

Environmental and Social Monitoring Report

Project Number: 47937-001

31 August 2016

Rantau Dedap Geothermal Development Project (Republic of Indonesia)

Safeguard and Social Monitoring Report – 1st Semester 2016

Prepared by Supreme Energy for the Asian Development Bank

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**Rantau Dedap
Geothermal Power Project
Phase 1 - Exploration**

Safeguard and Social Monitoring Report



RD-11

Issued on 31st of August 2016

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The Supreme Energy project companies - SE Muara Laboh, SE Rajabasa and SE Rantau Dedap are independent companies developing geothermal projects in Sumatra, Indonesia. Based on the agreement of the shareholders of the individual project companies, the Supreme Energy companies are managed in an integrated way in order to maximize the synergies in terms of use of resources and organization of their core and supporting processes. Consequently, important portions of the documentation body developed and applied within each company (manuals, procedures, description of processes, guidelines etc.) are common to all project companies. The applicability of each document to one or several project companies is reflected in the reference of each document.

Any document applicable to SEMuara Laboh contains the characters “ML” in the document reference.

Any document applicable to the SERajabasa project company contains the characters “RB” in the document reference.

Any document applicable to the SERantau Dedap project company contains the characters “RD” in the document reference.

If a document applies to all three Supreme Energy companies, the term “Supreme Energy” may refer to any and all of these companies.

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Abbreviations

ADB	Asia Development Bank
ACSR	Aluminium Conductor Steel Reinforced
AECOM	Architecture, Engineering, Consulting, Operations, and Maintenance
EPC	Engineering, Procurement, and Construction
FCV	Flow Control Valve
FEED	Front End Engineering Design
IEE	Initial Exploration Examination
IESE	Institute of Earth Science and Engineering
ISDP	Integrated Social Development Program
LAPI ITB	Lembaga Afiliasi Penelitian dan Industri Institut Teknologi Bandung
LCI	Leighton Contractor Indonesia
LIPI	Lembaga Ilmu Pengetahuan Indonesia (National Science Body)
MEQ	Micro Earth Quake
MSE	Mechanically Stabilized Earth
OHS	Occupational Health and Safety
PLN	Perusahaan Listrik Negara (National Power Company)
PPA	Power Purchase Agreement
PT	Pressure Temperature
PTS	Pressure Temperature Spinner
RD	Rantau Dedap
SDI	Scientific Drilling International
SERD	Supreme Energy Rantau Dedap
SFTT	Static Formation Temperature Test
SGS	Steamfield Gathering System
SHE	Safety, Health, and Environment
TD	Total Depth
TPL	Third Party Liability
TVD	True Vertical Depth
UKL	Upaya Pengelolaan Lingkungan (Environmental Management Effort)
UPL	Upaya Pemantauan Lingkungan (Environmental Monitoring Effort)

1. General Information

1.1 Project Location

SERD is developing the Project which is situated approximately 225 km from Palembang, the capital city of the South Sumatra province. Geographically the area is situated between 4° 7' - 4° 15' South Latitude and 103° 29' - 103° 18' East Longitude. The Project area covers approximately 35,440 ha (18.56 km x 19.63 km) and is situated at an elevation ranging from 1,000 to 2,600 meters on the Bukit Besar volcanic complex. The prospect is located in a very remote and undeveloped area with steep terrain; most of the prospect area has only walking trails or no access ways at all.

Rantau Dedap Location Map



1.2 Project Summary

SERD is developing the Project which is situated approximately 225 km from Palembang, the capital city of the South Sumatra province. Geographically the Project area is situated between 4° 7' - 4° 15' South Latitude and 103° 29' - 103° 18' East Longitude. The Project area covers approximately 35,440 ha (18.56 km x 19.63 km) and is situated at an elevation ranging from 1,000 to 2,600 meters on the Bukit Besar volcanic complex. The geothermal resource's prospect is located in a very remote and undeveloped area with steep terrain; most of the prospect area has only walking trails or no access ways at all.

