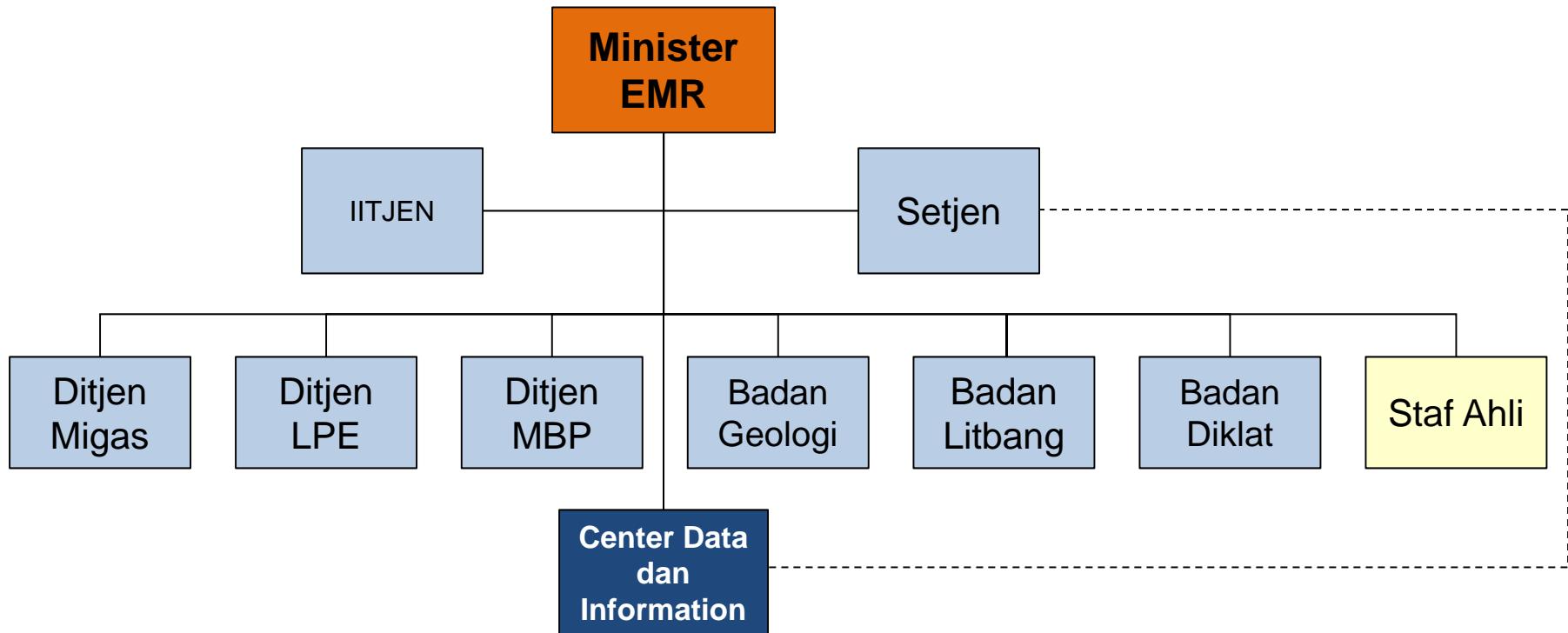


**OIL & GAS EXPLORATION AND
PRODUCTION
METADATA CATALOGUE**

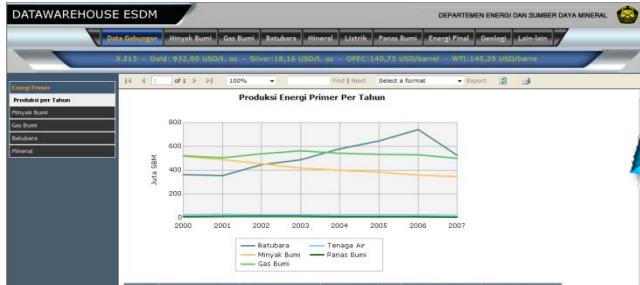
**CENTER DATA AND INFORMATION
MINISTRY OF ENERGY AND MINERAL RESOURCES
REPUBLIC OF INDONESIA**

