District J 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

. .

۰. و

State of New Mexico Energy Minerals and Natural Resources

Form C-101 Revised March 17, 1999

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit to appropriate District Office State Lease - 6 Copies Fee Lease - 5 Copies

AMENDED REPORT

	ACATI	UNIO	¹ Operator Name a	nd Addre	SS SS	<u>civier, l</u>	EEFEI	N, PLUGBAG	² OGRID	X ADD A	A ZONE
									02	25797	
			Permian Resou	irces, In	с.			30-25-	³ API N - 366	umber 57	
³ Prop	Tty Code				⁵ Property]					° Well No.	
1	1607			<u></u>	Berry Hobbs	Location					
UL or lot no. J	Section	Township	Range	Lot Idn Feet from			South line	Feet from the	East/Wes		County
	1/	16S	36E ⁸ Proposed I	Rottom			outh erent Fr	1850	Eas	st	Lea
UL or lot no.	Section										
UL OF IOT NO.	Section	Township	Range	Lot I	dn Feet fro	m the North	South line	Feet from the	East/Wes	st line	County
	I		Proposed Pool 1					¹⁰ Prop	osed Pool 2		
	Wildcat		pian, Atoka, M	orrow, (Chester)			Shoebar; St			
<u> </u>		·	 //								
¹¹ Work	Type Code N		¹² Well Type Code M			e/Rotary R	1	Lease Type Code Fee			evel Elevation 929
¹⁶ N	lultiple		17 Proposed Depth			mation		19 Contractor		20 Spi	ıd Date
- 1 april	<u>Y</u>		12,800					TMBR/Sharp			9/04
		·		Propos	ed Casing a	nd Cemen	. Progra	<u>m</u>		·····	
Hole		Cas	ing Size	Casing	, weight/foot			Sacks of Ce			mated TOC
17	/2	1	3 3/8		54.5	45	450 450 5		<u>_</u>		Surface
11			3 5/8		32		900 1800				
77.	/8		5 1/2	2	0 & 17	12,8	12,800 1400		Sxs 4		' DV Tool
											<u>@9500'</u>
								<u> </u>	1718	31920	
Describe the C-102 C-103 Su Drilling S Wellbore	Schemat	ic	for lined earth or lined earth		l sheets if necess	$\mathcal{NSP} + \mathcal{NSL}$	\mathcal{R} -,	resent productive	MAR HILL HILL HILL HILL HILL HILL HILL HIL	2004 	1732425 200 201 232425 2622 200 200
Well Cor								CONSERVAT		IVISION	
²³ I hereby c	•		n given above is tr	ue and co	mplete to the	1	OIL				٧
²³ I hereby co best of my k	•		n given above is tr	ue and co	mplete to the	Approved by				1	J
²³ I hereby co best of my k Signature:	nowledge at		n given above is tr	ue and co				2001 7	The	t,	
²³ I hereby construction best of my k Signature: Printed name	nowledge an	nd belief. A Watson	n given above is tr	ue and co		Title:	APR 0	2001 7	The	FLIM EN	
	nowledge an	nd belief. A Watson	n given above is tr	ue and co			APR () e:	2001 7	The	ELIM EN	

DISTRICT I 1625 N. French Dr., Hobbs, NM 86240

...

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

DISTRICT III

31

1000 Rio Brazos Rd., Astec, NM 87410

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico

Energy, Minerals & Natural Resources Department

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

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number **Pool** Code Pool Name 30-025 - 3665 Shoebar; Strawn, Northeast 96649 Property Code Property Name Well Number 33604 BERRY HOBBS UNIT 17 1 OGRID No. **Operator** Name Elevation PERMIAN RESOURCES, INC. 3929 25797 Surface Location UL or lot No. Feet from the North/South line Feet from the East/West line Section Township Range Lot Idn County EAST 36 E 2490 SOUTH 1850 LEA 17 16 S J Bottom Hole Location If Different From Surface UL or lot No. Lot Idn Feet from the North/South line Feet from the East/West line County Section Township Range Joint or Infill Consolidation Code Dedicated Acres Order No. 80 Acres 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 OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Villara 1 <u>Barbara Watson</u> Printed Name Regulatory Compliance Title <u>3/12/04</u> Date SURVEYOR CERTIFICATION #1c 1850'-I hereby certify that the well location shown Plane Coordinates on this plat was plotted from field notes of X = 794,424.3actual surveys made by me or under my = 700,313.6supervison and that the same is true and correct to the best of my belief. Date Sorveyed October 30, 2003 MAUNI LVA Signature & Seal of Professional Surveyor 2490' R-12124 M TO PROP NOTE: W.O. Num. 2003-0589 1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon Certificate No. MACON McDONALD 12185 ESSI0: ammun are mean horizontal surface values.

1625 N. French Dr., Hobbs, NM 88240

.

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

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

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

State of New Mexico

Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco Santa Fe, NM 87505

API Number	Pool Code	Pool Nam	e					
30-025		Wildcat-Mississippian, Atoka,						
Property Code	Prop	Property Name						
33604	BERRY HO	BERRY HOBBS UNIT 17						
OGRID No.	Oper	Operator Name						
25797	PERMIAN RE	3929						
Surface Location								

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	17	16 S	36 E		2490	SOUTH	1850	EAST	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 o	r Infill Co	nsolidation (Code Or	der No.				
320 Acres							-		

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

	· · · · · · · · · · · · · · · · · · ·		OPERATOR CERTIFICATION
			I hereby certify the the information
			contained herein is true and complete to the
		4	best of my knowledge and belief.
			San Ungen Mattine
			Barbara Watson
			Printed Name
			Regulatory Compliance
			Date
			SURVEYOR CERTIFICATION
X =	#10 <u>Coordinates</u> 794,424.3 700,313.6		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.
		, with the	Date Surveyed, LVA
			Signature & Seat of
R-12124			Professional Surveyor
1 1214	2490'		
	5	R. B. C.	(12185)
		D	A Crede a
NOTE:		I Down	W.O. Num: 2003-0589
1) Plane Coordinates shown hereon are Transver	se	1	
Mercator Grid and Conform to the "New Mexi Coordinate System", New Mexico East Zone, No	co	11111	Acertinicate No. MACON MCDONALD 12185
American Datum of 1927. Distances shown here are mean horizontal sulface values.	on l		A DE CONTRACTION OF CONTRACT
ere mean nonzontal aunace faides.	New an owner and the second se	<u> </u>	,

Form C-102 Revised August 15, 2000 Submit to Appropriate District Office

State Lease - 4 Copies Fee Lease - 3 Copies

□ AMENDED REPORT

DISTRICT I

*

.