The SERD geothermal power project (the "Project") implementation is proposed in two phases. Phase 1 constitutes the geothermal resource exploration and drilling phase. Steam-field development and power plant construction will be taken up as part of Phase 2. SERD have completed exploratory drilling to investigate

the geothermal resource and, if investigations are satisfactory, will subsequently undertake the development of the geothermal power project up to the commercial operation of a geothermal power plant comprising one unit of approximately 92 MW gross. SERD had completed exploratory drilling to investigate the geothermal resource and, subsequently undertake the development of the geothermal power project through to commercial operation of a geothermal power plant comprising one unit of approximately 92 MW gross using dual flash technology.

1.3 Date of Construction/ Operation Commencement

The following items were described as the key milestones which lead to the determination of commercial operations.

- The Final Resource Assessment report is completed by the end of September 2015
- The well testing activity related to the exploration drilling which include the production test and interference test up to the 6th well is completed by the 2nd week of August, 2015. However, further extended well testing period to obtain valid geochemistry data from RD-I2 at high flowing wellhead pressure and was completed in April 2016
- The feasibility study is completed by February 2016, while the FEED study is completed in March 2016.
- Financial close date involves several things for completing the financial close. This would follow the sequence as follow: The resource assessment (September 30th, 2015) followed by another 5 months for feasibility study report (February, 2016), continued by FEED completion (March, 2016), 3 month for EPC RFP to be ready for tender issuance, and associated items such as EPC contract ready to be awarded based on tariff adjustment approval, thus the date of financing close is expected to be on 6 November 2017.

1.4 Approvals

Prepared by:
VPs and Head of Department

Approved by:
Board of Director

1.5 Contacts

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2. Relevant Environmental Permits or Compliance Certificates

This Chapter discusses relevant environmental permits or compliance certificates as required by SERD, including the latest permits or compliance certificates obtained until end of June 2016, key developments and any major changes in location and design, and findings of any environmental and OHS regular inspections audits.

2.1 New Permit or Compliance Certificates Required and Obtained

- No new permit or compliance certificate was issued or received.

2.2 Key Developments and Major Changes in Location and Design

- No key developments or major changes to location and design were made.

2.3 Findings of Environmental and OHS Regulatory Inspections or Audits

- Landslide potential hazard inspection from EBTKE – Direktorat Panas Bumi conducted on 17 March 2016.
- Environment inspection from Environmental Office - Muara Enim conducted on 12 April 2016.
- No major findings.

2.4 Others

- Management Walkthrough on 18 March 2016 by CEO, EMO, VP SSE, VP RSH, and Sr, Mgr SHE
- Management Walkthrough on 21 April 2016 by CEO (VVdM) and Eng Mgr (Ralph H)
- Completed 3-months visual observation to see whether Siamang exist in the fragmented area. No siamang was monitored to be in the fragmented area.
- Completed cleaning up solids/ sediments from water ponds and mud ponds at all wellpads.
- Continue revegetation efforts.
- Improve soil stability measures on roads and identified locations.

3. Incidents of Environmental Safeguards Violations or Non-compliance

This Chapter discusses relevant incidents of environmental safeguards violations based on applicable environmental standards and regulations along with the correctives actions, deadlines, identification of responsible parties, and status of implementation of corrective action plan.

- There had been no issues found related to incidents of environmental safeguards, violations or non-compliance, and hence no corrective actions were required.

4. Incidents of Environmental, OHS Accidents

This Chapter discusses incident recorded dates and responsible agencies, the scale of damage and injury, authorities in charge of investigation/ recording, media or community reactions and corrective actions, deadlines, identification of responsible parties.

4.1 Environmental Incidents

- No Environmental incidents were reported during the period.

4.2 Occupational/ Community Health Incidents

- No Occupational/ Community Health Incidents were reported during the period.

4.3 Safety Incidents

- SERD Incident / Accident Register for first half of 2016 is as written as follow:

No	DATE/ TIME	ACCIDENT SUMMARY	CONTRACTOR / DEPARTMENT	ACCIDENT CATEGORY
1	03-Jan-16 08.30 AM	Light vehicle BG 1291 EB loss steering while ascended alternative road	CV.DKB	Nearmiss
2	08-Feb-16 08.30 AM	Minor Landslide at alternative road	SERD	Natural causes
3	22-Feb-16 05.00 AM	Minor landslide at alternative road area and partially blocked access road.	SERD	Natural causes
4	06-Mar-16 est. 04.00 AM	Landslide at alternative road area about 100-150m ³ and blocked the access road.	SERD	Natural causes
5	14-Mar-16 est. 04.00 PM	A pipeline was hit by a falling dead-tree around MSE Wall#2 Access to WP-B. Pipe was bent but no leak.	SERD	Property damage
6	18-Mar-16 09.57 AM	Un-Controlled Motor Grader MG-330 (MG 46) run down alternative road from Ch 0+440 to Ch 0+660 without Operator in cabin	PT. Arkato	Work related MVC and Property damage
7	24-Apr-16 07.00 AM	A landslide occurred at Pump Station #1 at MSE Wall #3 alternative road and caused some damage to pipe spool of Pump Station #1.	SERD	Property damage
8	24-Apr-16	Minor landslide at WAC 017 Ch 0+900 Jalan Ibis and bent a pipe.	SERD	Property damage
9	03-Mei-16 05.20 pm	Security officer fell from motorcycle after front wheel stepping the stones and lost control at WAC #5.	PT. Jaga Nusantara	Medical treatment

5. Social Safeguards Monitoring

This Chapter discusses progress in implementation of the social safeguard compliance audit report and corrective action plan, implementation of grievance mechanisms, resources for implementation of social safeguards, forward plan of social safeguards, labour hiring and management.

5.1 Social Safeguards Monitoring General Overview

SERD is continuing the process for Social Safeguards Monitoring through its Integrated Social Development Program. Based on the needs analysis, it is concluded that there is a need to develop the community capacity in thinking, deciding, and do something that is considered appropriate to solve the problems faced by utilizing their owned ability. Therefore, the development efforts and capacity building could be done mainly in two areas of economic life, namely (1) the agricultural/ plantation, particularly coffee plantation starting from planting, maintenance, and coffee processing technology, resulting in high-quality coffee, and marketing of coffee at a high selling price, and focusing on the vegetables production that has the 3-6 months harvest period; (2) breeding cows/ goats and fisheries. After having the beneficiaries list, SERD engage with the social consultant and collaborate with Swijaya University in Palembang to run the 1st phase of Capacity Building Training called Life Skill Training.

According to the training category in Integrated Social Development Program Study, the first training category will touch on the efficient agriculture cultivation process to prepare the farmers to substitute the kind of plantation in the area, namely:

- Training for the cultivation of vegetables and fruits with harvest period of 3 to 6 months.
- Another specific opportunity is training on efficient cultivation on the strawberry, which are now has been started to grow in the area of Rantau Dedap.

SERD starts to implement this first training type by train the farmers in Rantau Dedap Hamlet and Tunggal Bute Village on the potatoes cultivation. These cultivations start with the potatoe seeds plant in Rantau Dedap Hamlet whose joined the farmer cooperative namely "Harapan Bersama" consist of 40 farmers. In February 2016, SERD conduct the dissemination of the program to the head of hamlets and villages, followed by the classroom training of cultivation method. In March 2016, SERD distributes 200 kgs potatoe seeds to be plant and plan to be harvested on end of July or early August 2016. This training was monitored and evaluated by the expert from Sriwijaya University in Palembang, South Sumatera.

5.2 Summary of information Disclosure, Consultation and Participation Activities

During the period of first half of 2016, Relation Team continuously participate in consultation with the villages head, districts head, regent and also the military heads in Lahat , Muara Enim regencies as well as Pagar Alam city as attendees. The purpose of this informal consultation is to get the latest information regarding the security and social condition in the regencies / city and consult SERD participation if required by the regencies / city. Beside that, we also disclose the information regarding the project update status to the stakeholders.

Status of corrective actions

Following Integrated Social Development Program, SERD continuing with :

1. Skill development and capacity building program through Development of General Capacity Building and Action Plan
2. Implementing the Skill Development and Livelihood Opportunities Training Program.

Continually, SERD documentation and record keeping has been improved by :

1. Continue to implement internal and external monitoring report to comply with ADB SPS
2. Update the documentation and record maintenance of consultation
3. Budget monitoring for Integrated Social Development Program

5.3 Implementation of Grievance Mechanism

During this period no grievance has been reported and monitored the implementation of Grievance Redress Mechanism.

