

New Delhi, the 16 August, 2017

**DIRECTION**

**Subject: Direction, under Government of India (Ministry of Petroleum and Natural Gas) notification No.S.O.1391(E) dated 1<sup>st</sup> September, 2006, issued in exercise of powers under section 8 of the Oilfields (Regulation and Development) Act, 1948 (53 of 1948) read with rule 32 of the Petroleum and Natural Gas Rules, 1959 - Submission of data to DGH by National Oil Companies (NOCs) in respect of Nomination Fields – Form and manner of submission of Data relating to Drilling Activities.**

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**No. DGH/NOC/Direction/Drilling/1/2017. ----- WHEREAS** the Directorate General of Hydrocarbons, [hereinafter referred to as DGH], established under Government of India's Resolution No.O-20013/2/92-ONG.D.III dated 8<sup>th</sup> April, 1993, published in Part I, Section 1 of the Gazette of India (No.21) dated 22<sup>nd</sup> May, 1993, has been entrusted with discharge of review, monitoring, regulatory and advisory functions as specified in the said Resolution;

**2. AND WHEREAS** the Government of India, in the Ministry of Petroleum and Natural Gas, vide its notification No.S.O.1391(E) dated 1<sup>st</sup> September, 2006, issued in exercise of powers conferred by section 8 of the Oilfields (Regulation and Development) Act, 1948 (53 of 1948) read with rule 32 of the Petroleum and Natural Gas Rules, 1959 [published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (ii) dated 1<sup>st</sup> September, 2006], has designated the Directorate General of Hydrocarbons (DGH) as the authority or agency to exercise the powers and functions of the Central Government with a view to promoting sound management of the hydrocarbon resources in the country having balanced regard for environmental safety, technological and economic aspects and has further entrusted DGH with specific functions relating to (a) monitoring upstream petroleum operations; (b) reviewing and monitoring exploration programmes and development plans for commercial discoveries of hydrocarbons; (c) reviewing the management of petroleum reservoirs by licensees and lessees and advising them on any action for proper management of the petroleum reservoirs; (d) asking for and maintaining all geo-scientific data, reports and information from licensees and lessees and storing and preserving data and samples pertaining to petroleum exploration, drilling, production and connected operations; etc.;

**3. AND WHEREAS** the Government of India, in the Ministry of Petroleum and Natural Gas, has, vide its letter No.12013/3/2009/ONG-III dated 4<sup>th</sup> September, 2009 and subsequent O.M. No.12013/3/2009/ONG-III (FTS-45927) dated 25<sup>th</sup> November, 2016 approved "Guidelines for management of Oil and Gas Resources for nomination fields of National Oil Companies (NOCs)" covering, *inter alia*, the review/monitoring of (i) Exploration Programmes; (ii) Discovery and Reporting of Reserves; (iii) Appraisal Plans; (iv) Declarations of Commerciality (DoC); (v) Development Plans/ Feasibility Reports; (vi) Reservoir management; etc.;

4. **AND WHEREAS** it has become necessary and expedient to lay down clear instructions on the manner of submission of data by NOCs to DGH and the formats and timelines for their submission, in relation to various activities undertaken by them in the Nomination Fields;

5. **NOW, THEREFORE**, in exercise of the powers conferred upon it under the Government of India (Ministry of Petroleum and Natural Gas) notification No.S.O.1391(E) dated 1<sup>st</sup> September, 2006, read with the Guidelines approved and conveyed by the Government of India (Ministry of Petroleum and Natural Gas) vide its communications dated 4<sup>th</sup> September, 2009 and 25<sup>th</sup> November, 2016, and in order to effectively discharge its functions under the Oilfields (Regulation and Development) Act, 1948 (53 of 1948) and the Petroleum and Natural Gas Rules, 1959 and under the aforesaid notification of the Central Government dated 1<sup>st</sup> September, 2006, the Directorate General of Hydrocarbons (DGH) hereby directs that the National Oil Companies (NOCs) shall, with effect from the date of issuance of these Directions, submit the following data relating to Drilling activities within the Nomination Fields to DGH, in accordance with the timelines indicated below and in the respective formats as indicated hereunder, namely:-

