

2 Input Data for Master File

2-1 EMFI, "Field" (Field Master)

Item No.	Item Name	Field name	Position	Properties	Remarks	Source Document
1	Update-id	UID	1	X(1)		
2	Transaction code	TRANS-CD	2	X(4)	"EMFI"	
3	Field code (KEY-1)	FIELD-CD	6	X(3)	Refer to APPENDIX IV	
4	Area code	AREA-CD	9	9(2)	Refer to APPENDIX IV 01. Kompleks Palembang Selatan 02. Kompleks Palembang tengah 03. Musi Klingi 04. Jambi	
5	Field office code	FIELDOFFICE-CD	11	9(1)	Refer to APPENDIX IV 1. Bajubang 2. Prabumulih	
6	Flag of field or prospect	FIELD-PROSP-FC	12	9(1)	1. Prospect 2. Field 3. Depleted	
7	Abbreviation of field	FIELD-ABB	13	X(3)		
8	Field name	FIELD-NM	16	X(25)		
9	Filler	FILLER	41	X(84)		
10	Batch No.	BATCH-NO	125	X(4)		

2-2 EMF2, "Facilities Field" (Field Master)

Item No.	Item Name	Field name	Position	Properties	Remarks	Source Document
1	Update-id	UID	1	X(1)		
2	Transaction code	TRANS-CD	2	X(4)		
3	Facilities field code [KEY-1]	FFIELD-CD	6	X(2)		
4	Area code	AREA-CD	8	9(2)	"EMF2" Refer to APPENDIX IV Refer to APPENDIX IV 01. Kompleks Palembang selatan 02. Kompleks Palembang tengah 03. Musi Kliling 04. Jambi	
5	Field office code	FLDOFFICE-CD	10	9(1)	Refer to APPENDIX IV 1. Bejubang 2. Prabumulih	
6	Abbreviation of facilities field	FFIELD-ABB	11	X(3)		
7	Facilities field name	FFIELD-NM	14	X(25)		
8	Filler	FILLER	39	X(86)		
9	Batch No.	BATCH-NO	125	X(4)		

2-3 EMWL, "Well" (Well Master) 1/2

Item No.	Item Name	Field name	Position	Properties	Remarks	Source Document
1	Update-id	UID	1	X(1)		
2	Transaction code	TRANS-CD	2	X(4)		
3	Well code	WELL-CD	6	X(7)	"EMWL" Refer to APPENDIX IV	
4	String number	STRING-NO	13	9(1)		
5	Recompletion sequence notation	RECOMP-NO	14	9(2)		
6	String code	STRING-CD	16	9(1)	Refer to APPENDIX IV 1. Short length tubing 2. Middle length tubing 3. Long length tubing 4. Annulus	
7	Province code	PROVINCE-CD	17	9(1)	Refer to APPENDIX IV 1. Jambi 2. S. Sumatra 3. W. Sumatra 4. Riau 5. Bengkulu 6. Lampung 7. W. Java 8. W. Kalimantan	
8	Facilities field code	FPLD-CD	18	X(2)	Refer to APPENDIX IV	
9	Block station number	BLK-STAT-NO	20	9(2)		
10	Completion status	COMPL-ST	22	9(1)	Refer to APPENDIX IV 1. Completed 2. Suspended 3. Abandoned	
11	Well status	WELL-ST	23	X(3)	Refer to APPENDIX IV	
12	Kind of completed zone	COMPL-ZONE-KD	26	9(1)	Refer to APPENDIX IV 1. Oil zone 2. Gas cap zone 3. Gas zone 4. Water zone	
13	Kind of injection fluid	IF-KD	27	9(1)	Refer to APPENDIX IV 1. Fresh water 2. Seawater 3. Formation water 4. Wet gas 5. Dry gas	

EMW1. "Well" (Well Master) 2/2

Item No.	Item Name	Field name	Position	Properties	Remarks	Source Document
14	Filtration	FILTRATION	28	9(1)	6. CO ₂ 7. Air 8. Other kind of water Refer to APPENDIX IV 1. With filtration 2. Without filtration	
15	Kind of additives	ADDITIVES-KD	29	9(1)	Refer to APPENDIX IV 1. Scale inhibitor 2. Demulsifier 3. Bactericide 4. Surfactance 5. Corrosion inhibitor 6. Others	
16-	Reservoir	RESERVOIR		*10		
1	Reservoir unit code	RESERV-CD	30	X(4)	Refer to APPENDIX IV	
2	Kind of recovery method	RECOV-METH-KD	34	9(1)	Refer to APPENDIX IV 1. Primary recovery 2. Secondary recovery 3. Tertiary recovery	
3	Type of reservoir content	RESERV-CONT-TY	35	9(1)	Refer to APPENDIX IV 1. Paraffine oil reservoir 2. Asphalt oil reservoir 3. Gas reservoir	
4	Share factor for production	SHARE-PROD	36	9(3)V9(2)		
5	Layer code	LAYER-CD	41	X(3)*12	Refer to APPENDIX IV	
17	Filler	FILLER	4	X(9)		
18	Batch No.	BATCH-NO	125	X(4)		

2-4 EMZ1, "Reservoir Unit" (Zone Master)

Item No.	Item Name	Field name	Position	Properties	Remarks	Source Document
1	Update-id	UID	1	X(1)		
2	Transaction code	TRANS-CD	2	X(4)		
3	Field code	[KEY-1] FIELD-CD	6	X(3)	"EMZ1"	
4	Reservoir unit code	[KEY-2] RESERV-CD	9	X(4)	Refer to APPENDIX IV	
5	Formation code	FORMATION-CD	13	9(2)	Refer to APPENDIX IV	
					01. Kasai (KAF) 02. Muara Enim (MEF) 03. Air Berakat (ABF) 04. Gumai (GUF) 05. Batu Raja (BRF) 06. Talang Akar (TAF) 07. Lahat (LAF) 08. Basement (BAS)	
6	Type of reservoir content	RESERV-CONT-TY	15	9(1)	Refer to APPENDIX IV	
					1. Paraffine oil reservoir 2. Asphalt oil reservoir 3. Gas reservoir	
7	Layer code	LAYER-CD	16	X(3)*12	Refer to APPENDIX IV	
8	Development status	DEVELOP-ST	52	9(1)	Refer to APPENDIX IV	
					1. Producing under primary 2. Producing under secondary 3. Producing under tertiary 4. Nonproducing under primary 5. Nonproducing under secondary 6. Nonproducing under tertiary 7. Undevelopment	
9	Reservoir unit name	RESERV-NM	53	X(25)		
10	Filler	FILLER	78	X(47)		
11	Batch No.	BATCH-NO	125	X(4)		

2-5 EMZ2, "Layer" (Zono Master)

Item No.	Item Name	Field name	Position	Properties	Remarks	Source Document
1	Update-Id	UID	1	X(1)	"EMZ2" Refer to APPENDIX IV Refer to APPENDIX IV Refer to APPENDIX IV 01. Kasai (KAF) 02. Muara Enim (MEF) 03. Air Berakat (ABF) 04. Gumai (GUF) 05. Batu Raja (BRF) 06. Talang Akar (TAF) 07. Lahat (LAF) 08. Basement (BAS)	
2	Transaction code	TRANS-CD	2	X(4)		
3	Field code	FIELD-CD	6	X(3)		
4	Layer code	LAYER-CD	9	X(3)		
5	Formation code	FORMATION-CD	12	9(2)		
6	Layer name	LAYER-NM	14	X(5)		
7	Filler	FILLER	19	X(106)		
8	Batch No.	BATCH-NO	125	X(4)		

2-6 EMCL, "Contractor" (Company Master)

Item No.	Item Name	Field name	Position	Properties	Remarks	Source Document
1	Update-id	UID	1	X(1)		
2	Transaction code	TRANS-CD	2	X(4)		
3	Contractor code [KEY-1]	CONTRACTOR-CD	6	X(3)	"EMCL" Refer to APPENDIX IV	
4	Contractor name	CONTRACTOR-NM	9	X(30)		
5	Filler	FILLER	39	X(86)		
6	Batch No.	BATCH-NO	125	X(4)		

2-7 EMC2, "Operator" (Company Master)

Item No.	Item Name	Field name	Position	Properties	Remarks	Source Document
1	Update-id	UID	1	X(1)		
2	Transaction code	TRANS-CD	2	X(4)		
3	Operator code [KEY-1]	OPRAT-CD	6	X(3)	"EMC2"	
4	Operator name	OPRAT-NM	9	X(30)	Refer to APPENDIX IV	
5	Filler	FILLER	39	X(86)		
6	Batch No.	BATCH-NO	125	X(4)		

2-8 EMC3, "Company" (Company Master)

Item No.	Item Name	Field name	Position	Properties	Remarks	Source Document
1	Update-id	UID	1	X(1)		
2	Transaction code	TRANS-CD	2	X(4)		
3	Company code [KEY-1]	COMPANY-CD	6	X(2)	"EMC3"	
4	Company name	COMPANY-NM	8	X(30)	Refer to APPENDIX IV	
5	Filler	FILLER	38	X(87)		
6	Batch No.	BATCH-NO	125	X(4)		

2-9 EMC4, "Manufacturer" (Company Master)

Item No.	Item Name	Field name	Position	Properties	Remarks	Source Document
1	Update-id	UID	1	X(1)		
2	Transaction code	TRANS-CD	2	X(4)		
3	Manufacturer code [KEY-1]	MANUFAC-CD	6	X(5)	Refer to APPENDIX IV	
4	Manufacturer name	MANUFAC-NM	11	X(30)		
5	Filler	FILLER	41	X(84)		
6	Batch No.	BATCH-NO	125	X(4)		

ATTACHMENT I DATA FLOW AND LIST OF AVAILABLE REPORT FOR DATA SOURCE

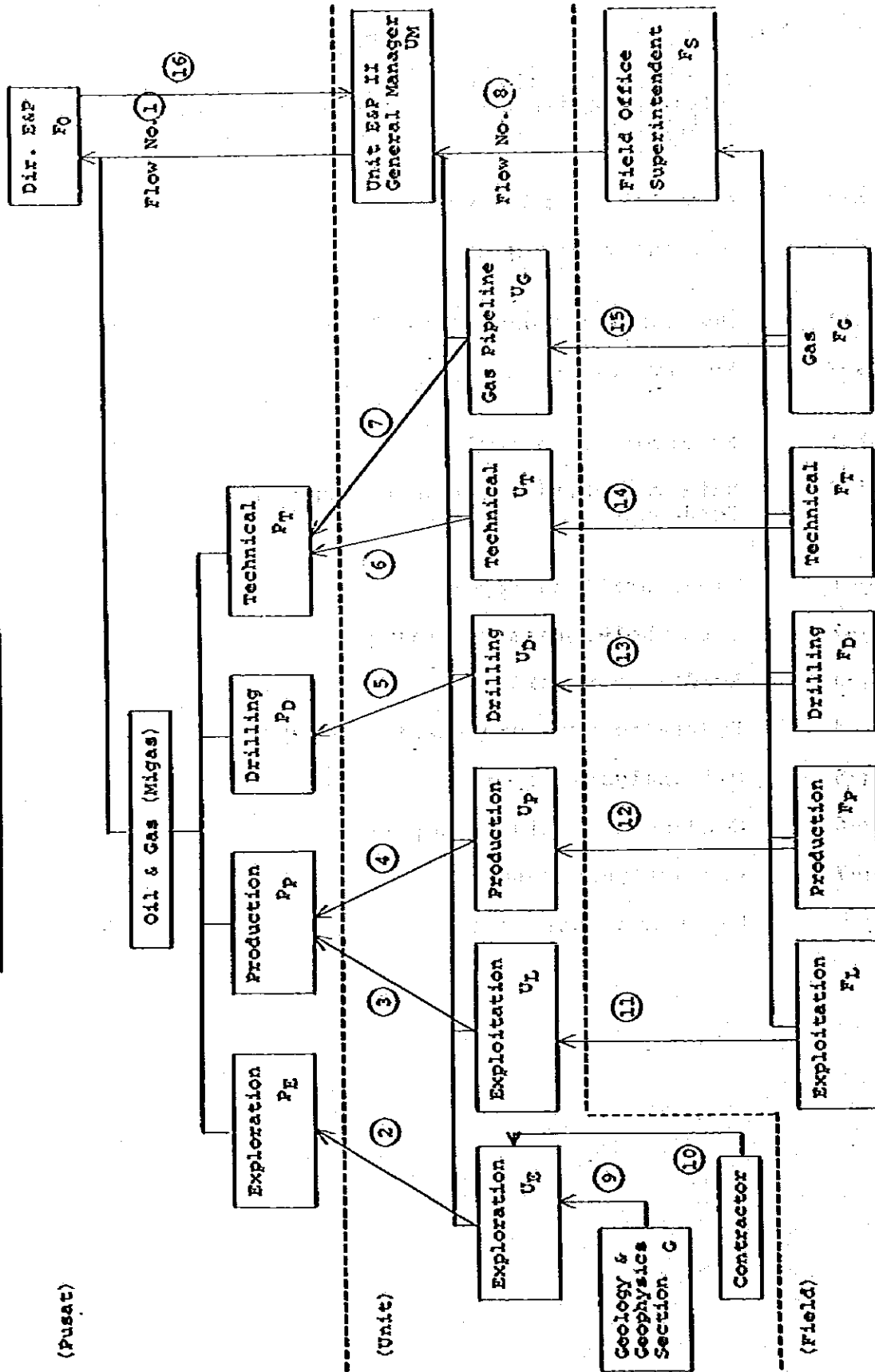
List of Available Report for Data Source