5.4 Resources for Implementation of ISDP Components

Summary of progress in implementation of the Integrated Social Development Program components could be found on the following table. During this period, since there were a lot of religious festivals and some community events, almost of the program distributed to donation or sponsorship for the events or festivals.

Implementation of ISDP components Implementation Period : Januari – June 2016				
No.	Activity	Target beneficiaries	Status	Remarks
1	Economic empowerment			
	Skill development Training for women (sewing, food processing, catering supplies, computers) and youth (construction related trades, driving, electrician, mechanic, automobile repairs, etc.)	Vulnerable affected households	Continued	Collaborated with Sriwijaya University, SERD start to conduct cultivation training on coffee plantation and potatoe plantation as alternative source of livelihood.
2	Education and scholarship			
	Scholarships (with specific targets on girls)	Affected communities	-	-
3	Infrastructure improvements			
	Improvements to infrastructure in the project villages including public sanitation facilities, inner roads, drainage and small scale water supply improvements	Sukarami Village – Rantau Dedap Village	Done	Maintain the access and enhancement on slope stabilitation
		Community of Tunggul Bute Village	Done	Support fresh water distribution for Tunggul Bute
4	Donations and community relationship			
	Donations or sponsorship on several events such sports events, independence day, religious festivals	Community in Sukarami Village, Lawang Agung Village, Karang Endah Village, Tunggul Bute Village (including Talang Pisang Hamlet) and Segamit Village (including Yayasan hamlet)		Support 5 (five) villages around SERD area to celebrate Islamic Day of Birth of Prophet Muhammad and other religious event.
		Community in Talang Pisang Hamlet		Support Talang Pisang villagers on celebrating Independence Day on August 2015
	Capacity building of leaders, village heads in conflict resolution, mentoring etc.	Community Leaders, Village Heads	Continued	Implement the CSR Program Plan and Budget 2016

5	Community needs assessment			
	Skill Development & Livelihood Opportunities Training Program Phase-1	Vulnerable affected households especially the coffee cultivators	Continued	Collaborated with Sriwijaya University, SERD start to conduct cultivation training on coffee plantation and potatoe plantation as alternative source of livelihood.
6	Employment opportunities			
	Recruitment of unskilled and semiskilled workers during construction	Villages in Circle 1, with priorities to vulnerable affected persons	Done	Recruitment of unskilled workers during revegetation activity in some wellpads from January – June 2016
	Recruitment of locals in the Borrower team	Villages in Circle 1, with priorities to vulnerable affected persons	-	On exploitation phase
	Recruitment of locals in plant operations	Villages in Circle 1, with priorities to affected persons	-	On exploitation phase

5.5 Forward Plan / Next Steps (for the next 6 months)

SERD has set a forward plan for the next 6 (six) months that consists of the following programs, i. e:

- Monitoring and evaluation process of implementation of Capacity Building Action Plan for Livelihood Opportunities and Skill Development Planning for Rantau Dedap Communities phase I through life skill training.
- Continuing Implementation of Integrated Social Development Programs through the implementation of capacity building and livelihood development program.
- Strengthening of record keeping of grievance redress (continuous)
- Standardize formats for documentation and record of consultations including training of staff (continuous)

5.6 Labour Hiring and Management

Workplace inspection was conducted by internal SERD in Project and Well Testing (no major findings).

6. Environmental Capacity

This Chapter discusses staff capacities in environmental management, degree of awareness, training conducted, needs assessment of environmental management capacity and awareness level of contractors' staff trained.

6.1 Staff Capacities in Environmental Management

During this less activity period, SERD maintain 2 (two) Site SHE personnel (back-to-back) to handle the maintenance and other activities. SERD site personnel is also assisted by 4 (four) SHE personnel in Jakarta.

6.2 Degree of Awareness

The current personnel responsible for environmental management have sufficient knowledge of environmental management, health and safety requirements, including environmental laws and regulations.

6.3 Training Conducted

SHE induction is conducted to all new workers and visitors. Various SHE trainings are conducted to SERD employees and long term contractor workers.

6.4 Needs Assessment of Environmental Management Capacity

Based on current assessment, no additional need is required at this stage. If there is a need to improve the capacity, it will be done accordingly.

