OLC

vedanta
transforming elements

CAIRN

OMAS-PCB-L-01368

Date- 25-09-2025

To,
Member Secretary
Rajasthan State Pollution Control Board,
No. 4, Institutional Area, Jhalana Doongri
Jaipur - 302 004, Rajasthan

Sub: Environmental Statement FY-2024-25 as per **Environment (Protection) Rules, 1986.**
Ref: RJ South (RGT Plant and associated Gas Well Pads, Raag Oil Well Pad (2 & 3), Saraswati Fields, Guda Fields, S-3 Warehouse, Kaameshwari West 02, Satelite Fields and RGT living quarter).

Dear Sir,

Please find enclosed herewith the Annual Environmental Statements **(Form V)** as per the Environmental Clearance issued by MOEFCC, and CTE/CTO issued by RPCB for onshore Hydrocarbon Development & Production from RGT Plant and its associated Gas Well Pads, RGT living quarter, Raag Oil Well Pad (2 & 3), Saraswati Fields, Guda Fields, S-3 Warehouse, Kaameshwari West 02 and other South Satelite Fields in RJ-ON 90/1- Block, Rajasthan for the period from **1st April 2024 to 31st March 2025**.

We trust the above information is in order. Kindly acknowledge receipt of the same.

Thanking you,

Regards,

Yours faithfully,
Dr BR Jat
Digitally signed by Dr BR Jat

Dr. B. R. Jat
Chief Environment Officer
M/s Vedanta Limited (Cairn Oil & Gas Division)

प्रादेशिक कार्यालय
प्राप्ति क्रमांक
दिनांक 30/9/25
रा. प. नि. मण्डल, बालोतरा

Enclosure: Annual Environmental Statements of RJ South.

CC :
Regional Officer,
Rajasthan State Pollution Control Board,
Jasol Fantaa, Opposite JVVNL office, Industrial Area, Balotra – Rajathan

VEDANTA LIMITED
(Formerly known as Sesa Sterlite Limited)

Cairn Oil & Gas: ASF Center, 362-363, Jwala Mill Rd, Phase IV, Udyog Vihar, Sector 18, Gurugram, Haryana 122016,
T +91-124 459 3000 F +91-124 414 5612 | www.cairnindia.com

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri (East), Mumbai–400093, Maharashtra, India | T +91-22 664 34500 | F +91-22 664 34530 | www.vedantalimited.com

CIN: L13209MH1965PLC291394

Gaurav Kumar Yadav

From:	Environment Manager - MPT
Sent:	30 September 2025 13:34
To:	Member Secretary
Cc:	Dr. Bhoma Ram Jat; RO RSPCB Balotara; Gaurav Kumar Yadav
Subject:	Submission of Annual Environmental Statements (Form V) – Rajasthan Operations-Vedanta Limited (Cairn Oil and Gas)
Attachments:	Env statement_RJ North.pdf; Env Statement_RJ South.pdf

Dear Sir,
Please find herewith attached **"Annual Environmental Statements (Form V)"** for Rajasthan operations (North & South fields) of Vedanta Limited – Cairn Oil and Gas.

Thanks & Regards,
Gaurav Kumar Yadav
Environment Manager- RJ
Vedanta Limited – Cairn Oil & Gas (Barmer)
Mobile: +91-9773380157

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024
FOR
OPERATION BASE
RJ-ON-90/1 BLOCK RAAGESHWARI GAS TERMINAL

PART - A

i)	Name and address of the owner / occupier	:	**FGM South Operations, Raageshwari Gas Terminal (RGT LQ),** M/s Cairn Oil & Gas Vedanta Limited., Village: Dhandlawas & Ravli Nadi, Tehsil: Gudha Malani District: Barmer
ii)	Industry category	:	Primary -- (STC Code) Secondary -- (SIC Code)
iii)	Production capacity – Units	:	Operation Base is Residential Facility for Plant Staff
iv)	Year of establishment	:	May 2010
v)	Date of the last environmental statement Submitted.	:	06th September 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	--	Residential Facility
Cooling	–	Residential Facility
Domestic	73.520	Domestic water consumption in living quarter
	0	Water consumption for greenbelt maintenance.
Total	**73.520**	**Refer Annexure - 1 for Water Consumption Details.**

Name of products	Process water consumption per unit of product output	
	During the previous financial year	During the current financial year
Not Applicable		

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of raw material per unit of output	
		During the previous financial year	During the current financial year
Nil		**Nil**	**Nil**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output.
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/ DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Treated Sewage	**43.60 m3/day** (the treated water re-used for greenery maintenance within Operation base)	Refer **Annexure - 2**	Within the specified limits
B) Air Emissions from Boilers	No Source of Air Pollution. Power requirement is met from captive power plant (CPP) RGT. EDG are provided for emergency back-up.		

Monthly quantities of sewage generation and treatment and quality of discharge treated water are provided in **Annexure - 2**.

PART - D

Hazardous Wastes
(as specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity	
	During the previous financial year	During the current financial year
(a) From Process	Nil	Nil
(B) From pollution control facilities	Nil	Nil
(C) From Other sources –	Nil	Nil

PART – E

Solid Wastes

<table>
<tr><th rowspan="2">Solid Waste</th><th colspan="6">Total Quantity</th></tr>
<tr><th colspan="3">During the previous financial year</th><th colspan="3">During the current financial year</th></tr>
<tr><td>(a) From process</td><td colspan="3">NIL</td><td colspan="3">NIL</td></tr>
<tr><td>(b) From Pollution control facility (STP Sludge)</td><td colspan="3">Sludge from Sewage Treatment Plant
2.649 MT</td><td colspan="3">Sludge from Sewage Treatment Plant
1.870 MT</td></tr>
<tr><td rowspan="14">C) Other waste from, Medical Center, Warehouse, Living quarters and plant housekeeping etc.</td><td>Waste Type</td><td>Unit</td><td>Total</td><td>Waste Type</td><td>Unit</td><td>Total</td></tr>
<tr><td>Bio-Medical Waste</td><td>MT</td><td>0.07478</td><td>Bio-Medical Waste</td><td>MT</td><td>0.05135</td></tr>
<tr><td>Plastic waste</td><td>MT</td><td>0.000</td><td>Plastic waste</td><td>MT</td><td>0.000</td></tr>
<tr><td>Paper /Corrugated boxes</td><td>MT</td><td>0.000</td><td>Paper /Corrugated boxes</td><td>MT</td><td>0.000</td></tr>
<tr><td>Metal Waste</td><td>MT</td><td>0.000</td><td>Metal Waste</td><td>MT</td><td>0.000</td></tr>
<tr><td>Aluminum Scrap</td><td>MT</td><td>0.000</td><td>Aluminum Scrap</td><td>MT</td><td>0.000</td></tr>
<tr><td>Rubber</td><td>MT</td><td>0.000</td><td>Rubber</td><td>MT</td><td>0.000</td></tr>
<tr><td>Glass</td><td>MT</td><td>0.000</td><td>Glass</td><td>MT</td><td>0.000</td></tr>
<tr><td>Garbage</td><td>MT</td><td>33.55</td><td>Garbage</td><td>MT</td><td>36.08</td></tr>
<tr><td>Wood</td><td>MT</td><td>0.000</td><td>Wood</td><td>MT</td><td>0.000</td></tr>
<tr><td>Insulation Waste</td><td>MT</td><td>0.000</td><td>Insulation Waste</td><td>MT</td><td>0.000</td></tr>
<tr><td>Canteen/Food Waste</td><td>MT</td><td>43.96</td><td>Canteen/Food Waste</td><td>MT</td><td>61.04</td></tr>
<tr><td>Organic waste (Horticulture)</td><td>MT</td><td>0.000</td><td>Organic waste (Horticulture)</td><td>MT</td><td>0.000</td></tr>
<tr><td colspan="3"></td><td colspan="3">*Category wise quantity of Bio-medical waste is provided in Annexure - 3</td></tr>
<tr><td>(c) (1) Quantity recycled or re-utilized within the unit.</td><td colspan="3">43.96 MT
(Food Waste and Organic Horticulture waste composted for use in Green Belt)</td><td colspan="3">61.04 MT
(Food Waste and Organic Horticulture waste composted for use in Green Belt)</td></tr>
<tr><td>(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)</td><td colspan="3">All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2023-24 are indicated in the Environment Statement of RGT.</td><td colspan="3">All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.</td></tr>
<tr><td>(3) Disposed</td><td colspan="6">Waste residual food and Horticulture waste (Organic) are being treated in Organic Waste Convertor at OB and after decomposition; the manure is being utilized for green</td></tr>
</table>

Solid Waste	Total Quantity	
	During the previous financial year	During the current financial year
	belt development. Garbage waste disposed of into the municipal waste landfill at Barmer.	

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

Hazardous waste: No Hazardous waste generated at LQ.

Non-hazardous waste: Domestic waste is generated from kitchen facilities which mostly consist of bio-degradable organic matter and recyclable waste. The non-hazardous waste scrap (i.e., Wooden, Plastics, Paper & cartons, rubber etc.) are sold to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure -1**). Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base are operational for the treatment of Wastewater from Office area and Living areas.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is installed at RGT Operation Base.

PART - H

Additional measures/investment proposal for environmental protection including abatement of Pollution / prevention of pollution. **Enclosure-2**

PART - I

Any other particulars for improving the quality of the environment.

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic conditions. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mandaya
FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – I

WATER CONSUMPTION DETAILS

Month	LQ Domestic M^3 (Domestic water consumption in living quarter)
Apr-24	2398
May-24	3147
Jun-24	2093
Jul-24	1980
Aug-24	1922
Sep-24	1790
Oct-24	2083
Nov-24	2268
Dec-24	2153
Jan-25	2564
Feb-25	2239
Mar-25	2198
Total	**26,835**
Average Per Day	**73.520**

ANNEXURE – 2

DOMESTIC WASTEWATER QUANTITY IN KL

Months	RGT LQ STP (65 KLD)	
	Raw Sewage	Treated Sewage
Apr-24	1,363	1,286
May-24	1,496	1,411
Jun-24	1,379	1,301
Jul-24	1,472	1,387
Aug-24	1,444	1,361
Sep-24	1,401	1,320
Oct-24	1,478	1,393
Nov-24	1,383	1,304
Dec-24	1,396	1,317
Jan-25	1,348	1,272
Feb-25	1,287	1,214
Mar-25	1,431	1,349
Total	**16,878**	**15,915**
Average Per Day	**46.24**	**43.60**

DISCHARGED WATER QUALITY

S. No	Parameter	Unit	Avg.	CPCB Standard
1.	PH (at 25 ^{0}C)	---	7.51	6.5-9.0
2.	Total Suspended Solids	mg/l	76.67	20
3.	Total Dissolved Solids	mg/l	-	2100
4.	Dissolved Oxygen	mg/l	-	-
5.	BOD (3 days at 27 ^{0}C)	mg/l	22.73	10
6.	COD	mg/l	130.66	50
7.	Oil & Grease	mg/l	3.81	10
8.	Fecal Coliform	MPN/100 ml	277.33	1000
9.	Free Residual Chlorine	mg/l	-	1.0

ANNEXURE – 3

Category - Wise Quantity of Bio-Medical Waste Generation

Bio-Medical Waste Yearly Record 2024-25						
Year 2024 - 2025	White Translucent	Yellow			Red	Blue
Month	Gms	gms	gms	ml	gms	gms
	Waste Sharp including metals	Expired and Discarded Medicines	Soiled Waste	Chemical Liquid Waste	Contaminated Waste (Recyclable)	Glassware
Apr-24	5.3	4824	403	125	199	173
May-24	9.08	5200	299	106	271	54
Jun-24	52	300	3945	121	1648	14
Jul-24	12.18	15000	355	164	273	21
Aug-24	10.72	0	218	137	302	20
Sep-24	12.10	1055	603	230	230	10
Oct-24	18.14	4900	765	449	1247	132
Nov-23	22.33	1312	804	234	511	86.50
Dec-24	8.72	3147	200	71	115	30.50
Jan-25	10.17	0	472	121	386	68.50
Feb-25	4.72	559	163.5	73	67	150
Mar-25	11.14	305	222.5	109	225	40
Total	**176.6**	**36602**	**8450**	**1940**	**5474**	**799.5**

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI GAS TERMINAL
RJ-ON-90/1 BLOCK, VILLAGE: NAYA NAGAR RAVLI KI NADI
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier	:	**FGM South Operations** **Raageshwari Gas Terminal (RGT),** M/s Cairn Oil & Gas Vedanta Limited Ltd., Village: Naya Nagar Ravli Ki Nadi, Tehsil: Gudha Malani District: Barmer.
ii) Industry category	:	Primary -- (STC Code) Secondary -- (SIC Code)
iii) Production capacity – Units	:	Crude Oil/Condensate - 50000.00 BOPD & Natural Gas - 300.00 MMSCFD respectively.
iv) Year of establishment	:	March - 2010
v) Date of the last environmental statement Submitted.	:	06th September 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**88.951**	Utility water used mainly due to cleaning/washing of the plants & vessels and fire water.
Domestic	**1.307**	Water for domestic purposes is mainly consumed at the offices, sanitary purposes at workplace site and for greenbelt maintenance.
Total	**90.258**	**Refer Annexure - 1 for Water Consumption Details.** Total water consumption for fire service water, sanitary purposes, greenbelt maintenance etc. being sourced from the saline water aquifer.

Name of Products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Natural Gas	**NA**	**NA**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Natural Gas. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via in field pipelines to processing terminal. Few chemicals are used for gas conditioning, treatment and storage.		NIL	NIL

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

Note: For upstream industry, chemicals are consumed at various concentrations and also depend on the subsurface behavior, such as to control the corrosion, emulsification, oxygen level, bacterial growth etc. Therefore, refer **Annexure – 2** for the various chemical consumption details.

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Treated Sewage	**43.60 M^3/Day** (the treated water re-used for greenery maintenance within Operation base)	The sewage is treated in sewage treatment plants at Raageshwari Gas Terminal Operation Base. The treated sewage quality conforms to inland discharge standards and used for green belt maintenance.	Within the specified limits

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
(A) Air Emissions from Exhaust of Gas Generators			The stack emissions are within the prescribed limits of RSPCB. **Annexure 3** for details.

