ऑयल इंडिया लिमिटेड
(भारत सरकार का उद्यम)
Oil India Limited
(A Government of India Enterprise)

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EXPRESSION OF INTEREST (EOI) NO.
CHEM-01/EOI/2023
DATED 16.10.2023

FOR

COLLECTION & DISPOSAL OF EMPTY PLASTIC BAGS FROM DRILLING WELLS OF ASSAM

1. PREAMBLE:

Oil India Limited (OIL), a Government of India Enterprise under the Ministry of Petroleum and Natural Gas, is presently engaged in Exploration, Production and Transportation of Crude Oil and Natural gas in the States of Assam, Arunachal Pradesh, Andhra Pradesh, Nagaland, Odisha, Rajasthan and Tripura in India. Its Field Head Quarter (FHQ) is at Duliajan, Dibrugarh, Assam, India and Corporate Office is in Noida, UP, India. Over last decade, OIL has ventured in different parts of globe and currently spanned over nine overseas countries.

Its operations are largely based in the north-eastern parts of India i.e., in

Assam and Arunachal Pradesh but have also extended its activities in different parts of India particularly in Andhra Pradesh, Odisha and Rajasthan. OIL is gearing up to increase its current crude oil production capacity to 4+ MMTPA by drilling a greater number of exploration and development wells in PEL-ML-OIL Block-(Assam), PML-Ningru Block (Arunachal Pradesh), NELP Blocks & OALP Assam.

Drilling fluid, which is a mixture of different chemicals, is used to drill a well during hydrocarbon exploration. Two of the vital chemicals used in drilling fluid are Barium sulfate (Barite) and Sodium montmorillonite clay (Bentonite). These two chemicals are consumed in large quantities in drilling activities and generates large number of empty plastic bags.

View above, OIL invites Expression of Interests (EOIs) from reputed and established Service Providers meeting the pre-qualification criteria as detailed below to collect & dispose the empty plastic bags generated in drilling wells.

2. PRE-QUALIFYING CRITERIA (PQC) & DOCUMENTS TO BE SUBMITTED:

The service provider must have valid authorization certificate from Central Pollution Control Board (CPCB), State Pollution Control Board or other statutory authority of central/state government for collection, handling & disposal of empty plastic bags. Service providers shall have to submit such authorization certificate along with the bid.

The service provider shall have to handle the collected empty plastic bags as per the statutory norms and shall be guided by "Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016", and any other statutory rules and regulations stipulated by state or central government authorities. The service provider shall have to submit an undertaking regarding the compliance of the same with their bid.

3. BRIEF SCOPE OF WORK

(a) To collect & dispose approximately **25,000 (Twenty-Five thousand)** numbers of empty plastic bags of Barite and Bentonite **per month** for a period of **three years**. The disposal of the bags may be in the form of re-use, recycle or co-processing as per statutory guideline.

(b) The empty bags shall be collected from a single collection point within 20KM range of Field Head quarter of Oil India Limited, Duliajan, Assam.

(c) Empty bags shall be collected by the service provider from the collection point on monthly basis. Date and time shall be decided mutually.

(d) Labors & trucks for collection & transportation of the empty bags from the collection point of OIL shall be arranged by the service provider.

(e) The service provider shall submit the detail plan of final disposal of the waste bags after collection from OIL's collection point.

4. BRIEF TECHNICAL SPECIFICATION

Barite and Bentonite are inert, non-flammable chemicals routinely used worldwide in oil exploration activities. Material safety data sheets (MSDS) of both the chemicals are furnished in annexure-I. Brief description of both the chemicals are given below:

Barite: Barite is a weighing Material used to increase the density of drilling fluids. It is the most widely used drilling weight material due to its high specific gravity. Barite is chemically inert and insoluble weighing material. Basic properties are given below:

a. Physical Properties:

The material is white/light greyish white/light pinkish white free flowing powder.

b. Specific Gravity of material: 4.15, at 26 +/- 2 deg C minimum.

c. Fineness:

(i) Wet Screen Analysis - Passing through 75 micron sieve, (ISS 6/BSS 200/ASTM 200), %by mass, minimum: 97.00
(ii) Passing through 53 micron sieve, (ISS 5/ BSS 300/ASTM 270, % by mass: 90 +/-4. Insoluble Minus Silica % by mass, minimum.: 90.00

d. Water Soluble Content: 0.02% by mass, maximum.

