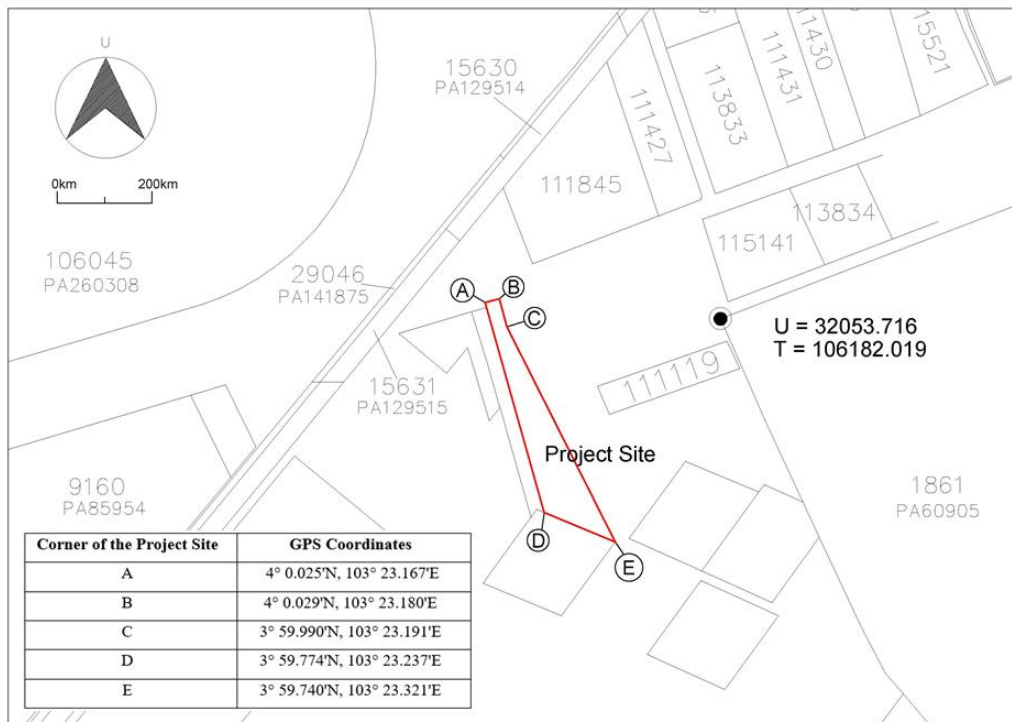


Proposed Silica Sand Processing out of the Tenement Area, Lot 115480 (PT 27705) measuring 3.641 HECTARES (8.997 AC.) at Kawasan Perindustrian Harbour Park Kuantan, Mukim Gebeng, Daerah Kecil Gebeng, Negeri Pahang DM, Under LMM (Lesen Memproses Mineral).

EXECUTIVE SUMMARY

The scope and operational purpose of the proposed project is to wash and filter raw silica until it reaches a purity of 99% and above, with a size of 0 – 2 mm and a Fe content of 125 ppm. The processed silica will be used for the domestic market as well as exported to the international market. The project site is located about 20-25 km from Kuantan Town, Pahang. The location of the site has been described in Chapter 1 and is not further elaborated here. The GPS coordinates of the proposed project site center are 3° 59.865'N and 103° 23.231'E.



PROJECT PROPONENT AND CONSULTANTS

PROJECT PROPONENT

Wawasan Setiamas Sdn. Bhd. (1207920-P)

Tel : 012 – 237 5150

Email : wawasansetiamas@gmail.com

EIA CONSULTANT



MSK & ASSOCIATES
Professional EIA Consulting Firm

MSK & Associates Sdn. Bhd. (409072-W)

Tel : 03 – 7804 0556

Fax : 03 – 7804 0566

Email : msksalim@gmail.com

PROJECT DESCRIPTION



Mineral Type : Silica



Operation Method: Open operation



Lifespan: minimum 15 years



Project Activities: Operating Stages

- Transport operations
- Washing operation
- Processing operations
- Stock storage
- Dry dumping/tailings management
- Sales
- Maintenance of transport roads
- Maintenance of sedimentation ponds
- Managing waste at the project site

Project Closure

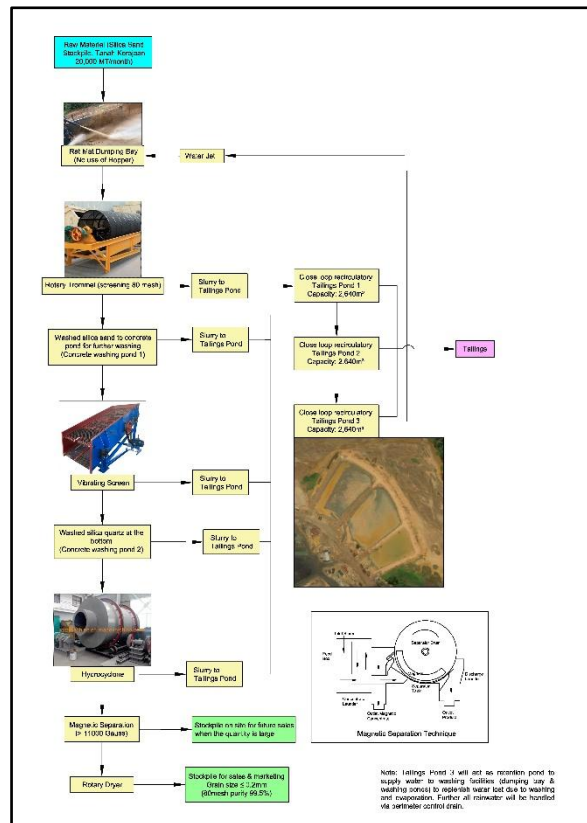
- Progressive recovery
- Final restoration and recycling



Location:

3°59'51.57"N , 103°23'14.24"E

- The project site is surrounded by an existing mining site within a radius of 0.7 km, Jinmeng Resources Sdn Bhd



Project Flow Chart

PROJECT REQUIREMENTS



High demand from China

PROJECT DESCRIPTION

Wawasan Setiamas Sdn. Bhd. proposed the construction of a silica sand processing plant in Mukim Gebeng, Kuantan, Pahang, covering an area of 8.997 acres (3.641 ha). The project will operate under a Mineral Processing License (LMM) and will require Environmental Impact Assessment (EIA) approval. The project site is located in an industrial area and will process silica for domestic and international markets, with purity reaching 99%, size 0-2 mm, and Fe content of 125 ppm.