Submit 3 Copies To Appropriate District	State of	f New Me	xico		Form C-	103
Office District I		Revised May 08,				
1625 N. French Dr., Hobbs, NM 88240	Energy, Mineral			WELL API NO.		
District II 1301 W. Grand Ave., Artesia, NM 88210	OIL CONSER	VATION	DIVISION	<u> </u>		
District III		th St. Fran		5. Indicate Type		
1000 Rio Brazos Rd., Aztec, NM 87410		Fe, NM 87		STATE	FEE	
District IV 1220 S. St. Francis Dr., Santa Fe, NM	Santa r	re, initia /	202	6. State Oil & G	as Lease No.	
87505						
SUNDRY NOTIO	ES AND REPORTS O			7. Lease Name of	or Unit Agreement Nar	ne
(DO NOT USE THIS FORM FOR PROPOS.					-	
DIFFERENT RESERVOIR. USE "APPLIC. PROPOSALS.)	ATION FOR PERMIT" (FO	RM C-101) FO	RSUCH	Berry Hobbs Un	it 17 Prop. No.309	92
1. Type of Well:				8. Well Number		
	Other			1		
2. Name of Operator	·····			9. OGRID Num		
Permian Resources, Inc.				25797		
3. Address of Operator			······································	10. Pool name o	r Wildcat	
P.O. Box 590, Midland, Texas, 79	9702			Shoebar, NE (Str	awn) / Wildcat (Miss,	
4. Well Location				Atoka, Morrow, Ch		
		0				
Unit Letter::	2490 feet from the	e <u>South</u>	line and1	1850feet fro	om the <u>East</u> 1	line
Section 17	Township	16 <u>S</u> Ra	nge 36E	NMPM	County Lea	
	11. Elevation (Show v 3929' GL	whether DR,	RKB, RT, GR, etc.,		an a	
12. Check A	ppropriate Box to I	ndicate N	ature of Notice.	Report or Other	r Data	
NOTICE OF IN				SEQUENT RE		
PERFORM REMEDIAL WORK	PLUG AND ABANDO		REMEDIAL WOR		ALTERING CASING	: П
TEMPORARILY ABANDON	CHANGE PLANS		COMMENCE DR	ILLING OPNS.	PLUG AND	
					ABANDONMENT	
PULL OR ALTER CASING	MULTIPLE COMPLETION	\Box	CASING TEST AI			
OTHER: Lined Earthen Pits			OTHER:			

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated dat of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completio or recompletion.

Permian Resources Inc. submits the following Attachment for the Berry Hobbs Unit 17 - 1.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.										
SIGNATURE	lara Statme	TITLE_	Regulatory Compliance	DATE_03/11/04						
Type or print name	Barbara Watson			Telephone No. 432/685-0113						
(This space for State				APR 0 1 2004						
APPPROVED BY	Carl Flain	TITLE_	PETROI FUM ENGINEER	DATE						
Conditions of approva	al, if any:									

Permian Resources, Inc. Berry Hobbs Unit 17 – 1 Lea Co., New Mexico Attachment to C103

- 5-

Contacted The College of Southwest, surface owner of S/2 Section 17 and obtain permission to survey location and negotiate surface damages for drilling pad and access road as detailed and earthen reserve pits. The referenced drilling location is located approximately $7/8^{ths}$ of a mile SW of the SW corner of the "Incorporated City Limits of Lovington, New Mexico". The surface location is generally level to gently undulating with some confined depressions. The lands are inhabited by native grasses and generally utilized for livestock grazing. The nearest residence is located $\pm 3500^{\circ}$ ($2/3^{rds}$ of a mile) NE of the proposed drill site in the NE/4 NE/4 NE/4 of Section 17. Considering the existing surface geology, hydrology, habitat and distance to any permanent structures, the referenced well will drilled utilizing earthen reserve pits to be in accordance with the STATE OF NEW MEXICO, ENERGY AND MINERALS DEPARTMENT, OIL CONVERSATION DIVISION RULES AND REGULATIONS, TITLE 19; NATURAL RESOURCES AND WILDLIFE, CHAPTER 15: OIL AND GAS, PART 2 GENERAL OPERATING PRACTICES, WASTES ARISING FROM EXPLORATION AND PRODUCTION

19.15.2.50 PITS AND BELOW-GRADE TANKS:

All top soil will be removed and stock piled from the proposed earthen pit location. Dig pits and utilize excavation material from pits as base material for rig location. If required, additional base material ("caliche") will be hauled from nearest pit. Earthen reserve pits will be double lined with 9 mil woven plastic lining material

Upon completion of drilling operations the fluids and solids in the earthen pits will be allowed to settle and separate. The free liquids will be trucked to an authorized disposal facility. The solids will then be allowed to dry and then be "deep buried" below surface grade and the stock piled top soil will be returned to the earthen pit area, fertilized and disked.

Permian Resources, Inc

Berry Hobbs Unit 17-1 Drilling Summary

Procedure to Drill Vertical Wellbore to Test, Log and Evaluate NE Shoe Bar (Strawn) & Wildcat (Mississippian – Morrow) Pools.

Proposed Surface Loc 2,490' FSL & 1,850' FEL Section 17, T16S, R36E Lea County, New Mexico	,	2,490' FSL & 1,850' FE Section 17, T16S, R36E Lea County, New Mexic	Proposed Bottom Hole Location 2,490' FSL & 1,850' FEL Section 17, T16S, R36E Lea County, New Mexico			
Proposed Hole Sizes,	Casing	Sizes and Cement				
17-1/2" hole @ 450'	13-3/8"	54.5 #/ft casing @ 450'	Cmt w/ ±300 sx Class "C" w/ 4% gel + 2%CaCl + ¼ pps cello-flake. Tail w/ 150 sx Class "C" w/ 2 % CaCl. Sufficient to circulate to surface.			
11" hole @ ± 4,900'	8-5/8"	32 & 24 #/ft casing @ ±4,900'	Cmt w/ ± 1550 sx Interfill H (50:50 Poz/ Class H + 10% gel) + ¹ / ₄ pps cello-flake.Lite lead + 250sx Premium "C" + 2% CaCl tail. Sufficient to circulate to surface.			
7-7/8" hole @ ± 12,800'	5-1/2"	17 #/ft casing @± 12,800'	1 st Stage Cmt w/ ±500 sx Super "H" w/ 1 pps salt, 0.5% Halad-344, 0.4% CFR-3, 0.2% HR-7 lead + 150 sx Premium Plus w/ 0.1% HR- & tail.			
		DV Tool @ ± 9500'	2^{nd} Stage Cmt w/ ± 600 sx Interfill "H" lead + 150 sx Premium Plus w/ 0.1% HR-7. Sufficient to bring TOC to ±4,700'.			

Abbreviated Proposed Procedure

Contact The College of Southwest, surface owner of S/2 Section 17 and obtain permission to survey location and negotiate surface damages for drilling pad and access road as detailed and earthen reserve pits. The referenced drilling location is located approximately $7/8^{ths}$ of a mile SW of the SW corner of the "Incorporated City Limits of Lovington, New Mexico". The surface location is generally level to gently undulating with some confined depressions. The lands are inhabited by native grasses and generally utilized for livestock grazing. The nearest residence is located \pm 3500' (2/3^{rds} of a mile) NE of the proposed drill site in the NE/4 NE/4 NE/4 of Section 17 (reference Section 2 "Proposed Drillsite Location, f. Arial Photograph of the proposed well location"). Considering the existing surface geology, hydrology, habitat and distance to any permanent structures, the referenced well will drilled <u>utilizing earthen reserve pits</u> to be in accordance with the STATE OF NEW MEXICO, ENERGY AND MINERALS DEPARTMENT, OIL CONVERSATION DIVISION RULES AND REGULATIONS, TITLE 19; NATURAL RESOURCES AND WILDLIFE, CHAPTER 15: OIL AND GAS, Permian Resources, Inc.
 Berry Hobbs Unit 17-1
 Drill & Complete to NE Shoe Bar (Strawn) & Wildcat (Mississippian) Pools
 15 March 2004 – Page 2

. .