<u>Report No.</u>	<u>Report Name</u>	<u>Flow No.</u>
a-1	Monthly exploration report	2
a-2	Annual exploration report	2
a-3	Well resume report (exploration well)	2,9
a-4	Drilling proposal (exploration well)	2,9
a-5	Drilling operation program (exploration well)	2,9
a-6	Paleontological analysis report	9,10
a-7	Field mapping report	9,10
a-8	Prospect and leas report	2,9
a-9	Geochemical analysis report	10
a-10	Lithological analysis report	9,10
a-11	Geological evaluation report	2,9
a-12	Basin study and regional study report	2,9
a-13	Special study report	2,9,10
a-14	Work program and budget report	2
a-15	Contract agreement	16
a-16	Other report	
b-1	Final seismic survey report	2,10
b-2	Final magnetic survey report	2,10
b-3	Final gravity survey report	2,10
b-4	Well velocity survey report	2,10
b-5	Special study report	2,9,10

<u>Report No.</u>	<u>Report Name</u>	<u>Flow No.</u>
	Following reports contained in well file	3
c-1	Drilling program	
c-2	Weekly drilling report	
c-3	Final drilling report	
c-4	Workover report	
c-5	Recompletion report (Perubahan Keadaan Sumur)	
c-6	Casing list	
c-7	Tubing list	
c-8	Rod pump report (PUMPUT)	
c-9	Completion report for flowing, gas lift or gas boiler well (Spuitter, Gas list of gas boiler)	
c-10	Bit record	
c-11	Cementing report (Laporan Penyemenan)	
c-12	Squeeze cementing report (Laporan Penyemenan Desak)	
c-13	Cement slurry report (Lapran Pengukuran BJ Adnan Semen)	
c-14	Deviation survey record	
c-15	D.A.T.A. morning report	
c-16	Core report	
c-17	Cutting report	
c-18	Side wall sample report	
c-19	Acidizing report	
c-20	Hydraulic fracture treatment report	
c-21	Drill stem test report	
c-22	MFE test report (Laporn Uji Kandungan Rapisan)	
c-23	MFE summary (Hasil Uji Kandungan Lapisan)	

<u>Report No.</u>	<u>Report Name</u>	<u>Flow No.</u>
c-24	MFE sample analysis (Hasil Analisa Contoh Cairan Dari MFE, Test)	
d-1	Core Analysis Report	3
d-2	PVT analysis report	3
e-1	Draftar Keterangan Tiap Sumur	12
e-2	Yearly EPT report	3
f-1	Reservoir data book	11
f-2	Data volumetrics cadangan Gas Dan Kondensate	11
g-1	Final drilling report	3
g-2	Bottomhole pressure survey	3
g-3	Acidizing report	3
g-4	Hydraulic fracture treatment report	3
g-5	Oil analysis report	3
g-6	Condensate analysis report	3
g-7	Gas analysis report	3
g-8	Water analysis report	3

DATA FLOW BASED ON PERTAMINA UNIT EP-II HEAD OFFICE



APPENDIX VI

PROGRAM SPECIFICATION

OF

MASTER FILE PROCESSING

FOR

THE PETROLEUM EXPLORATION AND PRODUCTION DATA

BANK SYSTEM OF PERTAMINA UNIT EP-II

INTRODUCTORY REMARKS

This APPENDIX shows the program specification of master file processing by programs.

There are four programs for updating processing of the master files and four programs for output processing of master files.

These are named and listed in 6-1 of the text.

Followings are remarked related to four programs for updating data (EPB59000, EPB59005, EPB59010 and EPB59015).

1. Input Data

- Reference is made to APPENDIX V on the detail of listed item.

2. Reference Data

- Master files for data collation are listed.

3. Output Data

- Proof list is output for error data.

Followings are remarked related to four programs for outputting the data list of master file (EPB59100, EPB59105, EPB59110 and EPB59115).

1. Input Data

- Format of parameter card is described together with name of master file to be input.
- Function of parameter card is referred to 6-1-(2) of the text.
- Reference is made to 5-3 of the text on the detailed items in master file.

2. Supplementary Explanation for Output Item

The layout of a master list to be output is attached to the end of each program specification.

LIST OF CONTENTS

		<u>PAGE</u>
(1)	EPB59000 Input for Field Master	AVI-1
(2)	EPB59005 Input for Well Master	AVI-2
(3)	EPB59010 Input for Zone Master	AVI-4
(4)	EPB59015 Input for Company Master	AVI-6
(5)	EPB59100 Output for Field Master	AVI-7
(6)	EPB59105 Output for Well Master	AVI-10
(7)	EPB59110 Output for Zone Master	AVI-13
(8)	EPB59115 Output for Company Master	AVI-17

(1) EPB59000

Function

- Updating of Field Master

Input Data

- EMP1, "Field"
- EMP2, "Facilities Field"

Output Data

- Field Master
- Proof List

Check of Input Data

1) Transaction code

Error messages are output in case that the code is not equal to "EMP1" or "EMP2".

Editing of the Data in the Master File

- Flag of field or facilities field

Refer to the transaction code in the input data

(In case of the code with "EMP1")

"1" is moved to the flag.

(In case of the code with "EMP2")

"2" is moved to the flag.

- Updating Date

The date executing the program is used for insertion or replacement of the data.

(2) EPB59005

Function

- Updating of Well Master

Input Data

- EMW1, "Well"

Reference Data

- Field Master
- Zone Master

Output Data

- Well Master
- Proof List

Check of Input Data

1) Transaction code

Error messages are output in case that the code is not equal to "EMW1".

2) Logical check of the data in case of insertion or replacement of data

Error messages are output when logical relation among following items is missing.

- "Kind of injection fluid" and "Well status"
- "Filtration" and "Well status"
- "Kind of additives" and "Well status"
- "String specification" and "Current status"
- "Well status" and "Completion status"

3) Data check through master file data collation in case of insertion and replacement of data

The data of following items are output as error message at their respective following condition.

<u>Data Item</u>	<u>Error Condition</u>
Field Code	In case that "Field code" is not yet stored in "Field Master"
Facilities Field Code	In case that "Facilities field code" is not yet stored in "Field Master"
Reservoir Unit Code	In case that "Reservoir unit code" is not yet stored in "Zone Master"
Layer Code	In case that "Layer code" is not yet stored in "Zone Master"

4) Recompletion sequence notation

(In case of insertion)

Error message is output in case that the notation number is not zero.

(In case of replacement)

Error message is output in case that the notation number is not equal to the notation number in "Well master" plus one.

Editing of the Data in the Master Record

- Followings are moved from "Zone Master" (if input data for insertion is space).
 - Kind of reservoir
 - Layer code
- Updating date

The date executing the program is used for insertion or replacement of the data.

(3) EPB59010

Function

- Updating of Zone Master

Input Data

- EMZ1, "Reservoir Unit"
- EMZ2, "Layer"

Reference Data

- Field Master
- Zone Master

Output Data

- Zone Master
- Proof List

Check of Input Data

1) Transaction code

Error messages are output in case that the code is not equal to "EMZ1" or "EMZ2".

2) Data check through master file data collation in case of insertion or replacement

The data of following items are output as error message at their respective following condition.

Data Item

Error Condition

Field Code

In case that "Field code" is not yet stored in "Field Master".

Layer Code
(in EMZ1)

In case that "Layer code" is not yet stored in "Zone Master".

Editing of the Data in the Master Record

- Flag of reservoir unit or layer

Refer to the transaction code in the input data
(In case of the code with "EMZ1")

"1" is moved to the flag

(In case of the code with "EMZ2")

"2" is moved to the flag

- Updating Date

The date executing the program is used for
insertion or replacement of the data.

(4) EPB59015

Function

- Updating of Company Master

Input Data

- EMC1, "Contractor"
- EMC2, "Operator"
- EMC3, "Company"
- EMC4, "Manufacturer"

Output Data

- Company Master
- Proof List

Check of Input Data

- 1) Transaction code

Error messages are output in case that the code is not equal to "EMC1", "EMC2", "EMC3" or "EMC4".

Editing of the Data in the Master File

- Kind of company

Refer to the transaction code in the input data

(In case of the code with "EMC1")

"1" is moved to the kind

(In case of the code with "EMC2")

"2" is moved to the kind

(In case of the code with "EMC3")

"3" is moved to the kind

(In case of the code with "EMC4")

"4" is moved to the kind

- Updating Date

The date executing the program is used for insertion or replacement of the data.

(5) EPB59100

Function

- Output of Field Master List

Input Data

- Parameter Card

#1	#2	#3
X(8)	X	X(71)

- #1 Program Name
- #2 Flag of Field or Facilities Field
 1. Field
 2. Facilities Field
- #3 Blank

- Field Master

Condition of Changing Page

- Flag of field or facilities field

Supplementary Explanation for Output Item

- MASTER LIST OF XXXXXXXXXXXXXXXX

In case "Flag of field or facilities field" is equal to "1", it is "FIELD".

In case "Flag of field or facilities field" is equal to "2", it is "FACILITIES FIELD".

- FIELD ABB

An abbreviation of "Field or facilities field" in "Field Master".

- **FIELD OR PROSPECT NAME**

In case "Flag of field or prospect" is equal to "1", it is "PROSPECT".

In case "Flag of field or prospect" is equal to "2", it is "FIELD".

In case "Flag of field or prospect" is equal to "3", it is "DEPLETED".

(6) EPB59105

Function

- Output of Well Master List

Input Data

- Parameter Card

#1	#2	Max. 20 items	#2	#3
X(8)	X(3)		X(3)	X(12)

- #1 Program Name
- #2 Field Code (Max. 20 items)
- #3 Blank

- Field Master
- Well Master

Condition of Changing Page

- Field Code

Supplementary Explanation for Output Item

- FIELD CODE: 999
"Field code" in "Well Master"
- (XXXXXXXXXXXXXXXXXXXXXXXXXXXX)
Refer to "Field Master" through "Field code" in "Well Master", and output the data of "Field name or facilities field name".
- RCMP-NT
"Recompletion sequence notation" in "Well Master"
- STRNG-NAME
"String code" in "Well Master"
- PRV-CD
"Province code" in "Well Master"

- FFLD-CD
"Facilities field code" in "Well Master"
- BLK-SN
"Block station number" in "Well Master"
- CMP-ST
"Completion status" in "Well Master"
- WEL-ST
"Well status" in "Well Master"
- CMP-ZN
"Kind of completed zone" in "Well Master"
- INJ-FL
"Kind of injection fluid" in "Well Master"
- FLT-RAT
"Filtration" in "Well Master"
- ADD-KD
"Kind of additives" in "Well Master"
- RESV-CD
"Reservoir unit code" in "Well Master"
- RCV-MD
"Kind of recovery method" in "Well Master"
- RES-TY
"Type of reservoir content" in "Well Master"

(7) EPB59110

Function

- Output of Zone Master List

Input Data

- Parameter Card

#1	#2	#3	Max. 20 items	#3	#4
X(8)	X	X(3)		X(3)	X(3)

- #1 Program Name
- #2 Flag of Reservoir or Layer
 - 1. Reservoir
 - 2. Layer
- #3 Field Code (Max. 20 items)
- #4 Blank

- Field Master
- Zone Master

Condition of Changing Page

- Field code

Supplementary Explanation for Output Item

- FIELD CODE: 999
"Field code" in "Zone Master"
- (XXXXXXXXXXXXXXXXXXXXXXXXXXXX)
Refer to "Field Master" through "Field code" in "Zone Master", and output the data of "Field name or facilities field name".

