District I P.O. Box 1980, I District II	Hobbs, NM 882	241-1980	Ene	ergy, Miner	State of Ne als & Natura	w Mexico I Resources D	Form C-101 Revised October 18, 1994 Instructions on back						
811 South First Artesia, NM 88210 District III 1000 Rio Brazos Rd., Aztec, NM 87410				OIL C	CONSERVA ⁻ 2040 South Santa Fe, N		N	Submit to Appropriate District Office State Lease - 6 Copies Fee Lease - 5 Copies					
District IV 2040 South Pact	neco, Santa Fe,	NM 87505							AMENDED REPORT				
	APP					FNTER DEE		BACK, CIR ADD					
		1 Operator N						SAGN, CITADE	2 OGRID Number				
Apache C	orporatior	ו							00873				
2000 Post	Oak Blvo	1. Ste. 100)						3 API Number				
Houston,		056-4400							30-025-06691				
4 Property Cod	e				5 Property Name	2			6 Well No.				
					D. C. Hard	y			4				
						ace Location							
UL or lot no.	Section	Township	Range	Lot ldn	Feet from the	North/South Line	Feet from the	East/West Line	County				
0	20	21S	37E		510'	SOUTH	1980'	EAST	LEA				
						ocation If Diff							
UL or lot no.	Section	Township	Range	Lot idn	Feet from the	North/South Line	Feet from the	East/W₂st Line	County				
		9 Propo	sed Pool 1				10 Proposed Pool 2						
	DRINKA	RD					BLINEBRY	4 or	4 or Tebb				
11 Work T	ype Code	12 Well Ty	pe Code	13 Cat	le/Rotary	14 Lease T	ype Code	15 Gra	und Level Elevation				
P &	A	0		R		FEE		3485' GL					
16 Mu	ltiple	17	Proposed [Depth		ormation	19	Contractor	20 Spud Date				
N			5800' -	6482'	DRI	NKARD	DICE		0/21/09				
Ľ:		I			l Dosed Casir	ng and Cemen		BJ SERVICES 9/21/98					
Hole	Size	Casing	Size	Casing	weight/foot	Setting		Sacks of Cement	Estimated TOC				
17-1/2"		13-3/8		40.5	#	177		150	SURFACE				
7-7/8"		8-5/8" 5-1/2"		32#	# & 17#	2915' 6570'		1000	SURFACE				
		<u>J-1/2</u>		10.0	+ α 1/#	6570		300	2828'				
productive zone.	Describe the	blowout prever	ition progra	m, if any. Use ac	lditional sheets if n								
Proposal to	o Plugbac	k to Bline	ory and	Tubb and a	add additiona	al perfs to Drin	kard zone. S	EE ATTACHME	NT.				
						7	Extra de la	Area and	and the second sec				
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							,	ing in	- / \				
23 I hereby certi to the best of my		-	bove is true	and complete									
	4	(1)	n	1				CONSERVAT	ON DIVISION				
Signature:	Han	<u>us 1</u>	<u>n. k</u>	yus	9-	1-98	Approved by:						
Printed Name:	Frances			0			Title:						
Title:		eering Te	ch	n, q.	2212-1	1.6.7.0							
· · · · · · ·	<u> </u>	Joing 16	<u></u>	<u> </u>		2867	Approval Date:	·	Expiration Date:				

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D. C. HARDY #4 Lea Co., New Mexico

 WELLBORE DATA:

 PRODUCTION CASING - 5-1/2" 15.5-17# J-55 set @ 6570', cmtd W/ 300sx,

 Drinkard Perfs PROPOSED 6348-54', 6416-26', 6430-40', 6466-82', 2 JSPF,

 (Total 88 holes)

 Tubb Perfs PROPOSED 6162-80', 6260-78, 2 JSPF, (Total 74 holes)

 Current Drinkard Perfs 6353', 6432', 6438', 6468', 6478', 2 JSPF

 DrinkardOpen Hcle 6570-6670'

