jamesbruc@aol.com

e-mail Address

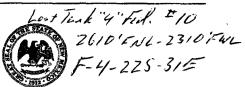
MESO -APP NO. 4/77758222

ABOVE THIS LINE FOR DIVISION USE ONLY

## NEW MEXICO OIL CONSERVATION DIVISION

- Engineering Bureau -

1220 South St. Francis Drive, Santa Fe, NM 87505



## ADMINISTRATIVE APPLICATION CHECKLIST THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE **Application Acronyms:** [NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication] [DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling] [PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement] [WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion] [SWD-Sait Water Disposal] [IPI-Injection Pressure Incites [EOR-Qualified Enhanced Oil Recovery Certification] [1] TYPE OF APPLICATION - Check Those Which Apply for [A] Logation - Spacing Unit - Simultaneous Dedication NSP Oil Conservation Division Check One Only for [B] or [C] 1220 S. St. Francis Drive [B] Commingling - Storage - Measurement O Empta Fe, NM 87505 ☐ DHC ☐ CTB ☐ PLC ☐ PC OLS [C]Injection - Disposal - Pressure Increase - Enhanced Oil Recovery □ WFX □ PMX □ SWD □ IPI □ EOR □ PPR [D]Other: Specify NOTIFICATION REQUIRED TO: - Check Those Which Apply, or Does Not Apply [2] [A] Working, Royalty or Overriding Royalty Interest Owners Offset Operators, Leaseholders or Surface Owner [B][C]Application is One Which Requires Published Legal Notice Notification and/or Concurrent Approval by BLM or SLO [D]U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office [E] For all of the above, Proof of Notification or Publication is Attached, and/or, Waivers are Attached [F] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE [3] OF APPLICATION INDICATED ABOVE. **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is accurate and complete to the best of my knowledge. I also understand that no action will be taken on this application until the required information and notifications are submitted to the Division. Note: Statement must/be completed by an individual with managerial and/or supervisory capacity. Attorney for Applicant James Bruce Print or Type Name Signature

JAMES BRUCE ATTORNEY AT LAW

POST OFFICE BOX 1056 SANTA FE, NEW MEXICO 87504

369 MONTEZUMA, NO. 213 SANTA FE, NEW MEXICO 87501

(505) 982-2043 (PHONE) (505) 660-6612 (CELL) (505) 982-2151 (FAX)

jamesbruc@aol.com

February 19, 2004

## Hand Delivered

Michael E. Stogner Oil Conservation Division 1220 South St. Francis Drive Santa Fe, New Mexico 87505

Dear Mr. Stogner:

Pursuant to Division Rule 104.F(2), Pogo Producing Company ("Pogo") applies for administrative approval of unorthodox oil well locations for the following eight wells:

Well: Lost Tank "3" Federal Well No. 14

Location: 1450 feet FSL & 1710 feet FEL

Well Unit: NW%SE% of Section 3, Township 22 South, Range

31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "3" Federal Well No. 20

Location: 2500 feet FSL & 2250 feet FEL

Well Unit: NW%SE% of Section 3, Township 22 South, Range

31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "3" Federal Well No. 21

Location: 2500 feet FNL & 450 feet FWL

Well Unit: SW%NW% of Section 3, Township 22 South, Range

31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "3" Federal Well No. 22

<u>Location</u>: 2500 feet FNL & 1850 feet FWL

Well Unit: SE%NW% of Section 3, Township 22 South, Range

31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "4" Federal Well No. 8

Location: 2490 feet FNL & 500 feet FEL

Well Unit: SEXNEX of Section 4, Township 22 South, Range

31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "4" Federal Well No. 9
Location: 2610 feet FNL & 1850 feet FEL

Well Unit: SWANE% of Section 4, Township 22 South, Range

31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "4" Federal Well No. 10

Location: 2610 feet FNL & 2310 feet FWL

Well Unit: SE¼NW¼ of Section 4, Township 22 South, Range

31 East, N.M.P.M., Eddy County, New Mexico

Well: Lost Tank "4" Federal Well No. 11

Location: 2410 feet FNL & 990 feet FWL

Well Unit: SW¼NW¼ of Section 4, Township 22 South, Range

31 East, N.M.P.M., Eddy County, New Mexico

The wells will be drilled to test the Delaware formation (Designated and Undesignated West Lost Tank-Delaware Pool), which is developed on statewide rules. Form C-102's for the eight wells are attached as Exhibit A.