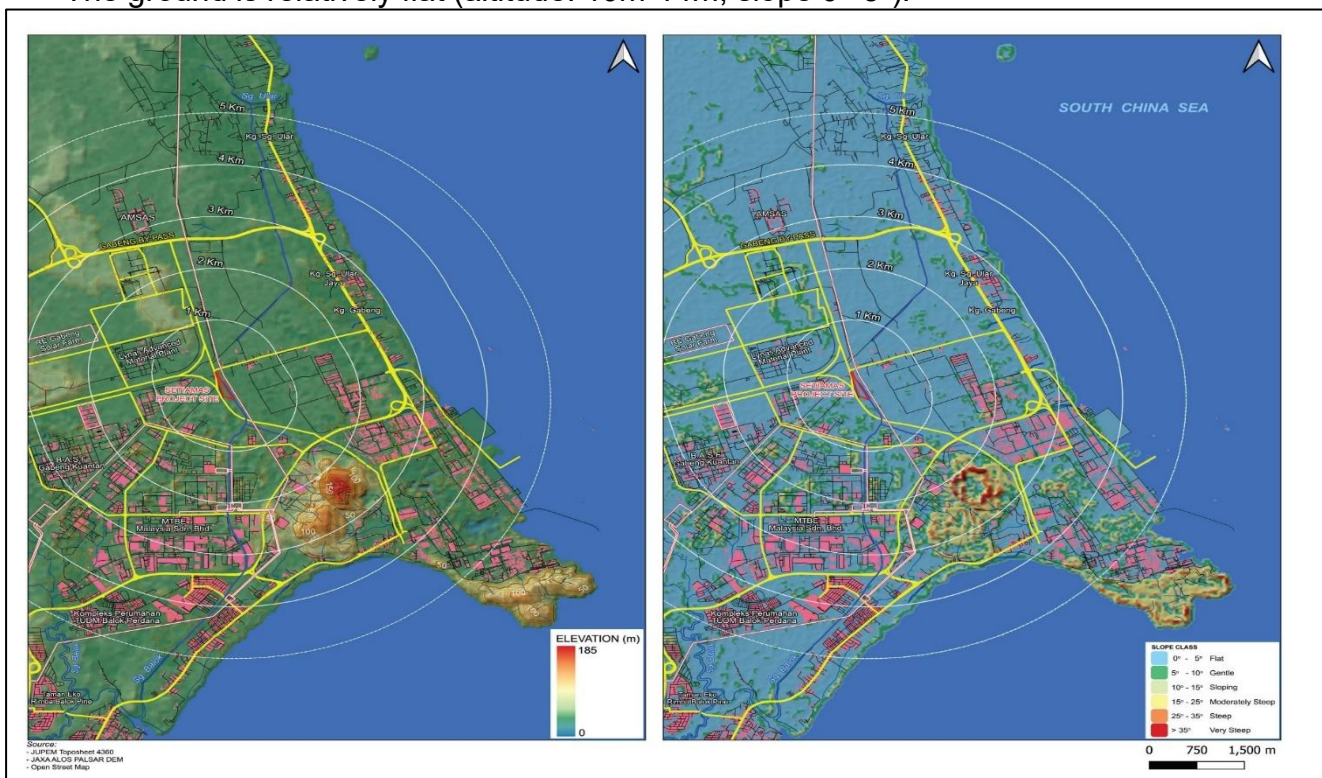
GPS coordinates of the project site

Project Angle	GPS Coordinates
A	4° 0.025'N, 103° 23.167'E
B	4° 0.029'N, 103° 23.180'E
C	3° 59.990'N, 103° 23.191'E
D	3° 59.774'N, 103° 23.237'E
E	3° 59.740'N, 103° 23.321'E

PHYSICAL ENVIRONMENT

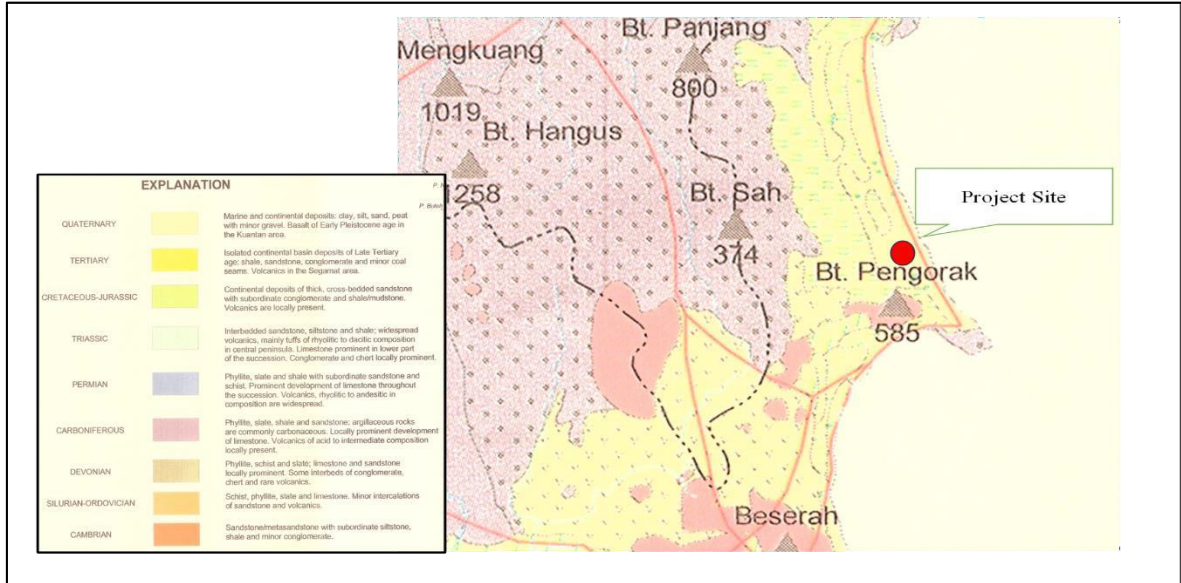
Topographic

The ground is relatively flat (altitude: 10m-14m, slope 0°-5°).



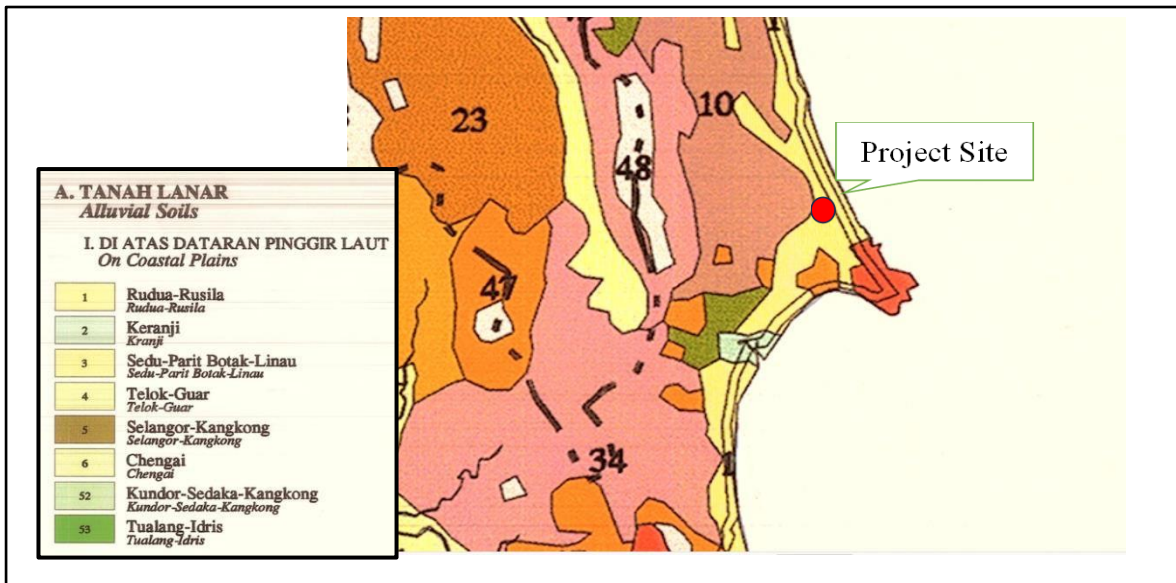
Geology

This area consists of Quaternary sediments (marine and terrestrial sediments such as silt, sand, peat, and small pebbles).



Land

It is classified under the Rudua-Rusila land series.



Climate

In areas with temperatures around 30°C throughout the year, the highest amount of rainfall recorded was 4,766.7 mm in 2022, with December being the wettest month. The dominant wind from the north is expected to carry the dust towards the south, towards the forest area.