Parameters	RGT GEG A	RGT GEG B	RGT GEG C	RDG GTG A(PPM)	RDG GTG B (PPM)	RDG Hot Oil Package
PM (mg/Nm3)	BDL	BDL	BDL	0.08	0.15	71.86
SO_2 (mg/Nm3)	ND	ND	ND	0.26	0.10	57.36
NOx (mg/Nm3)	125.65	134.21	133.81	27.29	12.29	156.24

PART - D

Hazardous Wastes
(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
		During the Previous Financial Year	During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Sludge Containing Oil (Oily Sludge) **(Cat. 2.2)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Discarded containers / barrels / Liners (Empty Can) **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags & Other cleaning materials. **(Cat. 33.2)**	**2.315 MT**	**2.580 MT**
	Spent ion exchange resin containing Toxic metal. **(Cat. 35.2)**	Nil	Nil
	Chemical sludge from wastewater treatment. **(Cat. 35.3)**	Nil	Nil
	Spent carbon or filter medium **(Cat. 36.2)**	Nil	Nil
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Spent/Used Oil. **(Cat. 5.1)**	**7.458 KL**	**4.875 KL**
	Waste/ residue containing oil (Waste Oil) **(Cat. 5.2)**	Nil	Nil

Hazardous Waste	Total Quantity		
		During the Previous Financial Year	During the Current Financial Year
(B) From pollution control facilities	**Nil**	**Nil**	

PART - E

Solid Wastes

Solid Waste	Total Quantity					
	During the Previous Financial Year			During the Current Financial Year		
(a) From process	Nil			Nil		
(b) From Pollution control facility (STP Sludge)	Nil			Nil		
(C) Other wastes from, Medical Center, Warehouse, Living quarters and plant housekeeping etc.	**Waste Type**	**Unit**	**Total**	**Waste Type**	**Unit**	**Total**
	Bio-Medical Waste	MT	0.07478	Bio-Medical Waste	MT	0.05135
	Plastic waste	MT	0.000	Plastic waste	MT	0.000
	Paper /Corrugated boxes	MT	0.000	Paper /Corrugated boxes	MT	0.000
	Metal Waste	MT	0.000	Metal Waste	MT	0.000
	Aluminum Scrap	MT	0.000	Aluminum Scrap	MT	0.000
	Glass	MT	0.000	Glass	MT	0.000
	Garbage	MT	0.000	Garbage	MT	0.000
	Wood	MT	0.000	Wood	MT	0.000
	Insulation Waste	MT	0.000	Insulation Waste	MT	0.000
	Canteen/Food Waste	MT	43.96	Canteen/Food Waste	MT	61.04
	Organic waste (Horticulture)	MT	0.000	Organic waste (Horticulture)	MT	0.000
(c) (1) Quantity recycled or re-utilized within the unit.	**43.96 MT** (Food Waste and Organic Horticulture waste composted for use in Green Belt)			**61.04 MT** (Food Waste and Organic Horticulture waste composted for use in Green Belt)		
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc. are handovers to recyclers)	**0.00 MT**			**0.00 MT**		
(3) Disposed	**33.624 MT** (Garbage & Bio Medical Waste)			**36.131 MT** (Garbage & Bio Medical Waste)		

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 4.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation and development facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure - 1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base are operational for the treatment of Wastewater from Office area and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Non-hazardous wastes. A Dual Chamber Incinerator for incineration of Biomedical and high calorific value waste installed at MPT.

Organic Waste Convertor for the treatment and conversion of food waste into bio-manure is installed at RGT Operation Base.

Recharge pit of capacity 15000 m^3 is available at RGT for the storage of the rainwater and ground water recharge.

Green belt development: Periphery green belt around the facility is built to control the noise and air pollution levels generated from RGT and associated facilities.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure - 2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for improvement of the environment, aesthetics and socio-economic conditions. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure - 3**.

Kiran Mandaja
FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	**Process Water Consumption in M^3** (Water used in cleaning/washing of the plants & vessels and fire water)	**Domestic M^3** (Consumed at the RGT Plant, offices, and gardening)	Consumed at the RGT & RDG gardening
Apr-24	2736	51	0
May-24	2857	233.5	378
Jun-24	3516	75	180
Jul-24	4261	75	0
Aug-24	4179	7	0
Sep-24	3073	51	108
Oct-24	3034	5	36
Nov-24	3383	19	36
Dec-24	1727	12	18
Jan-25	1639	129	0
Feb-25	883	71	108
Mar-25	1179	82	258
Total	**32467**	**810.5**	**1062**
Average Per Day	**88.9506**	**2.22**	**2.91**

ANNEXURE - 2

CHEMICAL CONSUMPTION DETAILS

Month	Name of Chemical	Consumption in Liters	Name of Chemical	Consumption in Liters	Name of Chemical	Consumption in Liters
Apr-24	MEG	0	DRA	0	Anitifoam	0
May-24	MEG	0	DRA	0	Anitifoam	42.35
Jun-24	MEG	4484.64	DRA	0	Anitifoam	1.56
Jul-24	MEG	14696.3	DRA	0	Anitifoam	0
Aug-24	MEG	15150	DRA	0	Anitifoam	0
Sep-24	MEG	14178.9	DRA	0	Anitifoam	0
Oct-24	MEG	14976.2	DRA	0	Anitifoam	0
Nov-24	MEG	10666.3	DRA	0	Anitifoam	3.91
Dec-24	MEG	12124	DRA	0	Anitifoam	0
Jan-25	MEG	9966.01	DRA	0	Anitifoam	0
Feb-25	MEG	7067.31	DRA	0	Anitifoam	0
Mar-25	MEG	6441.67	DRA	0	Anitifoam	0
Total		**109,751.31**		**00**		**47.82**
Average Per Day Consumption		**300.69**		**00**		**0.131**

Month	Name of Chemical	Consumption in Liters	Name of Chemical	Consumption in Liters	Name of Chemical	Consumption in Liters
Apr-24	Biocide	0	Oxygen Scavenger	864.84	TEG	2310
May-24	Biocide	0	Oxygen Scavenger	315.6	TEG	3570
Jun-24	Biocide	0	Oxygen Scavenger	104.96	TEG	3570
Jul-24	Biocide	0	Oxygen Scavenger	169.78	TEG	1680
Aug-24	Biocide	0	Oxygen Scavenger	125.34	TEG	2100
Sep-24	Biocide	0	Oxygen Scavenger	100	TEG	1050
Oct-24	Biocide	0	Oxygen Scavenger	163.56	TEG	2940
Nov-24	Biocide	0	Oxygen Scavenger	143.98	TEG	1050
Dec-24	Biocide	0	Oxygen Scavenger	228.4	TEG	1050
Jan-25	Biocide	0	Oxygen Scavenger	801.44	TEG	1890
Feb-25	Biocide	0	Oxygen Scavenger	414.71	TEG	1050
Mar-25	Biocide	0	Oxygen Scavenger	327.6	TEG	0
Total		**00**		**3760.21**		**22260**
Average Per Day Consumption		**00**		**10.30**		**60.99**

Month	Name of Chemical	Consumption in Liters
Apr-24	Scale Inhibitor	841.57
May-24	Scale Inhibitor	374.51
Jun-24	Scale Inhibitor	65.08
Jul-24	Scale Inhibitor	175.82
Aug-24	Scale Inhibitor	3.91
Sep-24	Scale Inhibitor	0
Oct-24	Scale Inhibitor	48.18
Nov-24	Scale Inhibitor	46.87
Dec-24	Scale Inhibitor	132.87
Jan-25	Scale Inhibitor	488.61
Feb-25	Scale Inhibitor	512.57
Mar-25	Scale Inhibitor	257.31
Total		**2947.3**
Average Per Day Consumption		**8.07**

ANNEXURE – 3

DIESEL CONSUMPTION DETAILS

(Only during emergency and production, startup/ commissioning activities)

Month	Quantity M^3
Apr-24	3.186
May-24	1.983
Jun-24	3.091
Jul-24	2.898
Aug-24	5.959
Sep-24	8.018
Oct-24	3.042
Nov-24	5.351
Dec-24	4.083
Jan-25	4.698
Feb-25	2.656
Mar-25	2.501
Total	**47.466**
Average Per Day Consumption	**0.130**

ANNEXURE – 4

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V
(See Rule 14)
ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI GAS WELL PAD 01
RJ-ON-90/1 BLOCK, VILLAGE: DHANDLAWAS
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier : **FGM South Operations**
PML -1 Raageshwari Gas Well Pad 60
Old Name Raag Gas WP 01
M/s Vedanta Limited, Cairn Oil & Gas,
Village: Dhandhlawas,
Tehsil: Gudha Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)

Secondary -- (SIC Code)

iii) Production capacity – Units : Raageshwari Well Pad – 01, Condensate (Crude Oil) and Natural Gas Capacity – 8000 BOPD and 80.0 MMSCFD respectively.

iv) Year of establishment : 22nd September - 2015

v) Date of the last environmental statement Submitted. : 06th September - 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
Drilling Activity	**0.00**	Utility water is used mainly well drilling activities.
Rig less Activity	**0.00**	Utility water used mainly well rig less activities.
Domestic	**1.420**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**1.420**	Refer **Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Natural Gas	**Nil**	**Nil**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Natural Gas. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via in field pipelines to processing terminal. Few chemicals are used for gas extraction and export.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

For upstream industry, chemicals are consumed at various concentrations and also depend on the subsurface behavior, such as to control the corrosion, emulsification, oxygen level, bacterial growth etc. Therefore, refer Annexure – 4 for the various chemical consumption details

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner / concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
B) Air	No Source of Air Pollution. Power requirement is met from captive power plant (CPP) RGT. Power requirement for drilling activities met through temporary DG sets used for a very brief period during the year. Compliance to COP for all DGs checked and ensured during drilling period. All the parameters are within prescribed limits and monthly environment monitoring reports are being submitted to the regional pollution control board.		

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	0.088 MT	0.113 MT
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing Oil. **(Cat. 5.2)**	Nil	Nil
(B) From pollution control	Nil		Nil

Hazardous Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
facilities		
(C) From Other sources –	Nil	Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process	Nil	Nil
(b) From Pollution control facility	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc. are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.
- Non-hazardous waste: Domestic waste is generated from the operation and development facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure - 1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base is operational for the treatment of Wastewater from Office areas and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Non-hazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures / investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure - 2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of environment, aesthetics, and socio-economic conditions. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure - 3**.

Kiran Mandya

FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Domestic M^3		
	Water used in Drilling	Water used in Rig less	(Consumed for WP utility and gardening)
Apr-24	0	0	20
May-24	0	0	10
Jun-24	0	0	51.3
Jul-24	0	0	23
Aug-24	0	0	55
Sep-24	0	0	70
Oct-24	0	0	39.2
Nov-24	0	0	20
Dec-24	0	0	110
Jan-25	0	0	40
Feb-25	0	0	40
Mar-25	0	0	40
Total	**0**	**0**	**518.48**
Average Per Day Consumption	**0.0**	**0.0**	**1.420**

ANNEXURE – 2

DRILLING PHASE DIESEL CONSUMPTION DETAILS

Month	WP 01 (Drilling OPS) Quantity M^3	RIGLESS/Well Service Quantity M^3
Apr-24	0	0
May-24	0	0
Jun-24	0	0
Jul-24	0	0
Aug-24	0	0
Sep-24	0	0
Oct-24	0	0
Nov-24	0	0
Dec-24	0	0
Jan-25	0	0
Feb-25	0	0
Mar-25	0	0
Total	**0.0**	**0.0**
Average Per Day	**0.0**	**0.0**

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI GAS WELL PAD 02
RJ-ON-90/1 BLOCK, VILLAGE: DHANDLAWAS
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier : **FGM South Operations**
PML -1 Raageshwari Gas Well Pad 64
Old Name Raag Gas WP 02
M/s Vedanta Limited, Cairn Oil & Gas,
Village: Dhandhlawas,
Tehsil: Gudha Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)

Secondary -- (SIC Code)

iii) Production capacity – Units : Raageshwari Well Pad – 02, Condensate (Crude Oil) and Natural Gas Capacity – 7000 BOPD and 70.0 MMSCFD respectively.

iv) Year of establishment : 22nd September - 2022

v) Date of the last environmental statement Submitted. : 06th September - 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
Drilling Activity	**0**	Utility water used mainly well drilling activities.
Rig less Activity	**0**	Utility water used mainly well rig less activities.
Domestic	**1.7356**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**1.7356**	Refer **Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Natural Gas	**Nil**	**Nil**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Natural Gas. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via in field pipelines to processing terminal. Few chemicals are used for gas extraction and export.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

For upstream industry, chemicals are consumed at various concentrations and also depending on the subsurface behavior, such as to control the corrosion, emulsification, oxygen level, bacterial growth etc. Therefore, refer Annexure – 4 for the various chemical consumption details

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner / concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
B) Air	No Source of Air Pollution. Power requirement is met from captive power plant (CPP) RGT. Power requirement for drilling activities met through temporary DG sets used for very brief period of time during the year. Compliance to COP for all DGs checked and ensured during drilling period. Pollutant concentration as per third party stack monitoring reports is as below. **Annexure – 2 for Drilling Phase Diesel Consumption Details.**		

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	**1494.94 MT**	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	**7.96 MT**	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.265 MT**	**0.270 MT**
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil

Hazardous Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(B) From pollution control facilities	Nil	Nil
(C) From Other sources –	Nil	Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process	Nil	Nil
(b) From Pollution control facility	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc. are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation and development facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure - 1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base is operational for the treatment of Wastewater from Office areas and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Non-hazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures / investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure - 2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics, and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure - 3**.