In addition, simultaneous dedication approval is requested for the following wells:

Wells: Lost Tank "3" Federal Well Nos. 14 and 20

Well Unit: NW\setmy SE\square of Section 3

Wells: Lost Tank "3" Federal Well Nos. 4 and 21

Well Unit: SW\nw\neq of Section 3

Wells: Lost Tank "3" Federal Well Nos. 3 and 22

Well Unit: SE¼NW¼ of Section 3

Wells: Lost Tank "4" Federal Well Nos. 7 and 8

Well Unit: SE%NE% of Section 4

Wells: Lost Tank "4" Federal Well Nos. 6 and 9

Well Unit: SW¼NE¼ of Section 4

Wells: Lost Tank "4" Federal Well Nos. 5 and 10

Well Unit: SE%NW% of Section 4

The application is based on potash, geologic, and engineering reasons. Sections 3 and 4 are within the oil-potash area of southeastern New Mexico. Most of the existing wells in Sections 3 and 4 were drilled at unorthodox locations because they were the only locations which the Bureau of Land Management ("BLM") would approve at the time.

Pogo has now applied to the BLM for approval to drill the above wells. Due to the locations of the previously approved wells, the proposed locations are needed to place wells approximately equidistant from each other. In addition, the wells are located to

take advantage of favorable geology in the primary Delaware zones. Attached as Exhibit B is a geologic discussion, with appropriate plats, supporting the application. Finally, in the event of potential pressure maintenance operations, the locations will be appropriate to take advantage of injection operations.

Attached as Exhibit C is a land plat, highlighting the well locations. All of Sections 3 and 4 are covered by United States Oil and Gas Lease NM 0417696, which has common royalty, overriding royalty, and working interest ownership. Because all of the locations are interior to the lease, there are no offset operators to notify. As a result, applicant requests that the 20 day notice period be waived.

Please call me if you need any further information on this matter.