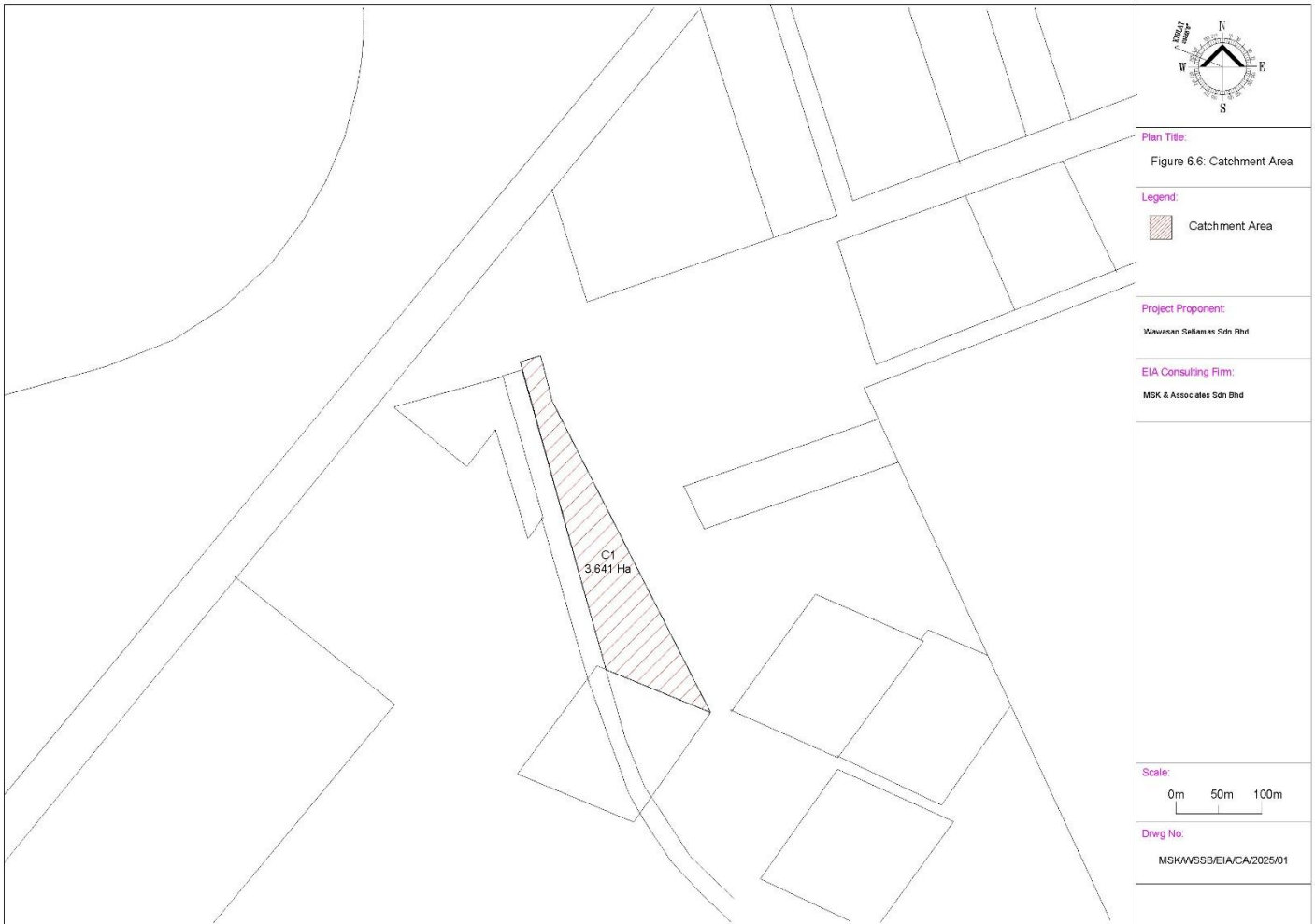
Hydrological

There are two (2) river systems, namely Sungai Snake and Sungai Balok. The Snake River flows northeast while Sg. Balok flows south and both flow into the South China Sea. The river system's runoff may end at the Balok River via a passage that flows into the South China Sea near Balok Village.



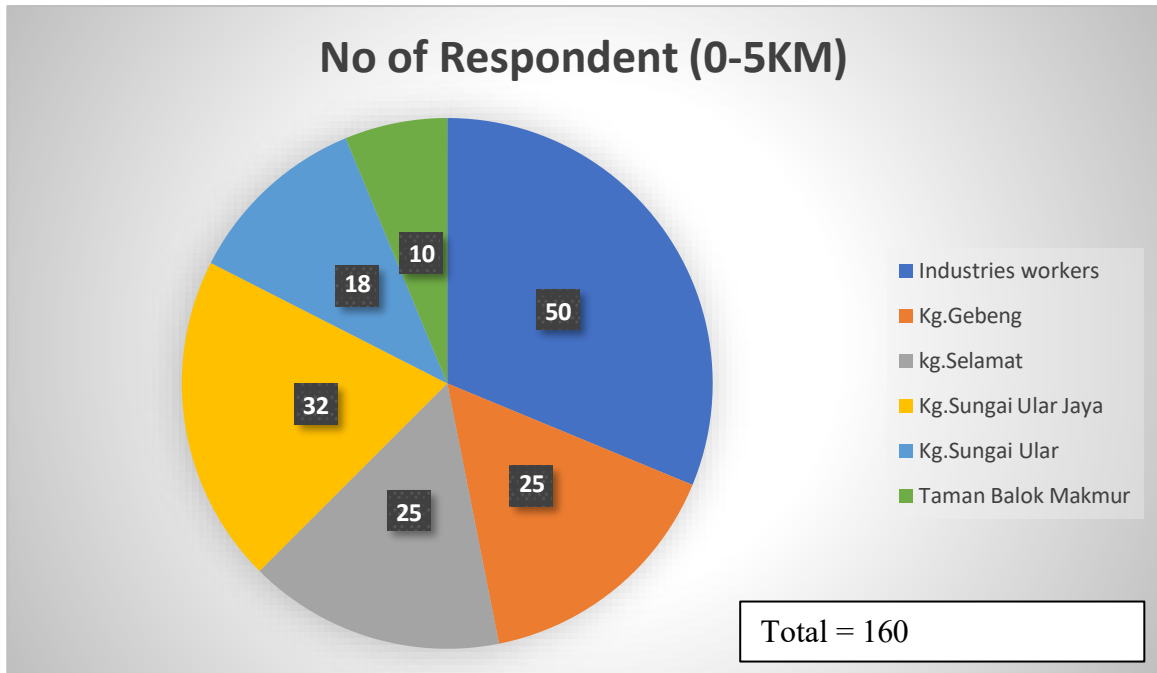
Water catchment

The project site forms a catchment area (**C1**) that flows towards Sungai Balok and will be equipped with sediment traps to reduce water flow pollution.

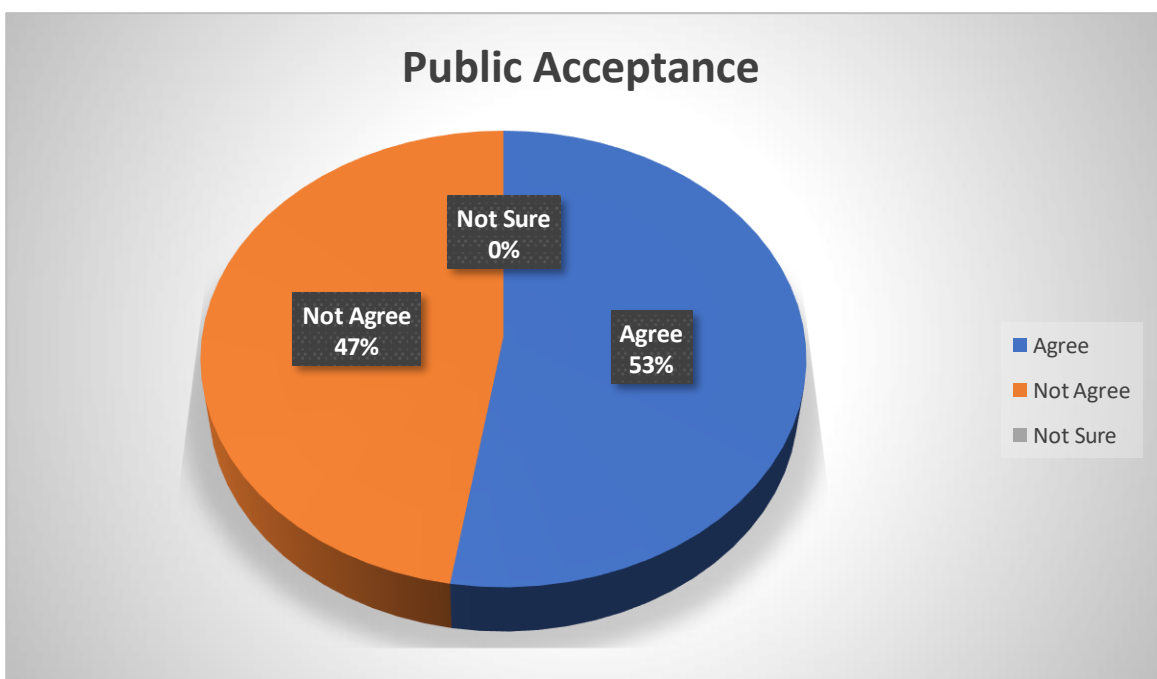


SOCIO-ECONOMY

Overall distribution



Public Acceptance



Project Awareness

Project Awareness



■ Don't Know

Don't Know
100%

BASIC QUALITY MONITORING

Water Quality



4 Monitoring Location

- The parameter limits are set under the Class III National Water Quality Standard.
- Results are below the permissible limits except W1 (BOD, DO, AL), W2 (DO, Fe, Al), W3 (BOD, DO, COD, Fe, Al, and AN), and W4 (DO, Fe, and Al)
- The WQI is in the range of 75 to 81, and the status of the river is "From Polluted to Clean".