PART 2 GENERAL OPERATING PRACTICES, WASTES ARISING FROM EXPLORATION AND PRODUCTION 19.15.2.50 PITS AND BELOW-GRADE TANKS:

- 1 Contract John West Surveys to survey confirming surface location as permitted and providing latitude and longitude. Build roads, location, cellar and dig pits to accommodate selected drilling rig (TMBR/ Sharp Rig # 23) in accordance with the "Drilling Pad Schematic", Section 12 of the Drilling Procedure Manual. Remove and stock pile all top soil from the proposed location. Dig pits and utilize excavation material from pits as base material for rig location. If required, additional base material ("caliche") will be hauled from nearest pit. <u>Earthen reserve pits will be double lined with 9mil woven plastic lining material</u>. Install wood lined cellar and drill mouse hole and rat hole.
- MIRU rotary drilling rig (TMBR / Sharp Rig #23). Notify NMOCD District I office and City of Lovington representative of "Intent to Spud". Drill 17-1/2" surface hole utilizing FW native spud mud and circulating cellar returns with #2 pump cellar jet to ± 450'. Survey @ TD. Circ. and condition hole. Notify NMOCD District I office and City of Lovington representative of "Intent to Run & Cement Surface Casing". POOH w/ DP, Collars & BHA. Run ± 450' of 13-3/8" Used or LS, 54.5 #/ft, H-40, ST&C casing w/ float equipment. Land casing and cement with ±300 sx Class "C" w/ 4% gel + 2%CaCl + ¼ pps cello-flake. Tail in w/ 150 sx Class "C" w/ 2 % CaCl. Sufficient to circulate to surface. Circulate cement to surface. WOC 12 hrs. Cut off and weld on 13-3/8" x 8-5/8" series 600 flanged casing head. NU 11" x 5000# Shaffer double preventer with 11" x 5000# Hydril annular preventer. Test casing and BOP to 1000#. PU 11" Bit, BHA, collars and RIH. Wait on cement total of 18 hrs before drilling plug.
- 3 Drill 11" intermediate hole utilizing FW circulating inside reserve pit adding oil @ ± 1,600' for Red Beds. At ± 1,900', after drilling Red Beds, begin adding BW to system to minimize salt washout. 1 - 2 bags drilling paper every 100', caustic & lime for a 9.5-10 pH. Drill to TD @ ± 4,900'. If hole conditions dictate (tight hole sections), return to the working pits and add Yellow Starch for a ± 20cc API filtrate. Surveys every 500', Max deviation 5 deg., Max change 1-1/2 deg.. per 100'. Circ. and condition hole. POOH w/ DP, Collars & BHA.
- 4 Notify NMOCD District I office and City of Lovington representative of "Intent to Run & Cement Intermediate Casing". Run ± 4,900' of 8-5/8", 24 #/ft, J-55, 32 #/ft, J-55 and 32 #/ft, HCK-55, ST&C casing w/ float equipment. Land casing and cement with ±1550 sx Interfill H (50:50 Poz/ Class H + 10% gel) + ¼ pps cello-flake lead + 250sx Premium "C" + 2% CaCl tail. Sufficient to circulate to surface. WOC 8 hrs. Cut off and weld on 8-5/8" x 5-1/2" series 900 flanged casing head. NU BOP and test casing to 2000#.
- 5 Install & NU hydraulically operated choke, choke manifold, mud degasser and flare line pursuant to the "Blowout Preventor Schematic", Section 11 of the Drilling Procedure Manual. Install rotating head. Install linear motion "High G" shale shaker. Notify NMOCD District I office and City of Lovington representative of "Intent to Test BOP and Choke System". Test BOP, choke manifold and associated lines utilizing 3rd party service. PU 7-7/8" bit, BHA, collars and RIH. Wait on cement total of 18 hrs before drilling plug. RU H2S monitoring equipment per Indian Fire & Safety recommendations, Section 10 of the Drilling Procedure Manual. RU mud system monitoring equipment with: a) derrick floor indicators and visual and audio alarms, b) pit level gain & loss monitors, c) flowline mud flow sensor and d) trip volume tank.
- 6 Drill 7-7/8" hole utilizing FW circulating outside reserve pit adding Star NP-110 for solids. Lime for 9 9.5 pH and drilling paper for seepage. Utilize Poly-Vis II for periodic sweeps while

Permian Resources, Inc. Berry Hobbs Unit 17-1 Drill & Complete to NE Shoe Bar (Strawn) & Wildcat (Mississippian) Pools 15 March 2004 – Page 3

٤

drilling prior to mud-up. Surveys every 500', max deviation 5 deg., max. change 1-1/2 deg. per 100'.

- 7 At 8,000' RU mud logging equipment and begin catching and evaluating 10' drilling samples.
- 8 If abnormal pressure is encountered (possible below \pm 9,400' in the Wolfcamp formation), return into steel pits and add brine water to increase the mud weight to 8.8 - 9.0 ppg.
- 9 At ± 11,400' (prior to the Top of Strawn) return to steel pits (if no prior abnormal pressures encountered) and mud up utilizing a cut BW system for a mud weight of 9.0 9.2 ppg. Add Xantham Gum for a viscosity of 32 to 34 sec/1000cc's. Utilize White Starch to control the API fluid loss below 15 cc. Caustic Soda should be used for a 9.0 9.5 pH. A bactericide may be required to control sulfite-reducing bacteria (SRB's). If abnormal pressures are encountered while drilling below the Strawn interval utilize Salt to increase the mud weight up to 9.7 ppg. If additional weight is required add Barite per the mud company recommendations.
- 10 At \pm 12,000' (prior to the Top of the Morrow Sands) lower the API fluid loss to <10 ccs utilizing White Starch and increase the viscosity with Xantham Gum to a 34 to 40 funnel viscosity. DST's may be run to evaluate the Strawn, Atoka, Morrow and or Chester formations. All DST's will be in accordance with NMOCD and City of Lovington, NM Rules and Regulations.
- 11 Drill 7-7/8" hole to ± 100' below last Chester drilling break / show but no deeper than 12,800'. Circulate and condition hole for logs. POOH w/ DP, Collars & directional BHA. Run open hole log suite consisting of GR / CNL / FDL and DLL / MSFL from TD to intermediate casing. GR / CNL to surface. Evaluate Wolfcamp, Strawn, Atoka, Morrow and Chester formations for election to run 5-1/2" casing and complete.
- 12 If elect to complete, TIH w/ Bit, BHA, DC's and DP. Circulate and condition hole for casing. Make short trip for casing pulling ± 20 stands. Return to bottom and circulate twice hole capacity. Spot 100 bbl viscous (± 42 viscosity) pill on bottom and POOH laying down DP, DC's and BHA
- 13 Notify NMOCD District I office and City of Lovington representative of "Intent to Run & Cement Production Casing". Run ± 12,800' of 5-1/2", 17 #/ft, N-80 & HPC-110, LT&C casing w/ float equipment and DV tool @ ± 9,500'. Land casing and cement 1st Stage with ±500 sx Super "H" w/ 1 pps salt, 0.5% Halad-344, 0.4% CFR-3, 0.2% HR-7 lead + 150 sx Premium Plus w/ 0.1% HR-& tail. 2nd Stage Cmt w/ ± 600 sx Interfill "H" lead + 150 sx Premium Plus w/ 0.1% HR-% tail. 2nd Stage Cmt w/ ± 600 sx Interfill "H" lead + 150 sx Premium Plus w/ 0.1% HR-7. Cement volume will be modified as based upon open hole logs with sufficient volume to bring cement up inside intermediate casing to ± 4,700'. WOC 8 hrs. ND BOP, make rough cut on 5-1/2" casing and set slips. Cut off and weld on 5-1/2" x 2-7/8" series 900 flanged tubing head.
- 14 RD & MO rotary drilling rig. Install surface risers on 13-3/8" x 8-5/8" casing annulus and 8-5/8" x 5-1/2" casing annulus. Fill cellar with pea gravel. Level location and set anchors.
- 15 Proceed with completion procedure to be determined based upon productive intervals.