- RES-KD
"Kind of reservoir" in "Zone Master"
- DVL-ST
"Development status" in "Zone Master"
- (NAME)
Refer to "Zone Master" through "Layer code
(not [KEY-3])", and output the data of "Layer
name".

(8) EPB59115

Function

- Output of Company Master List

Input Data

- Parameter Card

#1	#2	#2	#2	#2	#3
X(8)	X	X	X	X	X(68)

#1 Program Name

#2 Kind of Company

1: Contractor

2: Operator

3: Company

4: Manufacturer

#3 Blank

- Company Master

Condition of Changing Page

- Kind of Company

Supplementary Explanation for Output Item

- (XXXXXXXXXXXXXXXXXXXX)

In case "Kind of company" is equal to "1",
it is "CONTRACTOR".

In case "Kind of company" is equal to "2",
it is "OPERATOR".

In case "Kind of company" is equal to "3",
it is "COMPANY".

In case "Kind of company" is equal to "4",
it is "MANUFACTURER".

APPENDIX VII

PROGRAM SPECIFICATION

OF

INPUT PROCESSING FOR DATA BASE

FOR

THE PETROLEUM EXPLORATION AND PRODUCTION DATA

BANK SYSTEM OF PERTAMINA UNIT EP-II

INTRODUCTORY REMARKS

This APPENDIX shows the program specification of input-processing for data base by programs.

There are twenty-one (21) programs for updating data of the data bases and two (2) auxiliary programs for copying of well data and calculating yearly production and injection by reservoir units. These are named and listed in 6-2 of the text.

Followings are remarked related to twenty-one (21) updating programs for data bases.

1. Input Data

- Reference is made to APPENDIX V on the detail of the input data which listed by the name of the input data.

- As for following programs, the format of the parameter card is described.

- EPB54000

- EPB54010

- EPB54020

- EPB55000

2. Reference Data

Data base name and master file name to be referred are listed.

3. Output Data

Followings are listed.

- Data base name to be updated
- Data name to be output

Reference is made to 6-2-(2) of the text on the layout of the proof list and error data.

4. Check of Input Data

- Here are listed data items which should be input always. Among them, update-id, transaction code and data item which are defined as key items in APPENDIX V are, indispensable for input data preparation in case of insertion of data. If these are failed to input, input data for segment can not be inserted in data base. If input data other than the said data are failed to input, only warning messages would be output but data of segment can be inserted in data base.
- Here is described the error condition in detail, which should be examined by consulting with 6-2-(2) of the text.

Followings are remarked related to two auxiliary programs for copying well data and calculating yearly production and injection by reservoir units.

1. Input Data

- The format of parameter card is described.
- The function of parameter card is referred to 6-2-(3) and (4) of the text.
- Data base name to be input is listed.

2. Output Data

The layout of the proof list described here is attached to the end of each program specification.

LIST OF CONTENTS

				<u>PAGE</u>
(1)	EPB50000	PAACONTR	.....	AVII-1
(2)	EPB50010	PABGLSVY	.....	AVII-4
(3)	EPB50020	PACGLANL	.....	AVII-6
(4)	EPB50030	PADPROSP	.....	AVII-9
(5)	EPB50040	PAEGLMAP	.....	AVII-11
(6)	EPB50050	PAFGLREP	.....	AVII-13
(7)	EPB51000	PBAGPSVY	.....	AVII-15
(8)	EPB51010	PBBGPMAP	.....	AVII-26
(9)	EPB51020	PBCGPSEC	.....	AVII-29
(10)	EPB51030	PBDGPREP	.....	AVII-31
(11)	EPB52000	PCAWELL	.....	AVII-32
(12)	EPB53000	PDAPTPVT	.....	AVII-46
(13)	EPB54000	PEAPRDIN	.....	AVII-48
(14)	EPB54010	PEBOILCS	.....	AVII-53
(15)	EPB54020	PECCASCS	.....	AVII-55
(16)	EPB55000	PFARESVS	.....	AVII-57
(17)	EPB56000	PGAWELTS	.....	AVII-60
(18)	EPB56010	PGBFLUID	.....	AVII-64
(19)	EPB57000	PHASTATN	.....	AVII-67
(20)	EPB57010	PHBEQUIP	.....	AVII-70
(21)	EPB58000	PIAPIPLN	.....	AVII-73
(22)	EPB52050	PCAWELL From PCAWELL (Workover)	.....	AVII-75
(23)	EPB55050	PFARESVS From PEAPRDIN	.....	AVII-79

(1) EPB50000

Function

- Updating of PAACONTR "Contract Area"

Input Data

- PAA01, "Contract Area"
- PAA02, "History of Relinquishment"
- PAA03, "Points of Relinquished Boundary"
- PAA04, "Points of Original Boundary"

Reference Data

- Company Master
- PAEGLMAP, "Geological Map and Figure"

Output Data

- PAACONTR, "Contract Area"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PAA01
 - Update - id
 - Transaction code
 - Contract code
 - Province code
 - Date of contract
 - Contract code
 - Operator code
 - Period of contract

- PAA02
 - Update - id
 - Transaction code
 - Contract code
 - No. of times (for relinquishment)
 - Relinquished date

- PAA03
 - Update - id
 - Transaction code
 - Contract code
 - Relinquished date
 - Points No.

- PAA04
 - Update - id
 - Transaction code
 - Contract code
 - Points No.

2) Followings are error condition for insertion or replacement.

- PAA01
 - Operation period
 - PDCS > OPD or PDCE < OPD
 - PDCS Period of contract (starting date)
 - PDCE Period of contract (end date)
 - OPD Operation period
 - Map code
 - Pertinent code is not yet stored in "PAE01MAP".

- PAA02

- Relinquished date

"Relinquished date" < "Date of contract"
(PAA01CRT)

- Relinquished size of area

$$\sum_{i=1}^n RA + DRA > OA$$

OA Original size of contract area
(PAA01CRT)

RA Relinquished size of area
(PAA02HIS)

n Number of segment

DRA Relinquished size of area
(PAA02)

- Map code

Pertinent code is not yet stored in
"PAB01MAP".

(2) EPB50010

Function

- Updating of PABGLSVY "Geological Survey"

Input Data

- PAB01, "Geological Survey"
- PAB02, "Geological Report and Map"

Reference Data

- PAEGLMAP, "Geological Map and Figure"
- PAFGLREP, "Geological Report"

Output Data

- PABGLSVY, "Geological Survey"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PAB01
 - Update - id
 - Transaction code
 - Survey code
 - Area code
 - Survey period
 - PERTAMINA or Contractor
- PAB02
 - Update - id
 - Transaction code
 - Survey code
 - Type of map, figure and report
 - Map, figure and report code

2) Followings are error condition for insertion or replacement.

- PAB01

- Survey period

"Survey period (Year of starting)"
is not equal to

"Survey period (Year of end)".

- Report code.

Pertinent code is not yet stored
in "PAF01REP".

- PAB02

- Map code

Pertinent code is not yet stored
in "PAE01MAP".

- Report code

Pertinent code is not yet stored
in "PAF01REP".

Editing of the Data in the Segment

- PAB02MAP

The data is moved from "PAB02" in accordance
with the format of the segment.

(3) EPB50020

Function

- Updating of PACGLANL "Geological Analysis"

Input Data

- PAC01, "Geological Analysis"
- PAC02, "Geological Sampling"
- PAC03, "Kind of Geological Analysis"
- PAC04, "Geological Report and Figure Reference"

Reference Data

- Field Master
- Well Master
- PAE01MAP, "Geological Map and Figure"
- PAF01REP, "Geological Report"

Output Data

- PACGLANL, "Geological Analysis"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PAC01
 - Update - id
 - Transaction code
 - Analysis code
 - Area code
 - PERTAMINA or Contractor

- PAC02
 - Update - id
 - Transaction code
 - Analysis code
 - Sample group No.
 - Kind of sample
 - Analysis period
- PAC03
 - Update - id
 - Transaction code
 - Analysis code
 - Kind of analysis performed
- PAC04
 - Update - id
 - Transaction code
 - Analysis code
 - Type of figure and report
 - Figure and report code

2) Followings are error condition for insertion or replacement.

- PAC01
 - Report code
 - Pertinent code is not yet stored in "PAF01REP".
- PAC04
 - Map code
 - Pertinent code is not yet stored in "PAE01MAP".
 - Report code
 - Pertinent code is not yet stored in "PAF01REP".

Editing of the Data in the Segment

- PAC04FIG

The data is moved from "PAC04" in accordance with the format of the segment.

(4) EPB50030

Function

- Updating of PADPROSP "Resource Prospect"

Input Data

- PAD01, "Resource Prospect"
- PAD02, "Prospective Hydrocarbon"
- PAD03, "Prospect Report and Map Reference"

Reference Data

- Field Master
- Well Master
- PAE01MAP, "Geological Map and Figure"
- PAF01REP, "Geological Report"

Output Data

- PADPROSP, "Resource Prospect"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PAD01
 - Update - id
 - Transaction code
 - Prospect code
 - Period

- PAD02
 - Update - id
 - Transaction code
 - Prospect code
 - Formation code
 - Type of trap

- PAD03
 - Update - id
 - Transaction code
 - Prospect code
 - Type of map and report
 - Map and report code

2) Followings are error condition for insertion or replacement.

- PAD01
 - Period
 - End date is not numeric or space.

- PAD03
 - Map code
 - Pertinent code is not yet stored in "PAE01MAP".
 - Report code
 - Pertinent code is not yet stored in "PAF01REP".

Editing of the Data in the Segment

- PAD01PRO
 - Area code
 - The data is moved from "Field Master".

- PAD03MAP
 - The data is moved from "PAD03" in accordance with the format of the segment.

(5) EPB50040

Function

- Updating of PAEGLMAP "Geological Map and Figure"

Input Data

- PAE01, "Geological Map and Figure"
- PAE02, "Well Reference"
- PAE03, "Formation and Layer Reference"

Reference Data

- Field Master
- Well Master
- Zone Master
- PCA01WEL, "Well Data"

Output Data

- PAEGLMAP, "Geological Map and Figure"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PAE01
 - Update - id
 - Transaction code
 - Map code
 - Area code
 - Prepared or revised date

- PAE02
 - Update - id
 - Transaction code
 - Map code
 - Well code

- PAE03
 - Update - id
 - Transaction code
 - Map code
 - Formation code
 - Field code
 - Layer code

Editing of the Data in the Segment

- PAE02WEL

The data is moved from "PAE02" in accordance with the format of the segment.

- Objective of well

The data is moved from "PCA01WEL".

- PAE03FOL

The data is moved from "PAE03" in accordance with the format of the segment.

(6) EPB50050

Function

- Updating of PAFGLREP, "Geological Report"

Input Data

- PAF01, "Geological Report"
- PAF02, "Geological Map and Figure Reference"

Reference Data

- Field Master
- PAEGLMAP, "Geological Map and Figure"

Output Data

- PAFGLREP, "Geological Report"
- PAEGLMAP, "Geological Map"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PAF01

- Update - id
- Transaction code
- Report code
- Area code
- Prepared date

- PAF02

- Update - id
- Transaction code
- Report code
- Map and figure code

2) Followings are error condition for replacement.

- PAF02

- Map code

Pertinent code is not yet stored
in "PAE01MAP".

Editing of the Data in the Segment

- PAF02MAP

The data is moved from "PAF02" in accordance
with the format of the segment.

- PAE01MAP

- Report code

The data is edited by "Report code" in "PAF02"
taking the relation between report and map
into consideration.