Very truly yours,

James Bruce

Attorney for Pogo Producing Company

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<u> </u>	LICATION FOR F	_ `			<u> </u>	6. IF INDIAN, ALLOS	TER OR TRIBE
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2 NAME OF OPERATOR				A ICHA	ND	LOST TANK "4"	FEDERAL # 10
POGO PRODUCI		CHARD WRIGHT	Γ 4	32-685- <b>MIDLA</b>	1469	9. AH WELLHO.	
7.0. BOX 103	o. 340 MIDLAND, TEX	AS 79702-73	40	(432-685-8100)		10. FIELD AND POOL	OR WILDCAT
4. LOCATION OF WELL (	(Report location clearly an	i in accordance wit	h any	State requirements.*)	<del></del>	LOST TANK DEL	AWARE WEST
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14. DISTANCE IN MILES	AND DIRECTION FROM NEA	EEST TOWN OR POS	: 05F:C	z.		12. COUNTY OF PARI	SE 13. STATE
Approximatel	y 35 miles East	of Carlsbad	New	Mexico		EDDY CO.	NEW MEXICO
15. DISTANCE FROM PRO LOCATION TO NEARE			16. N	O. OF ACRES IN LEASE		CIKDIZES ASSIGNED	<del></del>
PROPERTY OF LEASE		10'		640		40	4
13. DISTANCE PROM PRO	DOSED LOCATIONS	_	19. r	COLORED DESTR	20. ROT.	ART OR CABLE TOULS	
OR APPLIED FOR, ON I		00'		8250'	R	OTARY	
21. ELEYATIONS (Show w	heller DF. RT. GR. etc.)	3437' GR.				WHEN APPROVE	
23.		PROPOSED CASE	NG AN	CEMENTING PROGRA	м		
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175"	H-40 13 3/8"	48		800'	-	x. circulate t	
11"	J-55 8 5/8"	32		4200'	1500 8	2x•	
7 7/8"	J-55 5½"	17 & 15.5		82501	1650	Sx. 3 Stage T	OC surface.
2. Drill 17½ 950 Sx. o. 3. Drill 11" 1500 Sx. 4. Drill 7 7 17# J-55 stages wi cement + cement 3r surface.	hele to 40'. Se "hole to 800'. If f Class "C" cemer hole to 4200'. If of Class "C" cemer /8" hole to 8250 LT&C, 5000' of 53 th DV Tools at 6 additives, 2nd s d stage with 400	Run and set at + 2% CaCl Run and set ent + 2% CaCl '. Run and set ''. Run and set ''. 15.5# J-5 100' & 3700' tage cement Sx. of Clas	800', + 4200 1, + 65 LT ±. 0 with ss "C	of 13 3/8" 48  Lift Flocele/Sx.  of 8 5/8" 32  Lift Flocele/Sx  250' of 5½" ca  EC, 1000' of 5½  ement 1st stag  600 Sx. of C1  " cement + 2%  on present productive zone	EH-40 : Circulating as the with ass "C" CaCl, c	ST&C casing. (ate cement to ST&C casing. (late cement to follows: 2250 J-55 LT&C. Cement to cement to cement to additional ate cement to additional ate cement to additional ate cement to a second to	Cement with surface. Cement with surface. O' of 5½" nent in 3 ass "H" itives,
عضم والمحصمية لا عنده	inent data on substration location	s and measured and ma	e ver.ica 	i depitie. Give blowout prave	ستناقصط لججنا	if any.	
SIGNED SO	et Jan	ica :	<u> A</u>	gent	<del></del>		/17/03
(This space for Fede	eral or Sidie office um)				<del></del>		
PERMIT NO.				APPROVAL DATE			
Application approval does CONDITIONS OF APPROVA	oce warmen or sartify that the app il. IF ANY:	انصد بمائح اديها حد عربنا	ದಿರ್ವಚಿತ			suid entitle the applicant to t	znávez operators tremon.
	-			Exhibit "	10		
A***ROVED 3Y		*See Instruct	ians (	On Reverse Side		_ 5473	

# DISTRICT I P.O. Box 1980, Hobbs, NM 88241-1980

### State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised February 10, 1994

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

## OIL CONSERVATION DIVISION

Submit to Appropriate District Office State Lease — 4 Copies Fee Lease — 3 Copies

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

DISTRICT IV

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

AND ACDUACE DEDICATION DIAM

- Weiner penare

P.O. BOX 2008, SANTA FE, N.M. 87504-2088	WELL LOCATION AND	ACREAGE DEDICATION PLAT	☐ AMENDED REPORT
API Number	Pool Code	Pool Name	
	96582	LOST TANK DELAWARE-WEST	
Property Code		operty Name IK "4" FEDERAL	Well Number
OGRID No. 17891		perator Name	Elevation 3437