Kiran Mondal
FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Domestic M^3		
	Water used in Drilling	Water used in Rig less	(Consumed for WP utility and gardening)
Apr-23	0	0	60
May-23	0	0	44.16
Jun-23	0	0	56.66
Jul-23	0	0	43.5
Aug-23	0	0	6.66
Sep-23	0	0	98.33
Oct-23	0	0	59.16
Nov-23	0	0	65
Dec-23	0	0	40
Jan-24	0	0	50
Feb-24	0	0	70
Mar-24	0	0	40
Total	**0**	**0**	**633.5**
Average Per Day Consumption	**0**	**0**	**1.7356**

ANNEXURE – 2

DRILLING PHASE DIESEL CONSUMPTION DETAILS

Month	WP 02 (Drilling OPS) Quantity M^3	RIGLESS/Well Service Quantity M^3
Apr-23	0	0
May-23	0	0
Jun-23	0	0
Jul-23	0	0
Aug-23	0	0
Sep-23	0	0
Oct-23	0	0
Nov-23	0	0
Dec-23	0	0
Jan-24	0	0
Feb-24	0	0
Mar-24	0	0
Total	0	0
Average Per Day	0	0

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI GAS WELL PAD 04
RJ-ON-90/1 BLOCK, VILLAGE: DHANDLAWAS & RAVLI NADI
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier : **FGM South Operations**
PML – 1 Raageshwari Well Pad – 61
Old Name Raag Gas WP 04,
M/s Vedanta Limited, Cairn Oil & Gas,
Village: Dhandlawas & Ravli Nadi,
Tehsil: Gudha Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)

Secondary -- (SIC Code)

iii) Production capacity – Units : Raageshwari Well Pad - 04 Condensate (Crude Oil) and Natural Gas Capacity – 5000 BOPD & 50.00 MMSCFD respectively.

iv) Year of establishment : 23rd March - 2013

v) Date of the last environmental statement Submitted. : 06th September 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
	0	Utility water used mainly well drilling activities.
	0	Utility water used mainly well rigless activities.
Domestic	**0.9483**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**0.9483**	Refer **Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Natural Gas	**Nil**	**Nil**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Natural Gas. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via in field pipelines to processing terminal. Few chemicals are used for gas extraction and export.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

For upstream industry, chemicals are consumed at various concentrations and also depend on subsurface behavior, such as to control the corrosion, emulsification, oxygen level, bacterial growth etc. Therefore, refer Annexure – 4 for the various chemical consumption details

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner / concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air	No Source of Air Pollution. Power requirement is met from captive power plant (CPP) RGT. Power requirement for drilling activities met through temporary DG sets used for very brief period of time during the year. Compliance to COP for all DGs checked and ensured during drilling period. Pollutant concentration as per third party stack monitoring reports is as below. **Annexure – 2 for Drilling Phase Diesel Consumption Details.**		

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	0.023 MT	0.063 MT
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil
(C) From Other sources –	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc. are handovers to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.
- Non-hazardous waste: Domestic waste is generated from the operation and development facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure - 1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base is operational for the treatment of Wastewater from Office areas and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Non-hazardous wastes. A Dual Chamber Incinerator for incineration of Biomedical and high calorific value waste is installed at MPT.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is installed at RGT Operation Base.

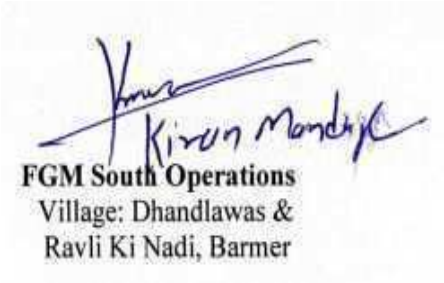
PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure - 2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure - 3**.



ANNEXURE - 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3		Domestic M^3
	Water used in Drilling Ops.	Water used in Rigless Ops.	(Consumed for WP utility and gardening)
Apr-24	0	0	20
May-24	0	0	20.16
Jun-24	0	0	16.66
Jul-24	0	0	23.5
Aug-24	0	0	36.66
Sep-24	0	0	40
Oct-24	0	0	14.16
Nov-24	0	0	55
Dec-24	0	0	10
Jan-25	0	0	30
Feb-25	0	0	40
Mar-25	0	0	40
Total	**0**	**0.00**	**346.14**
Average Per Day Consumption	**0.00**	**0.00**	**0.9483**

ANNEXURE – 2

DRILLING PHASE DIESEL CONSUMPTION DETAILS

Month	WP 04 (Drilling OPS) Quantity M^3	WP 04 (Rig less OPS) Quantity M^3
Apr-24	0	0
May-24	0	0
Jun-24	0	0
Jul-24	0	0
Aug-24	0	0
Sep-24	0	0
Oct-23	0	0
Nov-24	0	0
Dec-24	0	0
Jan-25	0	0
Feb-25	0	0
Mar-25	0	0
Total	**0.00**	**0.00**
Average Per Day	**0.0**	**0.0**

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI GAS WELL PAD 05
RJ-ON-90/1 BLOCK, VILLAGE: DHANDLAWAS & RAVLI NADI
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier : **FGM South Operations**
PML – 1 Raageshwari Well Pad - 62,
Old Name Raag Gas WP 05
M/s Cairn Oil & Gas, Vedanta Limited,
Village: Nagar,
Tehsil: Gudha Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)

Secondary -- (SIC Code)

iii) Production capacity – Units : Raageshwari Well Pad - 05 Condensate and Natural Gas Capacity – 6000 BOPD & 60 MMSCFD respectively.

iv) Year of establishment : 20th September - 2013

v) Date of the last environmental statement Submitted. : 06th September - 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
	0	Utility water used mainly well drilling activities.
	38.3199	Utility water used mainly well rig less activities.
Domestic	**1.0465**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**39.3664**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Natural Gas	**Nil**	**Nil**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Natural Gas. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via in field pipelines to processing terminal. Few chemicals are used for gas extraction and export.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

For upstream industry, chemicals are consumed at various concentrations and also depending on the subsurface behavior, such as to control the corrosion, emulsification, oxygen level, bacterial growth etc. Therefore, refer Annexure – 4 for the various chemical consumption details

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner / concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
B) Air	No Source of Air Pollution. Power requirement is met from captive power plant (CPP) RGT. Power requirement for drilling activities met through temporary DG sets used for very brief period of time during the year. Compliance to COP for all DGs checked and ensured during drilling period. Pollutant concentration as per third party stack monitoring reports is as below. **Annexure – 2 for Drilling Phase Diesel Consumption Details.**		

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	**1280.77 MT**	**533.62 MT**
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	**19.97 MT**	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.355 MT**	**0.245 MT**
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From	Nil		Nil

Hazardous Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
pollution control facilities		
(C) From Other sources –	Nil	Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process	Nil	Nil
(b) From Pollution control facility	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc. are handovers to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY **2024-25** are indicated in Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation and development facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure - 1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base is operational for the treatment of Wastewater from Office areas and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Non-hazardous wastes. A Dual Chamber Incinerator for incineration of Biomedical and high calorific value waste is installed at MPT.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is installed at RGT Operation Base.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure - 2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure - 3**.

Kiran Mandaliya
FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE - 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3		Domestic M^3
	Water used in Drilling	Water used in Rigless	(Consumed for WP utility and gardening)
Apr-23	**0**	6280.814	16.7
May-23	**0**	265.08	16.7
Jun-23	**0**	0	40
Jul-23	**0**	0	22.2
Aug-23	**0**	4564.93	50
Sep-23	**0**	2875.97	58.3
Oct-23	**0**	0	10
Nov-23	**0**	0	20
Dec-23	**0**	0	20
Jan-24	**0**	0	50
Feb-24	**0**	0	30
Mar-24	**0**	0	48
Total	**0**	**13986.794**	**382**
Average Per Day Consumption	**0**	**38.3199**	**1.0465**

ANNEXURE – 2

DRILLING PHASE DIESEL CONSUMPTION DETAILS

Month	WP 05 (Drilling OPS) Quantity M^3	WP 05 (Rig less OPS) Quantity M^3
Apr-23	0	60.709
May-23	0	3.622
Jun-23	1.259	0
Jul-23	1.592	0
Aug-23	56.381	0
Sep-23	10.149	0
Oct-23	0	0
Nov-23	0	0
Dec-23	0	0
Jan-24	0	0
Feb-24	0	0
Mar-24	0	0
Total	**69.381**	**64.331**
Average Per Day	**0.1900**	**0.1762**

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI GAS WELL PAD 07
RJ-ON-90/1 BLOCK, VILLAGE: DHANDLAWAS & RAVLI NADI
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier : **FGM South Operations**
PML – 1 Raageshwari Well Pad - 63,
Old Name Raag Gas WP 07
M/s Cairn Oil & Gas, Vedanta Limited,
Village: Dhandlawas & Ravli Nadi,
Tehsil: Gudha Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)

Secondary -- (SIC Code)

iii) Production capacity – Units : Raageshwari Well Pad - 07 Condensate and Natural Gas Capacity – 6000 BOPD & 60.0 MMSCFD respectively.

iv) Year of establishment : January - 2010

v) Date of the last environmental statement Submitted. : 06th September 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
	7.4821	Utility water is used mainly well drilling activities.
	102.25	Utility water used mainly well rig less activities.
Domestic	**1.59**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**111.32**	**Refer Annexure -1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Natural Gas	**Nil**	**Nil**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Natural Gas. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via in field pipelines to processing terminal. Few chemicals are used for gas extraction and export.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

For the upstream industry, chemicals are consumed at various concentrations and also depend on subsurface behavior, such as to control the corrosion, emulsification, oxygen level, bacterial growth etc. Therefore, refer Annexure – 4 for the various chemical consumption details

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which are of non-routine activity. The wastewater, thus generator disposed to the HDPE liner / concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
B) Air	No Source of Air Pollution. Power requirement is met from captive power plant (CPP) RGT. Power requirement for drilling activities met through temporary DG sets used for very brief period of time during the year. Compliance to COP for all DGs checked and ensured during drilling period. Pollutant concentration as per third party stack monitoring reports is as below.		

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	**2065.02 MT**	**950.59 MT**
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	**765.36 MT**	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	**18.51 MT**	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.127 MT**	**0.258 MT**
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control	Nil		Nil

Hazardous Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
facilities		
(C) From Other sources –	Nil	Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process	Nil	Nil
(b) From Pollution control facility	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc. are handovers to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY **2024-25** are indicated in Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - G

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation and development facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure - 1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base is operational for the treatment of Wastewater from Office areas and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Non-hazardous wastes. A Dual Chamber Incinerator for incineration of Biomedical and high calorific value waste is installed at MPT.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is installed at RGT Operation Base.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure - 2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure - 3**.

Kiran Mandya

FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE - 1

WATER CONSUMPTION DETAILS

Month	Domestic M^3		
	Water used in Drilling	Water used in Rig less Ops.	(Consumed for WP utility and gardening)
Apr-23	900	6361.427	26.7
May-23	900	2430.64	40.2
Jun-23	656	11586.062	46.6
Jul-23	275	13904.14	38.5
Aug-23	0	2545.85	51.7
Sep-23	0	399.36	61.7
Oct-23	0	93.93	64.2
Nov-23	0	0	40
Dec-23	0`	0	30
Jan-24	0	0	50
Feb-24	0	0	50
Mar-24	0.00	0	80
Total	**2731**	**37321.409**	**579.44**
Average Per Day Consumption	**7.4821**	**102.2504**	**1.5872**

ANNEXURE – 2

DRILLING PHASE DIESEL CONSUMPTION DETAILS

Month	WP 07 (Drilling OPS) Quantity M^3	WP 07 (Rig less OPS) Quantity M^3
Apr-23	4.104	8.330
May-23	2.505	4.427
Jun-23	1.259	61.786.86
Jul-23	1.592	89.943.22
Aug-23	0	4.943
Sep-23	0	7.848
Oct-23	0	29.483
Nov-23	0	0
Dec-23	0	0
Jan-24	0	0
Feb-24	0	0
Mar-24	0	0
Total	**9.460**	**206.7611**
Average Per Day	**0.0259**	**0.5665**

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI GAS WELL PAD 08
RJ-ON-90/1 BLOCK, VILLAGE: MALIYON KI DHANI
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier : **FGM South Operations**
PML – 1 Raageshwari Gas Well Pad – 65
Raag Gas WP 08
M/s Vedanta Limited, Cairn Oil & Gas,
Village: Maliyon ki Dhani
Tehsil: Gudha Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)

Secondary -- (SIC Code)

iii) Production capacity – Units : Raageshwari Well Pad – 08, Condensate (Crude Oil) and Natural Gas Capacity – 2000 BOPD and 15.0 MMSCFD respectively.

iv) Year of establishment : May 2018

v) Date of the last environmental statement Submitted. : 06th September 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0.00**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
	0.00	Utility water used mainly well drilling activities.
	0.00	Utility water used mainly well rig less activities.
Domestic	**1.123**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**1.123**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Natural Gas	**Nil**	**Nil**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Natural Gas. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via in field pipelines to processing terminal. Few chemicals are used for gas extraction and export.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

For the upstream industry, chemicals are consumed at various concentrations and also depend on the subsurface behavior, such as to control the corrosion, emulsification, oxygen level, bacterial growth etc. Therefore, refer Annexure – 4 for the various chemical consumption details

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner / concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air	No Source of Air Pollution. Power requirement is met from captive power plant (CPP) RGT. Power requirement for drilling activities met through temporary DG sets used for very brief period of time during the year. Compliance to COP for all DGs checked and ensured during drilling period. Pollutant concentration as per third party stack monitoring reports is as below. **Annexure – 2.**		

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.050 MT**	**0.013 MT**
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil
(C) From Other sources –	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process	Nil	Nil
(b) From Pollution control facility	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc. are handovers to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY **2024-25** are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.
- Non-hazardous waste: Domestic waste is generated from the operation and development facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure - 1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base is operational for the treatment of Wastewater from Office areas and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Non-hazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures / investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure - 2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure - 3**.