(7) EPB51000

Function

- Updating of PBAGPSVY "Geophysical Survey"

Input Data

- PBA01, "Geophysical Survey"
- PBA02, "Field Operation"
- PBA03, "Location Map and Report Reference"
- PBA04, "Field Operation Cost"
- PBA05, "Data Processing"
- PBA06, "Line Number"
- PBA07, "Section and Report Reference"
- PBA08, "Data Processing Cost"
- PBA09, "Interpretation"
- PBA10, "Line Number"
- PBA11, "Map and Report Reference"
- PBA12, "Objective of Special Study"
- PBA13, "Well Velocity Survey"
- PBA14, "Well Velocity Survey Report Reference"
- PBA15, "Field or Prospect Reference"

Reference Data

- Field Master
- Well Master
- Company Master
- PBB01MAP, "Geophysical Map"
- PBC01SEC, "Geophysical Seismic Section"
- PBD01REP, "Geophysical Report"

Output Data

- PBAGPSVY, "Geophysical Survey"
- PBBGPMAP, "Geophysical Map"
- PBCGPSEC, "Geophysical Section"
- PBDGPREP, "Geophysical Report"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PBA01
 - Update-id
 - Transaction code
 - Survey code
 - Main area code
 - Period for survey
- PBA02
 - Update-id
 - Transaction code
 - Survey code
 - Period for field operation
- PBA03
 - Update-id
 - Transaction code
 - Survey code
 - Type of map, section and report
 - Map and report code
- PBA04
 - Update-id
 - Transaction code
 - Survey code
 - Date

- PBA05
 - Update-id
 - Transaction code
 - Survey code
 - No. of times
 - Period
- PBA06
 - Update-id
 - Transaction code
 - Survey code
 - No. of times
 - Identification of line No.
 - Line number and station number
- PBA07
 - Update-id
 - Transaction code
 - Survey code
 - No. of times
 - Type of map, section and report
 - Map and report code
- PBA08
 - Update-id
 - Transaction code
 - Survey code
 - No. of times
 - Date
- PBA09
 - Update-id
 - Transaction code
 - Survey code
 - No. of times
 - Period

- PBA10
 - Update-id
 - Transaction code
 - Survey code
 - No. of times
 - Identification of line No.
 - Used survey code
- PBA11
 - Update-id
 - Transaction code
 - Survey code
 - No. of times
 - Type of map, section and report
 - Map and report code
- PBA12
 - Update-id
 - Transaction code
 - Survey code
- PBA13
 - Update-id
 - Transaction code
 - Survey code
- PBA14
 - Update-id
 - Transaction code
 - Survey code
 - Type of map, section and report
 - Map and report code
- PBA15
 - Update-id
 - Transaction code
 - Survey code
 - Field code

2) Followings are error condition for insertion or replacement.

- PBA01

- Well code

"Kind of geophysical survey and study"
= "5" and "Well code" = Space.

- PBA02

- Period for field operation

PDSUS > PDFO or PDSUE < PDFO

PDSUS ----- Period for survey
(Starting date)
"PBA01SVY"

PDSUE ----- Period for survey
(End date)
"PBA01SVY"

PDFO ----- Period for field
operation

- Land, ship or air

"Kind of geophysical survey and
study" = "SML" or "SMR" or "GRV"
and

"Land, ship or air" = "3" (Air).

- Field test date

PDFOS > FTDT or PDFOE < FTDT

PDFOS ----- Period for field
operation
(Starting date)

PDFOE ----- Period for field
operation
(End date)

FTDT ----- Field test date

- PBA03

- Map code

Pertinent code is not yet stored in "PBB01MAP".

- Report code

Pertinent code is not yet stored in "PBD01REP".

- Kind of map

Kind of geophysical survey and study	Kind of map
"SML" or "SMR"	Not = "1X"
"MGN"	Not = "2X"
"GRV"	Not = "3X"

- Kind of report

Kind of geophysical survey and study	Kind of report
"SML" or "SMR"	Not = "1X"
"MGN"	Not = "2X"
"GRV"	Not = "3X"

- PBA04

- Date

PDFOS > DT or PDFOE < DT

PDFOS ----- Period for field
operation
(Starting date)

PDFOE ----- Period for field
operation
(End date)

DT ----- Date

- Length recorded per year

TLR ----- Total length
recorded

$$\sum_{i=1}^n LR > TLR$$

LR ----- Length
recorded
per year

n ----- No. of field
operation cost

- PBA05

- Period

PDSUS > PD or PDSUE < PD

PDSUS ----- Period for survey
(Starting date)

PDSUE ----- Period for survey
(End date)

PD ----- Period

- PBA07

- Map code

Pertinent code is not yet stored in
"PBB01MAP".

- Section code

Pertinent code is not yet stored in
"PBC01SEC".

- Report code

Pertinent code is not yet stored in
"PBD01REP".

- Kind of report

Kind of geophysical survey and study	Kind of report
"SML" or "SMR"	Not = "1X"
"MGN"	Not = "2X"
"GRV"	Not = "3X"

- PBA08

- Date

PDS > DT or PDE < DT

PDS ----- Period (Starting date)
"PBA05DPR"

PDE ----- Period (End date)
"PBA05DPR"

DT ----- Date

- PBA09

- Period

PDSUS > PD or PDSUE < PD

PDSUS ----- Period for survey
(Starting date)

PDSUE ----- Period for survey
(End date)

PD ----- Period

- PBA10

- Used survey code

Pertinent code is not yet stored in
"PBA01SVY"

- PBA11

- Map code

Pertinent code is not yet stored in "PBB01MAP".

- Report code

Pertinent code is not stored in "PBD01REP".

- Kind of map

Kind of geophysical survey and study	Kind of map
"SML" or "SMR"	Not = "1X"
"MGN"	Not = "2X"
"GRV"	Not = "3X"
"SPS"	Not = "4X"

- PBA14

- Map code

Pertinent code is not yet stored in "PBB01MAP".

- Report

Pertinent code is not yet stored in "PBD01REP".

- Kind of report

"Kind of report" is not = "4X".

Editing of the Data in the Segment

- PBB01MAP
 - Followings are moved from "PBA03"
 - Survey code
 - Kind of survey procedure ("1")
 - No. of times (Space)
 - Followings are moved from "PBA07"
 - Survey code
 - Kind of survey procedure ("2")
 - No. of times
 - Followings are moved from "PBA14"
 - Survey code
 - Kind of survey procedure ("3")
 - No. of times
- PBC01SEC
 - Followings are moved from "PBA07"
 - Survey code
 - No. of times
- PBD01REP
 - Followings are moved from "PBA03"
 - Survey code
 - Kind of survey procedure ("1")
 - No. of times (Space)
 - Followings are moved from "PBA07"
 - Survey code
 - Kind of survey procedure ("2")
 - No. of times
 - Followings are moved from "PBA14"
 - Survey code
 - Kind of survey procedure ("3")
 - No. of times

- **PBA03LOC**
The data is moved from "PBA03" in accordance with the format of the segment.
- **PBA07REP**
The data is moved from "PBA07" in accordance with the format of the segment.
- **PBA11MR**
The data is moved from "PBA11" in accordance with the format of the segment.
- **PBA14REP**
The data is moved from "PBA14" in accordance with the format of the segment.
- **PBA15PLD**
The data is moved from "PBA15" in accordance with the format of the segment.

(8) EPB51010

Function

- Updating of PBBGPMAP "Geophysical Map"

Input Data

- PBB01, "Geophysical Map"
- PBB02, "Section Reference"

Reference Data

- Company Master
- PBCGPSEC, "Geophysical Seismic Section"
- PBDGPREP, "Geophysical Report"

Output Data

- PBBGPMAP, "Geophysical Map"
- PBCGPSEC, "Geophysical Seismic Section"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PBB01

- Update-id
- Transaction code
- Map code
- Field code
- Date
- Scale

- PBB02

- Update-id
- Transaction code
- Map code
- Map code (Section code)

2) Followings are error condition for insertion or replacement.

- PBB01

- Report code

Pertinent code is not yet stored in "PBDGPREP".

- Migrated or unmigrated

In case "Kind of map" is not equal to "2X" or "3X", "Migrated or unmigrated" is not equal to space.

- Horizon name

In case "Kind of map" is not equal "2X" or "3X", "Horizon name" is not equal to space.

- PBB02

- Map code (Section code)

Pertinent code is not yet stored in "PBCGPSEC"

Editing of the Data in the Segment

- PBB02SEC

The data is moved from "PBB02" in accordance with the format of the segment.

- PBC02MAP

The data is edited by "Map code" in "PBB02" taking the relation between map and section into considering.

(9) EPB51020

Function

- Updating of PBCGPSEC "Geophysical Seismic Section"

Input Data

- PBC01, "Geophysical Seismic Section"
- PBC02, "Map Reference"

Reference Data

- Company master
- PBB01MAP, "Geophysical Map"

Output Data

- PBCGPSEC, "Geophysical Seismic Section"
- PBBGPMP, "Geophysical Map"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PBC01
 - Update-id
 - Transaction code
 - Map code (Section code)
 - Field code
- PBC02
 - Update-id
 - Transaction code
 - Map code (Section code)
 - Map code

2) Followings are error condition for insertion or replacement.

- PBC02
- Map code

Pertinent code is not yet stored in "PBBGPMAP"

Editing of the Data in the Segment .

- PBC02MAP

The data is moved from "PBC02" in accordance with the format of the segment.

- PBB02SEC

The data is edited by "Section code" in "PBC02" taking the relation between Section and map into consideration.

(10) EPB51030

Function

- Updating of PBDGPREP "Geophysical Report"

Input Data

- PBD01, "Geophysical Report"

Reference Data

- Company Master

Output Data

- PBDGPREP, "Geophysical Report"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PBD01
 - Update-id
 - Transaction code
 - Report code
 - Date

(11) EPB52000

Function

- Updating of PCAWELL "Well Data"

Input Data

- PCA01, "Well"
- PCA03, "Stratigraphy"
- PCA04, "Hole and Casing"
- PCA05, "Completion String"
- PCA06, "Rod Pump"
- PCA07, "Submergible Pump"
- PCA08, "Gas Lift"
- PCA09, "Perforation"
- PCA10, "Plug Back"
- PCA11, "Abandonment Record"
- PCA12, "Bit Record"
- PCA13, "Mud Record"
- PCA14, "Mud Off Test"
- PCA15, "Mud Consumption in Kg"
- PCA16, "Mud Consumption in Litter"
- PCA17, "Primary Cementing"
- PCA18, "Squeeze Cementing"
- PCA19, "Cement and Additive Consumption in Kg"
- PCA20, "Cement and Additive Consumption in Litter"
- PCA21, "Downhole Troubles"
- PCA22, "Miscellaneous Trouble"
- PCA23, "Well Log"
- PCA24, "Coring"

- PCA25, "Core Lithology"
- PCA26, "Side Wall Sample"
- PCA27, "Cutting Sample"
- PCA28, "Hydrocarbon Indication"
- PCA29, "Drill Stem Test"
- PCA30, "Wireline Formation Test"
- PCA31, "Well Log Interpretation Report"
- PCA32, "Well Cost"

Reference Data

- Field Master
- Well Master
- Zone Master
- PBAGPSVY, "Geophysical Survey"

Output Data

- PACWELL, "Well Data"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PCA01

- Update-id
- Transaction code
- Well code
- Workover number
- Objective of well (In case of original well)
- Objective of workover
(In case of workover well)
- Completion status
- Formation code (Primary objective)
- Spud date
- Rig release date
- Total depth

- PCA03

- Update-id
- Transaction code
- Well code
- Workover number
- Stratigraphy No.
- Formation code
- Layer code
- Interval of formation or layer

- PCA04

- Update-id
- Transaction code
- Well code
- Workover number
- Hole section and casing No.
- Hole size
- Casing size
- Casing set date

- PCA05
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - String code
 - String specification
- PCA06
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - String code
 - Type of subsurface pump
- PCA07
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - String code
- PCA08
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - String code
 - Macaroni pipe

- PCA09
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Perforation No.
 - Date

- PCA10
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Plug No.
 - Date of set

- PCA11
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Reason of abandonment

- PCA12
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Run No.
 - Bit size

- PCA13
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Mud record No.