Organigram MEMR



CENTER DATA AND INFORMATION

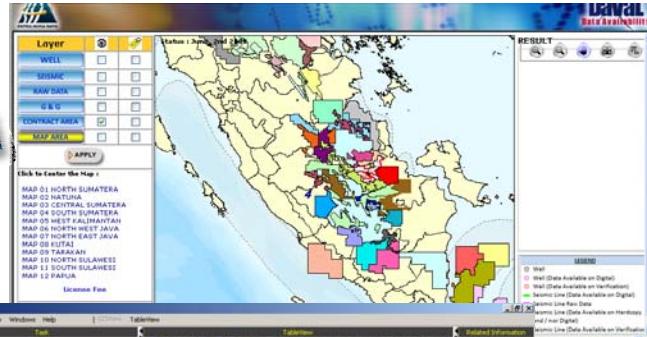
Responsibility



Data Ware House

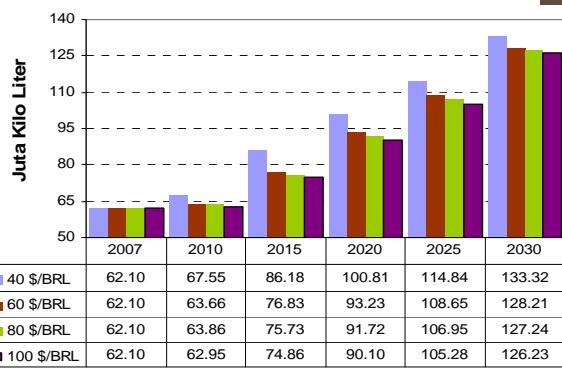
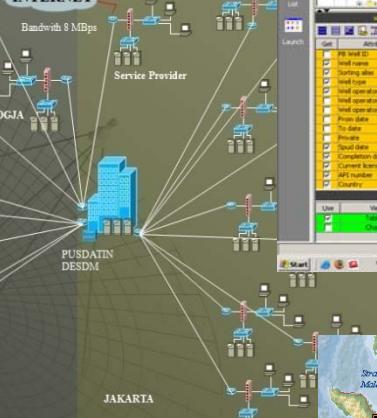
Oil and Gas Data Management

Information Technology



The homepage features a banner for "MINYAK & GAS BUMI", "LISTRIK", "MINERAL BATUBARA & PANAS BUMI", and "GEOLOGI". It includes a news section with headlines about Hajj preparations and mining investments, and a sidebar with links to various departments and offices.

INTERNET



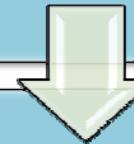
Strategic Analysis



OIL AND GAS DATA REGULATION

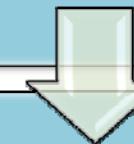
Law Of The Republic of Indonesia

Number 22 of 2001 about Oil And Gas



Government Regulation Of The Republic Of Indonesia

Number 35 f 2004 about Oil And Gas Upstream Business Activities

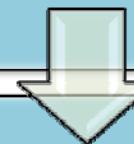


Regulation by Minister of E&MR

Number 027 of 2006 about Management and Utilization
of Data Generated from Oil and Gas General Survey
Exploration and Exploitation Activities

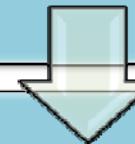


Data obtained from oil and gas activities shall be the
possession of the state and controlled by the
Government



Center Data and Information:

- Responsible for Oil and Gas Data Management
- Supporting Directorate General of Oil and Gas on
Petroleum Management in Indonesia



E & P Metadata

Comply to international standard : POSC
(Petrotechnical Open Standards Consortium)