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Domestic M^3		
	Water used in Drilling	Water used in Rig less	(Consumed for utility and gardening)
Apr-23	0	0	18.3
May-23	0	0	37.2
Jun-23	0	0	25
Jul-23	0	0	19.7
Aug-23	0	0	55
Sep-23	0	0	20
Oct-23	0	0	5
Nov-23	0	0	15
Dec-23	0	0	20
Jan-24	0	0	40
Feb-24	0	0	30
Mar-24	0	0	40
Total	**0**	**0**	**325.11**
Average Per Day Consumption	**0**	**0**	**1.1226**

ANNEXURE – 2

DRILLING PHASE DIESEL CONSUMPTION DETAILS

Month	WP 08 (Drilling OPS) Quantity M^3	RIGLESS/Well Service Quantity M^3
Apr-23	0	0
May-23	0	0
Jun-23	0	0
Jul-23	0	0
Aug-23	0	0
Sep-23	0	0
Oct-23	0	0
Nov-23	0	0
Dec-23	0	0
Jan-24	0	0
Feb-24	0	0
Mar-24	0	0
Total	**0**	**0**

Average Per Day	**0**	**0**

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI GAS WELL PAD 09
RJ-ON-90/1 BLOCK, VILLAGE: DEDAWAS JAGIR
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier : **FGM South Operations**
PML – 1 Raageshwari Gas Well Pad – 68
Raag Gas Well Pad - 09
M/s Vedanta Limited, Cairn Oil & Gas,
Village: Dedawas Jagir
Tehsil: Gudha Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)

Secondary -- (SIC Code)

iii) Production capacity – Units : Raageshwari Well Pad – 09, Condensate (Crude Oil) and Natural Gas Capacity – 2000 BOPD and 15.0 MMSCFD respectively.

iv) Year of establishment : May 2018

v) Date of the last environmental statement Submitted. : 06th September 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0.00**	Utility water used mainly well drilling, fire water make-up and utility purpose.
	0.00	Utility water used for Rig less activity
Domestic	**0.164**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**0.164**	**Refer Annexure -1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Natural Gas	**Nil**	**Nil**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Natural Gas. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via in field pipelines to processing terminal. Few chemicals are used for gas extraction and export.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

For upstream industry, chemicals are consumed at various concentrations and also depend on the subsurface behavior, such as to control the corrosion, emulsification, oxygen level, bacterial growth etc. Therefore, refer Annexure – 4 for the various chemical consumption details

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner / concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air	No Source of Air Pollution. Power requirement is met from captive power plant (CPP) RGT. Power requirement for drilling activities met through temporary DG sets used for very brief period of time during the year. Compliance to COP for all DGs checked and ensured during drilling period. Pollutant concentration as per third party stack monitoring reports is as below. **Annexure – 2.**		

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.005**	Nil
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil
(C) From Other sources –	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process	Nil	Nil
(b) From Pollution control facility	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc. are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.
- Non-hazardous waste: Domestic waste is generated from the operation and development facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure - 1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base is operational for the treatment of Wastewater from Office areas and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Non-hazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures / investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure - 2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for improvement of the environment, aesthetics and socio-economic conditions. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure - 3**.

Kiran Mondal

FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE - 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3		Domestic M^3
	(Water used in well drilling and fire water)	(Water used in Rig less Activity)	(Consumed for WP utility and gardening)
Apr-23	0	0	0
May-23	0	0	30
Jun-23	0	0	0
Jul-23	0	0	30
Aug-23	0	0	0
Sep-23	0	0	0
Oct-23	0	0	0
Nov-23	0	0	0
Dec-23	0	0	0
Jan-24	0	0	0
Feb-24	0	0	0
Mar-24	0	0	0
Total	**0.0**	**0.0**	**60**
Average Per Day Consumption	**0.0**	**0.0**	**0.1643**

ANNEXURE – 2

DRILLING PHASE DIESEL CONSUMPTION DETAILS

Month	WP 09 (Drilling OPS) Quantity M^3	WP 09 (Rig less Ops) Quantity M^3
Apr-23	0	0
May-23	0	0
Jun-23	0	0
Jul-23	0	0
Aug-23	0	0
Sep-23	0	0
Oct-23	0	0
Nov-23	0	0
Dec-23	0	0
Jan-24	0	0
Feb-24	0	0
Mar-24	0	0
Total	**0.0**	**0.0**
Average Per Day	**0.0**	**0.0**

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI GAS WELL PAD 11
RJ-ON-90/1 BLOCK, VILLAGE: MALIYON KI DHANI & DEDAWAS JAGIR
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier	:	**FGM South Operations** **PML – 1 Raageshwari Gas Well Pad – 69** Raag Gas Well Pad - 11 M/s Vedanta Limited, Cairn Oil & Gas, Village: Maliyon ki Dhani & Dedawas Jagir Tehsil: Gudha Malani District: Barmer
ii) Industry category	:	Primary -- (STC Code) Secondary -- (SIC Code)
iii) Production capacity – Units	:	Raageshwari Well Pad – 11, Condensate (Crude Oil) and Natural Gas Capacity – 2000 BOPD and 15.0 MMSCFD respectively.
iv) Year of establishment	:	May 2018
v) Date of the last environmental statement Submitted.	:	06th September 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0.0**	Utility water used mainly well drilling, fire water make-up and utility purpose.
Domestic	**0.8136**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**0.8136**	**Refer Annexure -1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Natural Gas	**Nil**	**Nil**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Natural Gas. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via in field pipelines to processing terminal. Few chemicals are used for gas extraction and export.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

For the upstream industry, chemicals are consumed at various concentrations and also depend on subsurface behavior, such as to control the corrosion, emulsification, oxygen level, bacterial growth etc. Therefore, refer Annexure – 4 for the various chemical consumption details

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner / concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air	No Source of Air Pollution. Power requirement is met from captive power plant (CPP) RGT. Power requirement for drilling activities met through temporary DG sets used for very brief period of time during the year. Compliance to COP for all DGs checked and ensured during drilling period. Pollutant concentration as per third party stack monitoring reports is as below. **Annexure – 2.**		

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.005 MT**	**0.057 MT**
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil
(C) From Other sources –	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the previous financial year	During the current financial year
(a) From process	Nil	Nil
(b) From Pollution control facility	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Solid (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc. are handovers to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY **2024-25** are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.
- Non-hazardous waste: Domestic waste is generated from the operation and development facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure - 1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base is operational for the treatment of Wastewater from Office areas and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Non-hazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures / investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure - 2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure - 3**.

Kiran Mondal

FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE - 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3	Domestic M^3
	(Water used in well drilling and fire water)	(Consumed for WP utility and gardening)
Apr-23	0	18.3
May-23	0	19.2
Jun-23	0	25
Jul-23	0	19.7
Aug-23	0	55
Sep-23	0	10
Oct-23	0	15
Nov-23	0	15
Dec-23	0	10
Jan-24	0	40
Feb-24	0	30
Mar-24	0	40
Total	**0**	297
Average Per Day Consumption	**0.00**	**0.8136**

ANNEXURE – 2

DRILLING PHASE DIESEL CONSUMPTION DETAILS

Month	WP 11 (Drilling OPS) Quantity M^3	RIGLESS/Well Service Quantity M^3
Apr-23	0	0
May-23	0	0
Jun-23	0	0
Jul-23	0	0
Aug-23	0	0
Sep-23	0	0
Oct-23	0	0
Nov-23	0	0
Dec-23	0	0
Jan-24	0	0
Feb-24	0	0
Mar-24	0	0
Total	**0**	**0**
Average Per Day	**0**	**0**

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI OIL WELL PAD - 02
RJ-ON-90/1 BLOCK, VILLAGE: DHANDLAWAS
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier : **FGM South Operations,**
M/s Cairn Oil & Gas,
Vedanta Limited,
PML1-Raageshwari Oil-Well Pad -51 (Raag Oil Well Pad-02),
Village: Dhandlawas,
Tehsil: Gudha Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)

Secondary -- (SIC Code)

iii) Production capacity – Units : Raag Oil Well Pad - 02 Crude Oil and Natural Gas Capacity – 1500 BOPD & 2.5 MMSCFD respectively.

iv) Year of establishment : March 2012

v) Date of the last environmental statement Submitted. : 06th September' 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
	0	Utility water is used mainly well drilling activities.
Domestic	**2.24**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**2.24**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Crude Oil	**NIL**	NIL

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Crude Oil. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via to processing terminal. Few chemicals are used for conditioning and storage.		NIL	NIL

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/ DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which are of non-routine activity. The wastewater, thus generator disposed to the HDPE liner/ concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air Emissions Source: GEG Set (2 X 500 KW) & EDG (250 KVA)	Diesel Consumption 0.0428 M^3/Day	**Refer Annexure - 02**	The stack emissions are within the prescribed limits of RSPCB. **Annexure 2 & 3** for details.

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels / containers / liners contaminated with hazardous chemicals / wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.484 MT**	**0.415 MT**
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Previous Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Previous Financial Year
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	Nil	Nil
	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 4.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure-1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base are operational for the treatment of Wastewater from Office area and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Nonhazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure-2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mandaja

FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3		Domestic M^3
	(Water used in processing, injection, and power generation purposes)	Water used in Drilling	(Consumed for WP utility and gardening)
Apr-24	0	0	35
May-24	0	0	30
Jun-24	0	0	45
Jul-24	0	0	115
Aug-24	0	0	30
Sep-24	0	0	80
Oct-24	0	0	30
Nov-24	0	0	25
Dec-24	0	0	50
Jan-25	0	0	170
Feb-25	0	0	138
Mar-25	0	0	70
Total	**0**	**0.00**	**818**
Average Per Day Consumption	**0**	**0.00**	**2.24**

ANNEXURE – 2

DIESEL CONSUMPTION DETAILS

Month	Quantity M^3	Drilling Operation Quantity M^3
Apr-24	0.52	0
May-24	0.408	0
Jun-24	0.814	0
Jul-24	0.359	0
Aug-24	0.469	0
Sep-24	0.197	0
Oct-24	1.068	0
Nov-24	1.021	0
Dec-24	2.299	0
Jan-25	5.035	0
Feb-25	2.342	0
Mar-25	1.115	0
Total	**15.647**	**0.00**
Average Per Day Consumption	**0.0428**	**0.00**

ANNEXURE – 3

DG STACK MONITORING RESULTS SUMMARY

Sr No	Parameter	Unit	Raag Oil Well Pad - 2 GEG A (1.3 MV)	Raag Oil Well Pad - 2 GEG B (1.3 MV)	Raag Oil - 2 EDG – 380 KVA
			Average	Average	Average
1.	Particulate Matter (PM)	**g/kw-hr**	BDL	BDL	0.035
2.	Carbon monoxide (CO)	**g/kw-hr**	46.92	50.31	0.37
3.	NMHC	**g/kw-hr**	21.325	22.0583	ND
ss4.	NOx +HC	**g/kw-hr**	121.61	128.59	0.3945
5.	Sulphur Dioxide (SO2)	**mg/ Nm^3**	ND	ND	ND

ANNEXURE – 4

Raag oil 1 Chemicals used				
Month	**Demulsifier (KL)**	**Biocide (KL)**	**PPD (KL)**	**Any other chemicals (KL)**
April'24	3.879	NA	NA	NA
May'24	3.753			
Jun'24	3.596			
July'24	4.259			
Aug'24	4.330			
Sep'24	4.170			
Oct'24	5.734			
Nov'24	5.082			
Dec'24	4.206			
Jan'25	4.188			
Feb'25	4.009			
March'25	4.715			
Total	**51.921**			
Average Per Day Consumption	**0.142249315**			

ANNEXURE – 4

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR RAAGESHWARI OIL WELL PAD 03
RJ-ON-90/1 BLOCK, VILLAGE: DHANDLAWAS
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier : **FGM South Operations,**
M/s Cairn Oil & Gas,
Vedanta Limited,
PML1-Raageshwari Oil-Well Pad-50 (Raag Oil Well Pad-03),
Village: Dhandlawas,
Tehsil: Gudha Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)

Secondary -- (SIC Code)

iii) Production capacity – Units : Raag Oil Well Pad - 03 Crude Oil and Natural Gas Capacity – 1500 BOPD & 2.5 MMSCFD respectively.

iv) Year of establishment : 12th December 2013

v) Date of the last environmental statement Submitted. : 06th September' 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0.00**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
Drilling Ops.	**0.00**	Water used for drilling operation purpose, during the drilling operation only.
Domestic	**1.30**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**1.30**	**Refer Annexure - 1 for Water Consumption Details**

Name of Products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Crude Oil	NIL	NIL

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Crude Oil. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via to processing terminal. Few chemicals are used for conditioning and storage.		NIL	NIL

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) Pollutants	Quantity of Pollutants Discharged (mass/day)	Concentrations of Pollutants in discharges (Mass / Volume)	Percentage of variation from prescribed standards with reasons.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner/ concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air Emissions Source: DG Set (250 KVA)	Diesel Consumption **1.5914 M3/Day**	**Refer Annexure 02**	The stack emissions are within the prescribed limits of RSPCB.

PART - D

Hazardous Wastes
(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels / containers / liners contaminated with hazardous chemicals / wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	0.215 MT	0.225 MT
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total Non-Hazardous material sold in FY 2024-25 are indicated in Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 4.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure-1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base are operational for the treatment of Wastewater from Office area and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Nonhazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure-2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mandya
FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Drilling Ops. water consumption in M^3	Domestic M^3 (consumed at the living quarters and gardening)
Apr-23	0	15
May-23	0	38
Jun-23	0	55
Jul-23	0	45
Aug-23	0	20
Sep-23	0	40
Oct-23	0	30
Nov-23	0	15
Dec-23	0	10
Jan-24	0	80
Feb-24	0	78
Mar-24	0	50
Total	**0.00**	**476**
Average Per Day Consumption	**0.00**	**1.30**

ANNEXURE - 2

DIESEL CONSUMPTION DETAILS

Month	Quantity M^3	Diesel consumption for drilling ops.
Apr-23	19.463	0
May-23	21.678	0
Jun-23	59.109	0
Jul-23	67.558	0
Aug-23	67.541	0
Sep-23	70.414	0
Oct-23	87.958	0
Nov-23	88.506	0
Dec-23	60.942	0
Jan-24	33.568	0
Feb-24	3.697	0
Mar-24	0.425	0
Total	**580.859**	**0.00**
Average Per Day Consumption	**1.5914**	**0.00**

ANNEXURE - 3

Raag oil 3 Chemicals used					
Month	**Demulsifier (KL)**	**Biocide (KL)**	**Reverse Demulsifier (KL)**	**oxygen Scavenger (KL)**	**SI (KL)**
April'24	1.163	0	0	0	0
May'24	1.267	0.788	0.463	0.230	0
Jun'24	0.821	0.500	0.265	0.383	0.758
July'24	1.291	0.840	0.081	0.462	0.590
Aug'24	1.458	0.449	1.176	0.382	0.454
Sep'24	0.865	1.589	0.421	0.444	1.534
Oct'24	0.775	0.315	0.309	0.493	0.645
Nov'24	0.645	0.315	0.305	0.466	0.703
Dec'24	0.624	0.336	0.330	0.480	0.719
Jan'25	0.590	0.217	0.239	0.385	0.520
Feb'25	0.560	0.210	0.224	0.364	0.504
March'25	0.592	0.240	0.248	0.403	0.558
Total	**10.651**	**5.799**	**4.061**	**4.492**	**6.985**
Average Per Day Consumption	**0.029180822**	**0.01588767**	**0.011126027**	**0.012306849**	**0.019137**