- PCA14
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Test No.
 - Tested date
- PCA15
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Kind of mud agents
- PCA16
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Kind of mud agents
- PCA17
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Cementing No.
 - Cementing date
- PCA18
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Squeeze No.
 - Date

- PCA19
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Kind of cement and additives

- PCA20
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Kind of cement and additives

- PCA21
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Trouble No.
 - Kind of trouble
 - Date emergenced

- PCA22
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Trouble No.

- PCA23
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Run No.
 - Kind of log

- PCA24
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Core No.
 - Coring data

- PCA25
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Core No.
 - Core lithology No.
 - Interval selected

- PCA26
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Sample No.
 - Sampling date

- PCA27
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Sample No.
 - Sampling interval

- PCA28
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Indication No.
 - Interval

- PCA29
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Test No.
 - Tested period

- PCA30
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Test No.
 - Tested date

- PCA31
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Kind of interpretation

- PCA32
 - Update-id
 - Transaction code
 - Well code
 - Workover number
 - Well cost

2) Followings are error condition for insertion or replacement.

- PCA01

- Geophysical survey code

Pertinent code is not yet stored in "PBA01SVY".

- PCA03

- Interval of layer, Layer net thickness, Layer gross thickness

(ILP-ILT) < LNT

(ILT-ILP) < LGT

LGT < LNT

ILP ----- Interval of layer (From)

ILT ----- Interval of layer (To)

LNT ----- Layer net thickness

LGT ----- Layer gross thickness

- Interval of formation, Formation gross thickness

(IFT-IFP) < FGT

IFP ----- Interval of formation (From)

IFT ----- Interval of formation (To)

FGT ----- Formation gross thickness

- PCA24

- Recovery

(IVT-IVF) < RE

IVF ----- Interval (From) "PCA24COR"

IVT ----- Interval (To) "PCA24COR"

RE ----- Recovery

- PCA25

- Selected interval

IVF > SI or IVT > SI

IVF ----- Interval (From) "PCA24COR"

IVT ----- Interval (To) "PCA24COR"

SI ----- Selected interval

- PCA27

- Sampling frequency

(IVT-IVF) < SFQ

IVF ----- Sampling interval (From)
"PCA27CUT"

IVT ----- Sampling interval (To)
"PCA27CUT"

SAQ ----- Sampling frequency

- PCA28

- Selected depth

IVF > SD or IVT < SD

IVF ----- Interval (From)

IVT ----- Interval (To)

SD ----- Selected depth

- Followings are greater than "Total depth"

- Depth (Sidetracking) "PCA01"
- Plug back depth "PCA01"
- True vertical depth "PCA01"
- Kick off point "PCA01"
- Horizontal diviation "PCA01"
- Log interval "PCA01"
- Hole depth "PCA04"
- Set depth/interval "PCA04"
- Liner slot interval "PCA04"
- Completed interval "PCA05"
- Depth (Tubing) "PCA05"
- Packer depth "PCA05"
- Depth (Subsurface pump) "PCA06"
- Anchor catcher depth "PCA06"
- Depth at intake "PCA07"

- Length (Macaroni pipe)	"PCA08"
- Depth (Gas lift)	"PCA08"
- Interval (Perforation)	"PCA09"
- Depth/interval (Plug back)	"PCA10"
- Interval (Bit)	"PCA12"
- Interval (Mud)	"PCA13"
- Tested depth (Mud off test)	"PCA14"
- Depth (Primary cementing)	"PCA17"
- Interval (Squeeze cementing)	"PCA18"
- Depth (Downhole trouble)	"PCA21"
- Interval (Well log)	"PCA23"
- Interval (Coring)	"PCA24"
- Interval selected (Core lithology)	"PCA25"
- Sample depth	"PCA26"
- Sampling interval	"PCA27"
- Interval (Hydrocarbon indication)	"PCA28"
- Selected depth (Hydrocarbon indication)	"PCA28"
- Test interval (Drill stem test)	"PCA29"
- Test depth (Wireline formation test)	"PCA30"

3) Followings are error condition for replacement.

- PCA01

- Objective of well

"Workover number" is not equal to zero
(Workover well) and "Objective of well"
is not equal to space.

- Objective of workover

"Workover number" is equal to zero
(Original well) and "Objective of
workover" is not equal to space.

4) Followings are error condition of deletion.

- PCA01
 - The greatest number of "Workover number" in "PCA01WELL" is equal to the "Workover number" in "PCA01".

Editing of the Data in the Segment

- PCA01WEL
 - Following is moved from "Well Master"
 - Province code
 - Followings are moved from "Field Master"
 - Area code
 - Field office code
 - Currenty workover number (in original well)
 - In case of insertion of "PCA01WEL" add 1 to "Currenty workover number".
 - In case of deletion of "PCA01WEL" subtract 1 from "Currenty workover number".
- PCA02WBH
 - In case of updating of "PCA01WEL", followings are updated.

(In case of insertion)

- Followings are moved from "PCA01WEL"
 - Workover number
 - Date (Rig release date)
 - Completion status
 - Objective of workover

(In case of deletion)

- Delete "PCA02WBH" by "Workover number" in "PCA01WEL".

(In case of replacement)

- Date (Rig release date)
- Completion status
- Objective of workover

- PCA15MCK
The data is moved from "PCA15" in accordance with the format of the segment.
- PCA16MCL
The data is moved from "PCA16" in accordance with the format of the segment.
- PCA19CCK
The data is moved from "PCA19" in accordance with the format of the segment.
- PCA20CCL
The data is moved from "PCA20" in accordance with the format of the segment.

(12) EPB53000

Function

- Updating of PDAPTPVT "Petrophysical and PVT Analysis Data"

Input Data

- PDA01, "Petrophysical and PVT Analysis"
- PDA02, "Sampling Place Information"
- PDA03, "Analysis Information"

Reference Data

- Field Master
- Well Master
- Zone Master

Output Data

- PDAPTPVT, "Petrophysical and PVT Analysis Data"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PDA01
 - Update-id
 - Transaction code
 - Analysis code
 - Well code

- PDA02
 - Update-id
 - Transaction code
 - Analysis code
 - Sampling identification
 - Reservoir unit code
 - Layer code
 - Sampling period
- PDA03
 - Update-id
 - Transaction code
 - Analysis code
 - Sampling identification
 - Kind of analysis performed

Editing of the Data in the Segment

- PDA01CPA
 - Following is moved from "Well Master".
 - Province code
 - Followings are moved from "Field Master".
 - Area code
 - Field office code

- PDA02PLC
 - Following is moved from "Zone Master".
 - Formation code

- PDA03ANL

The data is moved from "PDA03" in accordance with the format of the segment.

(13) EPB54000

Function

- Updating of PEAPRDIN "Production and Injection"

Input Data

- PEA01, "Production and Injection"
- PEA02, "Monthly Production"
- PEA04, "Monthly Injection"
- Parameter Card

#1	#2	#3
X(8)	X(4)	X(68)

- #1 Program Name
- #2 Date (MMYY)
- #3 Blank

Reference Data

- Well Master

Output Data

- PEAPRDIN, "Production and Injection"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PEA01

- Update-id
- Transaction code
- Well code
- String number
- Recompletion sequence notation

- PEA02

- Update-id
- Transaction code
- Well code
- String number
- Recompletion sequence notation

- PEA04

- Update-id
- Transaction code
- Well code
- String number
- Recompletion sequence notation

- Parameter Card

- Program Name
- Date

2) Followings are error condition for insertion or replacement.

- PEA01

The number of "Recompletion sequence notation" in "PEA01" is not equal to the number in "Well Master".

- PEA02

- Monthly production rate

- The code of "Completion status" in "Well Master" is equal to "2" or "3".

- The code of "Current status" in "Well Master" is greater than "9".

- PEA04

- Monthly injection rate

- The code of "Completion status" in "Well Master" is equal to "2" or "3".

- The code of "Current status" in "Well Master" is greater than "9".

3) Followings are error condition for replacement.

- PEA02

The date in parameter card is not equal to the latest date in "PEA02MPR".

- PEA04

The date in parameter card is not equal to the latest date in "PEA04MIJ".

4) Followings are error condition for deletion.

- PEA01

The number of "Recompletion sequence notation in "PEA01" is not equal to "Well Master".

- PEA02

The date in parameter card is not equal to the latest date in "PEA02MPR".

- PEA04

The date in parameter card is not equal to the latest date in "PEA04MIJ".

Editing of the Data in the Segment

- PEA01PIN

- Followings are moved from "Well Master".

- String code

- Province code

- Facilities field code

- Flag of production or injection

Refer to the code of "String specification" in "Well Master".

(In case of the code with "1", "2", "3" or "4")

"1" is moved to the flag.

(In case of the code with "5", "6" or "7")

"2" is moved to the flag.

- PEA02MPR
 - Date
 - The data is moved from parameter card.
 - Followings are moved from "Well Master".
 - Kind of completed zone
 - Completion status
 - Well status
 - Block station number
 - Cumulative production rate
 - The latest "Cumulative production rate" in "PEA02MPR" plus "Monthly production rate" in "PEA02".

- PEA03ZPR
 - All of the data is moved from "Well Master",

- PEA04MIJ
 - Date
 - The data is moved from parameter card.
 - Followings are moved from "Well Master".
 - Kind of completed zone
 - Completion status
 - Well status
 - Block station number
 - Kind of injection fluid
 - Filtration
 - Kind of additives
 - Cumulative injection rate
 - The latest "Cumulative injection rate" in "PEA04MIJ" plus "Monthly injection rate" in "PEA04".

- PEA05ZIJ
 - All of the data is moved from "Well Master".

(14) BPB54010

Function

Updating of PEBOILCS "Oil consumption"

Input Data

- PEB01, "Oil Consumption"
- Parameter card

#1	#2	#3
X(8)	X(4)	X(68)

- #1 Program Name
- #2 Date (MMYY)
- #3 Blank

Output Data

- PEBOILCS, "Oil Consumption"
- Proof List
- Error Data

Check of Input Data

- Data for the following items should be input always.
 - PEB01
 - Update-id
 - Transaction code
 - Area code
 - Parameter card
 - Program Name
 - Date

Editing of the Data in the Segment

- PEB010CS

- Date

The data is moved from parameter card.

(15) EPB54020

Function

Updating of PEGASCS "Gas Consumption"

Input Data

- PEG01, "Gas Consumption"
- PEG02, "Monthly Consumption"
- Parameter Card

#1	#2	#3
X(8)	X(4)	X(68)

- #1 Program Name
- #2 Date (MYY)
- #3 Blank

Reference Data

- Field Master

Output Data

- PEGASCS, "Gas Consumption"
- Proof List
- Error Data

Check of Input Data

- Data for the following items should be input always.
 - PEC01
 - Update-id
 - Transaction code
 - Field code
 - PEC02
 - Update-id
 - Transaction code
 - Field code
 - Kind of gas consumption
 - Parameter Card
 - Program Name
 - Date

Editing of the Data in the Segment

- PEC01GCS
 - Date
 - The data is moved from parameter card.
 - Area code
 - The data is moved from "Field Master".

(16) EPB55000

Function

Updating of PFARESVS "Reserves Data"

Input Data

- PFA01, "Reserves"
- PFA02, "Oil and Solution Gas"
- PFA03, "Condensate and Gas"
- Parameter Card

#1	#2	#3
X(8)	X(2)	X(70)

- #1 Program Name
- #2 Year
- #3 Blank

Reference Data

- Zone Master

Output Data

- PFARESVS, "Reserves Data"
- Proof List
- Error Data

Check of Input Data

- Data for following items should be input always.
 - PFA01
 - Update-id
 - Transaction code
 - Field code
 - Reservoir unit code
 - Abandonment condition
 - PFA02
 - Update-id
 - Transaction code
 - Field code
 - Reservoir unit code
 - PFA03
 - Update-id
 - Transaction code
 - Field code
 - Reservoir unit code
 - Parameter Card
 - Program Name
 - Year

Editing of the Data in the Segment

- 1) PFA01RES
 - Followings are moved from "Zone Master"
 - Type of reservoir content
 - Formation code
- 2) PFA020SG
 - Date
The data is moved from parameter card.
 - Development status of reservoir unit
The data is moved from "Zone Master".

- Oil production
Zero is moved.
- Gas production
Zero is moved.