Bentonite: Bentonite is an absorbent swelling clay consisting mostly of montmorillonite (a type of smectite clay) which can either be Na-montmorillonite or Ca-montmorillonite. Na-montmorillonite has a considerably greater swelling capacity. Na-montmorillonite is used in drilling fluid because of its swelling properties. Which imparts gelation and viscosity to the fluid. It is an inert, non-flammable, non-hazardous clay. Basic properties are given below:

a. Physical state: Fine light to grayish yellow buff or cream colored powder free from dirt and foreign matter.
b. Moisture content: 12% (Max)
c. Sand content, % by mass minimum (retain as through 200 BSS mesh or equivalent): 2.0% (Max)
d. Dry screen analysis, % by mass, minimum (passing through 100 BSS mesh or equivalent by dry method): 98% (Min)

5.0 GENERAL NOTES:

(i) All documents submitted along with the offer must be self-certified by the Service Provider and should be clear & legible.

(ii) The EOI is liable to be ignored in case of submission of any misleading / false representation by the Service Provider.

(iii) OIL INDIA LIMITED reserves the right to ignore any or all EOIs and also to curtail/enhance the scope of work stated above, if required, without assigning any reason thereof.

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ANNEXURE-I

BARYTE

Section 1: Product Identification

Name: Baryte Powder.
Use: Weighting agent in drilling fluid.

Section 2: Composition/Information on ingredients

Components	:	Barium Sulphate ($BaSO_4$)
CAS Number	:	7727-43-7
LD 50	:	

Section 3: Hazard(s) identification:

Routes of Entry	:	Inhalation, eye contact, skin contact, ingestion
Carcinogenic Status	:	None
Target Organs	:	Eye, Lung

Health Effect

Eyes	:	Direct contact with dust may cause mechanical irritation of the eyes.
Skin	:	Direct contact may cause slight dryness or may cause mild irritation.
Ingestion	:	Considered to be relatively non-toxic due to non-absorption.
Inhalation	:	Inhalation of fine dust may cause irritation of the nose and throat by mechanical action.

Section 4: First Aid Measures

Eyes	:	Flush with water.
Skin	:	Wash with soap and water.
Inhalation	:	Exposure to fresh air.
Ingestion	:	Drink water, Induce vomiting

Section 5: Fire-fighting measures

Extinguishing Media : $C0_2$, dry or chemical foam, water

Section 6: Accidental release measures

Steps to be taken in case Material is Released or Spilled: Sweep into container. Clean the surface with water.

Section 7: Handling and storage

Handling and Storage : Handle the material using gloves. Store it in dry area. Keep dust to

minimum. Minimize contacts with eyes, skin, and clothing.

Section 8: Exposure controls/Personal protection

Protective Gloves	:	Use Neoprene/Butyl Rubber gloves.
Eye Protection	:	Use goggles or face shield.
Other Protective Clothing or Equipment	:	Use mask, long sleeve clothing.
Work/Hygienic Practices	:	Minimize contact with eyes, skin, and clothing. May get slippery if wet.

Section 9: Physical and chemical properties

Physical state	:	Free flowing Powder (200 Mesh).
Odour	:	Odourless.
Taste	:	Tasteless.
Colour	:	Grey.
Specific Gravity	:	4.15 (min)
Vapor Pressure	:	Not applicable.
Vapor Density	:	Not available.
Volatility	:	Not available.
Odour Threshold	:	Not available.