ANNEXURE – 4

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR Kam West 02 RJ-ON-90/1 BLOCK, Village: Garel, Teh: Guda Malani, District - Barmer, Rajasthan

PART - A

i) Name and address of the owner /occupier of the industry operation of process	:	**FGM South Operations** **Kaameshwari West – 02 (KA-W-2)** M/s Cairn Oil & Gas, Vedanta Limited, Village: Garel Tehsil: Guda Malani District: Barmer
ii) Industry category	:	Primary -- (STC Code) Secondary -- (SIC Code)
iii) Production capacity – Units	:	The Kaam West 02 consists of 02 well. The well fluids are transferred to Mangala Processing Terminal (MPT) for further processing, storage and export via trucking. Kaam West 02 Crude Oil and Natural Gas Capacity – 1500 BOPD & 2.0 MMSCFD respectively.
iv) Year of establishment	:	May 2017
v) Date of the last environmental statement	:	06th September' 2023

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0.00**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
Domestic	**1.1506**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**1.1506**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Crude Oil	**Not Applicable**	**Not Applicable**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Crude Oil. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via to processing terminal. Few chemicals are used for conditioning and storage.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output (Parameter as specified on the consent issued)

<table>
<tr><th>(1) POLLUTANTS</th><th>QUANTITY OF POLLUTANTS DISCHARGED (MASS/ DAY)</th><th colspan="4">CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)</th><th>PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.</th></tr>
<tr><td>A) Water</td><td colspan="6">Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner/ concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.</td></tr>
<tr><td>B) Air Emissions
Source: GEG Set (1 X 500 KVA) & EDG (250 KVA)</td><td>Diesel Consumption 0.0586 M^3/Day</td><td colspan="4"><table>
<tr><th>S. No.</th><th>Parameters</th><th>Unit</th><th>Kaameshwari Well Pad-2 (GEG-1.3 MW)</th></tr>
<tr><td>1.</td><td>Particulate Matter (PM)</td><td>g/kw-hr</td><td>BDL (<5.0)</td></tr>
<tr><td>2.</td><td>Carbon monoxide (CO)</td><td>g/kw-hr</td><td>118.37</td></tr>
<tr><td>3.</td><td>NMHC</td><td>g/kw-hr</td><td>33.5</td></tr>
<tr><td>4.</td><td>NOx +HC</td><td>g/kw-hr</td><td>26.12</td></tr>
<tr><td>5.</td><td>Sulphur Dioxide (SO2)</td><td>mg/ Nm^3</td><td>ND</td></tr>
</table>Power requirement is met from installed GEG Set. Refer Annexure - 03</td><td>The stack emissions are within the prescribed limits of RSPCB. Annexure – 02 & 03</td></tr>
</table>

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	Type of hazardous waste	During the Previous Financial Year	During the Current Financial Year
(a) From Process		Disposal Quantity (MT/KL)	Disposal Quantity (MT/KL)
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	0.226 MT	0.195 MT
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil	Nil	
(C) From Other sources –	Nil	Nil	

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. **Annexure - 4**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure -1**).

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution **Enclosure-2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mandaja

FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3 (Water used in cleaning/washing of the plants & vessels and fire water)	Domestic M^3 (consumed at the living quarters and gardening)
April'24	0	20
May'24	0	50
Jun'24	0	40
July'24	0	40
Aug'24	0	40
Sep'24	0	30
Oct'24	0	30
Nov'24	0	10
Dec'24	0	20
Jan'25	0	50
Feb'25	0	20
March'25	0	70
Total	**0.00**	**420**
Average Per Day Consumption	**0.00**	**1.1506**

ANNEXURE – 2

DIESEL CONSUMPTION DETAILS

Month	Quantity M^3
April'24	0.237
May'24	5.366
Jun'24	0.601
July'24	0.013
Aug'24	0.323
Sep'24	0.036
Oct'24	0.285
Nov'24	0.593
Dec'24	0.453
Jan'25	0.881
Feb'25	2.378
March'25	10.245
Total	**21.411**
Average Per Day Consumption	**0.0586**

ANNEXURE – 3

DG STACK MONITORING RESULTS SUMMARY

S. No	Parameter	Unit	Kaameshwari Well Pad-2 (IWBH)
			Average
1.	Carbon monoxide (CO)	mg/ Nm^3	118.37
2.	Particulate Matter (PM)	mg/ Nm^3	BDL
3.	Particulate Matter (PM) at 12%CO2	mg/ Nm^3	-
4.	Oxide of Nitrogen (NO_x)	mg/ Nm^3	26.12
5.	NMHC	ppm	33.5

ANNEXURE – 4

Kameshwari W2 3 Chemicals used	
Month	**Demulsifier (KL)**
April'24	0.013
May'24	0.013
Jun'24	0.013
July'24	0.0155
Aug'24	0.002
Sep'24	0.0045
Oct'24	0
Nov'24	0
Dec'24	0.0005
Jan'25	0
Feb'25	0
March'25	0
Total	**0.0615**
Average Per Day Consumption	**0.000168**

ANNEXURE – 4

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR TUKA RAM 1Z
RJ-ON-90/1 BLOCK, VILLAGE: GOLIYA KALAN
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier : **FGM South Operations,**
M/s Cairn Oil & Gas,
Vedanta Limited,
PML1-Raageshwari Oil-Well Pad-57 (Tukaram 1Z),
Village: Goliya Kalan,
Tehsil: Gudha Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)

Secondary -- (SIC Code)

iii) Production capacity – Units : Raag Tukaram 1Z Crude Oil and Natural Gas Capacity – 2000 BOPD & 2.0 MMSCFD respectively.

iv) Year of establishment : 1th November 2019

v) Date of the last environmental statement Submitted. : 06th September 2023

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0.00**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
	0.00	Water Used for Rig less activity
Domestic	**3.15**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**3.15**	**Refer Annexure - 1 for Water Consumption Details**

Name of Products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Crude Oil	NIL	NIL

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Crude Oil. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via to processing terminal. Few chemicals are used for conditioning and storage.		NIL	NIL

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) Pollutants	Quantity of Pollutants Discharged (mass/day)	Concentrations of Pollutants in discharges (Mass / Volume)	Percentage of variation from prescribed standards with reasons.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner/ concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air Emissions	Diesel Consumption **0.3677 M3/Day**	**Refer Annexure 02**	The stack emissions are within the prescribed limits of RSPCB.

PART - D

Hazardous Wastes
(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels / containers / liners contaminated with hazardous chemicals / wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	0.385 MT	0.472 MT
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 4.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure-1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base are operational for the treatment of Wastewater from Office area and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Nonhazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure-2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3 (Water used for rig less activity)	Domestic M^3 (consumed at the living quarters and gardening)
Apr-23	0	90
May-23	0	100
Jun-23	0	130
Jul-23	0	100
Aug-23	0	70
Sep-23	0	70
Oct-23	0	100
Nov-23	0	60
Dec-23	0	70
Jan-24	0	120
Feb-24	0	130
Mar-24	0	110
Total	**0.00**	**1150**
Average Per Day Consumption	**0.00**	**3.15**

ANNEXURE - 2

DIESEL CONSUMPTION DETAILS

Month	Quantity M^3	Diesel Consumption during Rig less Ops.
Apr-23	20.709	0
May-23	16.384	0
Jun-23	10.336	0
Jul-23	16.57	0
Aug-23	24.296	0
Sep-23	23.587	0
Oct-23	17.159	0
Nov-23	0.506	0
Dec-23	0.1631	0
Jan-24	0.1448	0
Feb-24	0.887	0
Mar-24	0.705	0
Total	**134.208**	**0.00**
Average Per Day Consumption	**0.3677**	**0.00**

ANNEXURE – 3

Tuka 1Z Chemicals used	
Month	**Demulsifier (KL)**
April'24	0.086
May'24	0.062
Jun'24	0.066
July'24	0.137
Aug'24	0.379
Sep'24	0.325
Oct'24	0.235
Nov'24	0.185
Dec'24	0.236
Jan'25	0.2095
Feb'25	0.119
March'25	0.136
Total	2.1755
Average Per Day Consumption	0.00596

ANNEXURE – 4

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR SARSWATI WELL PAD 01
RJ-ON-90/1 BLOCK, VILLAGE: KOSLU
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier of the industry operation of process	:	**FGM South Operations** **PML – 1 Saraswati - Well Pad 43** Old Name Saraswati Oil Well Pad -1 M/s Cairn Oil & Gas, Vedanta Limited, Village: Koslu Tehsil: Guda Malani District: Barmer
ii) Industry category	:	Primary -- (STC Code) Secondary -- (SIC Code)
iii) Production capacity – Units	:	The Saraswati Oil field consists of 02 well pads. The well fluids are transferred to Mangala Processing Terminal (MPT) for further processing, storage, and export via trucking. Saraswati Oil Well Pad - 01 Crude Oil and Natural Gas Capacity – 1500 BOPD & 1.75 MMSCFD respectively.
iv) Year of establishment	:	May 2011
v) Date of the last environmental statement Submitted.	:	06th September' 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0.00**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
Domestic	**1.15**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**1.15**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Crude Oil	NIL	NIL

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Crude. Naturally hydrocarbon is extracted from the reservoir at well pads which are transferred via truck to the processing terminal. Few chemicals are used for export and storage.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which are of non-routine activity. The wastewater, thus generator disposed to the HDPE liner/ concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air Emissions Source: DG Set (250 KVA)	Diesel Consumption **0.0843 M^3/Day**	EDG installed for power backup during emergency. All regular power is sourced from Rajasthan State Electricity Board grid line connection.	The stack emissions are within the prescribed limits of RSPCB.

PART - D

Hazardous Wastes
(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels / containers / liners contaminated with hazardous chemicals / wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.155 MT**	**0.150 MT**
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 4.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure -1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base are operational for the treatment of Wastewater from Office area and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Nonhazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure-2**.

PART – I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mondal
FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3 (Water used in cleaning/washing of the plants & vessels and fire water)	Domestic M^3 (consumed at the living quarters and gardening)
April'24	0	122
May'24	0	50
Jun'24	0	38
July'24	0	30
Aug'24	0	10
Sep'24	0	10
Oct'24	0	40
Nov'24	0	20
Dec'24	0	10
Jan'25	0	40
Feb'25	0	30
March'25	0	20
Total	**0.00**	**420**
Average Per Day Consumption	**0.00**	**1.15**

ANNEXURE - 2

DIESEL CONSUMPTION DETAILS

Month	Quantity M^3
April'24	1.226
May'24	2.48
Jun'24	2.476
July'24	2.311
Aug'24	3.203
Sep'24	2.285
Oct'24	1.846
Nov'24	4.53
Dec'24	4.479
Jan'25	2.392
Feb'25	2.082
March'25	1.482
Total	**30.792**
Average Per Day Consumption	**0.0843**

ANNEXURE - 3

CHEMICALS CONSUMPTION DETAILS

Saraswati WP 01 Chemicals used				
Month	**CI (KL)**	**Biocide (KL)**	**PPD(KL)**	**Any other chemicaL-SI(KL)**
April'24	0	NA	NA	0.0075
May'24	0			0.0080
Jun'24	0			0.0075
July'24	0			0.014
Aug'24	0			0.0155
Sep'24	0			0.015
Oct'24	0			0.0155
Nov'24	0			0.010
Dec'24	0			0
Jan'25	0.0045			0.005
Feb'25	0.014			0.014
March'25	0.0155			0.011
Total	**0.034**			**0.123**
Average Per Day Consumption				

ANNEXURE – 4

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR SARSWATI WELL PAD 02
RJ-ON-90/1 BLOCK, VILLAGE: KOSLU
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner /occupier of the industry operation of process : **FGM South Operations**
PML – 1 Saraswati Well Pad – 44
Old Name Saraswati Well Pad - 2
M/s Cairn Oil & Gas, Vedanta Limited,
Village: Koslu
Tehsil: Guda Malani
District: Barmer

ii) Industry category : Primary -- (STC Code)
Secondary -- (SIC Code)

iii) Production capacity – Units : The Saraswati Oil field consists of 02 well pads. The well fluids are transferred to Mangala Processing Terminal (MPT) for further processing, storage and export via trucking.

Saraswati Oil Well Pad - 02 Crude Oil and Natural Gas Capacity – 1500 BOPD & 1.75 MMSCFD respectively.

iv) Year of establishment : 17th August 2013

v) Date of the last environmental statement Submitted. : 06th September' 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0.00**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
Domestic	**1.04**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**1.04**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Crude Oil	NIL	NIL

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Crude. Naturally hydrocarbon is extracted from the reservoir at well pads which are transferred via truck to the processing terminal. Few chemicals are used for export and storage.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output.
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner/ concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air Emissions Source: DG Set (380 KVA)	Diesel Consumption **0.189 M^3/Day**	EDG installed for power backup during emergency. All regular power is sourced from Rajasthan State Electricity Board grid line connection.	The stack emissions are within the prescribed limits of RSPCB.

PART - D

Hazardous Wastes
(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
	During the Previous Financial Year		During the Current Financial Year
(a) From Process	**Type of hazardous waste**	**Disposal Quantity (MT/KL)**	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels / containers / liners contaminated with hazardous chemicals / wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	0.195 MT	0.207 MT
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Waste, paper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure - 1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base is operational for the treatment of Wastewater from Office area and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Nonhazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure-2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mandiya

FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3 (Water used in processing, injection and power generation purposes)	Domestic M^3 (consumed at the living quarters and gardening)
Apr-24	0	48
May-24	0	50
Jun-24	0	10
Jul-24	0	20
Aug-24	0	20
Sep-24	0	10
Oct-24	0	30
Nov-24	0	20
Dec-24	0	10
Jan-25	0	100
Feb-25	0	20
Mar-25	0	40
Total	**0.00**	**378**
Average Per Day Consumption	**0.00**	**1.04**

ANNEXURE - 2

DIESEL CONSUMPTION DETAILS

Month	Quantity M^3
Apr-24	2.12
May-24	4.062
Jun-24	5.731
Jul-24	5.536
Aug-24	7.195
Sep-24	4.826
Oct-24	2.804
Nov-24	9.525
Dec-24	12.881
Jan-25	6.365
Feb-25	4.995
Mar-25	2.936
Total	**68.976**
Average Per Day Consumption	**0.189**

ANNEXURE – 4

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR SARSWATI WELL PAD 04
RJ-ON-90/1 BLOCK, VILLAGE: KOSLU
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier of the industry operation of process : **FGM South Operations**
PML – 1 Saraswati Well Pad – 46
Old Name Saraswati Well Pad – 04
M/s Cairn Oil & Gas, Vedanta Limited,
Village: Koslu, Block: Sindhari
Tehsil: Barmer
District: Barmer

ii) Industry category : Primary -- (STC Code)
Secondary -- (SIC Code)

iii) Production capacity – Units : The Saraswati Oil field consists of 03 well pads. The well fluids are transferred to Mangala Processing Terminal (MPT) for further processing, storage and export via trucking.