Sound Level Monitoring



3 Monitoring Location

- Day Time: 65 dBA
- Night Time: 55 dBA
- Results were below the permissible limit except for N2 at night (57.2% > 55%) and N3

Location	Average Noise Level as LAeq, dBA		Average Percentage of LAeq Readings Above Recommended Noise Levels	
	Day Time	Night Time	Day Time (65 dBA)	Night Time (55 dBA)
N1	51.0	46.2	0%	0%
N2	57.7	57.2	0%	4%
N3	56.3	56.8	0%	3.27%



3 Monitoring Location

- The results are compared to the Malaysian Ambient Air Quality Standard.
- All comply with the limits allowed.

Parameter	Results
PM10, $\mu\text{g}/\text{m}^3$	27-37
PM2.5, $\mu\text{g}/\text{m}^3$	9-17
SO ₂ , $\mu\text{g}/\text{m}^3$	< 5
NO ₂ , $\mu\text{g}/\text{m}^3$	<0.5
CO, mg/m^3	0.7
O ₃ , $\mu\text{g}/\text{m}^3$	< 5

POTENTIAL IMPACT: AIR QUALITY

ACTIVITIES: Site Clearance, Stockpile, Construction of Access, Movement of Vehicles, Site Facility Removal, Leveling and Grading

IMPACT

- Dust generation and dispersion.
- Sensitive receptors are more susceptible to negative health effects.

MITIGATION STEPS

- Closing the breaker plant and filter house to reduce the spread of dust.
- Preservation of existing trees and plants.
- Biomass will be stored in strategic places and stabilized.
- Open burning is not allowed.
- Cover the slope that is exposed.
- Limit the speed of the vehicle.
- A water flush vehicle must be provided.
- The height of the product dropped from the means of transport should be as low as possible.
- A tire wash basin must be provided.
- Visual monitoring needs to be carried out.

POTENTIAL IMPACT : SOUND ABSORPTION

ACTIVITIES: Vehicle Movement, Processing Plant, Dismantling Site Facilities, and Traffic Noise

SENSITIVE RECIPIENT: SPCI HELMET Kuantan Plant 2, Jinmeng Resources Sdn Bhd

IMPACT

- Auditory impact & can cause mental disorders.
- Disturbing the peace of the local area and nearby residents.

MITIGATION STEPS

- Keep vegetation as a sound barrier.
- Regular inspection and maintenance of machines and vehicles.
- Continuous monitoring of noise levels.
- OSHA compliant (90 dBA exposure over 8 hours).
- Set the truck's speed limit to 15 km/h.
- PPE should be provided for workers.

POTENTIAL IMPACT : WATER QUALITY

ACTIVITIES: Site Clearing, Stockpile, Soil Erosion, Soil Stability, Washing Plant, Schedule Waste Disposal, and Site Alignment.

IMPACT

- The visibility of the water will fall.
- Low level of dissolved oxygen.

MITIGATION STEPS

- Stop operations during periods of high rainfall
- Handling scheduled waste correctly
- Reduce the exposed area
- Continuous water quality monitoring
- Provide relevant BMPs such as soil drains, sediment basins.
- Periodic maintenance on BMP
- Stabilizes the lost soil structure.
- Buffer zones to be established around the project site.

POTENTIAL IMPACT: SOIL EROSION AND SEDIMENTATION

ACTIVITIES: Processing, Earth Side Drains & Sediment Basins, Dry Dumping, Tailings Waste Storage and Vulnerable Earth Areas.

IMPACT

- Deterioration of water quality & aesthetic value.

MITIGATION STEPS

- Periodic maintenance of BMP and tailings ponds every 2 months.
- Cross trenches, drains and edge ditches are recommended.
- Sediment basin outlet protection is proposed.
- Use cut biomass (branches, leaves and roots) as a protective barrier.
- Use the existing road. Rebuilding only to the extent necessary to provide adequate drainage.

POTENTIAL IMPACT: SOLID WASTE AND HAZARDOUS WASTE

ACTIVITIES: Illegal Solid Waste and Hazardous Waste Management

IMPACT

- Water degradation and pollution.

- Soil pollution

- Fuel oil spill

MITIGATION STEPS

- The project promoter must assume full responsibility in the event of a scheduled waste leak into a nearby stream.
- Fuel storage in landfills is relocated 30 meters from any body of water and is located on relatively flat ground.

- General solid waste should be stored in designated bins.
- Recycling and reuse of used materials is recommended.
- Scheduled wastes shall be labelled and stored in accordance with **the ENVIRONMENTAL QUALITY (SCHEDULED WASTES) REGULATIONS 2005**.
- All containers, full or empty, are handled with

- Warning signs should be placed.
- The storage area should have a bund to provide a containment capacity of 110% of the largest volume of the drum
- Transportation and storage of fuel and lubricants are in properly constructed containers with approved designs.
- Refueling activities are not carried out near waterways or drainage channels on-site.

POTENTIAL IMPACT: TRAFFIC & TRANSPORTATION

ACTIVITIES: Material Transportation, Transportation

IMPACT

- Traffic congestion
- Wildlife road killings

- Spread of dirt on public roads

MITIGATION STEPS

- Avoid transportation during peak hours
- Install clear speed limits and warning signs
- Providing a paved driveway
- Transporting vehicles must not be overloaded

- Washing troughs need to be provided
- Road spraying especially during the dry season

POTENTIAL IMPACT: EMPLOYMENT, SAFETY & HEALTH

ACTIVITIES: Resource Extraction, Operation of Machinery, Processing Plants and Trucks

IMPACT

- Risks to health

- Accidents during the operational stage

- Scattered dust and mineral dust.

MITIGATION STEPS

- Make sure there are no clogged drains or stagnant pools or pools.
- No raw sewage flows into nearby waterways.
- Raising awareness of the dangers of infectious and vector-borne diseases.
- General health insurance for all workforces.
- Conducting a Chemical Health Risk Assessment (CHRA)

Use of the latest equipment, tools, and machinery in operational operations.

- Ensuring the cleanliness of the campsite and workers.
- Wear PPE.
- Periodic medical checks of on-site employees

POTENTIAL IMPACT : SOCIO-ECONOMIC

ACTIVITIES: Material Transport and Plant Cleaning

IMPACT

- Jobs

MITIGATION STEPS

- Hire local workers as part of the workforce
- Local contractors and subcontractors to be appointed

- Public safety and

- Keep and keep records of any transport accidents for further preventive measures planning
- Operators should be sensitive to nearby stakeholders.
- Install clear speed limits and warning signs on nearby public roadsides.

- Influencing cultural and

- Visually beautify with appropriate landscaping and tree replanting.

- Dust & noise interference

- Water surfers and washing trough should be provided

ENVIRONMENTAL MONITORING PROGRAM

Rehabilitation Program – Scope of Work

- Fill all Tailings Ponds (TL).
- Dismantling all machinery on site, mobile and stationary structures, sealing all inlets and outlets of sedimentary basin, removing all sources of toxic and hazardous materials, testing for contaminants, if any, at ground level in areas where diesel, oil, lubricants and hydraulic fuels are stored.
- Ensuring soil preservation and the provision of organic fertilizers for future planting, landscaping and replanting of forests.
- Make the terrain as green as possible with trees, plants, grass with free-flowing natural drainage as it was before.

Work – Rehabilitation Work

- An initial reclamation that includes the removal of all heavy equipment and machinery, washing plants, crushers, conveyor belts, excavators, showers, electrical installations, trucks, skid tanks and other fixed structures. This will be done by a licensed removal specialist.
- The site will be free from any traces of table waste, oil, diesel, and lubricants. The shape of the soil will be graded to acceptable standards in relation to environmental criteria.
- Progressive restoration while the operation is underway, such as, landscaping works at the main access and other important locations on the site along with planting, sowing will be carried out without waiting for the cessation of operations.