3) PFA03COG

- Date
The data is moved from parameter card.
- Development status of reservoir unit
The data is moved from "Zone Master".
- Condensate Production
Zero is moved.
- Gas production
Zero is moved.
- Gas injection
Zero is moved.

(17) EPB56000

Function

- Updating of PGAWELTS "Well Test and Stimulation"

Input Data

- PGA01, "Well Test and Stimulation"
- PGA02, "Production Test"
- PGA03, "Flow Rate by Choke Size"
- PGA04, "Injection Test"
- PGA05, "Subsurface Pressure Survey"
- PGA06, "Production Log"
- PGA07, "Well Stimulation"

Reference Data

- Field Master
- Well Master
- Zone Master
- PCAWELL, "Well Data"

Output Data

- PGAWELTS, "Well Test and Stimulation"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PGA01

- Update-id
- Transaction code
- Well test and stimulation code
- Workover number
- Kind of completed zone
- Formation code
- Test or stimulation period

- PGA02

- Update-id
- Transaction code
- Well test and stimulation code
- Kind of production test
- Type of production test

- PGA03

- Update-id
- Transaction code
- Well test and stimulation code
- Flowing method for test
- Choke size

- PGA04

- Update-id
- Transaction code
- Well test and stimulation code
- Kind of injection test
- Type of injection test

- PGA05
 - Update-id
 - Transaction code
 - Well test and stimulation code
 - Type of survey
- PGA06
 - Update-id
 - Transaction code
 - Well test and stimulation code
 - Run number
- PGA07
 - Update-id
 - Transaction code
 - Well test and stimulation code
 - Objective for stimulation
 - Type of stimulation

2) Followings are error condition for insertion or replacement.

- PGA01
 - Workover number
Pertinent number is not yet stored in "PCAWELL".
- PGA03
 - Choke size
The data is not numeric.
- PGA07
 - Production test code
Pertinent code is not yet stored in "PGA01TES".

Editing of the Data in the Segment

- **PGA01TES**

- **Province code**

The data is moved from "Well Master"

- **Followings are moved from "Field Master"**

- **Area code**

- **Field office code**

(18) EPB56010

Function

- Updating of PGBFLUID "Field Laboratory Fluid Analysis".

Input Data

- PGB01, "Field Laboratory Fluid Analysis"
- PGB02, "Oil Analysis"
- PGB03, "Condensate Analysis"
- PGB04, "Gas Analysis"
- PGB05, "Water Analysis"

Reference Data

- Field Master
- Well Master
- Zone Master
- PCAWELL, "Well Data"

Output Data

- PGBFLUID, "Field Laboratory and Fluid Analysis"
- Proof List
- Error Data

Check of Input Data

1) Data for following items should be input always.

- PGB01

- Update-id
- Transaction code
- Analysis code
- Station code or Well code

(In case "Station code" is input,
followings should be input with)

- Facilities field code
- Station code

(In case "Well code" is input,
followings should be input with)

- Field code
- Well code
- Reservoir unit code
- Layer code

- Sampling date

- PGB02

- Update-id
- Transaction code
- Analysis code

- PGB03

- Update-id
- Transaction code
- Analysis code

- PGB04

- Update-id
- Transaction code
- Analysis code

2) Followings are error condition for insertion or replacement.

- PGA01

- Workover number

- Pertinent number is not yet stored in "PCA01WEL".

Editing of the Data in the Segment

- PGB01ANL

- Followings are moved from "Field Master".

- Area code

- Field office code

(19) EPB57000

Function

- Updating of PHASTATN "station"

Input Data

- PHA01, "Station"
- PHA02, "Station Modification"
- PHA03, "Equipment in Station"
- PHA04, "Station Reference"
- PHA05, "Well Reference"

Reference Data

- Field Master
- Well Master
- PHBEQUIP, "Equipment"

Output Data

- PHASTATN, "Station"
- PHBEQUIP, "Equipment"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PHA01

- Update-id
- Transaction code
- Station code
- Field office code
- Date of station delivery
- Function and capacity

- PHA02

- Update-id
- Transaction code
- Station code
- Modification period

- PHA03

- Update-id
- Transaction code
- Station code
- Equipment code

- PHA04

- Update-id
- Transaction code
- Station code

- PHA05

- Update-id
- Transaction code
- Station code
- Well code

2) Followings are error condition for insertion or replacement.

- PHA03

Pertinent "Equipment code" is not yet stored in "PHB01EQP".

- PHA04

Pertinent "Station code" is not yet stored in "PHA01STN".

- PHA05

Pertinent "Well code" is not yet stored in "Well Master".

Editing of the Data in the Segment

- PHB01EQP

- Station code

The data is edited from "PHA03" taking the relation between "PHA03EQP" and "PHB01EQP" into consideration.

- PHA04REF

- Station code

The data is edited from "PHA04" taking the relation among stations into consideration.

(20) EPB57010

Function

- Updating of PHBEQUIP "Equipment"

Input Data

- PHB01, "Equipment"
- PHB02, "Equipment Maintenance"

Reference Data

- Company Master
- PHASTATN, "Station"

Output Data

- PHBEQUIP, "Equipment"
- PHASTATN, "Station"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PHB01
 - Update-id
 - Transaction code
 - Equipment code
 - Field office code
 - System code (In case of system)
 - Manufacturer code
 - Date of installation
 - Code of equipment associated (In case of prime mover)
 - Type of vessel
 - Kind of absorbent
 - Type of filter

- Kind of adsorbent
- Type of storage tank
- Method of plate combination
- Type of heat exchanger
- Type of fired heater
- Type of refrigerator
- Type of pump
- Type of compressor
- Type of generator
- Type of fan or blower
- Type of agitator
- Type of electric motor
- Type of ignition engine
- Type of gas turbine
- Type of steam turbine
- Type of fire fighting system

- PHB02

- Update-id
- Transaction code
- Equipment code
- Work period
- Result of inspection

2) Following are error condition of input data.

- PHB01

Pertinent "Station code" is not yet stored in "PHA01STN".

Pertinent "System code" is not yet stored in "PHB01EQP".

Pertinent "Code of equipment associated" is not yet stored in "PHB01EQP".

Editing of the Data in the Segment

- PHB01EQP

- Code of equipment associated

The data is edited from "code of equipment associated" in "PHB01" taking the relation between equipment and prime mover into consideration.

- PHA03EQP

- Equipment code

The data is edited from "PHB01" taking the relation between "PHA03EQP" and "PHB01EQP" into consideration.

(21) EPB58000

Function

- Updating of PIAPIPLN "Pipeline"

Input Data

- PIA01, "Pipeline"
- PIA02, "Pipeline Maintenance"

Reference Data

- Well Master
- PHASTATN, "Station"

Output Data

- PIAPIPLN, "Pipeline"
- Proof List
- Error Data

Check of Input Data

1) Data for the following items should be input always.

- PIA01
 - Update-id
 - Transaction code
 - Pipeline code
 - Province code
 - Field office code
 - Starting point
 - Date of installation
 - Nominal size
 - Kind of linepipe

- PIA02

- Update-id
- Transaction code
- Pipeline code
- Province code
- Field office code
- Starting point
- Date of installation
- Norminal size
- Kind of linepipe
- Work period
- Result of inspection

2) Following are error condition

- PIA01

Pertinent "Station code" of "Pipeline code"
is not yet stored in "PHA01STN".

(22) EPB52050

Function

- Copy of Well Data

Input Data

- PCAWELL, "Well Data"
- Parameter Card

#1	#2		#2	#3
X(8)	X(7)		X(7)	X(2)

- #1 Program Name
- #2 Well Code (Max 20 items)
- #3 Blank

Output Data

- PCAWELL, "Well Data"
- Proof List (See in Page AVII-78)

Description of Process

1) Creation of data for workover

- Followings are copied from last Well Data.

- PCA01WEL

- Well code
- Workover number (up by 1)
- Province code
- Area code
- Field office code
- Objective of well
- Vertical or deviated
- Sidetracking

- Local coordinate
 - Mercator coordinate
 - Well location name
 - Local coordinate
 - Mercator coordinate
 - Site description
 - Original derrick floor elevation
 - Original derrick floor height from bottom flange
 - Total depth
 - True vertical depth
 - Kick off point
 - Horizontal deviation
 - Mean drift angle
 - Casing and tubing head assembly
 - Christmas tree assembly
 - Working pressure
- PCA03STR
 - All items
 - PCA04HOC
 - All items
 - PCA05CST
 - All items
 - PCA06ROD
 - All items
 - PCA07SUB
 - All items
 - PCA08GAS
 - All items
 - PCA09PFR
 - All items
 - PCA10PLG
 - All items

- Followings are edited.

- PCA02WEH

- Followings are moved from "PCA01WEL"
(workover well).

- Workover number

- Completion status

- PCA01WEL (original well)

- Following is moved from "PCA01WEL"
(workover well).

- Current workover number

2) Output of proof list

The proof list described in page AVII-78 is
printed out together with the "Well code",
segment name and following messages.

"SUCCEDED"

"NOT SUCCEDED"

"NOT SUCCEDED" is printed out in case that
pertinent "Well code" is not found in "PCA01WEL".

PROOF LIST FOR COPY OF WELL DATA

PAGE-999

DD.MN.JYY

WELL CODE	WORKOVER NUMBER	DUPLICATED SEGMENT NAME	OCCURRENCE	MESSAGE
XXXXXXX	99	XXXXXXXXX	999	XXXXXXXXXXXXXXXXXXXX
001M001	01	PCA01WEL	1	SUCCEEDED
		PCA03STR	10	
		PCA04HOC	3	
		PCA08PFR	2	
001M002	03	PCA01WEL	1	SUCCEEDED
001M003				NOT SUCCEEDED

(23) EPB55050

Function

- Calculation of yearly production and injection by reservoir units.

Input Data

- PEAPRDIN, "Production and Injection"
- PFARBSVS, "Reserves Data"
- Parameter Card

#1	#2	#3
X(8)	X(2)	X(70)

#1 Program Name

#2 Year

#3 Blank

Output Data

- PFARBSVS, "Reserves Data"
- Proof List (See in Page AVII-83)

Description of Process

1) Procedure for updating of production rate in "PFARESVS"

- Division of production rate
Refer to the following data in "PEA02MPR" through the year in parameter card,
 - Oil of monthly production rate
 - Gas of monthly production rateand share the data by "Share factor for production" in "PEA03ZPR".
- Summing up of the production rate
Sum up the data shared in above-mentioned procedure by the following statistical unit.
 - by "Kind of recovery method",
 - by "Kind of completed zone"
 - and by "Reservoir unit code".
- Updating of production rate
Refer to "Reservoir unit code" in "PFA01RES" through "Reservoir unit code" of the data summed up, and move the data to the pertinent area in "PFARESVS" as follows.
(In case the "Kind of completed zone" of the data is equal to "1")
Refer to the year in "PFA02OSG" through the year in parameter card, move "Oil of monthly production" to "Oil production" in "PFA02OSG" and move "Gas of monthly production" to "Gas production" in "PFA02OSG".

(In case "Kind of completed zone" of the data is equal to "2")

Refer to the year in "PFA03COG" through the year in parameter card, move "Oil of monthly production" to "Condensate production" in "PFA03COG" and move "Gas of monthly production" to "Gas production" in "PFA03COG".

(In case "Kind of completed zone" of the data is equal to "3")

Refer to the year in "PFA03COG" through the year in parameter card, move "Oil of monthly production" to "Condensate production" in "PFA03COG" and move "Gas of monthly production" to "Gas production" in "PFA03COG".

2) Procedure for updating of injection rate in "PFARESVS"

- Division of injection rate

Refer to the "Monthly injection rate" in "PEA04MIJ" through the year in parameter card, and share the data by "Share factor for injection" in "PEA05ZIJ" in case of following condition.

- "Kind of completed zone" of the data is equal to "1" or "2".
- "Kind of injection fluid" of the data is equal to "4" or "5".

- Summing up of the injection rate

Sum up the "Monthly injection rate" shared in above-mentioned procedure by the following statistical unit.

- by "Kind of recovery method",
- by "Kind of completed zone"
- and by "Reservoir unit code".