Saraswati Oil Well Pad - 04 Crude Oil and Natural Gas Capacity – 2000 BOPD & 2.0 MMSCFD respectively.

iv) Year of establishment : 28th Aug 2019

v) Date of the last environmental statement Submitted. : 06th September 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**1.6556**	Utility water used mainly well drilling activities.
	00	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
Domestic	**0.55**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**2.2056**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Crude Oil	NIL	NIL

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Crude. Naturally hydrocarbon is extracted from the reservoir at well pads which are transferred via truck to the processing terminal. Few chemicals are used for export and storage.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner/ concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air Emissions Source: DG Set (380 KVA)	Diesel Consumption **0.2564 M^3/Day**	EDG installed for power backup during emergency. All regular power is sourced from Rajasthan State Electricity Board grid line connection.	The stack emissions are within the prescribed limits of RSPCB.

PART - D

Hazardous Wastes
(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
(a) From Process	**Type of hazardous waste**	**During Previous Financial Year**	**During the Current Financial Year**
		Disposal Quantity (MT/KL)	**Disposal Quantity (MT/KL)**
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	**527.18**
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/containers/liners contaminated with hazardous chemicals / wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.030 MT**	**0.085 MT**
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	**58.675**
(B) From pollution control facilities	Nil	Nil	

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure -1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base are operational for the treatment of Wastewater from Office area and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Nonhazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure-2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mandya

FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Water used in Drilling	Process Water Consumption in M^3 (Water used in cleaning/washing of the plants & vessels and fire water)	Domestic M^3 (consumed at the living quarters and gardening)
April'24	0	0	0
May'24	0	0	20
Jun'24	0	0	10
July'24	0	0	10
Aug'24	0	0	10
Sep'24	0	0	10
Oct'24	0	0	30
Nov'24	0	0	20
Dec'24	0	0	10
Jan'25	604.31	0	40
Feb'25	0	0	20
March'25	0	0	20
Total	**604.31**	**0**	**200**
Average Per Day Consumption	**1.6556**	**0**	**0.55**

ANNEXURE - 2

DIESEL CONSUMPTION DETAILS

Month	(Drilling OPS) Quantity M^3	(Process OPS) Quantity M^3
April'24	0	0.793
May'24	0	2.285
Jun'24	0	2.92
July'24	0	2.143
Aug'24	0	2.992
Sep'24	0	2.251
Oct'24	0	3.148
Nov'24	0	7.232
Dec'24	0	5.924
Jan'25	55.737	2.322
Feb'25	0	3.787
March'25	0	2.074
Total	**55.737**	**37.871**
Average Per Day Consumption	**0.1527**	**0.1037**

ANNEXURE - 3

CHEMICALS CONSUMPTION DETAILS

Saraswati WP 01 Chemicals used				
Month	**CI (KL)**	**Biocide (KL)**	**PPD(KL)**	**Any other chemical-SI(KL)**
April'24	0	NA	NA	NA
May'24	0			NA
Jun'24	0			NA
July'24	0			NA
Aug'24	0			NA
Sep'24	0			0.007
Oct'24	0			0.065
Nov'24	0			0
Dec'24	0			0.03
Jan'25	0			0.03
Feb'25	0			0
March'25	0			0.03
Total	**0**			**0.162**
Average Per Day Consumption				

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR SARSWATI - 3 WH
RJ-ON-90/1 BLOCK, VILLAGE: KOSLU
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner /occupier of the industry operation of process	:	**FGM South Operations** **Saraswati - 3 Warehouse** M/s Vedanta Limited, M/s Cairn Oil & Gas, Khasra No 118/2, Village: Koslu Tehsil: Guda Malani District: Barmer
ii) Industry category	:	Primary -- (STC Code) Secondary -- (SIC Code)
iii) Production capacity – Units	:	Warehouse Activity
iv) Year of establishment	:	November 2012
v) Date of the last environmental statement Submitted.	:	06th September' 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0.00**	This warehouse is a central storage facility for the materials related to the drilling operation, well service and other related activities in the southern facilities of the block. Therefore, no process water generates from warehouse activity.
Domestic	**0.44**	Water for domestic purposes is mainly consumed at the office activity and greenery purpose.
Total	**0.44**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Warehouse Activity	**Not Applicable**	**Not Applicable**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
Warehouse Activity: This warehouse is a central storage facility for the materials related to drilling operation, well service and other related activities in the southern facilities of the block.		**Nil**	**Nil**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output (Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	**Nil**	**Nil**	**Nil**
B) Air Emissions Source: DG Set (62.5 KVA)	Diesel Consumption 0.00 M^3/Day		The stack emissions are within the prescribed limits of RSPCB.

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From Process	Nil	Nil
(B) From pollution control facilities	Nil	Nil
(C) From Other sources –	Nil	Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes.

- Hazardous Waste: The warehouse does not generate any hazardous waste; oily lube generates from DG's maintenance in nominal quantity and internally used for lubrication/material protection/disposed of through Authorized recyclers.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure -1**).

All the adequate pollution abatement measures have been taken like adequate stack height and enclosure provided for DGs, and domestic wastewater is disposed of through septic tank followed by soak pit.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution – Peripheral green belt and standards practices were followed for proper material storage and handling. Apart of that Environmental Awareness and material storage and handling related trainings workshops are being provided to workers. Description of these initiatives has been provided in **Enclosure-2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mondal
FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3 (Water used in processing, injection and power generation purposes)	Domestic M^3 (consumed at the living quarters and gardening)
Apr-23	0.00	36
May-23	0.00	0
Jun-23	0.00	0
Jul-23	0.00	18
Aug-23	0.00	0
Sep-23	0.00	0
Oct-23	0.00	0
Nov-23	0.00	18
Dec-23	0.00	18
Jan-24	0.00	0
Feb-24	0.00	18
Mar-24	0.00	18
Total	**0.00**	**162**
Average Per Day Consumption	**0.00**	**0.44**

ANNEXURE - 2

DIESEL CONSUMPTION DETAILS

Month	Quantity M^3
Apr-23	0.00
May-23	0.00
Jun-23	0.00
Jul-23	0.00
Aug-23	0.00
Sep-23	0.00
Oct-23	0.00
Nov-23	0.00
Dec-23	0.00
Jan-24	0.00
Feb-24	0.00
Mar-24	0.00
Total	**0.00**
Average Per Day Consumption	**0.00**

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR SARSWATI WELL PAD 04
RJ-ON-90/1 BLOCK, VILLAGE: KOSLU
TEHSIL: GUDHA MALANI, DISTRICT: BARMER

PART - A

i) Name and address of the owner / occupier **of the industry operation of process** : **FGM South Operations**
Khaata No. 30 Khasra No 16/7
15 Patwar mandal Sada
Sara Well Pad -05
Tehsil: Barmer
District: Barmer

ii) Industry category : Primary -- (STC Code)
Secondary -- (SIC Code)

iii) Production capacity – Units : The Saraswati Oil field consists of 03 well pads. The well fluids are transferred to Mangala Processing Terminal (MPT) for further processing, storage and export via trucking.

Saraswati Oil Well Pad - 05 Crude Oil and Natural Gas Capacity – 1800 BOPD & 1.0 MMSCFD respectively.

iv) Year of establishment : 28th Aug 2019

v) Date of the last environmental statement Submitted. : 06th September 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**28.6087**	Utility water is used mainly well drilling activities.
	00	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
Domestic	**00**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**28.6087**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Crude Oil	NIL	NIL

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Crude. Naturally hydrocarbon is extracted from the reservoir at well pads which are transferred via truck to the processing terminal. Few chemicals are used for export and storage.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output
(Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which are of non-routine activity. The wastewater, thus generator disposed to the HDPE liner/ concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air Emissions Source: DG Set (380 KVA)	Diesel Consumption **0.1587 M^3/Day**	EDG installed for power backup during emergency. All regular power is sourced from Rajasthan State Electricity Board grid line connection.	The stack emissions are within the prescribed limits of RSPCB.

PART - D

Hazardous Wastes
(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
(a) From Process	Type of hazardous waste	During Previous Financial Year Disposal Quantity (MT/KL)	During the Current Financial Year Disposal Quantity (MT/KL)
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	**339.74 MT**
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/containers/liners contaminated with hazardous chemicals / wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	Nil	Nil
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil	Nil	

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY **2024-25** are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources:

Details of pollution abatement measures have been described in a separate document (**Enclosure -1**).

Sewage Treatment Plants of capacities 65 KLD at RGT Operation Base are operational for the treatment of Wastewater from Office area and Living areas.

Double Composite Liner Captive Secured landfill and Single composite Liner Captive Secured landfill is developed within Mangala Processing Terminal for the treatment and disposal of Hazardous and Nonhazardous wastes. A Dual Chamber Incinerator is also ready for incineration of Biomedical and high calorific value waste.

Organic Waste Convertor for the treatment and conversion of food waste into the bio-manure is working in Operation Base.

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution.

There are several voluntary environmental initiatives that have been taken by Cairn Oil & Gas to promote environmental protection and prevention of pollution for operations and drilling activities. Description of these initiatives has been provided in **Enclosure-2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mandya

FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Water used in Drilling	Process Water Consumption in M^3 (Water used in cleaning/washing of the plants & vessels and fire water)	Domestic M^3 (consumed at the living quarters and gardening)
Apr-23	0	0	0
May-23	0	0	0
Jun-23	0	0	0
Jul-23	0	0	0
Aug-23	0	0	0
Sep-23	0	0	0
Oct-23	0	0	0
Nov-23	0	0	0
Dec-23	0	0	0
Jan-24	0	0	0
Feb-24	609	0	0
Mar-24	9833.2	0	0
Total	**10442.2**	**0**	**0**
Average Per Day Consumption	**28.6087**	**0**	**0**

ANNEXURE - 2

DIESEL CONSUMPTION DETAILS

Month	(Drilling OPS) Quantity M^3	(Process OPS) Quantity M^3
Apr-23	0	0
May-23	0	0
Jun-23	0	0
Jul-23	0	0
Aug-23	0	0
Sep-23	0	0
Oct-23	0	0
Nov-23	0	0
Dec-23	0	0
Jan-24	0	0
Feb-24	79.026	0
Mar-24	101.949	0
Total	**180.975**	**0**
Average Per Day Consumption	**0.1527**	**0**

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR Guda -02 RJ-ON-90/1 BLOCK,
Village: Maga ki Dhani, Teh: Guda Malani,
District - Barmer, Rajasthan

PART - A

i) Name and address of the owner /occupier of the industry operation of process	: **FGM South Operations** **PML – 1 Guda Well Pad – 71** Old Name Guda - 02 M/s Cairn Oil & Gas, Vedanta Limited, Village: Maga ki Dhani Tehsil: Guda Malani District: Barmer
ii) Industry category	: Primary -- (STC Code) Secondary -- (SIC Code)
iii) Production capacity – Units	: Currently Guda Oil field consists of 03 well pads. The well fluids are transferred to Mangala Processing Terminal (MPT) for further processing, storage and export via trucking. Guda - 2 Crude Oil and Natural Gas Capacity – 1500 BOPD & 2.0 MMSCFD respectively.
iv) Year of establishment	: September 2015
v) Date of the last environmental statement	: 06th September' 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
	0	Utility water used mainly well drilling activities.
Domestic	**0.78**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**0.78**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Crude Oil	**Not Applicable**	**Not Applicable**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Crude Oil. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via to processing terminal. Few chemicals are used for conditioning and storage.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output (Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner/ concrete pit. After solar evaporation drying the residues are disposed to the captive hazardous landfill at MPT.		
B) Air Emissions Source: DG Set (250 KVA)	Diesel Consumption **0.291 M^3/Day**	Power requirement is met from installed DG Set.	The stack emissions are within the prescribed limits of RSPCB.

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
(a) From Process	Type of hazardous waste	During Previous Financial Year Disposal Quantity (MT/KL)	During Previous Financial Year Disposal Quantity (MT/KL)
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.010 MT**	**0.113 MT**
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil
(C) From Other sources –	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil
(2) Sold (Wastepaper, metal waste, plastic waste,	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The	

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. **Annexure - 3**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources: Details of pollution abatement measures have been described in a separate document (**Enclosure -1**).