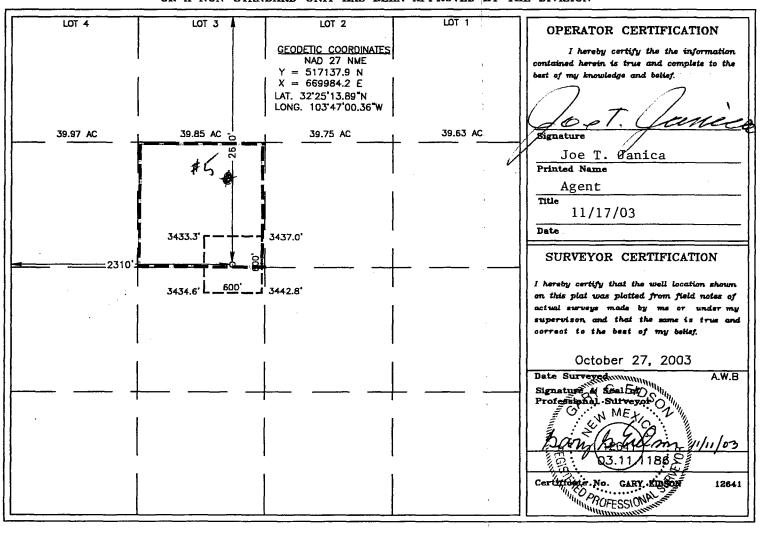
#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	4	22-S	31-E		2610	NORT∺	2310	WEST	EDDY

### 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 6	or Infill C	onsolidation	Code Or	der No.				1

# 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



## Pogo Producing Company Application for Unorthodox Locations

Lost Tank West Delaware Field Eddy County, New Mexico

Proposed Unorthodox locations in section 3:

Lost Tank "3" Federal #14 (1450' fsl, 1710' fel, section 3, T22S, R31E) Lost Tank "3" Federal #20 (2500' fsl, 2250' fel, section 3, T22S, R31E) Lost Tank "3" Federal #21 (2500' fnl, 450' fwl, section 3, T22S, R31E) Lost Tank "3" Federal #22 (2500' fnl, 1850' fwl, section 3, T22S, R31E)

Proposed Unorthodox locations in section 4:

Lost Tank "4" Federal #8 (2490' fnl, 500' fel, section 4, T22S, R31E) Lost Tank "4" Federal #9 (2610' fnl, 1850' fel, section 4, T22S, R31E) Lost Tank "4" Federal #10 (2610' fnl, 2310' fwl, section 4, T22S, R31E) Lost Tank "4" Federal #11 (2410' fnl, 990' fwl, section 4, T22S, R31E)

#### Summary

Pogo Producing Company is requesting permission to drill 8 Delaware Formation tests at unorthodox locations in its Lost Tank West Field. Granting of these locations will allow Pogo to develop its remaining acreage in section 3 and section 4 with optimal spacing between the proposed locations and existing locations.

#### Discussion

The unusual spacing of the existing wells in Pogo's acreage in the north half of section 3 and the north half of section 4 is a result of its proximity to potential potash reserves. Discussions between Pogo Producing Company and the BLM have resulted in Pogo being granted permission to continue developing the south halves of sections 3 and 4. In order to optimize well spacing in the remaining undeveloped portions of these sections, it is necessary to drill 8 of the remaining 21 development wells at unorthodox locations.

The Lost Tank West Delaware Field produces from several of the Delaware Sands. Two of the more prolific sands in this field are the Lower Brushy "A" Sand, and the Middle Brushy "F" Sand. The proposed unorthodox locations will optimize well spacing, thus providing an opportunity for better oil and gas recovery from these two productive sands.

#### Brushy "A" Geology

Exhibit 1 shows the structural elevation on the top of the Brushy "A" zone (gray contours). Structure dips regionally to the southeast at an average rate of 100' per mile. The colorfilled contours show the net sand thickness of main pay sand within the Brushy "A" zone (BC4 Sand). This Brushy "A" interval is interpreted as a submarine sand channel that trends in a northeast-southwest direction through sections 3 and 4, with net pay thickness ranging from 15' to 85'. The 8 proposed unorthodox locations are highlighted with green arrows.

#### Brushy "F" Geology

Exhibit 2 shows the structural elevation on the top of the Brushy "F" zone (gray contours). Structure dips regionally to the southeast at an average rate of 80' per mile. The color-filled contours show the net sand thickness of the main pay sand within the Brushy "F" zone. The Brushy "F" sand consists of a series of northeast-southwest-trending over-bank splays that originate from a large channel located 2 ½ miles east of section 3. Pogo expects to encounter up to 30 feet of productive net sand in the eastern locations, with pay thickness diminishing in locations toward the west.



