EMPIRE OIL & GAS NL

Red Gully Gas Pipeline & Processing Facility Environment Plan Summary

EGO-HSE-RGPF-EP-001SUM

Issue Date: 29/05/2017

1 Term Definitions and Abbreviations

Abbreviation	Definition
ALARP	As Low as Reasonably Practicable
CBTA	Competency Based Training Assessment
CMMS	Maintenance System
DBNGP	Dampier to Bunbury Natural Gas Pipeline
DG	Dangerous Goods
DMP	Department of Mines and Petroleum
Empire	Empire Oil & Gas NL
EP	Environment Plan
ESA	Environmentally Sensitive Area
GDE	Groundwater Dependent Ecosystem
GGW1	Gingin West-1 Well
HSEQ	Health, Safety, Environment and Quality
MOC	Management of Change
MyOSH	Empire HSEQ Database
OSCP	Oil Spill Contingency Plan
PEB	Petroleum Environment Branch
PFW	Produced Formation Water
PL96	RGPF Export Pipeline
RG1	Red Gully-1 Well
RGPF	Red Gully Gas Pipeline and Processing Facility
SDS	Safety Data Sheet
WIA	Well Intervention Activities

2 Contact Details

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3 Location

Red Gully Pipeline and Processing Facility (RGPF) is located within Production Licences L18 and L19 and Pipeline Licence PL96. The RGPF is located approximately 17km north of the Gingin town site (Figure 2). Primary access to the site is through Wannamal Road West and Brand Highway. The coordinates for the RGPF are presented below.

Location	Easting	Northing
RGPF	388 565 mE	6 549 918 mN
PL96 Connection to DBNGP	386 018 mE	6 548 749 mN
Red Gully-1	388 162 mE	6 549 802 mN
Gingin West-1	388 166 mE	6 549 780 mN

4 Timeframe

RGPF is currently in operation.