- Updating of production rate
Refer to "Reservoir unit code" in
"PFA01RES" through "Reservoir unit code"
of the data summed up, and moved the data
to "Gas injection" in "PFA03COG".

3) Output of proof list

The data moved to "PFARESVS" are printed out
on the proof list described in page AVII-83.

4) Output of error message

In case of the following condition, output error
message on the proof list described in page AVII-83.

(In the moving procedure of the data from
"PEAPRDIN" to "PFARESVS")

- Pertinent "Reservoir unit code" is not
found in "PFA01RES".
- There is no segment in "PFARESVS" to be
moved.

XXXX PROOF LIST FOR CALCULATION OF YEARLY PRODUCTION

Note1

FIELD NAME: XXXXXXXXXXXXXXXXXX

RESERVOIR UNIT	KIND OF RECOVERY RESERVS METHOD	OIL PROD. [M3]	GAS PROD. [M3]	CONDENSATE [M3]	GAS PROD. [M3]	GAS INJECT. [M3]	ERROR MESSAGE
XXXX	XXXXXXXXX	PRIMARY	999,999,999.9	999,999,999.9	999,999,999.9	999,999,999.9	XXXXXXXXX (XXXXXXXXXX,XXXXXXXXXX)
		SECONDARY	999,999,999.9	999,999,999.9	999,999,999.9	999,999,999.9	Note2
		TERTIARY	999,999,999.9	999,999,999.9	999,999,999.9	999,999,999.9	
		TOTAL	999,999,999.9	999,999,999.9	999,999,999.9	999,999,999.9	
XXXX	XXXXXXXXX	PRIMARY	999,999,999.9	999,999,999.9	999,999,999.9	999,999,999.9	NOT FOUND (PFA02056,PFAC060)
		SECONDARY	999,999,999.9	999,999,999.9	999,999,999.9	999,999,999.9	
		TERTIARY	999,999,999.9	999,999,999.9	999,999,999.9	999,999,999.9	
		TOTAL	999,999,999.9	999,999,999.9	999,999,999.9	999,999,999.9	

FIELD TOTAL

9,999,999,999.9 9,999,999,999.9 9,999,999,999.9 9,999,999,999.9 9,999,999,999.9

Note1: Year in parameter card

Note2: Segment name

APPENDIX VIII

PROGRAM SPECIFICATION

OF

OUTPUT PROCESSING FOR DATA BASE

FOR

THE PETROLEUM EXPLORATION AND PRODUCTION DATA

BANK SYSTEM OF PERTAMINA UNIT EP-II

INTRODUCTORY REMARKS

This APPENDIX shows the program specification of output processing for data base.

Followings are number of programs by information groups.

	<u>Number of Program</u>
A-Geological Data and Contract Area Information	21
B-Geophysical Data Information	22
C-Well Data Information	34
D-Petrophysical and PVT Analysis Data Information	4
E-Production Data Information	37
F-Reserves Data Information	7
G-Production Operation Data Information	12
H-Production Facilities Data Information	13
I-Pipeline Data Information	6
	<hr/>
Total	156

There are fifteen (15) programs for Production Data Information group and three (3) programs for Reserves Data Information group of which programs are grouped and their specification is described by groups avoiding repetition, because of their resemblance among each other. Reference is made to remarks at the opening of their paragraphs on their respective program specification for Production Data Information group and Reserves Data Information group.

As for programs for other information groups, followings are remaked.

1. Assignment Parameter

Here is listed assignment parameters to be used, which is referred to APPENDIX II.

2. Segment Name

Here is listed segment name to be input, which is referred to APPENDIX III.

3. Master File Name

Here is listed master file name to make data collation, which is referred to 5-3 of text.

4. Supplementary Explanation for Output Item

- Reference is made to APPENDIX I.
- Number of parenthesis such as (28) stands for data item number in segment.

Example

Well cost (28)

- The output reporting methods of C28, C29, H3, H7, H10, I3 and I5 take the statistics based on a fiscal year, as described in "INTRODUCTORY REMARKS" of APPENDIX I.

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1 A-Geological Data and
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(1) EPB50100

Output Reporting Method

- A0-1 Contract area information
- A0-11 Original area
- A0-12 History of relinquishment

Assignment Parameter

- Header card of "Contract Area"
- Independent assignment card
 - "Contract Card"
 - "Contractor Card"
 - "Operator Card"

Segment Name

- (PAACONTR, "Contract Area")
 - PAA01CRT, "Contract Area"
 - PAA02HIS, "History of Relinquishment"
 - PAA03PRB, "Points of Relinquished Boundary"
 - PAA04OPB, "Points of Original Boundary"
- (PAEGIMAP, "Geological Map and Figure")
 - PAE01MAP, "Geological Map and Figure"

Master File Name

- Company master

Output Sequence

- Contract code

Condition of Changing Page

- Contract code

Supplementary Explanation for Output Item

- TITLE AND IDENT. NO. OF MAPS FOR ORIGINAL AREA UNDER CONTRACT

Refer to "PAE01MAP" through "Map code" in "PAA01CRT", and output the data related to the headword.

- RATIO TO ORIGINAL SIZE

$$\text{RATIO} = \frac{\text{Relinquished size of area (PAA02HIS)}}{\text{Original size of contract area (PAA01CRT)}} \times 100$$

- TITLE AND IDENT. NO. OF MAPS DRAWN RELINQUISHED AREA

Refer to "PAE01MAP" through "Map code" in "PAA02HIS", and output the data related to the headword.

(2) EPB50110

Output Reporting Method

- A0-2 Geological survey information

Assignment Parameter

- Header card of "Geological Survey"
- Independent assignment card
 - "Geological Survey Card"

Segment Name

- (PABGLSVY, "Geological Survey")
- PAB01SVY, "Geological Survey"
- PAB02MAP, "Geological Report and Map Reference"
 - (PAEGLMAP, "Geological Map and Figure")
- PAE01MAP, "Geological Map and Figure"
- (PAFGLREP, "Geological Report")
- PAF01REP, "Geological Report")

Output Sequence

- Survey code

Condition of Changing Page

- Survey code

Supplementary Explanation for Output Item

- TITLE OF SURVEY REPORT AND IDENT NO. OF SURVEY REPORT

Refer to "PAF01REP" through "Report code" in "PAB01SVY", and output the data related to the headword.

- LIST OF MAPS AND REPORT PREPARED BY SURVEY

Refer to the code of "Type of map, figure and report" in "PAB02MAP",

(In case of the code with "1", "2", "3", "4" or "5")
Refer to "PAE01MAP" through "Map, figure and report code" in "PAB02MAP", and output the data related to the headword.

(In case of the code with "6" or "7")
Refer to "PAF01REP" through "Map, figure and
report code" in "PAB02MAP, and output the data
related to the headword.

(3) EPB50120

Output Reporting Method

- A0-3 Geological analysis activity report information

Assignment Parameter

- Header card of "Geological Analysis"
- Independent assignment card
 - "Field Card"
 - "Geological Analysis Card"
 - "Well Card"

Segment Name

- (PACGLANL, "Geological Analysis")
 - PAC01ANL, "Geological Analysis"
 - PAC02SAM, "Geological Sampling"
 - PAC03KIN, "Kind of Geological Analysis"
 - PAC04FIG, "Geological Report and Figure Reference"
- (PAEGLMAP, "Geological Map and Figure")
 - PAE01MAP, "Geological Map and Figure"
- (PAFGLREP, "Geological Report")
 - PAF01REP, "Geological Report"

Master File Name

- Field master

Output Sequence

- Analysis code

Condition of Changing Page

- Analysis code

Supplementary Explanation for Output Item

- ANALYSIS REPORT

Refer to "PAF01REP" through "Report code" in "PAC01ANL", and output the data related to the headword.

- LIST OF MAIN CHART, FIGURE AND REPORT PREPARED BY ANALYSIS

Refer to the code of "Type of figure and report" in "PAC04FIG",

(In case of the code with "1" or "2")
Refer to "PAE01MAP" through "Figure and report code" in "PAC04FIG", and output the data related to the headword.

(In case of the code with "3")
Refer to "PAF01REP" through "Figure and report code" in "PAC04FIG", and output the data related to the headword.

(4) EPB50130

Output Reporting Method

- A0-4 Prospect information

Assignment Parameter

- Header card of "Miscellaneous"
- Independent assignment card
 - "Field Card"

Segment Name

- (PADPROSP, "Resource Prospect")
- PAD01PRO, "Resource Prospect"
- PAD02PHC, "Prospective Hydrocarbons Information"
- PAD03MAP, "Prospect Report and Map Reference"
- (PAEGLMAP, "Geological Map and Figure")
- PAE01MAP, "Geological Map and Figure"
- (PAFGLREP, "Geological Report")
- PAF01REP, "Geological Report"
- (PBCGPREP, "Geophysical Report")
- PBD01REP, "Geophysical Report"

Master File Name

- Field master

Output Sequence

- Prospect code

Condition of Changing Page

- Prospect code

Supplementary Explanation for Output Item

- SEISMIC INTERPRETATION REPORT REFERENCE

Refer to "PBD01REP" through "Map and report code" in "PAD03MAP", and output the data related to the headword.

- MAP REFERENCE

Refer to "PAE01MAP" through "Map and report code" in "PAD03MAP", and output the data related to the headword.

- PROSPECT AND LEAD REPORT REFERENCE

Refer to "PAF01REP" through "Map and report code" in "PAD03MAP", and output the data related to the headword.

(5) EPB50140

Output Reporting Method

- A0-5 Map and figure information

Assignment Parameter

- Header card of "Map, Figure and Report"
- Independent assignment card
 - "Field Card"
 - "Formation Card"
 - "Map, Figure Card"

Segment Name

(PAEGLMAP, "Geological Map and Figure")

- PAE01MAP, "Geological Map and Figure"
- PAE02WEL, "Well Reference"
- PAE03FOL, "Formation and Layer Reference"

(PAFGLREP, "Geological Report")

- PAF01REP, "Geological Report"

Master File Name

- Field master
- Zone master

Output Sequence

- Map code

Condition of Changing Page

- Map code

Supplementary Explanation for Output Item

- IDENTIFICATION OF REPORT

Refer to "PAF01REP" through "Report code" in "PAE01MAP", and output the data related to the headword.

(6) EPB50150

Output Reporting Method

- A0-6 Report information

Assignment Parameter

- Header card of "Map, Figure and Report"
- Independent assignment card
 - "Report Card"

Segment Name

- (PAEGLMAP, "Geological Map and Figure")
 - PAE01MAP, "Geological Map"
- (PAFGLREP, "Geological Report")
 - PAF01REP, "Geological Report"
 - PAF02MAF, "Geological Map and Figure Reference"

Output Sequence

- Report code

Condition of Changing Page

- Report code

Supplementary Explanation for Output Item

- IDENTIFICATION OF MAPS AND FIGURE

Refer to "PAE01MAP" through "Map or figure code" in "PAF02MAF", and output the data related to the headword.

(7) EPB50200

Output Reporting Method

- A1 List of contract area

Assignment Parameter

- Header card of "Contract Area"
- Independent assignment card
 - "Contractor Card"
 - "Operator Card"

Segment Name

(PAACONTR, "Contract Area")

- PAA01CRT, "Contract Area"
- PAA02HIS, "History of Relinquishment"

Master File Name

- Company master

Output Sequence

- Contract code

Supplementary Explanation for Output Item

- AREA SIZE (KM²)

- RELINQ.

Total of "Relinquished size of area" in
"PAA02HIS" by contracts.

(8) EPB50205

Output Reporting Method

- A2 List of relinquished area

Assignment Parameter

- Header card of "Contract Area"
- Independent assignment card
 - "Contractor Card"
 - "Operator Card"

Segment Name

- (PAACONTR, "Contract Area")
- PAA01CRT, "Contract Area"
- PAA02HIS, "History of Relinquishment"

Master File Name

- Company master

Output Sequence

- Contract code

Supplementary Explanation for Output Item

- RATIO [%]

$$\text{RATIO} = \frac{\text{Relinquished size of area (PAA02HIS)}}{\text{Original size of contract area (PAA01CRT)}} \times 100$$

(9) EPB50210

Output Reporting Method

- A3 Geological survey list completed by year

Assignment Parameter

- Header card of "Geological Survey"

Segment Name

- (PABGLSVY, "Geological Survey")
- PAB0LSVY, "Geological Survey"

Output Sequence

- Year
- Survey code

Condition of Changing Page

- Year

Supplementary Explanation for Output Item

- TOTAL
Total of pertinent data by years
- EXCHANGE RATE
Weighted average value of exchange rates through the year.