 TUBING - 2-3/8" 4.7# J-55 8rd EUE

 Current Test:
 5 BO 15 BW 60 MCFD

DRINKARD/TUBB WORKOVER PROCEDURE

- 1. Rig up completion unit. POH with rods and pump. NU BOP. Release TAC & tally tubing out of hole.
- 2. Make bit trip and clean out to PBTD. Spot double-inhibited acid/xylene mixture 6670-6300'and POH.
- 3. RU Wireline. Install packoff & perforate Drinkard 6348-54', 6416-26', 6430-40', 6466-82', 2 JSPF, (Total 88 holes) from Dresser Atlas Gamma Ray Neutron 11/22/77. Perforate Tubb 6162-80, 6260-78', 2 JSPF, (total 7 holes)
- 4. UNLOAD AND TALLY 2-7/8" WORKSTRING. RIH with tailpipe. Lok-Set packer, SN, on workstring to PBTD. Set packer @ 6300'.
- Petroplex acidize Drinkard OH 6570-6670' with 3000 gals in 3 stages with 750# rock salt in gelled saturated brine between stages. Overflush perfs 20 bbls with 2% KCL water. Swab back load to clean up open hole section. Release packer and POH.
- 6. RIH with RBP, Packer, SN on workstring and set RBP at 6530' and test. Reset packer @ 6450'.
- ⁷⁷. Petroplex acidize Drinkard perfs 6466-82' with 1000 gals using 60 ball sealers spaced throughout. Overflush perfs 20 bbls with 2% KCL water.
- 8. Release packer, latch RBP and set RBP at 6455' & test. Set packer @ 6380'.
- Acidize Drinkard perfs 6416-6440' with 2000 gals 15% HCL at 4-6 BPM using 75 ball sealers for diversion. Overflush perfs 20 bbls w/ 2% KCL water.
- 10. Release packer, Latch RBP and reset at 6400' and test. Set packer @ 6320'.

- 11. Petroplex acidize Drinkard perfs 6348-54' with 700 gals using 25 ball sealers spaced throughout. Overflush perfs 20 bbls with 2% KCL water.
- 12. Release packer and latch RBP and reset packer @ 6320'.
- 13. Swab back load to evaluate fluid entry rate and content.
- 14. Release Packer & reset RBP at 6320' and test. Spot acid 6278-6110' and reset packer at 6200'.
- 15 Acidize Tubb perfs 6260-78' with 2000 gals 15% HCL at 4-6 BFM using 65 ball sealers for diversion. Overflush perfs 20 bbls w/ 2% KCL water.
- 16. Release packer, Latch RBP and reset at 6220' and test. Set packer @ 6120'.
- 17. Acidize Tubb perfs 6260-78' with 2000 gals 15% HCL at 4-6 BPM using 65 ball sealers for diversion. Overflush perfs 20 bbls w/ 2% KCL water.
- 18. Release packer, latch RBP and reset packer at 6120'. Swab back load water, evaluate fluid cut and entry rate.
- 19. Release packer, latch RBP and POH. Redress packer and RBP. RIH with SN, packer and RBP. Set RBP at 6320' and test to 3000 PSI. Set packer @ 5800' and prepare to frac.
- 20. Frac Tubb Perfs 6162-6278' per the attached recommendation at 15-20 BPM not to exceed 6000 PSI (Anticipated treating pressure 5200 PSI). Flush to top perf with slick KCL water.
- :21. Swab back to cleanup gel and sand. Latch RBP and POH if downhole commingling permit is approved, otherwise place Tubb on pump at 6000'.
- 22. POH laying down workstring.
- 23. RIH with 30'x 2-1/2" mother hubbard mud anchor configuration, SN, and TAC on 2-3/8" tubing. Set SN 150' above top frac'ed perf, set TAC @5400'+/- and nipple up tubinghead.
- 24. Place well on rod pump (with 1.5" pump X 25' gas anchor) unless swab rates indicate the need for additional lift. Report tests, fluid levels, etc.

Steve W. Manley 9/2/98

Sum

Submit to Ap propriate District Office State Lease - 1 copies Fee Lease - 3 copies

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DISTRICT I P.O. Box 1980, Hobbs, NM 88240

DISTRICT II P.O. Drawer DD, Artesia, NM 88210

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OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

				Lease				Well No.
	RPORATION			D. (. HARDY			<u>.</u>
it Letter Secti		Township		Range			County	4
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34851	BLINE			BL	INEBRY OIL &	GAS		80
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Submit to Appropriate District Office State Lease - 4 copies Fee Lease - 3 xopies

DISTRICT I P.O. Box 198C, Hobbs, NM 88240

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II P.O. Drawer E.D., Artesia, NM 88210

State of New Mexico Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator			Lease	ule section	
APA.CI	TE CORPORATIO	N	D. C. HARDY		Well No.
Unit Letter	Section	Township	Range		4
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510'	feet from the SO	UTH line an	d 1980'	E A CT	
Ground level Elev	v. Producin	g Formation	Pool	feet from the EAST	line Dedicated Acreage:
3485			TUBB OIL & GAS		4) Da
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			and identify the ownership thereof (i mvaltu)
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No ulo	wable will be assigned t	to the well until all interests have	e been consolidated (by communitiz	72tion unitiantian family t	
or until	a non-standard unit, elin	minating such interest, has been	approved by the Division.	autou, unitizzation, forceo-pooli	ing, or otherwise)
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DISTRICT II P.O. Drawer D.D., Artesia, NM 88210

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

State of New Mexico Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

All Distances must be from the outer boundaries of the section

Operator								Lease	;						Well	No.		
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