- (a) NOCs shall, on or before the fifth day of the month following each month, submit to DGH, the data relating to drilling activities for each PEL and for each PML, in Nomination Acreages, namely, Completed Well Reports (T-1), Cumulative Performance Reports (T-2), Consolidated Progress Reports (T-3) and Report on number of Rigs (T-4), in the formats given in **Annexure-1** to **Annexure 4**;
- (b) NOCs shall submit their respective Annual Plan of Drilling Activities (in respect of Nomination Fields) to DGH, in the beginning of the year, i.e., on or before 30<sup>th</sup> April of each Financial Year, in respect of drilling activities planned during that Financial Year, in the format at **Annexure-5**.
- (c) NOCs shall also submit to DGH –
  - (i) the details of recommended drilling locations along with detailed proposals of exploratory and development locations for approval and release by DGH and, for this purpose, the NOC shall submit a complete G&G report regarding release of the proposed drilling locations<sup>1</sup> (to be submitted as per formats at **Annexure-6 and Annexure-6A** at least 15 days prior to proposed date of spudding);
  - (ii) a copy of Geo Technical Order (GTO) (to be submitted to DGH before commencement of drilling);
  - (iii) Well Completion Report containing complete details regarding geological objective achieved, target depth reached (to be submitted to DGH within 15 days upon completion of the well);
  - (iv) Non-Productive Time (NPT)/Downtime Report, complications details, if encountered in the wells, if any (on a monthly basis, i.e., on or before the fifth day of the month following each month); and

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<sup>1</sup>**Note:** DGH will issue the approval letter indicating the released location coordinates to be drilled in PELs/PMLs along with the geological objective and target depth for each well. Wells drilled without prior approval and release of coordinates by DGH shall be considered as unauthorised.

(v) Exception Reports on drilling activities (to be submitted as and when such exception situation arises).

(d) All data and reports, wherever applicable, shall be submitted electronically (online).

(e) All data and reports, which are submitted to DGH by way of hard copies, shall also be submitted in electronic form (soft copies).

(Deo Das Roy)

(HOD-Drilling)

Distribution:

- 1) CMD, ONGC
- 2) CMD, OIL
- 3) JS (Exploration), MoP&NG
- 4) DGH (website)

T-1  
**COMPLETED WELL REPORT**

S. No.	Well Name	BlockType	Block/Field	Operational Area	State/UT	Surface Co-ordinate		Sub Surface Co-ordinate		Rig Name	Well Category	Well Type	Water Depth	Target Depth (TD)		Drilled Depth (DD)		Spudding Date	Hermetical Test Date	Rig Release Date	Casing Policy		Rig Building (RB) Days		Drilling (DR) Days		Production Testing (PT) Days		Cycle Speed	Commercial Speed	Remarks	
						Latitude	Longitude	Latitude	Longitude					MD	TVD	MD	TVD				Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual				
						7	8	9	10					15	16	17	18				22	23	24	25	26	27	28	29				
1	2	3	4	5	6					11	12	13	14					19	20	21												

The Wells where production testing is not concluded as on reporting date, "PT in Progress" should be mentioned in the Remarks column and Cycle Speed should be left blank.