PERMIAN RESOURCES, INC. PROPOSED WELLBORE DIAGRAM

WELL NAME:	Berry Hobbs Unit 17-1			FIELD:	Northeast Shoe Bar (Strawn), Wildcat (Mississippian)			
LOCATION:	2490' FSL & 1850' FEL, Sec 17, T-16-S, R-36-E GL = 3928'; KB = 3947 (19' KB Corr)		SL & 1850' FEL, Sec 17, T-16-S, R-36-E COUNTY:		Lea		New Mexico	
ELEVATION:			SPUD DATE:	Est 1/15/2004	COMP DATE:	Est 2/20/2004		
AP#				PREPARED BY:	M. Stewart			
	DEPTH	HOLE SIZE	SIZE	WEIGHT	GRADE	THREAD	TOC	
CASING:	450	17-1/2"	13-3/8"	54.5 #	H-40	ST&C	Surface	
CASING:	4900	11"	8-5/8"	32 #	HCK-55 & J-55	LT&C	Surface	
CASING:	12800	7-7/8"	5-1/2"	17 #	HPC-110 & N-80	LT&C	4700	
TUBING:								
TUBING:				1				

a + 4,

17.1/2 GR/NEU Surface to 490 FW 13.38**CSG @ 450* Red Beds 490 Surface 5.92 pp 25. GaC1, 14 ps face/e 13.38**CSG @ 450* Devey Lake 1650 450* to 1700* FW 25. GaC1, 14 ps face/e 13.58**CSG @ 450* Devey Lake 1650 450* to 1700* FW 25. GaC1, 14 ps face/e 13.58**CSG @ 450* Devey Lake 1650 450* to 1700* FW 11* 10* Devey Lake 1650 450* to 1700* FW 8.84.2* ps 11* Devey Lake 1650 Coven 460* to 1700* FW 8.84.2* ps 11* Devey Lake 1650 Coven 4080 22.4* Vis, FL no control 11* Devey Lake 1650 Coven 4080 23.4* Vis, FL no control 11* Coven 4080 Coven 4800* Build volume w/ BW 11* Devey Lake 14* 250 ax PW w/ 2* CaCL Tat 250 ax PW w/ 2* CaCL	Hole Size	PROPOSED	Casing & Cement	Formation Te	ops & Depths	OH Logging	Mud
17-12* 490° to Surface 8.8-8.2 pog 32.34 VK; FL no control 11* 13.36" CSG @ 480' 12.34 VK; FL no control Circ steel pits 11* 13.6 pp. 1.21 yield 13.6 pp. 1.21 yield 1850 450' to 1700' FW 11* 13.6 pp. 1.21 yield Tai: 150 as PP with Sed 1850 8.8-82 pog 11* 14.8 pp. 1.34 yield Top Sait 2000 Circ inner reserve pit 10* 2.43 VK; FL no control 2.234 VK; FL no control 3.234 VK; FL no control 10* 2.43 VK; FL no control 0.244 VK; FL no control 3.234 VK; FL no control 11* 0.04e nt 4000 170° to 4300 'BW 11* 0.04e nt 4000 2.234 VK; FL no control 11* 0.04e nt 4000 2.234 VK; FL no control 0.04e nt 4000 2.234 VK; FL no control 2.234 VK; FL no control 11* 19 pp. 2.45 yield Tat: 200 as PW v2 Sc CaCL 4.400° to 6400' FW 4.48 pp. 134 yield Tat: 200 as PW v2 Sc CaCL 14.8 pp. 1.34 yield Tat: 200 as PW v2 Sc CaCL 13.8 pp. 2.45 yield Tat: 200 as PW v2 Sc CaCL 4.400° to 6400' FW 4.400 CG @ 40							
13.38" CSC @ 450" Red Beds 490 32.34 Vis, FL no control Circ steel pits 13.38" CSC @ 450" Lad: 300 sx PP W 4% gdl 2% CaCL, 146 pp toole 13.6 pp p, 1.71 yield Dewey Lake 1660 450" to 1700" FW 8.66-2 pp g 11" Tai: 150 sx PP W 2% CaCL, 14.8 pp 1.34 yield Top Sait 200 1700" to 4900" BW 9.6-10.1 pp 9.6-10.1 pp 9.6-20 To 4900" 7.718" Wolfcamp 10.6 pp 2.45 yiel 11.9 pp 11.9 yiel 11	17-1/2"					4900' to Surface	8.6-9.2 ppg
11* Lbed: 300 s. PP w/ 4% gell Pewy Lake 1650 450* to 1700* FW 13.8 pp, 1.71 yield Tai: 150 s. PP w/ 2% CaCL Tay Sait 2000 Circ inner reserve pit 11* Tai: 50 s. PP w/ 2% CaCL Tay Sait 2000 Circ inner reserve pit 10* Develocitie B Sait / T Anhy 2800 1700* to 4900* BW 11* Develocitie B Sait / T Anhy 2800 1700* to 4900* BW 11* Develocitie B Sait / T Anhy 2800 1700* to 4900* BW 9.6-10.1 ppg Sait / T Anhy 2800 1700* to 4900* BW 9.6-10.1 ppg Sait / T Anhy 2800 Circ inner reserve pit 0ueen 4080 GR/Den/NEU/FE DL/LASFUSoric Huid volume w/ BW 118 190 ppg, 2.45 yield Tait : 350 ax PP w/ 2% CaCL 4500* to 9400* FW 118 190 ppg, 2.45 yield Tab 7670 8.4-8 6 ppg 1200* Col @ 950* 28-80 ppg 28-80 Vpg 28-80 Vpg 28-80 Vpg 27/8* Wolfcamp * 1* 100361 Wolfcamp * 2* 1026 </td <th></th> <td></td> <td></td> <td>Red Beds</td> <td>490</td> <td></td> <td>32-34 Vis, FL no control</td>				Red Beds	490		32-34 Vis, FL no control
11" 2% CaCl, 14 pgs floorle 13.5 ppg, 1.71 yield Dewsy Lake, 6 460' to 700' FW 11" 11" 1650 x PW 2% CaCL 14.8 pg, 1.34 yield Top Sait 2000 Circ inner meave pit 10" 9 Sait / TAnhy 2800 Yeales 32.1 / TAnhy 2800 Sait / TAnhy 960' 1700' to 4900' BW 11" 0 user 4980 Circ inner meave pit 96.10.1 pg 32.34 Vis, FL no control 23.34 Vis, FL no control 11" 0 user 4980 Circ inner meave pit 96.40.1 pg 32.34 Vis, FL no control 23.4 Vis, FL no control 11" 0 user 4980 Circ inner meave pit 96.40.1 pg 32.34 Vis, FL no control 20.00 17.00' to 4900' BW 11" <th></th> <td></td> <td>13-3/8" CSG @ 450'</td> <td></td> <td></td> <td></td> <td>Circ steel pits</td>			13-3/8" CSG @ 450'				Circ steel pits