Post-Operation Stage

- Detailed 'Ecological and Soil Mapping' of existing degraded sites.
- Existing plants and trees in the periphery and buffer zones will be listed as inventories as part of the ecological restoration plan.
- Identification and preparation of an inventory of plants, medium trees, and creeping plants suitable for site rehabilitation. Identification of suitable overburden/soil types for greens and buffers of all existing slopes and gradients. The volume of soil/excess load will be estimated to cover all that is vulnerable. The location and distance need to be calculated. Currently, however, there is unused land/overburden along the site that will
- Cover the earth's crust, made of solid granite.
- Existing drainage will be reviewed to ensure that all runoff water is properly retained and channeled.
- The quality of the final effluent water in terms of any ability to contaminate the adjacent water stream.
- Dirty site studies, e.g., slip tank areas, scheduled waste sites, and exit plans for physical/chemical treatment.
- Proper perimeter drains, ground drains, end drains, and 'Sediment Pools' will work until the shutdown of operations.

PROJECT PROPONENT

Wawasan Setiamas Sdn. Bhd.

(1207920-P)

B-288, Ground Floor,
Jalan Dato Lim Hoe Lek,
25000, Kuantan,
Pahang Darul Makmur

Tel: 012 – 237 5150

Email: wawasansetiamas@gmail.com

EIA CONSULTANT



MSK & ASSOCIATES
Professional EIA Consulting Firm

MSK & Associates Sdn. Bhd. (409072-W)

32A-3A, Jalan PJU 1/3A,
Sunwaymas Commercial Centre, 47301,
Petaling Jaya, Selangor.

Tel: 03 – 7804 0556

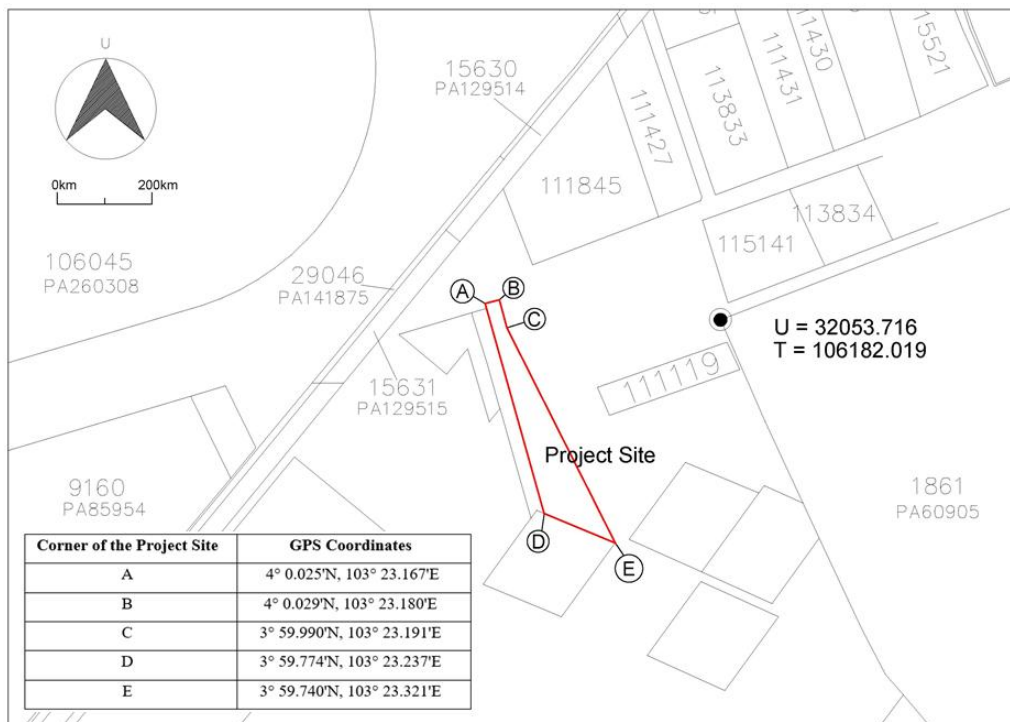
Fax: 03 – 7804 0566

Email: mksalim@gmail.com

Proposed Silica Sand Processing out of the Tenement Area, Lot 115480 (PT 27705) measuring 3.641 Hectares (8.997AC.) at Kawasan Perindustrian Harbour Park Kuantan, Mukim Gebeng, Daerah Kecil Gebeng, Negeri Pahang DM, Under LMM (Lesen Memproses Mineral).

RINGKASAN EKSEKUTIF

Skop dan tujuan operasi projek yang dicadangkan adalah untuk mencuci dan menapis silika mentah sehingga mencapai ketulenan 99% dan ke atas, dengan saiz 0 – 2 mm dan kandungan Fe 125 ppm. Silika yang diproses akan digunakan untuk pasaran domestik serta dieksport ke pasaran antarabangsa. Tapak projek ini terletak kira-kira 20-25 km dari Bandar Kuantan, Pahang. Lokasi tapak telah diterangkan dalam Bab 1 dan tidak dihuraikan lebih lanjut di sini. Koordinat GPS pusat tapak projek yang dicadangkan ialah 3° 59.865'U dan 103° 23.231'E.



PIHAK PEMAJU PROJEK DAN JURURUNDING

PEMAJU PROJEK

Wawasan Setiamas Sdn. Bhd. (1207920-P)

Tel : 012 – 237 5150

Email : wawasansetiamas@gmail.com

PERUNDING EIA



MSK & ASSOCIATES
Professional EIA Consulting Firm

MSK & Associates Sdn. Bhd. (409072-W)

Tel : 03 – 7804 0556

Fax : 03 – 7804 0566

Email : msksalim@gmail.com

MENGENAI PROJEK

Wawasan Setiamas Sdn. Bhd. mencadangkan pembinaan kilang pemprosesan pasir silika di Mukim Gebeng, Kuantan, Pahang, seluas 8.997 ekar (3.641 ha). Projek ini akan beroperasi di bawah Lesen Pemprosesan Mineral (LMM) dan memerlukan kelulusan Penilaian Kesan Alam Sekitar (EIA). Tapak projek ini terletak di kawasan perindustrian dan akan memproses silika untuk pasaran domestik dan antarabangsa, dengan ketulenan mencapai 99%, saiz 0-2mm, dan kandungan Fe 125 ppm.