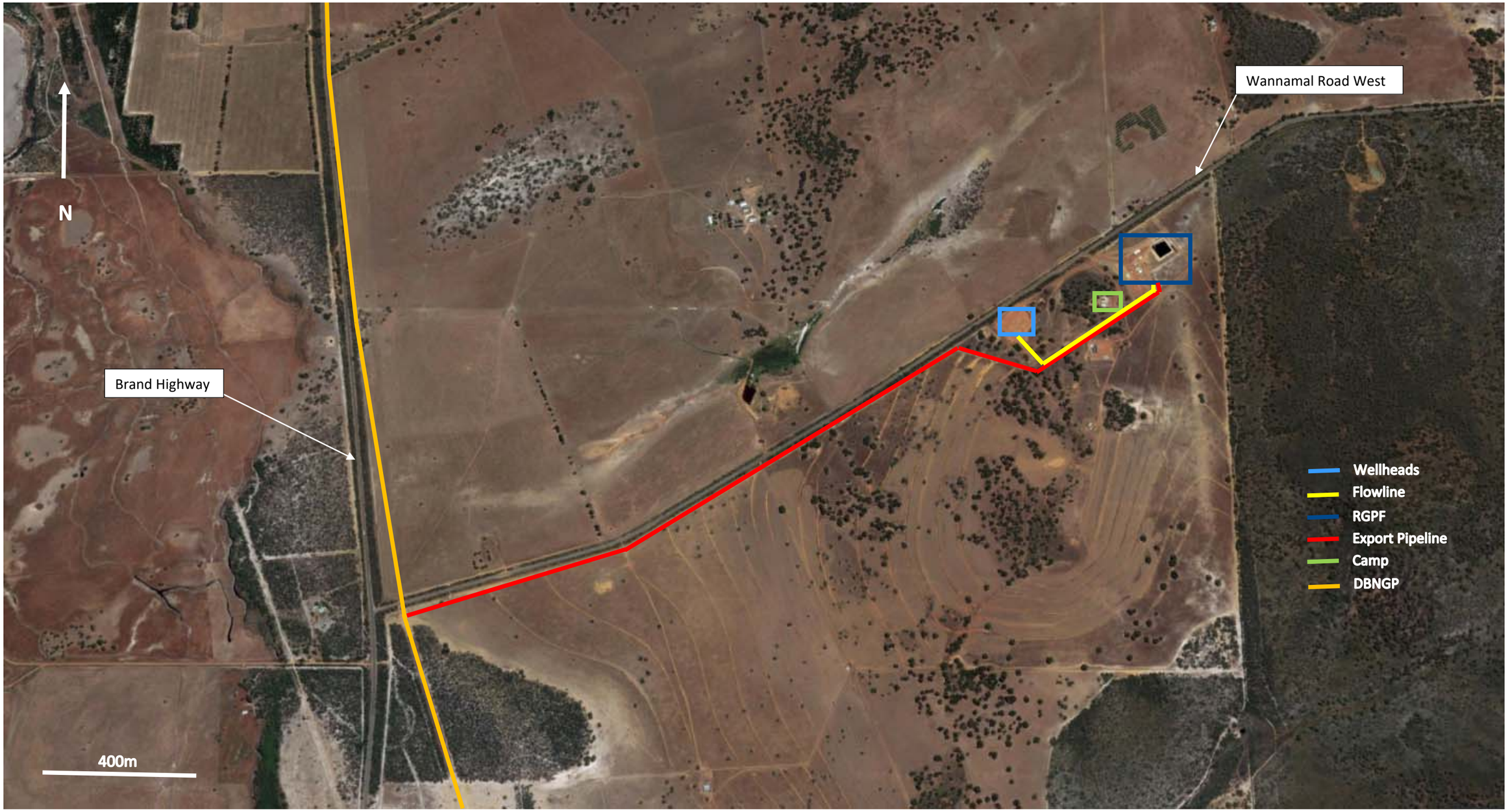

Figure 1: RGPF and associated infrastructure

5 Description of the Existing Environment

A description of the environment in the RGPF area is included in Table 1. Figure 2 indicates sensitive receptors with respect to the RGPF. The RGPF is located on grazing land.

Table 1: RGPF Flowline Details

Aspect	Detail
Climate	Mediterranean climate characterised by seasonal patterns of hot, dry summers and mild, wet winters
Soils	Red and yellow earthy sands over calcareous rocks and siliceous rocks
Surface water	Livestock sand seep (430m north) Beermullah Lake (1.8 km southwest) Red Gully Creek South (2.6km north)
Groundwater	Yaragadee Aquifer is approx. 300m below surface with superficial aquifers at approx. 10m. RGPF has a water bore abstracting water from the Yaragadee Aquifer. No identified GDEs in the area
Conservation Areas	No Red Book or Bush Forever sites in the area Boonanarring Nature Reserve (400m east of RGPF, 10m east of 2nd Evaporation Pond) Bartlett Well Nature Reserve (1.7km northwest) [Register of the National Estate] One ESA (500m west of the DBNGP tie in point)
Vegetation	Cleared farmland. No DRF or ecological communities of national or state significance. No declared weeds identified
Fauna	Introduced fauna including stock and feral animals. Vegetated areas could provide habitat to 9 species of native fauna. Operations will not impact on significant fauna habitat
Heritage	Inspections have found that there are no areas of Aboriginal or European heritage in the operational area
Socio-economic	Gingin townsite (17km south) Landuse within the surrounding region is agricultural and infrastructure including RAAF tracking and communications, DBNGP, Parmelia Pipeline and telecommunications

Figure 2: Environmental Sensitivities

6 Facility Description

The scope of this EP is for the Red Gully Processing Facility Project and includes the following infrastructure:

- Gingin West-1 (GGW1) and Red Gully-1 (RG1) wells
- Flowline
- RGPF (PL96)
- Export Pipeline (PL96)
- Camp

All Red Gully Processing Facility Project activities are within existing disturbed areas. Access is via Brand Highway and Wannamal Road.

6.1 Infrastructure

6.1.1 Wellhead Compounds

There is one wellhead compound of approximately 3 ha with two wells, GGW1 (3,870m) and RG1 (4,000m) which feed gas to the RGPF.

The wellhead compound is graded with a turkey's nest used as a temporary water source for project use. The wellheads and self bunded chemical injection facilities are within a fenced area with locked vehicle and personnel access gates. The greater pad has storage and laydown areas and a water bore and turkey's nest.

Instrument loop power and instrument air for the control of GGW1 and EG-1 is generated at the plant and sent to the wellpad. Chemicals are injected onsite from self bunded containers (<1000 L) include methanol, corrosion inhibitor and scale inhibitor.

Wellhead compression (Compressor Booster Station) is to be installed and commissioned in Q3 2017 following regulatory approval. The spread involves gas and liquid separation, gas compression and gas/liquid reinjection into the flowline.

6.1.2 Flowlines

An above-ground carbon steel flowline, 24 volt instrument loop power line and an instrument airline connect the wellheads to RGPF. The flowline was constructed in 2013 in accordance with BS 31.3. There is no pigging facilities on the flowline.