11* 13.6 pp. 1.37 yield Ruster Anity. 1850 8.69 2 pp 32:34 Vis, FL no control 11* Tat: 150 ax PP wi 2% CaCL Top Sait 2000 Citc there reserve pit 10* B Sait / TAnity 2800 Tor to 4900* BW Vales 32:34 Vis, FL no control Citc there reserve pit 0uen 4080 Citc inner reserve pit 0uen 4080 Citc inner reserve pit B Sait / TAnity 2800 Citc inner reserve pit 0uen 4080 Citc inner reserve pit B Sait / TAnity San Andres 4870 Ouren 4080 Citc inner reserve pit Build volume w/ BW B Sait / TAnity San Andres 4870 Ouren 4080 To to 4900* FW Lead: 1500 ax Interfill H w/ Lead: 1500 ax PP w/ 2% CaCL 4900* to 9400* FW 11* San PP yz 2% CaCL 4800 4800* to 9400* FW 12.292 Vis, FL no control Citc inner reserve pit 9400* to 14400* Cut BW 28.4.8.6 ppg 28.2.9 kpg 28.2.9 kpg 28.2.9 kpg 27.6" Wolfcamp 'A* 10125 Citc steel pits <t< td=""><th>•</th><td></td><td>Lead: 300 sx PP w/ 4% gel</td><td></td><td></td><td></td><td></td></t<>	•		Lead: 300 sx PP w/ 4% gel				
11* Tai: 150 ar PP wi 2% CaCL Top Salt 2000 Size V 5, FL no control Circ inner reserve pit 11* 14 8 ppg, 1.34 yield Top Salt 2000 Size V 5, FL no control Circ inner reserve pit 11* 10* 14 8 ppg, 1.34 yield Top Salt 2000 Size V 5, FL no control Circ inner reserve pit 11* 10* 54/8* CSG (g. 4800* Size V 5, FL no control Circ inner reserve pit Size V 5, FL no control Circ inner reserve pit 11* 14 pp flocie Gloreita 6400 To Is 4900* Size V 5, FL no control Circ inner reserve pit 11* 14 pp flocie Gloreita 6400 To Is 4900* Size V 5, FL no control Circ inter reserve pit 11* 13* ppg, 2.45 yield Tai: 250 ar. Pt wit 2% CaCL Size V 5% CaCL Size V 5% CaCL Size V 5% CaCL 11* 13* ppg, 2.45 yield Tubb 7570 Mudiogger (g. 8000*) Size 28* 28 Vis, FL no control Circ inter reserve pit 7-7/87* Variation Size V 5% CaCL Size V 5% FL no control Circ inter reserve pit Size V 5% FL no control Circ inter reserve pit 114 bit 11 114 ppg, 2.45 yield Tubb 7570 Mudiogger (g. 8000*) 28-29 Vis, FL no control Circ inter reserve pit			2% CaCl, 1/4 pps flocele	Dewey Lake	1650		450' to 1700' FW
11* 14 & 8 ppg, 1.34 yield TOC Surface Top Salt 2000 Circ inner reserve pit 11* 5 Salt / T Anhy Yates 2900 1700' to 4900' BW 95.010 ppg 23.24 Vis, FL to control Cueen 4080 2324 Vis, FL to 0 Cueen 4080 Circ inner reserve pit Build volume w/ BW 8-6/8" CSG @ 4900' San Andres 4870 GR/Den/NEU/PE Lead: 1650 ax Interill H w/ 1/4 pps focule Gloreta 6400 TD to 4900' 11 4 ppg, 2.45 yield Tab: 200 sx /P w 2/% CaCL Tubb 7570 8-84 ppg 7-7/8" Volfcamp 9625 8-30 ppg 28-29 Vis, FL no control 7-7/8" Volfcamp V* 10125 Wolfcamp T* 1025 7-7/8" Volfcamp V* 1025 8-30 ppg 28-29 Vis, FL no control 7-7/8" Vol @ 9500' 200' Car steel pits 9400' to 1400' Cut BW 7-7/8" Vol @ 9500' 28-29 Vis, FL no control 28-29 Vis, FL no control 7-7/8" Vol @ 9500' 28-29 Vis, FL no control 28-29 Vis, FL no control 7-7/8" DV Tool @ 9500' 28-29 Vis, FL no control 28-29 Vis, FL no			13.6 ppg, 1.71 yield	Rustler Anhy.	1850		8.6-9.2 ppg
11* B Salt / T Anhy 2800 1700' to 4900' BW 32:34 Vis, FL no control OC in pip 32:34 Vis, FL no control OC in pip 32:34 Vis, FL no control OC in the reserve pit Build volume w/ BW 0 ueen 4080 CR/Den/NEU/PE DL/MSFU/Sonic 8-5/8* CSS @ 4900' San Andres 4870 B-5/8* CSS @ 4900' Calce in the rill H w/ 1/4 pps flocie GR/Den/NEU/PE DL/MSFU/Sonic 11.9 ppg, 24.5 yield Tail: 200 x PP w/ 2/k CaCL 6400 TD to 4900' 13.8 ppg, 13.4 yield Tubb 7570 Advologer @ 8000' 84-86 ppg 7-7/0* Wolfcamp 9625 88-90 pg 28-29 Vis, FL no control 28-29 Vis, FL no control 7-7/0* Wolfcamp 9625 88-90 pg 28-29 Vis, FL no control 28-29 Vis, FL no control 11.9 ppg, 2.45 yield Tubb 7570 Mudiogger @ 800' 88-90 pg 22-29 Vis, FL no control Zind Stage Lad: 600 sx Wolfcamp 74* 10125 Circ steep jis TD @ 12.800* To C@ 470' Stage Lad: 500 sx UP / 115 JPS 11400' to 1200' Cut BW 89-29 pg 34.4 % CFL 7: 55 gp 1.19 yield To C@ 470' Stage Lad: 500 sx UP / 116 JPS 89-29 pg 51.12* CSG @ 12800' Tal: 500 xP W/ 115 HR-7 12			Tail: 150 sx PP w/ 2% CaCL				32-34 Vis, FL no control
11* B Sait / TAnhy 2800 170* to 4900* BW Vates 3215 9.6*10.1 ppg 32.34 VK, EL no control 0ueen 4080 Circ inner reserve pit Build volume w/ BW San Andres 4870 GR/DenNEU/PE Build volume w/ BW Be.5/8* CSG @ 4900* East: 160 ax Interfill H w/ DL/MSFL/Sonic GR/DenNEU/PE 119 ppg, 24.5 yield Tait: 250 ax Interfill H w/ Glorieta 6400 TD to 4900* 119 ppg, 24.5 yield Tait: 250 ax Interfill H w/ Tubb 7570 Mudiogger @ 800* 28-29 VK, EL no control 7-7/8* DV Tool @ 950* Build volume w/ BW 84.90* To 14.00* Cut BW 85.90 pg 7-7/8* Wolfcamp 9625 88-9.00 pg 28-29 VK, EL no control 2/d Singe Laad: 600 ax Wolfcamp Y* 10125 Circ steel pits DV Tool @ 950* 28-30 VK, EL no control 28-30 VK, EL no control 2/d Singe Laad: 600 ax Wolfcamp Y* 10125 Circ steel pits Tot @ 950* 28-30 VK, EL no control 28-30 VK, EL no control 28-30 VK, EL no control 136 bg p.2.45 yield Wolfcamp Y* 1025 Circ steel pits <th></th> <td></td> <td>14.8 ppg, 1.34 yield</td> <td>Top Salt</td> <td>2000</td> <td></td> <td>Circ inner reserve pit</td>			14.8 ppg, 1.34 yield	Top Salt	2000		Circ inner reserve pit