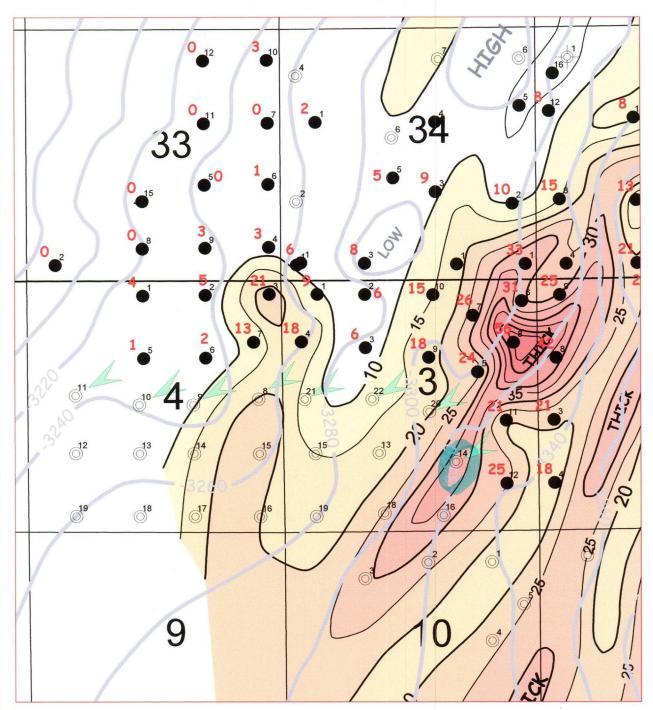


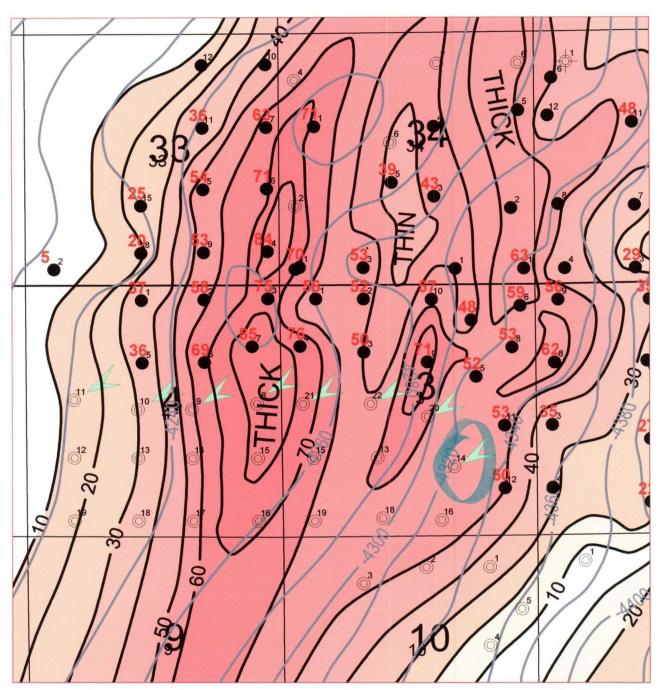
Exhibit 2



## Lost Tank West Field

Structure Top Brushy "F" Zone Isopach Brsuhy "F" Net Porosity Eddy County, New Mexico