Section 10: Stability and reactivity

Stability	:	The product is stable at ambient temperature.
Instability Temperature	:	Evolves toxic fumes of $S0_2$ above 1100^0 C.
Conditions of Instability	:	Unstable at high temperatures.
Incompatibility with various substances	:	Reactive with oxidizing agents, metals, acids.
Corrosivity	:	Not considered to be corrosive to metals and glass.
Special Remarks on Reactivity	:	Reacts with acid. Avoid contact with aluminium and phosphorous.

Section 11: Toxicological information

Not listed as a carcinogen by NTP. Not regulated as a carcinogen by OSHA. Not evaluated by IARC.

Section 12: Ecological information

Possesses no ecological hazards. However, minimize contamination of soil and water.

Section 13: Disposal considerations

Waste must be disposed-off in strict accordance with Federal, State, and local environmental control regulations.

Section 14: Transportation information

Not classified as dangerous in any form of transportation. No specific transportation precautions are required. However, open vehicles should be covered to prevent products from being wet.

Section 15—Regulatory information

Hazard Symbols : Not Available

Section 16—Other information

BENTONITE

Section 1: Product Identification

Name: Baryte Powder.
Use: Weighting agent in drilling fluid.

Section 2: Composition/Information on ingredients

Components	:	Bentonite Powder/Sodium Montmorillonite Clay
CAS Number	:	1302-78-9
LD 50	:	

Section 3: Hazard(s) identification:

Routes of Entry	:	Inhalation, eye contact, ingestion
Carcinogenic Status	:	None
Target Organs	:	Eye, Lung

Health Effect

Eyes	:	Direct contact with dust may cause mechanical irritation of the eyes.
Skin	:	No effect.
Ingestion	:	Considered to be relatively non-toxic due to non-absorption.

Inhalation	:	The dust is mildly irritating to the respiratory tract and may cause lung damage if exposure is repeated or prolonged.

Section 4: First Aid Measures

Eyes	:	Flush with water.
Skin	:	Wash with soap and water.
Inhalation	:	Exposure to fresh air.
Ingestion	:	Rinse mouth with sufficient quantity of water, Drink water

Section 5: Fire-fighting measures

Extinguishing Media	:	Non-combustible/Non-explosive material

Section 6: Accidental release measures

Steps to be taken in case Material is Released or Spilled: Maintain adequate ventilation in the storage area. Being a non-hazardous material, in case of accidental release, sweep the released chemical into a container. Clean the surface with water.

Section 7: Handling and storage

Handling and Storage : Handle the material using gloves. Store it in dry area. Keep dust to minimum. Minimize contacts with eyes, skin, and clothing.

Section 8: Exposure controls/Personal protection

Protective Gloves	:	Use Neoprene/Butyl Rubber gloves.
Eye Protection	:	Use goggles or face shield.
Other Protective Clothing or Equipment	:	Face Mask, Long sleeved clothing is recommended.
Work/Hygienic Practices	:	Chemical is slippery when wet.

Section 9: Physical and chemical properties

Physical state	:	Free flowing Powder (75 micron approx).
Odour	:	Odourless.
Taste	:	Tasteless.
Colour	:	Grey.
Specific Gravity	:	2.4
Vapor Pressure	:	Not applicable.
Vapor Density	:	Not available.

Volatility	:	Not available.
Odour Threshold	:	Not available.

Section 10: Stability and reactivity

Stability	:	The product is stable at ambient temperature.
Corrosivity	:	Not considered to be corrosive to metals and glass.

Special Remarks on Reactivity

: Not Applicable

Section 11: Toxicological information

Non-toxic, non-carcinogenic product and does not absorb through skin.

Section 12: Ecological information

Product is non-biodegradable. However, it possesses no ecological hazards.

Section 13: Disposal considerations

Waste must be disposed-off as per statutory guidelines.

Section 14: Transportation information

Not classified as dangerous in any form of transportation. No specific transportation precautions are required. However, open vehicles should be covered to prevent products from being wet.

Section 15—Regulatory information

Hazard Symbols : Not Available

Section 16—Other information