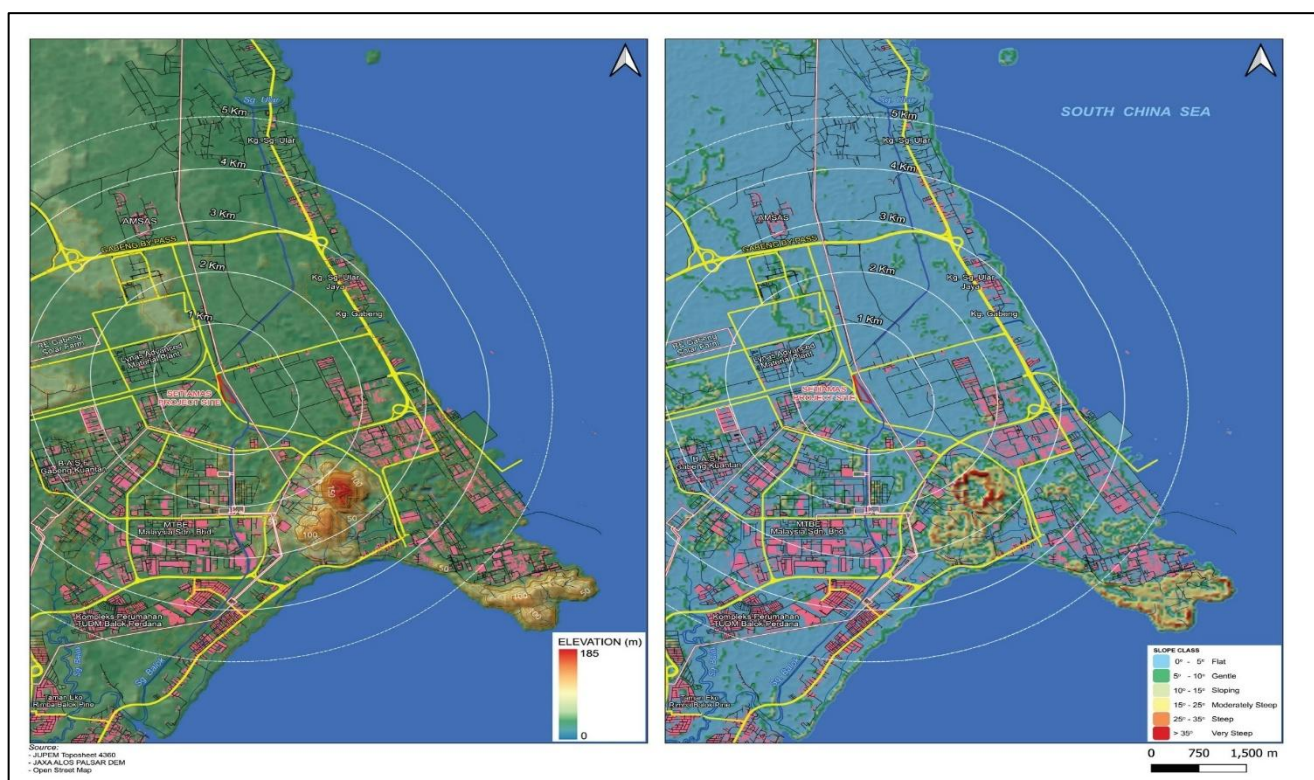
Koordinat GPS tapak projek

Sudut Projek	Koordinat GPS
A	4° 0.025'N, 103° 23.167'E
B	4° 0.029'N, 103° 23.180'E
C	3° 59.990'N, 103° 23.191'E
D	3° 59.774'N, 103° 23.237'E
E	3° 59.740'N, 103° 23.321'E

PERSEKITARAN FIZIKAL

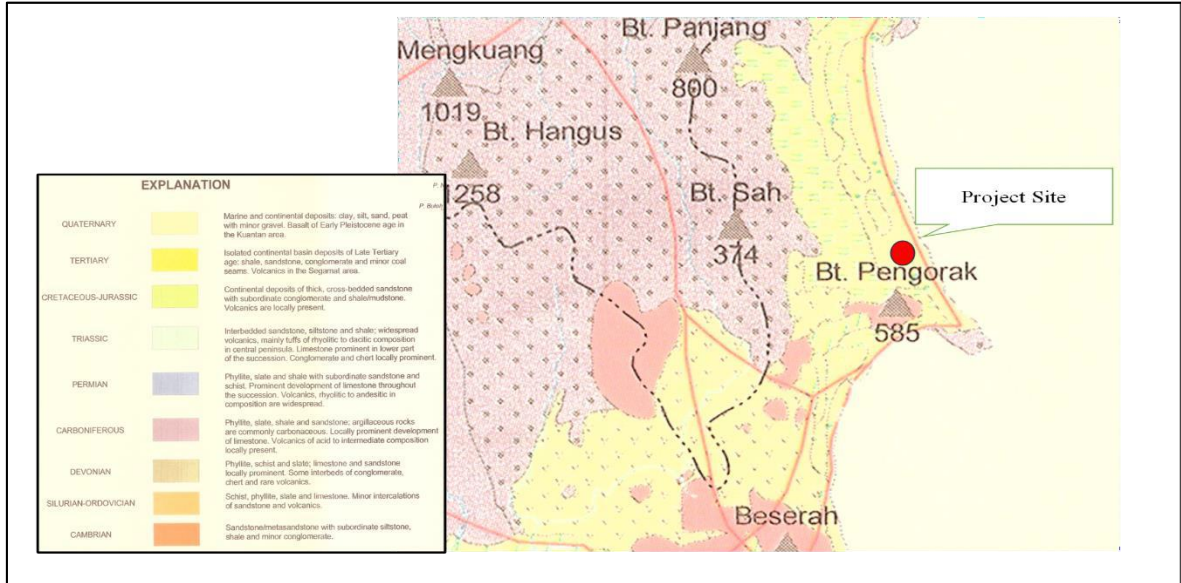
Topografi

Tanah agak rata (ketinggian: 10m-14m, cerun 0°-5°).



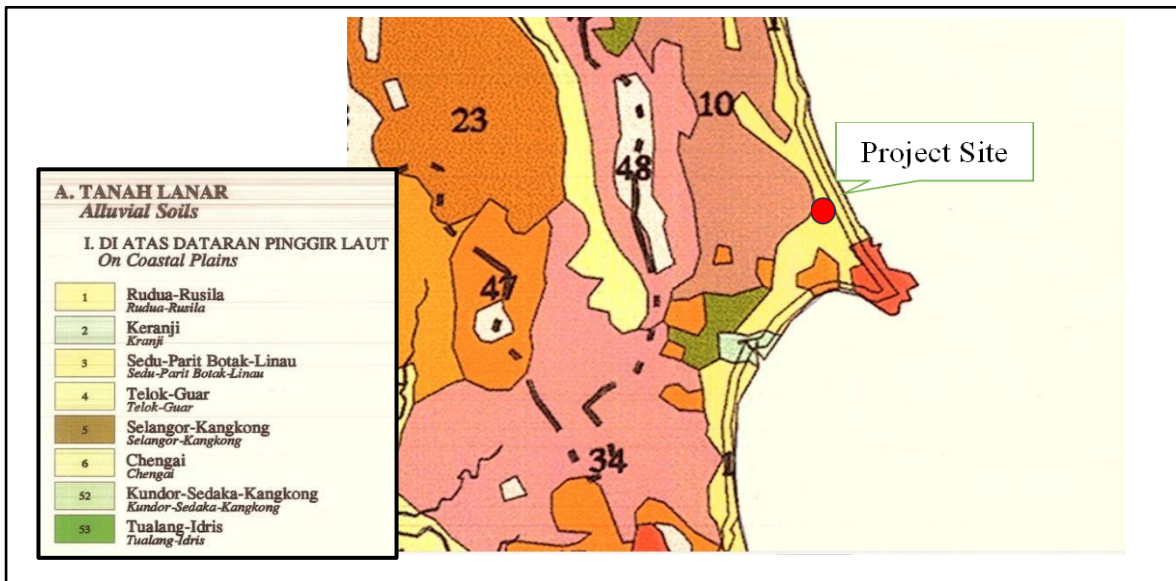
Geologi

Kawasan ini terdiri daripada mendapan Kuarter (sedimen marin dan daratan seperti kelodak, pasir, gambut, dan kerikil kecil).



Tanah

Ia diklasifikasikan di bawah siri tanah Rudua-Rusila.



Iklm

Di kawasan dengan suhu sekitar 30°C sepanjang tahun, jumlah hujan tertinggi yang direkodkan ialah 4,766.7 mm pada 2022, dengan Disember merupakan bulan paling basah. Angin dominan dari utara dijangka membawa habuk ke arah selatan ke arah kawasan hutan.

Hidrologi

Terdapat dua (2) sistem sungai iaitu Sungai Ular dan Sungai Balok. Sungai Ular mengalir ke timur laut manakala Sg. Balok mengalir ke selatan dan kedua-duanya mengalir ke Laut China Selatan. Larian sistem sungai mungkin berakhir di Sungai Balok melalui laluan yang mengalir ke Laut China Selatan berhampiran Kampung Balok.