WEH		lt_bcf_ocd.gmp
1/15/04	Project: Livingston Ridge Sand Dunes	



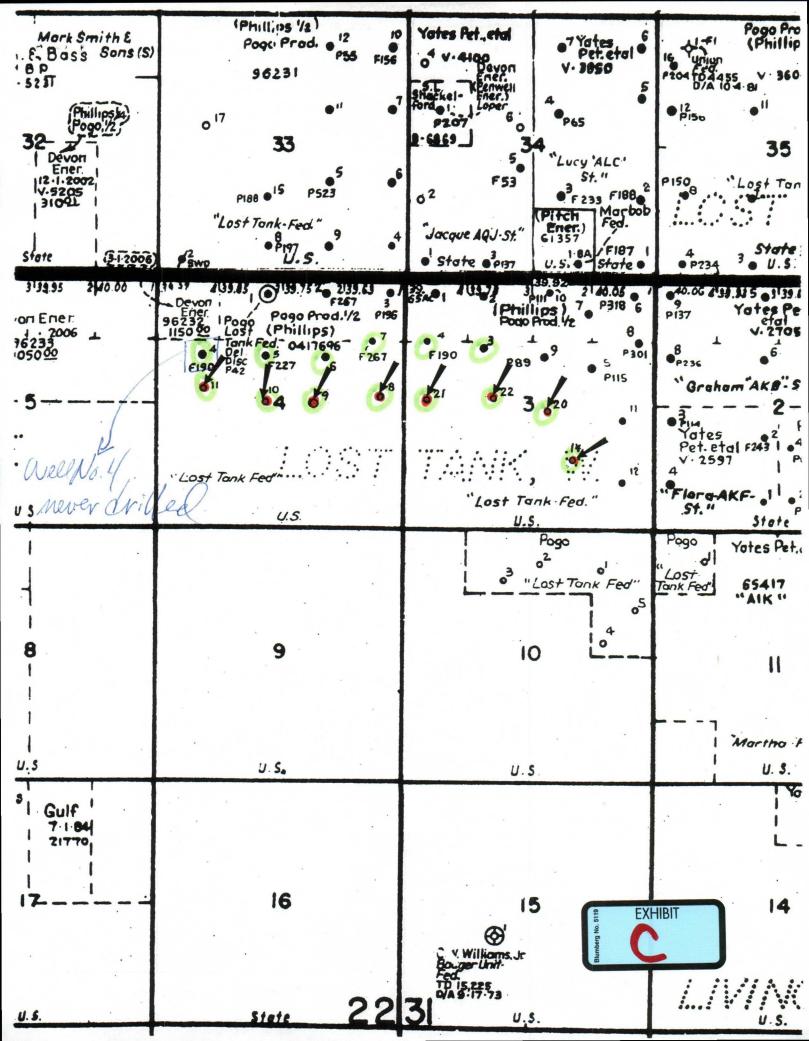
# Exhibit 1



## Lost Tank West Field

Structure Top Brushy "A" Zone Isopach BC4 Net Porosity Eddy County, New Mexico

WEH		lt_bc4_ocd.gmp
1/15/04	Project: Livingston Ridge Sand Dunes	1" = 2000'



Page: 1 Document Name: untitled

CMD: OG6IWCM INQUIRE WELL COMPLETIONS ONGARD

03/23/04 10:30:04 OGOMES -TPVQ

API Well No : 15 29732 Eff Date : 08-01-1997 WC Status : A

Pool Idn 96582 LOST TANK; DELAWARE, WEST

OGRID Idn 17891 POGO PRODUCING CO

Prop Idn 17955 LOST TANK 4 FEDERAL

Well No 005

GL Elevation: 3440

U/L Sec Township Range North/South East/West Prop/Act(P/A)

Lot Identifier: B.H. Locn 4 22S 31E FTG 1650 F N FTG 2310 F W Ч

Dedicated Acre: 40.00

Lease Type

Type of consolidation (Comm, Unit, Forced Pooling - C/U/F/O):

M0025: Enter PF keys to scroll

PF07 PF01 PF02 PF08 PF09 PF03 EXIT PF04 GoTo PF10 NEXT-WC PF11 HISTORY PF12 NXTREC PF05 PF06

IRM	CONFIRM	PF06 PF12	NXTOGD	PF05 OL PF11	04 GoTo 10 NXTPOOL	PF04 PF10	PF03 EXIT	PF02 PF08 FWD	HELP P	PF01 H PF07 E	
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