CATALOG STANDARD

1. Data arrangement is carried out using an integrated catalogue that:
 - a. describes all metadata (information about data) as specified by Tables in this Exhibit.
 - b. presents the metadata with GIS (Geographical Information System) base technology.
2. The following standard Metadata Tables are specified with considerance to practical operation in Physical Data Storage
 - The Number of character are adopted from POSC Epicenter.
 - The standard metadata are grouped in the table according to the type of data.

a. Seismic Data	
- Seismic Summary	Table 5.1.
- Seismic Display	Table 5.2.
- Seismic Tapes	Table 5.3.
- Seismic Supporting Document	Table 5.4.
b. Well	
- Well Summary	Table 5.5.
- Well Logs	Table 5.6.
- Well Tapes	Table 5.7.
- Well Reports	Table 5.8.
c. Samples	Table 5.9.
d. Media Magnetic for Non Seismic and Well Data	Table 5.10.
e. Technical Reports	Table 5.11.
f. Drawing or Maps	Table 5.12.
g. Bibliographics	Table 5.13.

Table 5.1.
METADATA LIST OF SEISMIC LINE

ATTRIBUTE	DESCRIPTIONS	Number of Character
CONTRACTOR	Contractor who own the licence of the Working Area where the survey is conducted	varchar2(40)
WORKING_AREA	the Working Area where the survey is conducted	varchar2(80)
FIELD_AREA	Part of Working Area where the survey is conducted	varchar2(80)
COUNTRY	Country where the survey is conducted	varchar2(40)
SURVEY_NAME	The name of the survey	varchar2(40)
SURVEY_TYPE	Type of survey e.g. 2D marine, 3D land	varchar2(20)
SURVEY_DATE	The starting date of the survey	date
SURVEY_OPERATOR	Business entity who operates the survey	varchar2(80)
CREW_NUMBER	Identification number for the crew who operates the survey	varchar2(10)
SHOTPOINT_INTERVAL	Interval between shotpoint	number(5,2)
SHOTPOINT_INTERVAL_UNITS	Unit of interval between shotpoint	varchar2(20)
SHOT_LINE_INTERVAL	Interval between shotpoint line (only for 3D)	number(5,2)
SHOT_LINE_INTERVAL_UNITS	Units of interval between shotpoint line (only for 3D)	varchar2(20)
GROUP_INTERVAL	Interval between receiver	number(5,2)
GROUP_INTERVAL_UNITS	Units of interval between receiver	varchar2(20)
GROUP_LINE_INTERVAL	Interval between receiver line (only for 3D)	number(5,2)
GROUP_LINE_INTERVAL_UNITS	Units of interval between receiver line (only of 3D)	varchar2(20)
ENERGY_SOURCE	Energy source used in survey	varchar2(20)
FOLD_COVERAGE	Normal Fold Coverage of the line seismic	number(5)
CHANNEL_NUMBER	The number of channel of the recorder	number(5)
RECORD_LENGTH	The record length of seismic data	number(5)
RECORD_LENGTH_UNITS	Units of record length	varchar2(20)
SAMPLE_INTERVAL	The recording sample interval	number(2)
SAMPLE_INTERVAL_UNITS	unit of sample interval	varchar2(20)
LINE_NAME	The name of the line in the survey	varchar2(20)
FIRST_SHOTPOINT	First shotpoint of line seismic	number(5)
LAST_SHOTPOINT	Last shortpoint of line seismic	number(5)
DIRECTION	Direction of line seismic in Degree (for 2D only)	number(3)
LINE_LENGTH	Total length of the seismic line	number(5)
LINE_LENGTH_UNITS	Units of line length	varchar2(20)