Tadahan air

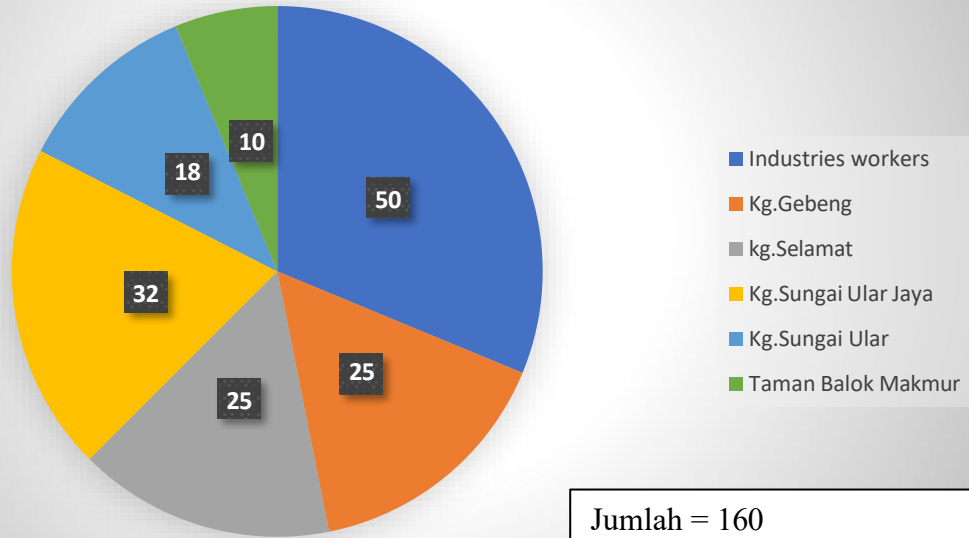
Tapak projek membentuk kawasan tadahan (**C1**) yang mengalir ke arah Sungai Balok dan akan dilengkapi dengan perangkap sedimen bagi mengurangkan pencemaran aliran air.



SOSIO-EKONOMI

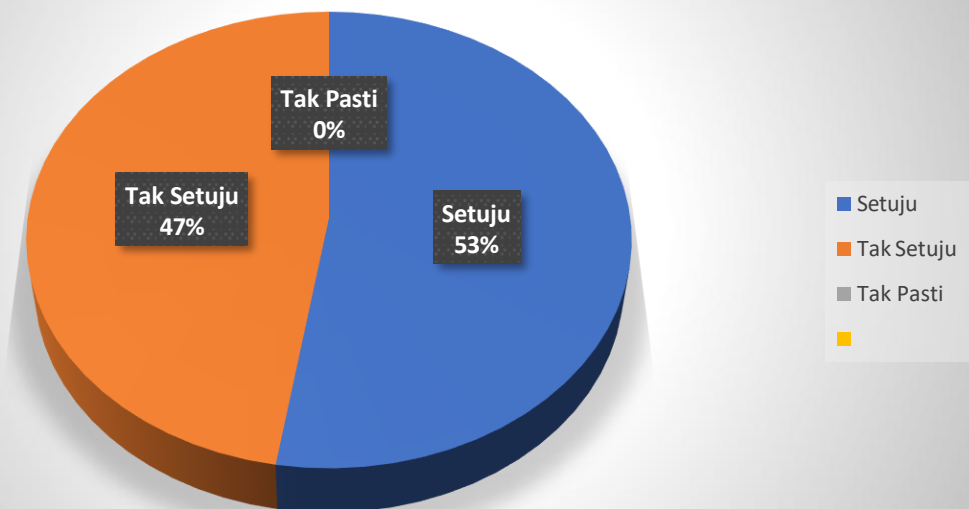
Taburan keseluruhan

Bilangan Responden (0-5KM)



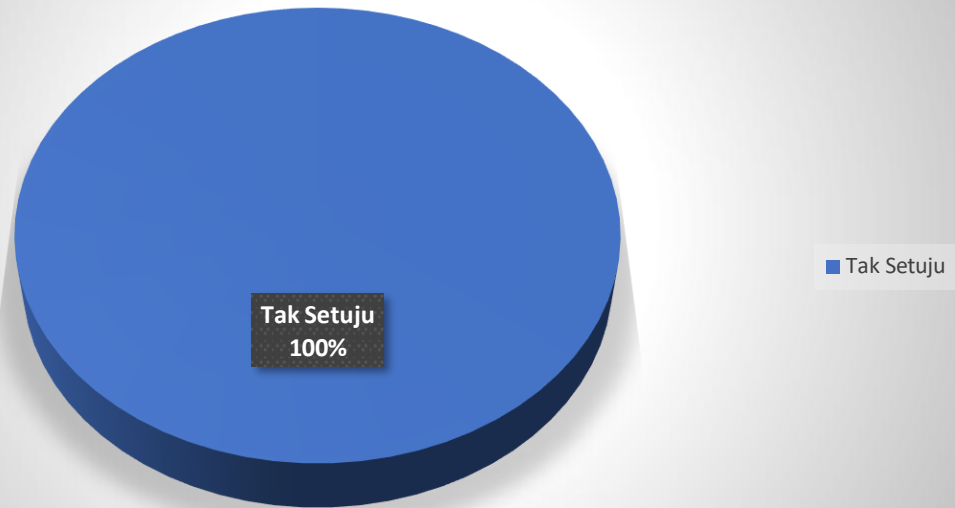
Kemasukan Am

Penerimaan Umum



Kesedaran Projek

Kesedaran Tentang Projek



PEMANTAUAN KUALITAS ASAS

Kualiti Air



4 Lokasi Pemantauan

- Had parameter yang ditetapkan di bawah Kelas III Standard Kualiti Air Kebangsaan.
- Keputusan adalah di bawah had yang dibenarkan kecuali W1 (BOD, DO, AL) W2 (DO, Fe, Al), W3 (BOD, DO, COD, Fe, Al dan AN) dan W4 (DO, Fe dan Al)
- WQI berada dalam lingkungan 75 hingga 81 dan status sungai adalah "Tercemar kepada Bersih".

Pemantauan Tahap Bunyi



3 Lokasi Pemantauan

- Waktu Siang : 65 dBA
- Waktu Malam : 55 dBA
- Keputusan adalah di bawah had yang dibenarkan kecuali N2 pada waktu malam (57.2% > 55%) dan N3 pada waktu malam (56.8% > 55%)

Lokasi	Tahap Bunyi Purata sebagai LAeq, dBA		Peratusan Purata Bacaan LAeq Melebihi Tahap Bunyi yang Disyorkan	
	Siang hari	Waktu Malam	Siang hari (65 dBA)	Waktu Malam (55 dBA)
N1	51.0	46.2	0%	0%
N2	57.7	57.2	0%	4%
N3	56.3	56.8	0%	3.27%



3 Lokasi Pemantauan

- Keputusan dibandingkan dengan Standard Kualiti Udara Ambien Malaysia.
- Semua mematuhi had yang dibenarkan.

Parameter	Keputusan
PM10, $\mu\text{g}/\text{m}^3$	27-37
PM2.5, $\mu\text{g}/\text{m}^3$	9-17
SO ₂ , $\mu\text{g}/\text{m}^3$	<5
NO ₂ , $\mu\text{g}/\text{m}^3$	<0.5
CO, mg/m^3	0.7
O ₃ , $\mu\text{g}/\text{m}^3$	<5

POTENSI IMPAK : KUALITI UDARA

AKTIVITI-AKTIVITI: Pembersihan Tapak, Timbunan Simpanan, Pembinaan Jalan Masuk, Pergerakan Kenderaan, Pembuangan Kemudahan Tapak, Meratakan dan Menggred

IMPAK

- Penjanaan dan penyebaran habuk.
- Reseptor sensitif lebih terdedah kepada kesan negatif kesihatan.

LANGKAH MITIGASI

- Menutup loji pemecah dan rumah penapis untuk mengurangkan penyebaran habuk.
- Pemeliharaan pokok dan tumbuhan sedia ada.
- Biojisim akan disimpan di tempat strategik dan distabilkan.
- Pembakaran terbuka adalah tidak dibenarkan.
- Menutupi cerun terdedah.
- Mengehadkan kelajuan kenderaan.
- Kenderaan siram air perlu disediakan.
- Ketinggian jatuhan produk dari alat pengangkut perlulah serendah yang mungkin.
- Basin cuci tayar mesti disediakan.
- Pemantauan secara visual perlu dijalankan.