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution **Enclosure-2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mandaja
FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3 (Water used in processing, injection and power generation purposes)	Domestic M^3 (consumed at the living quarters and gardening)
Apr-24	0	20
May-24	0	20
Jun-24	0	20
Jul-24	0	46
Aug-24	0	10
Sep-24	0	30
Oct-24	0	10
Nov-24	0	30
Dec-24	0	10
Jan-25	0	20
Feb-25	0	10
Mar-25	0	60
Total	**0.00**	**286**
Average Per Day Consumption	**0.00**	**0.78**

ANNEXURE - 2

DIESEL CONSUMPTION DETAILS

Month	Quantity M^3
Apr-24	11.27
May-24	8.516
Jun-24	8.095
Jul-24	9.113
Aug-24	7.887
Sep-24	2.278
Oct-24	9.185
Nov-24	10.419
Dec-24	10.889
Jan-25	11.067
Feb-25	9.25
Mar-25	8.172
Total	**106.141**
Average Per Day Consumption	**0.291**

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

FORM V

(See Rule 14)

ENVIRONMENTAL STATEMENT

ENVIRONMENTAL STATEMENT FOR THE FINANCIAL YEAR ENDING 31ST MARCH 2024 FOR GUDA WELL PAD - 07
RJ-ON-90/1 BLOCK, VILLAGE: RAMPURA
TEHSIL: SANCHORE, DISTRICT: JALORE

PART - A

i) Name and address of the owner /occupier of the industry operation of process	:	**FGM South Operation** **PML – 1 Guda Well Pad – 74** Old Name Guda GRF-H - 07 M/s Cairn Oil & Gas, Vedanta Limited, Village: Rampura Tehsil: Sanchore District: Jalore
ii) Industry category	:	Primary -- (STC Code) Secondary -- (SIC Code)
iii) Production capacity – Units	:	The Guda 07 consists of 01 Well. The well fluids are transferred to Mangala Processing Terminal (MPT) for further processing, storage, and export via trucking. Guda - 07 Crude Oil and Natural Gas Capacity – 2000 BOPD & 2.0 MMSCFD respectively.
iv) Year of establishment	:	January 2015
v) Date of the last environmental statement Submitted.	:	06th September 2024

PART - B

Water and Raw Material Consumption:

i) Water consumption m^3/d

Purpose	Quantity in m^3/d	Remarks
Process	**0.00**	Utility water used mainly cleaning/washing of the plants & vessels and fire water make-up.
Domestic	**0.86**	Water for domestic purposes is mainly consumed at the well pad for sanitary purposes and for greenbelt maintenance.
Total	**0.86**	**Refer Annexure - 1 for Water Consumption Details**

Name of products	Process Water Consumption per unit of Product Output	
	During the Previous Financial Year	During the Current Financial Year
Crude Oil	**NIL**	**NIL**

(ii) Raw material consumption

*Name of Raw Materials	Name of Products	Consumption of Raw Material per unit of Output	
		During the Previous Financial Year	During the Current Financial Year
There are no raw materials involved in the production of Crude Oil. Naturally Occurring hydrocarbon is extracted from the reservoir at well pads which are transferred via to processing terminal. Few chemicals are used for conditioning and storage.		**NIL**	**NIL**

*Industry may use codes if disclosing details of raw materials would violate contractual obligations, otherwise all industries have to name the raw material used.

PART - C

Pollution discharged to environment/unit of output (Parameter as specified on the consent issued)

(1) POLLUTANTS	QUANTITY OF POLLUTANTS DISCHARGED (MASS/DAY)	CONCENTRATIONS OF POLLUTANTS IN DISCHARGES (MASS / VOLUME)	PERCENTAGE OF VARIATION FROM PRESCRIBED STANDARDS WITH REASONS.
A) Water	Trade effluent is generated during cleaning/well maintenance/development drilling activities which is of non-routine activity. The wastewater, thus generator disposed to the HDPE liner/ concrete pit. After solar evaporation drying the residues are disposed of to the captive hazardous landfill at MPT		
B) Air Emissions Source: EDG Set (125 KVA)	Diesel Consumption **0.0675 M^3/Day**	EDG installed for power backup during Emergency. All regular power is sourced from Rajasthan State Electricity Board grid line connection.	The stack emissions are within the prescribed limits of RSPCB.

PART - D

Hazardous Wastes

(As specified under Hazardous Wastes (Management and Handling) Rules 2016)

Hazardous Waste	Total Quantity		
(a) From Process	Type of hazardous waste	During Previous Financial Year Disposal Quantity (MT/KL)	During Previous Financial Year Disposal Quantity (MT/KL)
	Drill cuttings excluding those from waste-based mud **(Cat. 2.1)**	Nil	Nil
	Sludge containing oil **(Cat. 2.2)**	Nil	Nil
	Drilling mud containing oil **(Cat. 2.3)**	Nil	Nil
	Sludge and filters contaminated with oil **(Cat. 3.3)**	Nil	Nil
	Empty barrels/ containers/ liners contaminated with hazardous chemicals/ wastes **(Cat. 33.1)**	Nil	Nil
	Contaminated cotton rags or other cleaning materials **(Cat. 33.2)**	**0.055 MT**	**0.112 MT**
	Concentration or evaporation residues **(Cat. 37.3)**	Nil	Nil
	Used or spent oil **(Cat. 5.1)**	Nil	Nil
	Wastes / residues containing oil **(Cat. 5.2)**	Nil	Nil
(B) From pollution control facilities	Nil		Nil
(C) From Other sources –	Nil		Nil

PART - E

Solid Wastes

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(a) From process	Nil	Nil
(b) From Pollution control facility (STP Sludge)	Nil	Nil
(c) (1) Quantity recycled or re-utilized within the unit.	Nil	Nil

Solid Waste	Total Quantity	
	During the Previous Financial Year	During the Current Financial Year
(2) Sold (Wastepaper, metal waste, plastic waste, packaging material, wooden pallets, drinking water bottles etc are handover to recyclers)	All Non-Hazardous Waste is being collected and stored temporarily at Storage facility, RGT and disposed through registered recycler. The details of total non-hazardous material sold in FY 2024-25 are indicated in the Environment Statement of RGT.	
(3) Disposed	Nil	Nil

PART - F

Please specify the characterizations (in terms of composition and quantum) of hazardous as well as solid wastes and indicate disposal practice adopted for both these categories of wastes. Refer **Annexure – 3.**

- Hazardous Waste: As per its characteristics will be either landfilled or incinerated at waste management facility at Mangala Processing Terminal and recyclable waste like waste oils/lube oil shall be collected and recycled through CPCB approved Waste oil recycler and as per RSPCB directives.

- Non-hazardous waste: Domestic waste is generated from the operation facilities which mostly consist of bio-degradable organic matter and recyclable waste. These wastes are handover to recycler for segregation and recycling process. Food waste is treated in Organic Waste Convertor for composting and manure is used in green belt development.

PART - G

Impact of the pollution abatement measures taken on conservation of natural resources: Details of pollution abatement measures have been described in a separate document (**Enclosure -1**).

PART - H

Additional measures/investment proposal for environmental protection including abatement of pollution / prevention of pollution **Enclosure-2**.

PART - I

Cairn Oil & Gas has taken several initiatives in Rajasthan for the improvement of the environment, aesthetics and socio-economic condition. These are part of Cairn Oil & Gas's Community Development (CD) initiatives and have been described in **Enclosure-3**.

Kiran Mandya
FGM South Operations
Village: Dhandlawas &
Ravli Ki Nadi, Barmer

ANNEXURE – 1

WATER CONSUMPTION DETAILS

Month	Process Water Consumption in M^3 (Water used in cleaning/washing of the plants & vessels and fire water)	Domestic M^3 (consumed at the living quarters and gardening)
Apr-24	0	20
May-24	0	38
Jun-24	0	46
Jul-24	0	5
Aug-24	0	10
Sep-24	0	20
Oct-24	0	20
Nov-24	0	38
Dec-24	0	10
Jan-25	0	20
Feb-25	0	38
Mar-25	0	48
Total	**0.00**	**313**
Average Per Day Consumption	**0.00**	**0.86**

ANNEXURE - 2

DIESEL CONSUMPTION DETAILS

Month	Quantity M^3
Apr-24	1.122
May-24	1.603
Jun-24	3.344
Jul-24	1.038
Aug-24	2.734
Sep-24	2.04
Oct-24	1.544
Nov-24	2.673
Dec-24	1.93
Jan-25	0.995
Feb-25	3.829
Mar-25	1.794
Total	**24.646**
Average Per Day Consumption	**0.0675**

ANNEXURE – 3

HAZARDOUS WASTE MANAGEMENT

Annexure - 1 Detail of Hazardous Waste Generation as per Schedule 1 of the Rule amended as on date							
S. No.	Schedule 1 Process	Cat.	Waste Type	Source of Generation	Quantity of Generation (Drilling & Extraction Phase)	Mode of Storage	Mode of Disposal
1	Crude Oil & Natural Gas Production	2.1	Drill Cutting excluding those from water based mud	Drilling with Synthetic Oil Based Mud	925 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing
2		2.2	Sludge containing oil	During drilling and extraction operation sludge generated by vessel and well maintenance/testing & equipment cleaning	53 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
3		2.3	Drilling Mud Containing Oil	Drilling with Synthetic Oil Based Mud	475 MT/Well	HDPE lined/ Concerte Pit	Secured Landfill/ Coprocessing/ Reprocess
4	Cleaning, emptying and maintenance of petroleum oil storage tanks including ships	3.3	Sludge and filters contaminated with oil	Sludge and filters contaminated with oil	8 MT/Well/Annum	HDPE lined/ Concerte Pit/ Jumbo bags/Barrels	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
5	Industrial operations using mineral or synthetic oil as lubricant in hydraulic systems or other applications	5.1	Used or spent oil	Generated during equipment maintenance	5 KL/Well/Annum	Used barrels/container	Reuse/Reprocess/ Sale to Registered Recyclers
6		5.2	Waste/residue containing oil	Generated during equipment maintenance/Well testing & maintenance activities	55 MT/Well/Annum	Used barrels/container	Incineration/ Coprocessing/ Secured Landfill/ Sale to Registered Recycler
7	Handling of hazardous chemicals and wastes	33.1	Empty barrels/containers/ liners contaminated with hazardous chemicals /wastes	Drilling, construction, maintenance & operation activities	8 MT/Well/Annum	HDPE lined/ Concrete Platform/ pit	sale to authorized recyclers
8		33.2	Contaminated cotton rags or other cleaning materials	Generated during maintenance/ cleaning activities	10 MT/Well/Annum	HDPE lined/ Concrete Pit/ Dustbins	Incineration/ Coprocessing
9	Hazardous waste treatment processes, e.g. pre-processing, incineration and concentration	37.3	Concentration or evaporation residues	Evaporation residue from water water pits	50 MT/Well/Annum	HDPE lined/Concrete Pit	Secured landfill/Coprocessing

Chemical consumption at well pads on monthly basis

Annexure 4

April -2024

Chemicals Name	RGWP 01	RGWP 02	RGWP 07	RGWP 11	ROWP 01	ROWP 03	Guda 02	Guda 07	Tuka 1Z
CSTC SODA	227.272	227.272	129.870	227.272					
H2S SCVNGR	750.8879	750.8879	429.0788	750.8879					
ACTC ACID	1386.2632	1386.2632	792.1504	1386.2632					
HYDROCHLORIC ACID	8415.4252	8415.4252	4808.8144	8415.4252					
XYLENE AROMATIC SLVANT	10142.16	10142.16	5795.52	10142.16					
INHBTR CRSN	245	245	140	245					
Ethylene Glycol Monobutyl Ether	2708.2888	2708.2888	1547.5936	2708.2888					
NON-EMULSIFIER	7.0763	7.0763	4.043	7.0763	8.0872	7.0763	2.0218	4.0436	5.0545
SURFACTANT	1.662	1.662	0.950	1.662	1.9000	1.6625	0.4750	0.9500	1.1875
POTASSIOM CHLORRIDE	1752.468	1752.468	1001.410	1752.468	2002.8206	1752.4681	500.7051	1001.4103	1251.7629
GUAR GUM	97391.28	97391.28	55652.16	97391.28		15981.19		15981.19	15981.19
LQD NITROGEN	96225.53	96225.53	54986.02	96225.53					
TRPN					5210.4065	3907.8049	1302.6016	1953.9024	2605.2032
DTPA					105619.1919	79214.3939	26404.7979	39607.1969	52809.5959
FRCTN					80.7156	60.5367	20.1789	30.2683	40.3578
AMMONIUM CLORIDE						25036.458			
SODIUM CARBONATE						200257.29			
CTRC ACID						1867.627			

May- 2024

Chemicals Name	RGWP 07	KW2	ROWP 01	ROWP 03	Guda 02	Guda 07	Tuka 1Z
CSTC SODA	227.2727	97.4025					
H2S SCVNGR	750.8879	321.8091					
ACTC ACID	1386.2632	594.1128					
HYDROCHLORIC ACID	8415.4252	3606.6108					
XYLENE AROMATIC SLVANT	10142.16	4346.64					
INHBTR CRSN	245	105					
Ethylene Glycol Monobutyl Ether	2708.2888	1160.6952					
NON-EMULSIFIER	7.0763	3.0327	5.0545	4.0436	1.0109	2.0218	6.0654
SURFACTANT	1.6625	0.7125	1.1875	0.9500	0.2375	0.4750	1.4250
POTASSIOM CHLORRIDE	1750.4680	751.0577	1251.7629	1001.4103	250.3525	500.7051	1502.1154
GUAR GUM	97391.28	41739.12					
LQD NITROGEN	96225.53	41239.51					
TRPN			3256.5041	2605.2032	651.3008	1302.6016	3907.8049
DTPA			66011.9949	52809.5959	13202.3989	26404.7979	79214.7979
FRCTN			50.4472	40.3578	10.0894	20.1789	60.5367

June 2024

Chemicals Name	RGWP 01	RGWP 02	Sara 04	ROWP 01	ROWP 03	Guda 02	Guda 07	Tuka 1Z
CSTC SODA	422.0779	97.4025		454.5454				
H2S SCVNGR	1394.5061	321.8091		1501.7758				
ACTC ACID	2574.4888	594.1128		2772.5264				
HYDROCHLORIC ACID	15628.6469	3606.6108		16830.8505				

XYLENE AROMATIC SLVANT	18835.44	4346.64		20284.32				
INHBTR CRSN	455	105		490				
Ethylene Glycol Monobutyl Ether	5029.6752	1160.6952		5416.5776				
NON-EMULSIFIER	13.1417	3.0327	2.0218	19.2071	4.0436	1.0109	3.0327	4.0436
SURFACTANT	3.0875	0.7125	0.4750	4.5126	0.9500	0.2375	0.7125	0.9500
POTASSIOM CHLORRIDE	3254.5835	751.0577	500.7051	4756.6990	1001.4103	250.3525	751.0577	1001.4103
GUAR GUM	180869.52	41739.12		194782.56	15981.19	15981.19	15981.19	15981.19
LQD NITROGEN	178704.552	41239.5121		192451.056				
TRPN			1302.6016	3256.5041	1953.9024		1302.6016	1953.9024
DTPA			26404.7979	66011.9949	39607.1969		26404.7979	39607.1969
FRCTN			20.1789	50.4472	30.2683		20.1789	30.2683
AMMONIUM CLORIDE					25036.458	25036.458	25036.458	25036.458
SODIUM CARBONATE					200257.291	200257.291	200257.291	200257.291
CTRC ACID					1867.627	1867.627	1867.627	1867.627