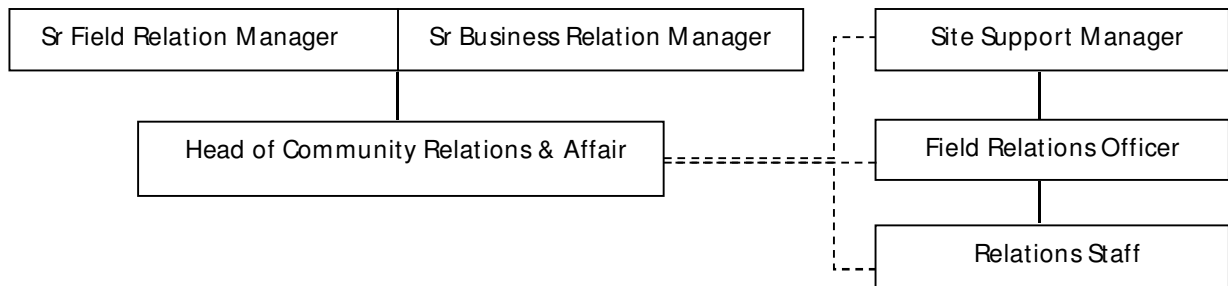
6.5 Awareness Level of Contractors' Field Personnel

On the job training has been conducted in the form of direct coaching, pre-job meeting, use of display boards and banners.

7. Social Management Capacity

This Chapter discusses staff capacities in social management, degree of awareness, training conducted, needs assessment of social management capacity and awareness level of contractors' staff trained.

7.1 SERD's Relation Team



7.2 Number and Adequacy of Staff to Monitor Labour and Working Conditions

To monitor labour and working conditions, SERD employs 1 (one) managerial levels (Site Support Manager) and 2 (two) supervisory level (Site SHE Representatives).

7.3 Training Conducted

Stakeholder engagement awareness trainings were conducted on April 2016.

7.4 Designation and Signature of Person Responsible

Head of Community Relation and Affair is the responsible for preparing the social safeguards monitoring reports, while Sr. Manager Field Relations and Business Relations Managers are the responsible persons for reviewing the reports.

8. Issues, Status of Implementation of Mitigating Measures in the Environmental Management Plan

This Chapter discusses status of implementation of mitigating measures in the environmental management plan, and if such issues arise, corrective actions and recommendations, would be act upon.

Mitigating Measures	Status
Water Quality	No report of water pollution event.
Air quality and Noise	No report of excessive noise and air pollution.
Soil quality and erosion control	Soil is disposed of at soil disposal facility and erosion is prevented by providing sufficient sloping and conduct revegetation. There were several minor land slide occasions reported and there have been mitigation efforts conducted.
Aquatic biota	No issue.
Waste Management	Conducted cleaning of mud ponds and water ponds by reclaiming mud from the ponds using an excavator and a sludge pump. In accordance with the prevailing regulation, since October 2014, the drilling cutting and drilling mud are excluded from hazardous material category.
Flora Fauna	No issue
Occupational Health, Safety, and Security	Conducted routine inspections.
Community Health, Safety, and Security	No issue
Forest Management Plan	Routine maintenance of the installed signs.
Earthquake occurrences/incidences (seismicity)	No reported occurrence
Environmental Management Plan	Routinely conducted as stipulated in the government's approved Environmental Study
Environmental Monitoring Results and	Submitted routine reports to government.

Environment	
Findings and recommendations of audits carried out	No major issues
Problems Encountered and action plan for the next reporting period	No issues encountered.
Other information and Feedback	No issues.

APPENDIX A. Project Pictures.

A.1 Landslide Potential Hazard Inspection from EBTKE of Direktorat Panas Bumi conducted on 17 March 2016.

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PENANGANAN LONGSOR DI AREA SHORTCUT
Maret - 23 - 27 Maret 2016

No.	Kegiatan	Dokumentasi
1	Pemotongan daerah tidak stabil dan pembuatan bench	
2	Pembuatan drainase di top bench	
3	Pembersihan material	
4	Pemotongan daerah tidak stabil dan pembuatan bench	

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PENANGANAN LONGSOR DI AREA SHORTCUT
Maret - 28 Maret - 03 April 2016

No.	Kegiatan	Dokumentasi
1	Pemotongan daerah tidak stabil dan pembuatan bench	
2	Pembuatan drainase di top bench	
3	Pembersihan material	



A.2 Environment Inspection from Environmental Office - Muara Enim conducted on 12 April 2016.