POTENSI IMPAK : PENCEMRAN BUNYI

AKTIVITI-AKTIVITI: Pergerakan Kenderaan, Loji Pemprosesan, Membongkar Kemudahan Tapak dan Bunyi Lalu Lintas

PENERIMA SENSITIF : SPCI HELM Kuantan Plant 2, Jinmeng Resources Sdn Bhd

IMPAK

- Impak pendengaran & boleh menyebabkan gangguan mental.
- Mengganggu ketenteraman kawasan setempat dan

LANGKAH MITIGASI

- Kekalkan tumbuh-tumbuhan sebagai penghalang bunyi.
- Pemeriksaan dan penyelenggaraan berkala mesin dan kenderaan.
- Pemantauan berterusan tahap hingar.
- Mematuhi OSHA (pendedahan 90 dBA lebih 8 jam).
- Tetapkan had laju trak kepada 15 km/j.
- PPE perlu disediakan untuk pekerja.

POTENSI IMPAK : KUALITI AIR

AKTIVITI-AKTIVITI: Pembersihan Tapak, Timbunan Simpanan, Hakisan Tanah, Kestabilan Tanah, Loji Pencuci, Pembuangan Buangan Terjadual dan Penjajaran Tapak.

IMPAK

- Keterlihatan air akan jatuh.
- Tahap oksigen terlarut yang rendah.

tempoh hujan yang tinggi

- **LANGKAH MITIGASI**
Mencegah hujan terjadual dengan betul
- Kurangkan kawasan terdedah
- Pemantauan kualiti air Berterusan
- Sediakan BMP yang berkaitan seperti longkang tanah, lembangan sedimen
- Penyelenggaraan berkala pada BMP Menstabilkan struktur tanah yang hilang.
- Zon penampakan untuk ditubuhkan

POTENSI IMPAK: HAKISAN TANAH DAN PEMENDAPAN

AKTIVITI-AKTIVITI: Pemprosesan, Parit Sisi Bumi & Kolam Mendapan, Lambakan Kering, Penyimpanan Sisa Tailing dan Kawasan Bumi yang Terdedah.

IMPAK

☒ Kemerosotan kualiti air & nilai estetik.

LANGKAH MITIGASI

- Penyelenggaraan berkala pada BMP dan kolam tailing setiap selang 2 bulan.
- Parit silang, longkang dan parit tepi disyorkan.
- Perlindungan alur keluar lembangan sedimen dicadangkan.
- Gunakan biojisim yang dipotong (dahan, daun dan akar) sebagai penghalang perlindungan.
- Gunakan jalan yang sedia ada. Membina semula hanya setakat yang diperlukan untuk menyediakan saluran yang mencukupi

POTENSI IMPAK: PENGURUSAN SISA PEPEJAL DAN SISA BERBAHAYA

AKTIVITI-AKTIVITI: Pengurusan Sisa Pepejal dan Buangan Terjadual yang haram

IMPAK

- Degradasi air dan pencemaran

- Pencemaran tanah

- Tumpahan minyak bahan api

LANGKAH MITIGASI

- Pihak penggerak projek hendaklah memikul tanggungjawab sepenuhnya sekiranya terdapat kebocoran sisa terjadual ke aliran berhampiran.
- Penyimpanan bahan api di tempat pembuangan sampah diletakkan semula 30 meter dari mana-mana badan air dan terletak di tanah yang agak rata.

- Sisa pepejal am hendaklah disimpan di dalam tong yang ditetapkan.
- Kitar semula dan penggunaan semula bahan terpakai adalah disyorkan.
- Buangan terjadual hendaklah dilabel dan disimpan mengikut **PERATURAN KUALITI PERSEKITARAN (BUANGAN TERJADUAL) 2005**.
- Semua bekas, penuh atau kosong dikendalikan dengan berhati-hati.

- Kawasan penyimpanan hendaklah mempunyai bund untuk menyediakan kapasiti pembendungan sebanyak 110% daripada jumlah terbesar dram.
- Papan tanda amaran hendaklah diletakkan.
- Pengangkutan dan penyimpanan bahan api dan pelincir berada dalam bekas yang dibina dengan betul dengan reka bentuk yang diluluskan.
- Aktiviti mengisi minyak tidak dijalankan berhampiran saluran air atau saluran saliran di tapak.

POTENSI IMPAK: LALU LINTAS & PENGANGKUTAN

AKTIVITI-AKTIVITI: Pengangkutan Bahan, Pengangkutan

IMPAK

- Kesyakan lalu lintas
- Pembunuhan jalan raya hidupan liar
- Penyebaran kotoran di jalan awam

LANGKAH MITIGASI

- Elakkan pengangkutan pada waktu puncak
- Pasang had laju yang jelas dan papan tanda amaran
- Menyediakan jalan masuk berturap
- Mengangkut kenderaan tidak boleh melebihi muatan
- Palung basuh perlu disediakan
- Penyemburan jalan raya terutamanya semasa musim kering

POTENSI IMPAK: PEKERJAAN, KESELAMATAN & KESIHATAN

AKTIVITI-AKTIVITI: Penggalian Sumber, Pengendalian Jentera, Loji Pemprosesan dan Lori

IMPAK

- Risiko terhadap kesihatan
- Kemalangan semasa peringkat operasi
- Tersebar debu dan habuk mineral.

LANGKAH MITIGASI

- Pastikan tiada longkang tersumbat atau kolam bertakung atau kolam.
- Tiada kumbahan mentah yang mengalir ke saluran air berhampiran.
- Meningkatkan kesedaran tentang bahaya penyakit berjangkit dan bawaan vektor.
- Insurans kesihatan am untuk semua tenaga kerja.
- Menjalankan Penilaian Risiko kesihatan kimia (CHRA)
- Penggunaan peralatan, alatan dan jentera terkini dalam operasi pengoperasian
- Memastikan kebersihan tapak kem dan pekerja.
- Memakai PPE.
- Pemeriksaan perubatan berkala terhadap pekerja di tapak mengenai pengumpulan toksik Silika.

POTENSI IMPAK : SOCIO EKONOMI

AKTIVITI-AKTIVITI: Pengangkutan Bahan dan Pembersihan Tumbuhan

IMPAK

- Peluang pekerjaan

- Keselamatan & kesihatan orang awam

- Mempengaruhi nilai budaya & estetik

- Gangguan habuk & bunyi

LANGKAH MITIGASI

- Upah pekerja tempatan sebagai sebahagian daripada tenaga kerja
- Kontraktor dan subkontraktor tempatan akan dilantik

- Simpan dan simpan rekod sebarang kemalangan pengangkutan untuk perancangan langkah pencegahan selanjutnya
- Operator harus peka kepada pihak berkepentingan yang berdekatan.

- Cantikkan visual dengan landskap yang sesuai dan penanaman semula pokok.

- Pelayar air dan kolam cuci tayar hendaklah disediakan

PROGRAM PEMANTAUAN ALAM SEKITAR

Program Pemulihan – Skop Kerja

- Mengisi semua Kolam Tailing (TL).
- Membongkar semua jentera di tapak, struktur mudah alih dan tidak bergerak, menutup semua saluran masuk dan keluar besen sedimen, keluarkan semua sumber bahan toksik dan berbahaya, ujian bahan cemar, jika ada di permukaan tanah di kawasan di mana diesel, minyak, pelincir dan bahan api hidraulik disimpan.
- Memastikan pemeliharaan tanah dan penyediaan baja organik untuk penanaman, landskap dan penanaman semula hutan pada masa hadapan.
- Jadikan rupa bumi sehijau mungkin dengan pokok, tumbuhan, rumput dengan saluran semula jadi yang mengalir bebas seperti keadaan sedia ada sebelumnya.

Kerja – Kerja Pemulihan

- Penambakan awal yang merangkumi penyingkiran semua peralatan dan jentera berat, loji basuh, penghancur, tali pinggang penghantar, jengkaut, pancuran mandian, pemasangan elektrik, lori, tangki gelincir dan struktur tetap lain. Ini akan dilakukan oleh pakar penyingkiran berlesen.
- Tapak ini akan bebas daripada sebarang kesan sisa jadual, minyak, diesel dan pelincir. Bentuk tanah akan digredkan kepada piawaian yang boleh diterima berhubung dengan kriteria alam sekitar.
- Pemulihan progresif semasa pengoperasian sedang dijalankan, seperti, kerja-kerja landskap di akses utama dan lokasi penting lain di dalam tapak bersama-sama dengan penanaman, penyemaian akan dijalankan tanpa menunggu pemberhentian operasi.