Yates 3215 9.6-10.1 ppg 32.34 Vis, FL no control Circ inner reserve pit Queen 4090 Circ inner reserve pit 9.6-67 CSG @ 4900' Lead: 1550 sx Hieffill H w/ 11/4 pps flooles 11.9 ppg, 2.45 yield Tail: 250 sx PV w/ 2% CACL 14.8 ppg, 1.34 yield Tail: 250 sx PV w/ 2% CACL 14.8 ppg, 1.34 yield Tail: 250 sx PV w/ 2% CACL 14.8 ppg, 1.34 yield Tail: 250 sx PV w/ 2% CACL 14.8 ppg, 1.34 yield Tail: 250 sx PV w/ 2% CACL 14.8 ppg, 1.34 yield Tail: 250 sx PV w/ 2% CACL 150 gpt V tool @ 9500' GR/Den/NEU/PE DLL/MSFL/Sonic Tubb 9600' b 9400' FW 8.4-8.6 ppg 28-29 Vis, FL no control Circ outer serve pit 7-7/8" Wolfcamp 7* Wolfcamp 7* 10.156 ppg, 1.19 yield Tubb 7570 Mudlogger @ 8000' 28-29 Vis, FL no control Circ outer serve pit 7-7/8" Wolfcamp 7* Wolfcamp 7* 10.156 ppg, 1.19 yield 10125 Mudlogger @ 8000' 28-29 pg 28-29 Vis, FL no control Circ outer serve pit TD (@ 12,800' FT C GG @ 12800' 11.9 ppg, 2.45 yield Wolfcamp 7* 10.39 Pw .1% HR-7 15.6 ppg, 1.19 yield 10125 Mud-up w/ Xanham Gum White Sarch 1140' to 12000' Cut BW 92-105 ppg TD (@ 12,800' Strawn 11450 Auka 11450 Auka 1140' to 1200' Cut BW 92-105 ppg 44, 4% CFT Strawn 11450 Auka 1140' to 1200' Cut BW 92-105 ppg 156 ppg, 1.19 yield 150 sx PW .1% HR-7 130 pg, yiel 1.67 Tai: 150 sx PW .1% HR-7 135 ppg, 1.19 yield Sat do Vy,	j j		TOC Surface				
7-7/8" Queen 4090 32-34 Vis, FL no control Circ inner reserve pit Build volume w/ BW 8-5/8" CSG @ 4900' San Andres 4870 11,9 pp, 2.45 yield Tob 4900' TD b 4900' 11,9 pp, 2.45 yield Tubb 7570 Abo 8300 Wolfcamp 9400' to 9400' FW 8.4-8.6 pp 11,9 pp, 2.45 yield Tubb 7570 Mudlogger @ 8000' 28-29 Vis, FL no control Circ outer reserve pit 9400' to 9400' FW 8.8-8.0 pp 28-29 Vis, FL no control Circ outer reserve pit 9400' to 1400' Cut BW 9400' to 1400' Cut BW 88-9.0 pg 28-29 Vis, FL no control 28-29 Vis, FL no control 27/8" Wolfcamp "A" 10125 Wolfcamp "B" 10361 11.9 pp, 2.45 yield TOC @ 4700' 28-10 pp, 119 yield Yor 11.9 pp, 2.45 yield Wolfcamp "A" 11.9 pp, 2.45 yield Wolfcamp "C" 11.9 pp, 2.45 yield To	11"			B Salt / T Anhy			
Queen 4080 Circ iner reserve pit Build volume w/ BW San Andres 4670 GR/Den/NEU/PE DLL/MSFL/Sonic Build volume w/ BW 1/4 pps flooele 11/9 pps 2.45 yield Glorieta 6400 TD to 4900' 11/1 pps 2.45 yield Tall: 2500 sc hindrill H w/ 11/4 pps flooele Glorieta 6400 TD to 4900' 4900' to 5400' FW 11/2 pps 2.45 yield Tall: 250 sc hindrill H w/ 11/4 pps flooele Tubb 7570 8.4-8.6 ppg 26-29 Vis, FL no control 7/7/8" Wolfcamp 9625 8.8-9.0 pg 26-29 Vis, FL no control 26-29 Vis, FL no control 27:00' to 1400' Cut BW 28-29 Vis, FL no control 28-20 Pg 28-20 Pg 28-20 Pg 28-20 Pg 28-20 Pg 28-30 Pg <t< td=""><th></th><td></td><td></td><td>Yates</td><td>3215</td><td></td><td></td></t<>				Yates	3215		
Normal State Build volume w/ BW 8-5/8° CSG @ 4900' San Andres 4870 9-5/8° CSG @ 4900' CBr/Den/NEU/PE DLL/MSFL/Sonic 11.9 pp. 2.45 yield Glorieta 6400 TD to 4900' 11.9 pp. 2.45 yield Tait: 250 sx Interfill H w/ DL/MSFL/Sonic 4900' to 5400' FW 14.8 pp. 1.34 yield Tubb 7570 84-86 ppg 7.7/8° Wolfcamp 9625 84-86 ppg 9400' to 11400' Cut BW 84-86 ppg 28-29 Vis, FL or control 2nd Stage Lead: 600 sx Wolfcamp 'B° 10361 Volfcamp 'B° 10361 Wolfcamp 'C° 10396 Tait: 150 sx PP w/.1% HR-7 114 pp. 125 Circ steel pits Noffcamp 'C° 10396 Wolfcamp 'C° 10396 Tait: 150 sx PP w/.1% HR-7 114 for 5 8.9-8.2 pp 110 op g. 245 yield Tait: 150 sx PP w/.1% HR-7 114 for 5 114 pp gr. 245 yield Tait: 150 sx PP w/.1% HR-7 12000' Cut BW 5-1/2° CSG @ 12800' Strawn 11450 11400' to 12000' Cut BW 92-105 ppg 144 t				_			
San Andres 4870 8-5/8" CSG @ 4900' Lead: 1550 as: Interfill H w/ 1/4 pps flocele Glorieta 6400 TD to 4900' 1/4 pps flocele Tubb 7570 8.48.6 ppg Abo 8300 848.0 ppg 28-29 Vis, FL no control Circ outer reserve pit Wolfcamp 9625 8.8.9.0 ppg 900' to 1400' Cut BW 8.8.9.0 ppg 28-29 Vis, FL no control Circ steel pits Volfcamp Var 10125 Circ steel pits Grory tantham Gum 11.1 ppg, 2.45 yield Wolfcamp °C* 10361 Mud-up w/ Xantham Gum TD @ 12,800* 5-1/2* CSG @ 12800* Strawn 11450 8.9.9 ppg 12.800* 5-1/2* CSG @ 12800* Strawn 1140* to 12000* Cut BW 92-10.5 ppg 34.40, Vis, FL < 15		· 掇 」 《 【 殿		Queen	4080		