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No. : 06/KTPH-EDM/MS/2016
Lamp. : 1 halaman
Taliung Pinang, 15 Mei 2016

Kepada Yth,
Kasubid Tata Lingkungan
Ditjen Lingkungan Hidup
Kebudayaan Muara Enim
Sumatera Selatan

Perihal : Dokumen Nomor No. 090/1643HJ.14/2016 tentang Laporan Pelaksanaan IKAL-SPPL dan Tindakan Lanjut serta Klarifikasi Berita Acara Kunjungan HJJI Muara Enim Tanggal 12 April 2016.

Dengan hormat,
Menindak lanjut Berita Acara Monitoring, Evaluasi dan Pelaporan Pelaksanaan Penutupan Dokumen Lingkungan Hidup dalam area kunjungan HJJI Muara Enim tanggal 12 April 2016, Diinformasikan bahwa kami sampaikan penjelasan singkat berikut atas beberapa surat dari hasil kunjungan tersebut, antara lain:

- Agar memperhalus benteng yang rusak di lokasi Dusun IV Rantau Dedap Desa Segamit, setelah dilakukan pemantauan ulang di lapangan oleh PT SERD, bahan yang dimaksudkan tidak digunakan. Halangan tersebut akan dievaluasi internal dan sudah perbaikan berkesinambungan dari perusahaan setiap masalah akan diidentifikasi. Untuk pemantauan selanjutnya mohon selanjutnya dapat memberikan informasi yang lebih lengkap seperti koordinat lokasi disertai foto dan dokumentasi.
- Agar membersihkan areal sekitar Dusun Dedebuk yang masih kotor. PT SERD akan berkoordinasi dengan Kepala Desa Segamit untuk kegiatan ini, sehingga areal tersebut bebas limbah yang menjadi lingkungan PT SERD.
- Menyediakan balok yang terdapat di sisi kanan jalan lokasi kegiatan.
- Akan diidentifikasi oleh PT SERD karena hal ini sudah termasuk program rutin pemeliharaan dan perawatan jalan, sehingga yang terdapat di wilayah tersebut sudah diperbaiki.
- Meningkatkan upaya sama kegiatan di pemukiman melalui lokasi kegiatan sehingga memperoleh hasil maksimal pengurusan.
- Taluk terpasang (foto terlampir)
- Sementara melakukan pengendalian dan pemantauan lingkungan hidup sebagaimana tercantum dalam dokumen lingkungan hidup.

PT SERD telah melakukan pengendalian lingkungan secara rutin dan berkesinambungan serta melakukan pemantauan lingkungan secara berkala.

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Pelaksanaan atas beberapa pertemuan yang mengungkap laporan UKL-SPPL PT SERD No. 0601643HJ.14/2016, dimana dalam hasil analisa kualitas air permukaan masih terdapat parameter yang melebihi baku mutu yaitu:

- AP 4 Sungai Cawang Tengah
 - BOD₅ = 4 mg/L (Baku Mutu = 2 mg/L)
 - COD = 18 mg/L (Baku Mutu = 10 mg/L)
- AP 3 Sungai Cawang Kiri
 - BOD₅ = 4 mg/L (Baku Mutu = 2 mg/L)
 - COD = 16 mg/L (Baku Mutu = 10 mg/L)
- AP 2 Sungai Cawang Kiri
 - BOD₅ = 3 mg/L (Baku Mutu = 2 mg/L)
 - COD = 12 mg/L (Baku Mutu = 10 mg/L)