Table 5.2.
METADATA LIST OF SEISMIC DISPLAY

ATTRIBUTE	DESCRIPTIONS	Number of Character
CONTRACTOR	Contractor who own the licence of the Working Area where the survey is conducted	varchar2(40)
WORKING_AREA	the Working Area where the survey is conducted	varchar2(80)
FIELD_AREA	Part of Working Area where the survey is conducted	varchar2(80)
COUNTRY	Country where the survey is conducted	varchar2(40)
SURVEY_NAME	The name of the survey	varchar2(40)
SURVEY_TYPE	Type of survey e.g. 2D marine, 3D land	varchar2(20)
SURVEY_DATE	The starting date of the survey	date
PROCESSING_CONTRACTOR	Contractor who process the data	varchar2(80)
PROCESSING_DATE	The starting date of the processing data	date
LINE_NAME	The name of the line in the survey	varchar2(20)
FIRST_SHOTPOINT	First shotpoint of line seismic	number(5)
LAST_SHOTPOINT	Last shotpoint of line seismic	number(5)
FIRST_CDP	First CDP of line seismic	number(5)
LAST_CDP	Last CDP of line seismic	number(5)
DISPLAY_DATE	Created date of the seismic display	date
PROCESS_TYPE	Processing steps that have taken place e.g. Field Data, Unfiltered Stack, Filtered Stack	varchar2(40)
DISPLAY_MEDIUM	The type of medium for seismic display e.g. paper, film, sepia	varchar2(20)
VERTICAL_SCALE	Scalar quantity used to transform real world x coordinates e.g. 10 CPS, 5.0 IPS, 1:10000	varchar2(20)
HORIZONTAL_SCALE	Scalar quantity used to transform real world y coordinates e.g. 10 TPC, 10 TPI, 1:10000	varchar2(20)
POLARITY	Polarity of displayed data as per SEG polarity standard e.g. dual, normal, reverse	varchar2(20)
STORAGE_NAME	The name of the storage company e.g. Sigma, In-house, Geoservices	varchar2(40)
STORAGE_LOCATION	The location inside the storage	varchar2(20)

Table 5.3.
METADATA LIST OF SEISMIC TAPES

ATTRIBUTE	DESCRIPTIONS	Number of Character
CONTRACTOR	Contractor who own the licence of the Working Area where the survey is conducted	varchar2(80)
WORKING_AREA	the Working Area where the survey is conducted	varchar2(80)
FIELD_AREA	Part of Working Area where the survey is conducted	varchar2(80)
COUNTRY	Country where the survey is conducted	varchar2(40)
SURVEY_NAME	The name of the survey	varchar2(40)
SURVEY_DATE	The starting date of the survey	date
RECORD_LENGTH	The length of time that recording occurred	number(5)
RECORD_LENGTH_UNITS	Units of record length	varchar2(20)
SAMPLE_INTERVAL	The recording sample interval	number(2)
SAMPLE_INTERVAL_UNITS	Units of sample interval	varchar2(20)
PROCESS_TYPE	Processing steps that have taken place e.g. Field Data, Unfiltered Stack, Filtered Stack	varchar2(20)
LINE_NAME	The name of the line in the survey	varchar2(20)
FIRST_SHOTPOINT	First shotpoint of line seismic	number(5)
LAST_SHOTPOINT	Last shotpoint of line seismic	number(5)
FILE_FROM	First file in the magnetic media	number(5)
FILE_TO	Last file in the magnetic media	number(5)
MAGNETIC_NUMBER	Media Magnetic number	varchar2(10)
MAGNETIC_DATE	Created date of the seismic data to the magnetic	date
MAGNETIC_FORMAT	The file format e.g. SEGY, SEG-D	varchar2(20)
MAGNETIC_MEDIUM	The kind of media magnetic e.g. 9 Track, 8 mm, 4 mm, DLT, Cartridge	varchar2(20)
MAGNETIC_LENGTH	The length of the media Magnetic	number(5)
MAGNETIC_DENSITY	The density of the Media Magnetic	number(5)
MAGNETIC_BRAND	The brand of the Media Magnetic	varchar2(20)
STORAGE_NAME	The name of the storage company e.g. Sigma, In-house, Geoservices	varchar2(40)
STORAGE_LOCATION	The location inside the storage	varchar2(20)