8-5/8" CSG @ 4900' GR/Den/NEU/PE DL/MSFU/Sonic GR/Den/NEU/PE DL/MSFU/Sonic 119 ppg, 245 yield Glorieta 6400 TD to 4900' 11.9 ppg, 245 yield Tubb 7570 84-8.5 ppg 7.7/6" Mudlogger @ 6000' 28-29 Vis, FL no control Circ outer reserve pit 7.7/6" Wolfcamp 9625 8300 7.7/6" Wolfcamp 9625 85-90 pg 28-29 Vis, FL no control Circ outer reserve pit 7.7/6" DV Tool @ 9500' Wolfcamp 9625 Circ steel pits 11.1 9pg, 2.45 yield Wolfcamp "C" 10396 Undup w/ Xantham Gum Tai: 150 x.P P w/ 1%, HR-7 11450 Mud-up w/ Xantham Gum Tob @ 12,800' 54-12" CS@ @ 12800' Strawn 11450 11400' to 12000' Cut BW 32-34 Vis, FL < 15				Que hadas	1070		Build volume w/ BW
1.4 pps flocele Gloreta 6400 TD to 4900' 11.4 pps flocele Gloreta 6400 TD to 4900' 11.3 pps, 2.45 yield Tail: 250 sx PP w/ 2% CaCL 4300' to 9400' FW 14.8 ppg, 1.34 yield Tubb 7570 8.4-8.6 ppg TOC Surface Abo 8300 Circ outer reserve pit 9400' to 11400' Cut BW 8.8-9.0 ppg 28-29 Vis, FL no control Circ outer reserve pit 7.776" Wolfcamp 9625 8.8-9.0 ppg 20 V Tool @ \$500' 28-29 Vis, FL no control Circ steel pits 21 of Stage Lead: 600 sx Wolfcamp "b" 10361 11.9 ppg, 2.45 yield Wolfcamp "C" 10396 Tail: 150 sx PP w/ 1% HR-7 11450 11400' to 12000' Cut BW Aba 11675 8.9-9.2 ppg To @ 12,800' Strawn 11450 11400' to 12000' Cut BW Aba 11675 8.9-9.2 ppg Aba 11200' to 12000' Cut BW 51/2" CSG @ 12800' Chester 12340 1200' to TO Cut BW 44, 4% CFR-3, 2% HR-7 13.0 ppg, yield 1.67 34-40 Vis, FL < 10			A 5/01 000 @ 40001	San Andres	4870		
1/4 pps flocele Glorieta 6400 TD to 4900' 11.9 ppg, 2.4 Syleid Tail: 250 sx PP w/ 2% CaCL Tubb 7570 4900' to 9400' FW 18.4.8.6 ppg TOC Surface Tubb 7570 Mudlogger @ 8000' 26-29 Vis, FL no control 7.7/8" Volfcamp 8300 Wolfcamp *A* 10125 000' to 11400' Cut BW 8.8-9.0 ppg 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 000' to 11400' Cut BW 7.7/8" Volfcamp *A* 10125 000' to 11400' Cut BW 7.7/8" Volfcamp *B* 10361 000' to 11400' Cut BW 11.9 ppg, 2.45 yield Wolfcamp *B* 10361 000' to 11400' Cut BW 11.9 ppg, 2.45 yield Wolfcamp *D* 10361 000' to 11400' Cut BW 11.9 ppg, 2.45 yield Wolfcamp *C* 10396 000' to 11400' Cut BW 11.9 ppg, 2.45 yield Wolfcamp *C* 10361 000' to 11400' Cut BW 11.9 ppg, 2.45 yield Wolfcamp *C* 10396 000' to 11400' Cut BW 11.9 ppg, 2.45 yield Wolfcamp *C* 10396 11400' to 1200' Cut BW 11.9 ppg, 2.45 yield Wolfcamp *C* <t< td=""><th>Ⅰ−−−≭−−−−</th><td></td><td>-</td><td></td><td></td><td></td><td></td></t<>	Ⅰ −−− ≭ −−−−		-				
11.9 pp, 2.45 yield 11.8 pp, 2.45 yield 4900' to 9400' FW 14.8 pp, 1.34 yield Tubb 7570 84.8.6 ppg 7.7/8" Abo 8300 9625 84.9.0 ppg 7.7/8" Wolfcamp 9625 88.9.0 ppg 26.29 Vis, FL no control Circ outer reserve pit 9400' to 11400' Cut 8W 88.9.0 ppg 26.29 Vis, FL no control OV Tool @ 9500' Wolfcamp 9625 8.8-9.0 ppg 28-29 Vis, FL no control Circ outer reserve pit 9400' to 11400' Cut 8W 8.9.0 ppg 2.45 yield Wolfcamp "A" 10125 Circ outer reserve pit Wolfcamp "C" 10386 Wolfcamp "C" Tail: 150 sx PP W/.1% HR-7 156 ppg, 1.19 yield Wolfcamp "C" 10396 To @ 12,800' 5-1/2" CSG @ 12800' Strawn 11450 11400' to 12000' Cut 8W Atoka 11675 8.9-9.2 ppg 32.44 Vis, FL < 15				Glorieta	6400		
7-7/8" Tail: 250 sx PP w/ 2% CaCL 14.8 ppg, 1.34 yield Tubb 7570 84.86 pg 84.86 pg 7-7/8" Abo 8300 9400' to 11400' Cut BW 84.86 pg 9400' to 11400' Cut BW 7-7/8" Wolfcamp 9625 8.8-9.0 pg 28-29 Vis, FL no control Circ outer reserve pit 7-7/8" DV Tool @ 9500' 28-29 Vis, FL no control 28-29 Vis, FL no control Circ outer reserve pit 11.9 ppg, 24.25 yield Wolfcamp 9625 8.8-9.0 pg 28-29 Vis, FL no control 2nd Stage Lead: 600 sx Wolfcamp "A" 10125 Circ steel pits Interfil H Wolfcamp "C" 10361 Wolfcamp 'C" 10396 Tail: 150 sx PP w/ .1% HR-7 15.6 ppg, 1.19 yield Wolfcamp 'C" 10396 ToC @ 4700' Strawn 11450 Muduup w/ Xantham Gum White Starch 11400' to 12000' Cut BW 8.9-2.9 pg Morrow 12000' 11400' to 12000' Cut BW 9.2-10.5 pg 110 @ 12,800' Hwi 1 pps sait, 5% Halad- 344.4% CFR-3, 2% HR-7 3440 Vis, FL < 10				Cioneda	0400	10 10 4000	
7-7/6" K4.8 pg, 1.34 yield Tubb 7570 8.4-8.6 pg 28-29 Vis, FL no control 7-7/6" Abo 8300 9400" to 11400" Cut BW 9400" to 11400" Cut BW 8.8-9.0 pg 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 28-20 Vis, FL no 28-29 Vis, FL no							4900' to 9400' FW
7-7/8" Mudlogger @ 6000' 28-29 Vis, FL no control Circ outer reserve pit 7-7/8" Abo 8300 9400' to 11400' Cut BW 9400' to 11400' Cut BW 88-9.0 ppg 28-29 Vis, FL no control Circ outer reserve pit 9400' to 11400' Cut BW 88-9.0 ppg 28-29 Vis, FL no control 2nd Stage Lead: 600 sx Wolfcamp "A" 10125 Circ steel pits Interfill H Wolfcamp "C" 10386 Und-up w/ Xantham Gum Tai: 150 sx PP w/.1% HR-7 11450 11400' to 12000' Cut BW 156 ppg, 1.19 yield TOC @ 4700' Strawn 11450 TD @ 12,800' Strage Lead: 500 sx Super Hard 11400' to 12000' Cut BW 15 Stage Lead: 500 sx Super Hard 11400' to 12000' to TD Cut BW 150 gpg, 119 yield Circ Steel pits 11400' to 12000' to TD Cut BW 151 Stage Lead: 500 sx Super Hard 12000' to TD Cut BW 144, 4% CFR-3, 2% HR-7 13.0 ppg, yield 13.5% Halad- 344.4 0V is, FL < 10		S R		Tubb	7570		8.4-8.6 ppg