T-3

Consolidated Progress Report

Consolidated Progress Report

Sr. No.	Onland/Offshore	Asset/Block	RIGNAME	SW/DW	Owned/C-Hired	Owned/C-Hired/MMC	Rig Type	EXP		DEV		TOTAL		Rig Mode-wise Time Break-up			Out Cycle		Non-Productive time (Days & %age of DR Days)						Cycle Days	Comm Days	CY-EXP	CY-DEV	Cycle Speed	COMM-EXP	COMM-DEV	Comm Speed	Remarks				
								Wells Nos	MET (m)	Wells Nos	MET (m)	Wells Nos	MET (m)	RB days	DR days	PT days	Cap Rep days	OTH O/C days	Well Complications days	%age	Repair & S/Down days	%age	Total days	%age													
								I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y													
1																																					
2																																					
3																																					
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NOTE: If Any

T-4

Report on number of Rigs

As on (last day of the Month)

	Owned		Ch Hired		Total
	Exploratory	Development	Exploratory	Development	
Onshore					
Offshore					
Deep Water					
Total					





**FORMAT FOR WELL LOCATION RELEASE****(I) GENERAL WELL DATA**

1.	<b>General Information:</b>	
a)	Well Name	:
b)	Equivalent name of its location/ prospect	:
c)	PML/ PEL Information (Name of the area, Order No., Validity)	:
d)	Area (Onshore/ Offshore)	:
e)	State	:
f)	District	:
g)	Basin/ Asset	:
h)	Well Category (Exploratory/Appraisal/Development)	:
i)	Objective (Primary and Secondary)	:
j)	Well Type (Vertical/ Inclined/ Horizontal)	:
k)	Rig name:	:
l)	GL/ KB/ Water Depth (meter)	:
m)	Target depth (mMDRT)	:
n)	Reference Wells with distance and direction from this well)	:
o)	Expected spud date/ drilling days	:
2.	<b>Details of the location :</b>	
	Seismic Reference Depth (mTV DSS)	:
	Spheroid ( like WGS84)	:
	Projection (like UTM)	:
2A	<b>Surface position</b>	
i.	Seismic reference line no. (2D/IL/XL)	:
ii.	Geographical Coordinates (latitude- longitude and easting-northing)	:

<b>2B</b>	<b>Sub-surface position</b>		
i.	Seismic reference line no. (2D/IL/XL)	:	
ii.	Geographical Coordinates (latitude- longitude and easting-northing)	:	

**Note:** If it is a changed/shifted location from originally submitted, the same to be specified.

**(II) ANTICIPATED STRATIGRAPHY & LITHOLOGY**

<b>Geological Age</b>	<b>Formation Name</b>	<b>Interval (meter)</b>	<b>Gross Lithology</b>

**Note:** Tentative lithology as depicted in Geo-technical Order to be provided in a separate Annexure.

**(III) FORMATION PROGNOSIS: Depth Uncertainty**

<b>Formation Top</b>	<b>Depth uncertainty</b>	<b>Remarks</b>

**(IV) TARGET/OBJECT PROGNOSIS:**

<b>Targets/ Objects</b>	<b>TWT (ms)</b>	<b>Depth (mTVDSS)</b>	<b>Lithology description</b>	<b>Expected hydrocarbon</b>

**(V) TEMPERATURE PROGNOSIS:**

<b>Depth (mTVDSS)</b>	<b>Temperature (°c)</b>	<b>Remarks</b>

**(VI) FORMATION PRESSURE PROGNOSIS:**

<b>Depth (mTVDSS)</b>	<b>Pressure (psi)</b>	<b>Remarks</b>

**(VII) CASING POLICY:**

<b>Casing sizes (inches)</b>	<b>Depth (mdRT)</b>

**(VIII) LEAK-OFF TEST DATA FROM REFERENCE WELLS:**

Reference well name	Depth (mdRT)	MWE

**(IX) DRILLING COMPLICATIONS/ HAZARDS & CONTINGENCY PLANNED:**

**Note:** Possibility of stuck-up, mud loss, overpressure or the like to be indicated with possible contingency measures put in place

**(II) DRIL CUTTING SAMPLING PLAN:**

Depth interval (m)	Sampling frequency	Remarks
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**(X) CONVENTIONAL CORING PLAN:**

Formation/Target name	Depth interval (mdRT)	Remarks
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**(XI) WIRELINE LOGGING PROGRAMME:**

Log type	Depth interval (mdRT)	Remarks
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**Note:** Tabulate all suites of logs planned for both open and cased holes including advanced logs in the zone of interests. Specify if sidewall cores and formation testing by wireline are also planned for this well.