Table 5.4.
METADATA LIST OF SEISMIC SUPPORTING DOCUMENT

ATTRIBUTE	DESCRIPTIONS	Number of Character
CONTRACTOR	Contractor who own the licence of the Working Area where the survey is conducted	varchar2(80)
WORKING_AREA	the Working Area where the survey is conducted	varchar2(80)
FIELD_AREA	Part of Working Area where the survey is conducted	varchar2(80)
COUNTRY	Country where the survey is conducted	varchar2(40)
SURVEY_NAME	The name of the survey	varchar2(40)
SURVEY_DATE	The starting date of the survey	date
LINE_NAME	The name of the line in the survey	varchar2(20)
DOCUMENT_DATE	Created date of the seismic supporting document	date
DOCUMENT_TYPE	The seismic supporting document type e.g. Playback, Navigation Survey, Observer Report	varchar2(40)
DOCUMENT_MEDIUM	The storage medium for seismic supporting document e.g. paper, floppy disk, CD-ROM	varchar2(20)
STORAGE_NAME	The name of the storage company e.g. Sigma, In-house, Geoservices	varchar2(40)
STORAGE_LOCATION	The location inside the storage	varchar2(20)

Table 5.5.
METADATA LIST OF WELL SUMMARY

ATTRIBUTE	DESCRIPTIONS	Number of Character
CONTRACTOR	Contractor who own the licence of the Working Area	varchar2(80)
WORKING_AREA	where the survey is conducted	varchar2(80)
FIELD_AREA	the Working Area where the survey is conducted	varchar2(80)
COUNTRY	Part of Working Area where the survey is conducted	varchar2(40)
WELL_NAME	Country where the survey is conducted	varchar2(40)
WELL_STATUS	The status of the well	varchar2(40)
WELL_TYPE	e.g. Dry, Gas, Gas Suspended, Oil, Oil Suspended The type of the well e.g. Exploration, development	varchar2(40)
PRIMARY_OBJECTIVE	Primary objective of the formation	varchar2(80)
SECONDARY_OBJECTIVE	Secondary objective of the formation	varchar2(80)
LONGITUDE	Longitude position of the well	varchar2(18)
LATITUDE	Latitude position of the well	varchar2(17)
WELL_POSITION	Survey environment of the well e.g. Onshore, Offshore	varchar2(20)
SEISMIC_LINE_REFERENCE	Seismic line which is crossed the well location'	varchar2(20)
AT_SHOTPOINT	The shotpoint location nearest to the well location	number(5)
SPUD_DATE	The starting date of the drilling activity	date
COMPLETION_DATE	The last time of the drilling activity	date
RKB_ELEVATION	Elevation from the mean sea level of RKB	number(10,1)
RKB_ELEVATION_UNITS	Units of RKB elevation	varchar2(20)
WATER_DEPTH	The water depth from the mean sea level	number(10,1)
WATER_DEPTH_UNITS	Units of water depth	varchar2(20)
GROUND_LEVEL	Ground elevation from the mean sea level	number(10,1)
GROUND_LEVEL_UNITS	units of ground level	varchar2(20)
TOTAL_DEPTH	The total depth of well	number(10,1)
TOTAL_DEPTH_UNITS	Units of total depth	varchar2(20)
TRUE_VERTICAL_DEPTH	The vertical depth of the well	number(10,1)
TRUE_VERTICAL_DEPTH_UNITS	Units of true vertical depth	varchar2(20)
PROGNOSED_DEPTH	The prognoses depth of the well	number(10,1)
PROGNOSED_DEPTH_UNITS	Units of prognoses depth	varchar2(20)
RIG_CONTRACTOR	The owner of the rig	varchar2(40)
RIG_NAME	The name of the rig	varchar2(20)
RIG_TYPE	The type of the rig	varchar2(20)
CASING_DIAMETER	The diameter of the casing	varchar2(20)
CASING_DEPTH	The depth of the casing	varchar2(20)
TEST_RESULT	The summary of test result	number(10,1)
REMARKS	Remarks for the well	varchar2(2000)

GOVERNMENT DATA STORAGE



THANK YOU