7-7/8" Wolfcamp 9625 9400' to 11400' Cut BW 7-7/8" Wolfcamp 9625 8.8-9.0 ppg 28-29 Vis, FL no control 28-29 Vis, FL no control 28-29 Vis, FL no control 11.9 ppg, 2.45 yield Wolfcamp "B" 10361 11.9 ppg, 2.45 yield Wolfcamp "C" 10396 Tail: 150 sx PP w/.1% HR-7 Mud-up w/ Xantham Gum 15.6 ppg, 1.19 yield TOC @ 4700' Strawn 11450 11400' to 1200' Cut BW Atoka 11675 8.9-9.2 ppg Morrow 12000 32-34 Vis, FL < 15						Mudlogger @ 8000'	28-29 Vis, FL no control
7.7/8" Wolfcamp 9625 8.8-9.0 ppg 28-29 Vis, FL no control 2nd Stage Lead: 600 sx Wolfcamp "A" 10125 Circ steel pits Interfill H Wolfcamp "B" 10361 Uole of the steel pits Till 19 ppg, 245 yield Wolfcamp "C" 10396 Mud-up w/ Xantham Gum Tail: 150 sx PP w/.1% HR-7 15.6 ppg, 1.19 yield Wolfcamp "C" 10396 TD @ 12,800' Strawn 11450 Mud-up w/ Xantham Gum Morrow 12000 32-34 Vis, FL < 15				Abo	8300		Circ outer reserve pit
7.7/8" Wolfcamp 9625 8.8-9.0 ppg 28-29 Vis, FL no control 2nd Stage Lead: 600 sx Wolfcamp "A" 10125 Circ steel pits Interfill H Wolfcamp "B" 10361 Uole of the steel pits Till 19 ppg, 245 yield Wolfcamp "C" 10396 Mud-up w/ Xantham Gum Tail: 150 sx PP w/.1% HR-7 15.6 ppg, 1.19 yield Wolfcamp "C" 10396 TD @ 12,800' Strawn 11450 Mud-up w/ Xantham Gum Morrow 12000 32-34 Vis, FL < 15		N K					
DV Tool @ 9500' 28-29 Vis, FL no control 2nd Stage Lead: 600 sx Wolfcamp "A" 10125 Void Gamp "B" 10361 11.9 ppg, 2.45 yield Wolfcamp "C" 10396 Tail: 150 sx PP w/.1% HR-7 11450 Mud-up w/ Xantham Gum 15.6 ppg, 1.19 yield Strawn 11450 11400' to 12000' Cut BW Atoka 11675 8.9-9.2 ppg Morrow 12000' 32-34 Vis, FL < 15	<u>n 1</u>	S CARLER R					9400' to 11400' Cut BW
2nd Stage Lead: 600 sx Wolfcamp "A" 10125 Circ steel pits interfill H Wolfcamp "B" 10361 Mud-up w/ Xantham Gum 11.9 ppg, 2.45 yield Wolfcamp "C" 10396 Mud-up w/ Xantham Gum Tail: 150 sx PP w/ .1% HR-7 Is.6 ppg, 1.19 yield Mud-up w/ Xantham Gum White Starch TOC @ 4700' Strawn 11450 11400' to 12000' Cut BW Atoka 11675 8.9-9.2 ppg Morrow 12000 32-4 Vis, FL < 15	7-7/8"			Wolfcamp	9625		8.8-9.0 ppg
Interfill H Wolfcamp "B" 10361 11.9 ppg, 2.45 yield Wolfcamp "C" 10396 Tail: 150 sx PP w/.1% HR-7 15.6 ppg, 1.19 yield Mud-up w/ Xantham Gum TOC @ 4700' Strawn 11450 Atoka 11675 8.9-9.2 ppg Morrow 12000 32-34 Vis, FL < 15		- B - B - B	DV Tool @ 9500'				28-29 Vis, FL no control
TD @ 12,800' 11.9 ppg, 2.45 yield Wolfcamp "C" 10396 TD @ 12,800' 11.9 ppg, 2.45 yield Mud-up w/ Xantham Gum TD @ 12,800' ToC @ 4700' Strawn 11450 TD @ 12,800' Strawn 11450 11400' to 12000' Cut BW Atoka 11675 8.9-9.2 ppg Morrow 12000 32-34 Vis, FL < 15			2nd Stage Lead: 600 sx	Wolfcamp "A"			Circ steel pits
Tail: 150 sx PP w/.1% HR-7 Mud-up w/ Xantham Gum 15.6 ppg, 1.19 yield White Starch TOC @ 4700' Strawn 11450 11400' to 12000' Cut BW Atoka 11675 8.9-9.2 ppg Morrow 12000 32-34 Vis, FL < 15				•			
15.6 ppg, 1.19 yield White Starch TOC @ 4700' Strawn 11450 11400' to 12000' Cut BW Atoka 11675 8.9-9.2 ppg Morrow 12000 32-34 Vis, FL < 15				Wolfcamp "C"	10396		
TOC @ 4700' Strawn 11450 11400' to 12000' Cut BW Atoka 11675 8.9-9.2 ppg Morrow 12000 32-34 Vis, FL < 15		S S R					•
Atoka 11675 8.9-9.2 ppg Morrow 12000 32-34 Vis, FL < 15							
Morrow 12000 32-34 Vis, FL < 15 TD @ 12,800' Morrow 12000 Chester 12340 TD @ 12,800' Stage Lead: 500 sx Super 12000' to TD Cut BW H w/ 1 pps sait, .5% Haiad- 9.2-10.5 ppg 344, .4% CFR-3, .2% HR-7 34-40 Vis, FL < 10 13.0 ppg, yield 1.67 Salt or Barite for Wt Tail: 150 sx PP w/ .1% HR-7 5.6 ppg, 1.19 yield			IUC @ 4/00"				
TD @ 12,800' 5-1/2" CSG @ 12800' Chester 12340 TD @ 12,800' 1st Stage Lead: 500 sx Super 12000' to TD Cut BW H w/ 1 pps sait, .5% Halad- 9.2-10.5 ppg 344, .4% CFR-3, .2% HR-7 34-40 Vis, FL < 10							
TD @ 12,800' 1st Stage Lead: 500 sx Super 12000' to TD Cut BW H w/ 1 pps salt, .5% Halad- 9.2-10.5 ppg 344, .4% CFR-3, .2% HR-7 34-40 Vis, FL < 10		X X B	E-4/2" CSC @ 12800'				32-34 VIS, FL N 13
H w/1 pps salt, .5% Halad- 9.2-10.5 ppg 344, .4% CFR-3, .2% HR-7 34-40 Vis, FL < 10	TD @ 12 800'		-	Cilester	12340		12000' to TO Cut BW
344, 4% CFR-3, .2% HR-7 34-40 Vis, FL < 10							
13.0 ppg, yield 1.67 Salt or Barite for Wt Tail: 150 sx PP w/.1% HR-7 15.6 ppg, 1.19 yield							•••=
Tail: 150 sx PP w/ .1% HR-7 15.6 ppg, 1.19 yield							
15.6 ppg, 1.19 yield	1						
			TOC DV tool @ 9500'				



4

· .

TYPICAL TANK BATTERY SCHEMATIC

