Hobbs, NM 86	2MAY 24	2010	Ener	y, Minerals (	and Natural I	Resources Department		স	orm C-102
DISTRICT II 1301 W. GRAND AVENUE DISTRICT III 1000 Rio Brezos R			OODIL	1220	SOUTH	H ST. I	ON DIVIS FRANCIS DR. exico 87505	ION Submit	Revised Octo t to Appropriate Di State Lease	ber 12, 2005
DISTRICT IV			WELL LO	CATIO	N AND	ACREA	GE DEDICATI	ON PLAT	_	
API	R., SANTA FE, Number	NH 87905		Pool Cod	e			Pool Name		D REPORT
<u>30-07</u> Property C	25 - : Code	1756		99	033 Pro	operty Nam	LDCAT-DELAWA	RE	Well Num	han
3816	3			C		21 FE			1	luer
0GRID No 25827	•			R		erator Nam E. LAN	• NDRETH		Elevatio	
r			<u>.</u>		Surf	ace Loca				]
UL or lot No. A	Section 21	Township 25-S	Range 35–E	Lot Idr		from the 660	North/South line NORTH	Feet from the 660	East/West line	County
l		20 3	L	Hole I	1		rent From Sur		EAST	LEA
UL or lot No.	Section	Township	Range	Lot Idr		from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint a	or Infill Co	nsolidation (	Code	Order No.					
40										
NO ALLO	WABLE W	ORAN	ION-STAN		UNIT HA	LETION U S BEEN	NTIL ALL INTER APPROVED BY	THE DIVISION		
			ODETIC CC NAD 27 Y=4091 X=7996 LAT.=32.12 DNG.=103	7 NME 54.5 N 08.0 E 21183 365584 365584	N .⁺ ₩  <u>DETAIL</u> 5'3' 0 `00000000000000000000000000000000000		E 2104 203 660' <u>SEE_DETAIL</u> M-104703	I hereby of herein is true a my knowledge a organisation eiti or unleased min including the pi or has a right location pursual owner of such n or to a voluntal competiory pool by the division.	Da anica 04/09	prmation be best of this interest e land to cation this th an interest, it or a e entered the the the the the the the the
Unde with the sand he from and g	ERATOR: DO DIS W. CHIS DO DIS W. CO DIS W.	Alease do no code do no drice unil y the your be correct p	Dr report pro ou have che rist paul Kau poi code ode	3224. auction the itering	<u>- 600'</u> - <u></u>	224.3'		SURVEYO	R CERTIFICAT partify that the well plat was plotted fro surveys made by a vision, and that the t to the pest of my A G. E/DS H: 29, 42010 H: 29, 42010 Surveyor E. O. M. 19, 434	l location m field ne or

EXHIBIT "A"

ROBERT E. LANDRETH CACTUS "21" FEDERAL #1 UNIT "A" SECTION 21 T25S-R35E LEA CO. NM

In responce to questions asked under Section II of Bulletin NTL-6, the following information on the above well will be provider.

1. LOCATION: 660' FNL & 660' FEL SECTION 21 T25S-R35E LEA CO. NM

2. ELEVATION ABOVE SEA LEVEL: 3230' GL

- 3. GEOLOGICAL NAME OF SURFACE FORMATION: Quaternery Aeolian Deposits;
- 4. DRILLING TOOLS AND ASSOCIATED EQUIPMENT: Conventional rotary drilling rig using drilling mud as a circulating medium for the removal of solids from hole.

5. PROPOSED DRILLING DEPTH: 5500'

6. ESTIMATED TOPS OF GEOLOGICAL FORMATIONS:

Rustler Anhydrite	774
Salt	914
Delaware Lime	5244
Delaware Ramset Sand	5300 <b>'</b>

7. POSSIBLE MINERAL BEARING FORMATIONS:

Delaware Ramsey Sand 011

8. CASING PROGRAM:

HOLE SIZE	INTERVAL,	CASING OD	WEIGHT	THREAD	COLLAR	GRADE	CONDITION	
26"	0-40	20"	NA	NA	NA	Conductor	New	
172".	0-850,"	13 3/8"	48#	8-R	ST&C	H-40	New	
121"	0-3400' 3400-5150'	9 5/8" 9 5/8"	36# 40#	8–R 8–R	ST&C _ST&C L7(	J-55 ~ N-80	New , New	
7 7/8"	0-5500'	5 <sup>1</sup> / <sub>2</sub> "	15.5#	8-R	ST&C Per	J-55	19/10 RGH New	