Parameter BOD₅, COD, dan DO merupakan parameter yang sering berkaitan. Nilai BOD₅ dan COD menunjukkan kelebihan oksigen dari mikro-organisme untuk mengoksidasi bahan organik. Nilai BOD₅ dan COD yang cukup tinggi tersebut dapat diartikan oleh kegiatan antropogenik di sekitar sungai dari hewan dan tanaman yang mati. Meningkatnya nilai BOD₅ dan COD menunjukkan beban organik yang berlebihan karena air yang kaya zat organik dan pembusukan bahan-bahan organik dari hasil sungai yang mengalir ke daerah hilir. Oksigen yang terikat dalam air digunakan oleh mikro-organisme untuk memetabolisme/biotransformasi bahan organik menjadi bentuk yang lebih sederhana. Selain itu, beban organik organik juga dapat berakumulasi dengan oksigen terlarut di dalam air, sehingga air kandungan oksigen terlarut di dalamnya. Tingginya BOD₅ dan COD sangat tinggi di sekitar wilayah PT SERD merupakan perhatian alami dan bukan disebabkan karena adanya aktivitas PT SERD, hal ini dikarenakan sebelum tahun 2015, PT SERD sama sekali tidak melakukan kegiatan fisik apapun.

Kandungan bahan organik di perairan dapat di analisis oleh mikro-organisme secara aerobik mikro-organisme tersebut memakan DO yang cukup di perairan sehingga proses penguraian bahan organik dapat di lakukan dengan baik. Rendahnya kandungan DO tersebut cukup karena tidak terdapat oleh mikro-organisme dalam menguraikan bahan organik di perairan. Hal ini juga tidak menjadi fenomena alami untuk sungai-sungai di lokasi kegiatan PT SERD, karena seperti yang telah diartikan di atas bahwa sebelum tahun 2015 tidak ada kegiatan fisik yang dilakukan oleh PT SERD.

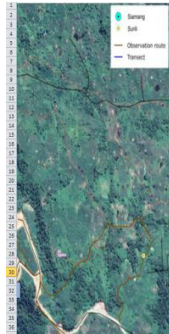
Demikian jawaban dan penjelasan dari kami, apa perhatiannya diucapkan terima kasih.

Hormat kami,
PT Supreme Energy Rantau Dedap

Erika Gendula
Kepala Teknik Panas Bumi



A.3 Continued Visual Observation to See Whether there was Siamang Presence in the Fragmented Area on 21 January - 26 February 2016. No Siamang was observed in the Fragmented Area.



Siamang monitoring of Fragmented area

No	Date	Target	Jam	Lokasi	Status	Observasi		Foto			
						Visual	Auditory	A	B	C	
1	21-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
2	22-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
3	23-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
4	24-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
5	25-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
6	26-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
7	27-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
8	28-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
9	29-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
10	30-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
11	31-Jan-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
12	01-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
13	02-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
14	03-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
15	04-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
16	05-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
17	06-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
18	07-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
19	08-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
20	09-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
21	10-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
22	11-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
23	12-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
24	13-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
25	14-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
26	15-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
27	16-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
28	17-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
29	18-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
30	19-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
31	20-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
32	21-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-
33	22-Feb-16	08:30-14:00	0	All area	-	-	-	-	-	-	-

A.4 Monitored Camera Traps to Monitor the Movement of Animal Species around SERD area in January - February 2016. No new issue.



A.5 Revegetation Efforts and New Hard Wood Maintenance.



A.6 Repaired and Maintained Traffic Signs and Warning Signs.



A.7 Vehicle and Heavy Equipment Inspections.



A.8 Speed Compliance Inspection.



A.9 Routine Housekeeping, Insect Control, and Camp Hygiene inspections.



A.10 SHE Meetings and SHE Inductions.



A.11 Brine Sampling Activity to Check TDS, Salinity, Resistivity, Hazardous Gas Test, and Measured Noise Level at Wellpad Locations.



APPENDIX B. ISDP Pictures.

B.1 Cultivation of Coffee and Vegetables Training to Farmer in Tunggul Bute & Segamit villages on February 2016.



B.2 Support Fresh Water Distribution for Tunggul Bute Villagers



B.3 Support 5 (five) Villages Around SERD Area to Celebrate Birth of Prophet Muhammad SAW on January 2016



B. 4 Maintain the Main Access Road and Irrigation Channel From Sukarami – Tunggul Bute Village on April – July 2016



B.5 Cultivation of Potato Seeds at Segamit and Tunggul Bute Village on April 2016 and Start the Harvest Time in Late July 2016.



B.6 Recruitment of Unskilled Workers During Revegetation Activity in Alternative Road Slopes from June - July 2016