July 2024

Chemicals Name	RGWP 07	ROWP 01	ROWP 03	Guda 07
CSTC SODA	64.9350	941.5584		
H2S SCVNGR	214.5394	3110.8213		
ACTC ACID	396.0752	5743.0904		
HYDROCHLORIC ACID	2404.4072	34863.9046		
XYLENE AROMATIC SLVANT	2897.76	42017.52		
INHBTR CRSN	70	1015		

Ethylene Glycol Monobutyl Ether	773.7968	11220.0536		
NON-EMULSIFIER	2.0218	31.3380	2.0218	1.0109
SURFACTANT	0.4750	7.3626	0.4750	0.2375
POTASSIOM CHLORRIDE	500.7051	7760.9300	500.7051	250.3525
GUAR GUM	27826.08	419459.35		15981.19
LQD NITROGEN	27493.0081	398648.617		
TRPN		651.3008	1302.6016	
DTPA		13202.3989	26404.7979	
FRCTN		10.0894	20.1789	
AMMONIUM CLORIDE		25036.458		25036.458
SODIUM CARBONATE		200257.291		200257.291
CTRC ACID		1867.627		1867.627

August 2024

Chemicals Name	ROWP 01	ROWP 03	Tuka 1Z
CSTC SODA	227.2727		
H2S SCVNGR	750.8879		
ACTC ACID	1386.2632		
HYDROCHLORIC ACID	8415.4252		
XYLENE AROMATIC SLVANT	10142.16		
INHBTR CRSN	245		
Ethylene Glycol Monobutyl Ether	2708.2888		
NON-EMULSIFIER	13.1417	2.0218	1.0109
SURFACTANT	3.0875	0.4750	0.2375
POTASSIOM CHLORRIDE	3254.5835	500.7051	250.3525
GUAR GUM	97391.28		

LQD NITROGEN	96225.28		
TRPN	3256.5041	1302.6016	651.3008
DTPA	66011.9949	26404.7979	13202.3989
FRCTN	50.4472	20.1789	10.0894
AMMONIUM CLORIDE	25036.458		
SODIUM CARBONATE	200257.458		
CTRC ACID	1867.627		

September 2024

Chemicals Name	ROWP 01	ROWP 03	Guda 02	Tuka 1Z
NON-EMULSIFIER	10.1090	6.0654	2.0218	3.0327
SURFACTANT	2.3750	1.4250	0.4750	0.7125
POTASSIOM CHLORRIDE	2503.5258	1502.1154	500.7051	751.0577
TRPN	6513.0082	3907.8049	1302.6016	1953.9024
DTPA	132023.9899	79214.3939	26404.7979	39607.1969
FRCTN	100.8945	60.5367	20.1789	30.2683

October 2024

Chemicals Name	RGWP 05	Sara 05	ROWP 01	ROWP 03	Guda 02	Tuka 1Z
CSTC SODA	357.1428					
H2S SCVNGR	1179.9667					
ACTC ACID	2178.4136					
HYDROCHLORIC ACID	13224.2397					
XYLENE AROMATIC SLVANT	15937.68					
INHBTR CRSN	385					
Ethylene Glycol Monobutyl Ether	4255.8824					

NON-EMULSIFIER	11.1199	1.0109	12.1308	3.0327	1.0109	4.0436
SURFACTANT	2.6125	0.2375	2.8500	0.7125	0.2375	0.9500
POTASSIOM CHLORRIDE	2753.8784	250.3525	3004.2309	751.0577	250.3525	1001.4103
GUAR GUM	153043.44	15981.19		15981.19		
LQD NITROGEN	151211.544					
TRPN			7815.6098	1302.6016	651.3008	3256.5041
DTPA			158428.7879	26404.7979	13202.3989	66011.9949
FRCTN			121.0734	20.1789	10.0894	50.4472
AMMONIUM CLORIDE		25036.458		25036.458		
SODIUM CARBONATE		200257.291		200257.291		
CTRC ACID		1867.627		1867.627		

November 2024

Chemicals Name	RGWP 01	RGWP 02	RGWP 04	ROWP 01	ROWP 03	Guda 02	Guda 07	Tuka 1Z
CSTC SODA	259.7402	551.9480	162.3376					
H2S SCVNGR	858.1576	1823.5849	536.3485					
ACTC ACID	1584.3008	3366.6392	990.188					
HYDROCHLORIC ACID	9617.6288	20433.4613	6011.0180					
XYLENE AROMATIC SLVANT	11591.04	24630.96	7244.4					
INHBTR CRSN	280	595	175					
Ethylene Glycol Monobutyl Ether	3095.1872	6577.2728	1934.492					
NON-EMULSIFIER	8.0872	17.1853	5.0545	6.0654	3.0327	1.0109	1.0109	5.0545
SURFACTANT	1.9000	4.0375	1.1875	1.4250	0.7125	0.2375	0.2375	1.1875
POTASSIOM CHLORRIDE	2002.8206	4255.9939	1251.7629	1502.1154	751.0577	250.3525	250.3525	1251.7629
GUAR GUM	111304.32	236521.68	69565.20	15981.19				15981.19
LQD NITROGEN	109972.032	233690.569	68732.5202					

TRPN				3256.5041	1953.9024	651.3008	651.3008	2605.2032
DTPA				66011.9949	39607.1969	13202.3989	13202.3989	52809.5959
FRCTN				50.4472	30.2683	10.0894	10.0894	40.3578
AMMONIUM CLORIDE				25036.458				25036.458
SODIUM CARBONATE				200257.291				200257.291
CTRC ACID				1867.627				1867.627

December 2024

Chemicals Name	RGWP 04	ROWP 01	ROWP 03	Guda 02	Tuka 1Z
CSTC SODA	64.9350		194.8051		
H2S SCVNGR	214.5394		643.6182		
ACTC ACID	396.0752		1188.2256		
HYDROCHLORIC ACID	2404.4072		7213.2216		
XYLENE AROMATIC SLVANT	2897.76		8693.28		
INHBTR CRSN	70		210		
Ethylene Glycol Monobutyl Ether	773.8968		2321.3904		
NON-EMULSIFIER	2.0218	8.0872	10.1090	1.0109	4.0436
SURFACTANT	0.4750	1.9000	2.3750	0.2375	0.9500
POTASSIOM CHLORRIDE	500.7051	2002.8206	2503.5258	250.3525	1001.4103
GUAR GUM	27826.08		83478.24		
LQD NITROGEN	27493.0081		82479.0242		
TRPN		5210.4065	2605.2032	651.3008	2605.2032
DTPA		105619.1919	52809.5959	13202.3989	52809.5959
FRCTN		80.7156	40.3578	10.0894	40.3578

January 2025

Chemicals Name	RGWP 01	RGWP 07	RGWP 11	SARA 02	SARA 04	ROWP 01	ROWP 03	Guda 02	Guda 07	Tuka 1Z
CSTC SODA	389.610384	422.077916	194.805192							
H2S SCVNGR	1287.2364	1394.5061	643.6182							
ACTC ACID	2376.4512	2574.4888	1188.2256							
HYDROCHLORIC ACID	14426.44332	15628.64693	7213.22166							
XYLENE AROMATIC SLVANT	17386.56	18835.44	8693.28							
INHBTR CRSN	420	455	210							
Ethylene Glycol Monobutyl Ether	4642.7808	5029.6792	2321.3904							
NON-EMULSIFIER	12.13086084	13.14176591	6.06543042	1.0109005	4.043620308	11.11995585	5.054525385	0.010905077	2.021810154	3.032715231
SURFACTANT	2.8500	3.0875728	1.425336	0.2375056	0.95100224	2.6125616	1.187528	0.2375056	0.4750112	0.7125168
POTASSIOM CHLORRIDE	3004.230996	3254.583579	1502.115498	250.35283	1001.1410332	2753.878413	1251.742915	250.352583	500.705166	751.057749
GUAR GUM	166956.48	180869.24	83478.24			49943.57	31962.38			
LQD NITROGEN	164958.048	178704.555	82479.0242							
TRPN				651.30082	2605.20328	5210.40656	1953.90246	651.30082	1302.60164	2605.20328
DTPA				13202.39899	52809.59596	105619.1919	39607.19697	13202.39899	26404.79798	52809.59596
FRCTN				10.079455	40.35782	80.71564	30.268365	10.089455	20.17891	40.35782
AMMONIUM CLORIDE						74109.374	50072.916			
SODIUM CARBONATE						600771.873	400514.582			
CTRC ACID						5602.881	3735.254			

Feb. 2025

Chemicals Name	RGWP 01	SARA 04	SARA 05	ROWP 01	ROWP 03	Guda 02	Guda 07	Tuka 1Z
CSTC SODA	454.5454	454.5454						
H2S SCVNGR	1501.7758	1501.7758						
ACTC ACID	2772.6264	2772.6264						
HYDROCHLORIC ACID	16830.8505	16830.8505						
XYLENE AROMATIC SLVANT	20284.32	20284.32						
INHBTR CRSN	490	490						
Ethylene Glycol Monobutyl Ether	5416.5776	5416.5776						
NON-EMULSIFIER	14.1526	14.1526	3.0327	7.0763	6.0654	1.0109	2.0218	4.0436
SURFACTANT	3.3250	3.3250	0.7125	1.6625	1.4250	0.2375	0.4750	0.9500
POTASSIOM CHLORRIDE	35.4.9361	35.4.9361	751.0577	1752.4680	1502.1154	250.3525	500.7051	1001.4103
GUAR GUM	194782.56	194782.56	15981.19				15981.19	
LQD NITROGEN	192451.056	192451.056						
TRPN			1302.6016	4559.1057	3907.8049	651.3008	651.3008	2605.2032
DTPA			26404.7979	92416.8929	79214.3939	13202.3989	13202.3989	52809.5959
FRCTN			20.1789	70.6261	60.5367	10.0894	10.0894	40.3578
AMMONIUM CLORIDE			25036.458				25036.458	
SODIUM CARBONATE			200257.291				200257.291	
CTRC ACID			1867.627				1867.627	

March 2025

Chemicals Name	RGWP 05	ROWP 01	Guda 07	Sara 02	Sara 04	Tuka 1Z
CSTC SODA	389.6103				259.7402	
H2S SCVNGR	1287.2364				858.1576	
ACTC ACID	2376.4512				1584.3008	
HYDROCHLORIC ACID	14426.4433				9617.9288	
XYLENE AROMATIC SLVANT	17386.56					
INHBTR CRSN	420					
Ethylene Glycol Monobutyl Ether	4642.7808					
NON-EMULSIFIER	12.1308	7.0763	2.0218	1.0109	8.0872	0.0218
SURFACTANT	2.8500	1.6625	0.4750	0.2375	1.9000	0.4750
POTASSIOM CHLORRIDE	3004.2309	1752.4680	500.7051	250.3525	2002.8206	500.7051
GUAR GUM	166956.48		15981.19	15981.19		
LQD NITROGEN	164958.048					
TRPN		45.1057	651.3008			1302.6016
DTPA		92416.6929	13202.3989			26404.7979
FRCTN		70.6230	10.0894			20.1789
AMMONIUM CLORIDE			25036.458	25036.458		
SODIUM CARBONATE			200257.291	200257.291		
CTRC ACID			1867.627	1867.627		

OLC

vedanta
transforming elements

CAIRN

OMAS-PCB-L-01368

Date- 25-09-2025

To,
Member Secretary
Rajasthan State Pollution Control Board,
No. 4, Institutional Area, Jhalana Doongri
Jaipur - 302 004, Rajasthan

Sub: Environmental Statement FY-2024-25 as per **Environment (Protection) Rules, 1986.**
Ref: RJ South (RGT Plant and associated Gas Well Pads, Raag Oil Well Pad (2 & 3), Saraswati Fields, Guda Fields, S-3 Warehouse, Kaameshwari West 02, Satelite Fields and RGT living quarter).

Dear Sir,

Please find enclosed herewith the Annual Environmental Statements **(Form V)** as per the Environmental Clearance issued by MOEFCC, and CTE/CTO issued by RPCB for onshore Hydrocarbon Development & Production from RGT Plant and its associated Gas Well Pads, RGT living quarter, Raag Oil Well Pad (2 & 3), Saraswati Fields, Guda Fields, S-3 Warehouse, Kaameshwari West 02 and other South Satelite Fields in RJ-ON 90/1- Block, Rajasthan for the period from **1st April 2024 to 31st March 2025**.

We trust the above information is in order. Kindly acknowledge receipt of the same.

Thanking you,

Regards,

Yours faithfully,
Dr BR Jat
Digitally signed by Dr BR Jat

Dr. B. R. Jat
Chief Environment Officer
M/s Vedanta Limited (Cairn Oil & Gas Division)

प्रादेशिक कार्यालय
प्राप्ति क्रमांक
दिनांक 30/9/25
रा. प. नि. मण्डल, बालोतरा

Enclosure: Annual Environmental Statements of RJ South.

CC :
Regional Officer,
Rajasthan State Pollution Control Board,
Jasol Fantaa, Opposite JVVNL office, Industrial Area, Balotra – Rajathan

VEDANTA LIMITED
(Formerly known as Sesa Sterlite Limited)

Cairn Oil & Gas: ASF Center, 362-363, Jwala Mill Rd, Phase IV, Udyog Vihar, Sector 18, Gurugram, Haryana 122016,
T +91-124 459 3000 F +91-124 414 5612 | www.cairnindia.com

Registered Office: Vedanta Limited, 1st Floor, 'C' wing, Unit 103, Corporate Avenue, Atul Projects, Chakala, Andheri (East), Mumbai–400093, Maharashtra, India | T +91-22 664 34500 | F +91-22 664 34530 | www.vedantalimited.com

CIN: L13209MH1965PLC291394

Gaurav Kumar Yadav

From:	Environment Manager - MPT
Sent:	30 September 2025 13:34
To:	Member Secretary
Cc:	Dr. Bhoma Ram Jat; RO RSPCB Balotara; Gaurav Kumar Yadav
Subject:	Submission of Annual Environmental Statements (Form V) – Rajasthan Operations-Vedanta Limited (Cairn Oil and Gas)
Attachments:	Env statement_RJ North.pdf; Env Statement_RJ South.pdf

Dear Sir,
Please find herewith attached **"Annual Environmental Statements (Form V)"** for Rajasthan operations (North & South fields) of Vedanta Limited – Cairn Oil and Gas.

Thanks & Regards,
Gaurav Kumar Yadav
Environment Manager- RJ
Vedanta Limited – Cairn Oil & Gas (Barmer)
Mobile: +91-9773380157