Safety design factors:

Burst	1.0	Collapse	1.125	Body Yield	1.5	Joint Strems	gth
						8-R	1.8
						Buttress	1.6

## 9. CASING SETTING DEPTHS AND CEMENTING:

20"	Conductor	Set 40' of 20" conductor pipe and cement to surface with Redi-mix.
13 3/8 <b>"</b>	Surface	Run and set 850' of 13 3/8" 48# ST&C H-40 casing. Cement with 700 Sx. of Class "C" cement + 4% Gel, +2% CaCl, + $\frac{1}{4}$ # Flocele/Sx, Yield 1.65, tail in with 250 Sx. Class "C" cement + 2% CaCl, + 0.004 GPS CF-41L, Yield 1.34, circulate cement to surface .
9 5/8"	Intermediate	Run and set 5150' of 9 5/8" casing as follows: 3400' of 9 5/8" 36# J-55 ST&C, 1750' of 9 5/8" 40# N-80 SP&C casing. Cement with 1030 Sx. of 35/65/6 Class "C" POZ cement +5% salt, + 5# Kolseal/Sx., +0.004GPS CF-41L, Yield 2.1, tail in with 840 Sx. of 50/50 Class "C" POZ cement + 0.2% C-12, + 10% Salt, + 2% Gyp, + 3#Kolseal/Sx., + 0.004GPS CF-41L, Yield 1.31, circulate cement to surface.
- 5 <sup>1</sup> 2"	Production	Run and set 5500' of $5\frac{1}{2}$ " 15.5# J-55 ST&C casing. Cement with 200 Sx. of 50/50/2 Class "C" POZ cement + 0.2% C-12, + 10% Salt, + 2% Gyp, + 3# Kolseal/Sx., + 0.004GPS CF-41L, Yield 1.31 estimate top os cement 4500' from surface.

- 10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P., consisting of an annular bag type preventor, middle blind rams, and bottom pipe rams. The B.O.P. will be hippled up on the 13 3/8" casing, tested to API specifications. The B.O.P. will be operated at least once in each 24Hr period, and the blind rams will be wotked when the drill pipe is out of the hole on trips. Full opening stabbing valve and upper kelly cock will be available at all times on the derrick floor. Exhibit "E-1" shows a hydraulically operated closing unit, and a 5000 PSI working pressure choke manifold with dual adjustable chokes. No abnormal pressures of temperatures are expected while drilling of this well.
- 11. PROPOSED MUD CIRCULATING SYSTEM:

See -COA

DEPTH	MUD WT.	VISCO	FLUID LOSS	TYPE MUD SYSTEM
40-850'	8.4-9.0	30-34	NC	Fresh water spud mud add paper to control seepage.
850–5150'	10 <i>:</i> 0- ±0.1	28–29	NC	Brine water, add paper to control seepage and high viscosity sweeps to clean as a Hole
5150-5500'	8.3-8.4	28 <b>-</b> 29℃	NC	Fresh water if water loss control is needed use starch. Use high viscosity sweeps to clean hole

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run open hole logs, and casing the viscosity and water loss may have to be adjusted to meet these needs.

ROBERT E.	LANDRETH
CACTUS "21"	FEDERAL #1
UNIT "A"	SECTION 21
T25S-R35E	LEA CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- See A. Electric logs: Gamma Ray Neutron from TD back to surface. Sonic log from TD To the 13 3/8" casing shoe. Dual Laterolog Density from TD Minimum Run.
  - B. No cores are planned at this time.
  - C. Possible DST if shows occur in the Delaware.
  - D. No mud logger planned at this time.

## 13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of  $\rm H^2S$  in this area. If  $\rm H^2S$  is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP <u>2360</u> PSI, and Estimated BHT <u>110°</u>.

## 14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 10 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

## 15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The <u>DELAWARE</u> formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as an oil well.