**(XII) PRODUCTION TESTING PLAN:**

**Note:** Specify all testing plans citing tools to be used to probe the zone of interests

**LIST OF G&G DOCUMENTS REQUIRED FOR EXAMINATION OF NEW WELL PROPOSAL**

**A. EXPLORATORY LOCATIONS:**

**1. BASIC MAPS/SECTIONS**

- Location map with all license boundaries and wells preferably integrated with GIS detailing
- Seismic coverage map (2D and/or 3D)
- Maps at prospect-level (well objectives):
  - Two-way time and depth structure map
  - Any seismic attribute map describing the prospect(s)
  - Stratigraphic thickness map (depth and time)
  - Isolith map superimposed over top structure map
- Well log correlation along nearby wells
- Seismic profiles and geological sections along proposed location and the drilled wells

**2. REPORTS**

An indicative report summarizing the followings:

- Geological summary of tectonics, sedimentation and stratigraphy
- Depositional model
- Interpretation of seismic, gravity, magnetic and geochemical data
- Analysis of petroleum system elements with chance of success
- Prospectivity analysis
- Formation evaluation (nearby wells)
- Well testing results (nearby wells)
- Prognosticated hydrocarbon estimate with reservoir parameters

**B. APPRAISAL LOCATIONS:**

**1. BASIC MAPS/SECTIONS**

- Location map with all license boundaries and wells preferably integrated with GIS detailing
- Seismic coverage map (2D and/or 3D)
- At prospect-level (well objectives):
  - Two-way time and depth structure map delimiting the reservoir extent
  - Any seismic attribute map describing prospect
  - Stratigraphic thickness maps (depth and time)
  - Isolith map
  - Isopay map overlain with top structure map
- Well log correlation across the discovery, proposed and nearby wells
- Seismic profiles across proposed location and all drilled wells

## REPORTS

A brief report summarizing the followings:

- Geological summary of tectonics, sedimentation and stratigraphy
- Depositional model
- Supporting details of the discovery well in the area
- Petrophysical evaluation (reference wells)
- Well testing results (reference wells)
- Initial hydrocarbon estimate with reservoir parameters

### C. DEVELOPMENT LOCATIONS:

#### ❖ BASIC MAPS/SECTIONS

- Location map with all lease boundaries and wells preferably integrated with GIS detailing
- Seismic coverage map (2D and/or 3D)
- At reservoir-level (well objectives):
  - Depth structure map
  - Reservoir thickness map
  - Seismic attribute map, if generated
  - Reservoir property maps
  - Net pay maps singly as well as superimposed over top structure map
- Well log correlation along nearby wells describing all reservoir units

#### ❖ REPORTS

A comprehensive report summarizing the followings:

- Depositional model
- Petrophysical evaluation
- Well testing results
- Any static reservoir model if built
- Supporting field development scheme or plan
- Production performance review, if the field is producing
- Approved hydrocarbon estimate with reservoir parameters

#### NOTE:

- ✓ The required documents to be submitted along with Annexure-6 (Format for Well Location Release) at least 15 days before a well is proposed to be spud
- ✓ Data/information to be given in both hard and soft copies and in complete set
- ✓ All maps should be on a suitable scale (e.g. 1:50,000), appropriately annotated and legend given
- ✓ Well log correlation (both structural and stratigraphic) should be on a suitable scale (e.g.1:500)
- ✓ All sections/profiles to be annotated for corresponding horizons, markers (formation/ reservoir) and faults
- ✓ Well reference depth (KB) and geographic position (Latitude-Longitude/Easting-Northing) to be mentioned
- ✓ All depth maps, depth sections/profiles to be expressed in TVDSS (true vertical depth scaled to subsurface or mean sea level)