(10) EPB50215

Output Reporting Method

- A4 Geological analysis list completed by year

Assignment Parameter

- Header card of "Geological Analysis"
- Independent assignment card
 - "Field Card"

Segment Name

- (PACGLANL, "Geological Analysis")
 - PAC01ANL, "Geological Analysis"
 - PAC02SAM, "Geological Sampling"
 - PAC03KIN, "Kind of Geological Analysis"
- (PAFGLREP, "Geological Report")
 - PAF01REP, "Geological Report"

Output Sequence

- Year
- Analysis code

Condition of Changing Page

- Year

Supplementary explanation for Output Item

- SUB-TOTAL
 - Total by "Geochemical analyses"
 - Total by "Paleontological analyses"
 - Total by "Lithological analyses"
 - Total by "Other geological analyses"
- GRAND TOTAL
 - Total of pertinent data by years

- EXCHANGE RATE

Weighted average value of exchange rates through the year.

(11) EPB50220

Output Reporting Method

- A5 Exploration activities summary completed by year

Assignment Parameter

- Header card of "Miscellaneous"

Segment Name

(PABGLSVY, "Geological Survey")

- PAB01SVY, "Geological Survey"

(PACCLANL, "Geological Analysis")

- PAC01ANL, "Geological Analysis"
- PAC02SAM, "Geological Sampling"
- PAC03KIN, "Kind of Geological Analysis"

(PBAGPSVY, "Geophysical Survey")

- PBA01SVY, "Geophysical Survey"
- PBA02FLD, "Field Operation"
- PBA04COS, "Field Operation Cost"
- PBA05DPR, "Data Processing"
- PBA08COS, "Data Processing Cost"
- PBA15FLD, "Field or Prospect Reference"

(PCAWELL, "Well Data")

- PCA01WEL, "Well"
- PCA32COS, "Well Cost"

Master File Name

- Field master
- Company master

Output Sequence

(In case of "Geological survey", "Geophysical survey"
and "Geophysical survey data processing")

- Survey code

(In case of "Exploration drilling")

- Well code

(In case of "Geological analysis")

- Analysis code

Condition of Changing Page

- Geological survey

- Geophysical survey

- Geophysical survey data processing

- Exploration drilling

- Geological analysis

Supplementary Explanation for Output Item

- GEOLOGICAL SURVEY

- SUB-TOTAL

Total of pertinent data by geological surveys

- EXCHANGE RATE

Weighted average value of exchange rates through
the year.

- GEOPHYSICAL SURVEY

- FIELD OR PROSPECT NAME

Abbreviation of "Field or prospect name"

- SUB-TOTAL

Total of pertinent data by geophysical surveys

- EXCHANGE RATE

Weighted average value of exchange rates through
the year.

- **GEOPHYSICAL SURVEY DATA PROCESSING**

- **SUB-TOTAL**

Total of pertinent data by geophysical survey data processing

- **EXCHANGE RATE**

Weighted average value of exchange rates through the year.

- **EXPLORATION DRILLING**

- **SUB-TOTAL**

Total of "TOTAL COST" by exploration drillings

- **GEOLOGICAL ANALYSIS**

- **SUB-TOTAL**

Total of pertinent data by geological analyses

- **GRAND TOTAL COST**

Grand total of "SUB-TOTAL" of "GEOLOGICAL SURVEY", "GEOPHYSICAL SURVEY", "GEOPHYSICAL SURVEY DATA PROCESSING", "EXPLORATION DRILLING" and "GEOLOGICAL ANALYSIS".

(12) EPB50225

Output Reporting Method

- A6 List of map and figure

Assignment Parameter

- Head card of "Map, Figure and Report"
- Independent assignment card
 - "Field Card"
 - "Formation Card"
 - "Map, Figure Card"

Segment Name

(PAEGLMAP, "Geological Map and Figure")

- PAE01MAP, "Geological Map and Figure"

Output Sequence

(In case of "Sorting parameter" of assignment parameter is assigned as "CODE")

- Map code

(In case of "Sorting parameter" of assignment parameter is assigned as "DATE")

- Kind of map
- Prepared or revised date
- Map code

Condition of Changing Page

- Kind of map

(13) EPB50230

Output Reporting Method

- A7 List of report

Assignment Parameter

- Header card of "Map, Figure and Report"
- Independent assignment card
 - "Field Card"
 - "Report Card"

Segment Name

- (PAFGLREP, "Geological Report")
- PAF01REP, "Geological Report"

Output Sequence

(In case of "Sorting parameter" of assignment parameter is assigned as "CODE")

- Report code

(In case of "Sorting parameter" of assignment parameter is assigned as "DATE")

- Kind of report
- Reported date
- Reported code

Condition of Changing Page

- Kind of report

(14) EPB50235

Output Reporting Method

- A8 Lithological information summary by well

Assignment Parameter

- Header card of "Miscellaneous"
- Independent assignment card
 - "Field Card"
 - "Well Card"

Segment Name

- (PCAWELL, "Well Data")
- PCA01WEL, "Well"
- PCA03STR, "Stratigraphy"

Master File Name

- Zone master

Output Sequence

- Well code
- Formation code
- Layer code

Condition of Changing Page

- Well code

Supplementary Explanation for Output Item

- TOP OF FORMATION
 - DF (M)
 - "Interval of formation or layer (1)" in
"PCA03STR"

- SS [M]

SS = (Interval of formation or layer (1)
(PCA03STR)

- Original derrick floor elevation)
(PCA01WEL)

- TOP OF LAYER

Same as "DP [M] and SS [M] of TOP OF FORMATION"

(15) EPB50240

Output Reporting Method

- A9 Geological core description summary

Assignment Parameter

- Header card of "Miscellaneous"
- Independent assignment card
 - "Field Card"
 - "Well Card"
 - "Formation Card"

Segment Name

- (PCAWELL, "Well Data")
 - PCA01WEL, "Well"
 - PCA24COR, "Coring"
 - PCA25LIT, "Core Lithology"

Output Sequence

- Well code
- Core number
- Interval selected

Condition of Changing Page

- Well code

Supplementary Explanation for Output Item

- RECOVERY

- [M]

$$M = \frac{(\text{Interval (2)} - \text{Interval (1)}) \times \text{Recovery (PCA24COR)}}{(\text{PCA24COR}) \quad (\text{PCA24COR}) \quad 100}$$

- FORMATION NAME

Refer to "Formation code" in "PCA03STR" through "Interval of formation or layer" in "PCA24COR", and output the data of "Formation name".

(16) EPB50245

Output Reporting Method

- A10 Lithological side wall core description summary

Assignment Parameter

- Header card of "Miscellaneous"
- Independent assignment card
 - "Field Card"
 - "Well Card"
 - "Formation Card"

Segment Name

- (PCAWELL, "Well Data")
- PCA01WEL, "Well"
- PCA26WAL, "Side Wall Sample"

Output Sequence

- Well code
- Sampling date
- Sample number

Condition of Changing Page

- Well code

Supplementary Explanation for Output Item

- FORMATION NAME, LAYER NAME

Refer to "Formation code" and "Layer code" in "PCA03STR" through "Sample depth" in "PCA26WAL", and output the data of "Formation name" and "Layer name".

(17) EPB50250

Output Reporting Method

- All Hydrocarbons indication summary

Assignment Parameter

- Header card of "Miscellaneous"
- Independent assignment card
 - "Field Card"
 - "Well Card"
 - "Formation Card"

Segment Name

- (PCAWELL, "Well Data")
- PCA01WEL, "Well"
- PCA28HYD, "Hydrocarbon Indication"

Master File Name

- Field master

Output Sequence

- Field code
- Well code
- Interval

Condition of Changing Page

- Field code
- Well code

Supplementary Explanation for Output Item

- FIELD OR PROSPECT NAME
Full name of "Field or prospect name"
- FORMATION, LAYER NAME

Refer to "Formation code" and "Layer code" in "PCA03STR" through "Interval" in "PCA28HYD", and output the data of "Formation name" and "Layer name".

(18) EPB50255

Output Reporting Method

- A12 Correlation of formation tops

Assignment Parameter

- Header card of "Miscellaneous"
- Independent assignment card
 - "Field Card"
 - "Well Card"

Segment Name

(PCAWELL, "Well Data")

- PCA01WEL, "Well"
- PCA03STR, "Stratigraphy"

Master File Name

- Field master

Output Sequence

- Field code
- Well code or well code of assignment parameter

Condition of Changing Page

- Field code

Supplementary Explanation for Output Item

- FIELD OR PROSPECT NAME

Full name of "Field or prospect name"

- Refer to "Formation code" in "PCA03STR",

- (in case of the code with "01", "02", "03", "04",
"05, "06" or "07")

output the following data

- KAFTOP ~ LAFTOP

- LOG [M]

"Interval of formation or layer (1)" in
"PCA03STR"

- SS [M]

SS = (Interval of formation or layer (1)
(PCA03STR)

- Original derrick floor elevation)
(PCA01WEL)

- THICK [M]

"Layer gross thickness" or "Formation
thickness" in "PCA03STR"

- (in case of the code with "08")

output the following data

- BASEMENT

- LOG

"Interval of formation or layer (1)" in
"PCA03STR"

- SS [M]

SS = (Interval of formation or layer (1)
(PCA03STR)

- Original derrick floor elevation)
(PCA01WEL)

- TD

- LOG [M]

"Total depth" in "PCA01WEL"

- SS [M]

SS = (Total depth - Original derrick floor elevation)
(PCA01WEL) (PCA01WEL)

(19) EPB50260

Output Reporting Method

- A13 Estimated hydrocarbons in place and recoverable hydrocarbons reserves

Assignment Parameter

- Header card of "Miscellaneous"
- Independent assignment card
 - "Field Card"

Segment Name

(PADPROSP, "Resource Prospect")

- PAD01PRO, "Resource Prospect"
- PAD02PHC, "Prospective Hydrocarbon Information"

Master File Name

- Field master
- Zone master

Output Sequence

- Area code
- Prospect code
- Formation code

Condition of Changing Page

- Area code

Supplementary Explanation for Output Item

- PROSPECT
 - NAME
 - Full name of "Field or prospect name"
- PROSPECT-TOTAL
 - Total of pertinent data by prospects

- AREA-TOTAL

Total of pertinent data by areas

- GRAND TOTAL

Grand total of pertinent data of "AREA-TOTAL"

(20) EPB50265

Output Reporting Method

- A14 Estimated hydrocarbons in place by formation

Assignment Parameter

- Header card of "Miscellaneous"
- Independent assignment card
 - "Field Card"
 - "Formation Card"

Segment Name

(PADPROSP, "Resource Prospect")

- PAD01PRO, "Resource Prospect"
- PAD02PHC, "Prospective Hydrocarbon Information"

Master File Name

- Field master
- Zone master

Output Sequence

- Area code
- Formation code
- Prospect code
- Type of trap

Condition of Changing Page

- Area code
- Formation code

Supplementary Explanation for Output Item

- PROSPECT

- NAME

Full name of "Field or prospect name"

- TOTAL

Total of pertinent data by formations

(21) EPB50270

Output Reporting Method

- A15 Estimated hydrocarbons in place by type of trap

Assignment Parameter

- Header card of "Miscellaneous"
- Independent assignment card
 - "Field Card"
 - "Formation Card"

Segment Name

- (PADPROSP, "Resource Prospect")
- PAD01PRO, "Resource Prospect"
- PAD02PHC, "Prospective Hydrocarbon Information"

Master File Name

- Field master
- Zone master

Output Sequence

- Type of trap
- Area code
- Prospect code
- Formation code

Condition of Changing Page

- Type of trap

Supplementary Explanation for Output Item

- PROSPECT
 - NAME
 - Full name of "Field or prospect name"

- PROSPECT-TOTAL

Total of pertinent data by prospects

- AREA-TOTAL

Total of pertinent data by areas

- GRAND TOTAL

Grand total of pertinent data by type of traps