6.1.3 RGPF

The facilities required to process the GGW1 and RG1 production wells are gas treatment (water and hydrocarbon dewpoint conditioning), gas export compression, condensate stabilisation and produced water treatment.

The RGPF site is contained within a core area of approximately 5 ha (300m x 350m) (layout Figure 4) and includes the following structures and equipment:

- Wellhead Separator / Slug catcher – captures received liquids, controls slugs and separates bulk liquids from wet gas
- Wet Gas Cooler – cools gas prior to entry into the gas / gas exchanger
- Gas/Gas Exchanger – further cooling of gas
- Low Temperature Separator – conditions gas to meet transmission quality (concrete bunded)
- Export gas compressor – to compress 'sales gas' to export pressure (bunded)
- Export Gas Filter Coalescer – filters 'sales gas'
- Export Gas Metering and Gas Chromatograph

- Condensate Heater – heats condensate so that it will meet sales quality specification
- Condensate Knock Out Drum – separate bulk gas generated by heating
- Condensate Flash Vessel – three phase separator
- Condensate Flash Gas Compression Train
- Condensate Rundown Pumps – boost stabilised condensate pressure (concrete bunded)
- Condensate Rundown Cooler – cools condensate to below maximum condensate tank temperature
- Condensate Storage Tanks (2 x 150 kL) (bunded)
- Condensate Loading Pumps and Loadout (bunded);
- Produced Water Treatment via a Free Water Knock out Drum (FWKOD) installed without DMP Environment approval – separates water from condensate (concrete bunded)
- Produced water storage tank (bunded)
- Produced Water disposal:
    - Evaporation Pond 1 - 50 BWPD disposal capacity HDPE lined 50m x 50m evaporation pond. The pond has fauna egress matting and ramps
    - Evaporation Pond 2 - 250 BWPD disposal capacity HDPE lined 105m x 118m (external bund edge to edge) evaporation pond. The pond bottom is lined with 300mm of sieved sandy loam soil with a construction equipment access ramp for fauna egress. A chain mail fence will surround the perimeter of this pond for additional protection of fauna.
    - Taken offsite for disposal by licenced contractor as and when required
- Generator – uses 'sales gas' for power generation
- Export gas pipeline pig launching facility
- Instrument air system
- Chemical Management
    - Methanol injection (common bund) (currently injected)
    - Corrosion inhibitor injection (common bund) (currently injected)
    - Hydrogen sulphide scavenger injection (potential if required)
    - Biocide dosing (potential if required)
    - Emulsifier and demulsifier treatment (common bund)
    - Engine oil and coolant
    - Diesel
- ESD push button shut down system
- Site drainage
    - Stabilised Condensate Loading bay (design including capacity as per AS1940) allows contaminated liquids to drain into a "Humeceptor"
    - Tank bund designed to contain 110% of liquid stored and 25% of largest tank
    - Contaminated stormwater from process permanent bunds (designed for 1 in 100 year storm) drain to a low point with locked valve and connection for collection of contaminated liquids and reprocessed in produced water treatment system
- Fire management equipment includes portable fire extinguishers
- Amenities
    - Main Control Centre – A secure transportable style service building that's contains a power distribution and UPS equipment, control system equipment, communications equipment and small office.
    - Workshop and storage shed – workshop, office, production laboratory and storage shed. It allows basic maintenance to be performed on site. It also allows for provides for the bulk of critical spares to be stored onsite.
    - 40 foot standard sea container converted to allow additional storage of critical spares onsite
    - Ablutions Block – 2m x 3.6m x 3m

- Chemical storage area 2m x 3m adjacent to the workshop to store all portable chemicals (lubes oils, diesel, paints etc.) (bunded area)
- Laydown and storage area of approximately 0.36ha (60m x 60m) with designated access track.
- Rainwater tank harvesting rain water off from Workshop & Storage Shed roof for workshop drinking/utility water and gas plant Ablutions Block utility water.
- connection to electricity grid,
- septic sewage system
- Site ring road / fire break to lay down and storage area

6.1.4 Export Pipeline (PL96)

The export pipeline transfers gas from RGPF to the DBNGP to natural gas customers in Perth. The pipeline is designed in accordance with AS2885.1. A pig receiver is located adjacent to the DBNGP tie-in point. Export pipeline details are presented in Table 4.

6.1.5 RGPF Camp

The camp accommodation area is approximately 0.16ha in area. It is suitable to accommodate up to a maximum of 16 personnel at any one time. The camp houses personnel working on rotation.

The camp is located within previously cleared land – this was the original location of the Red Gully Pipeline and Processing Facility construction and commissioning phase personnel temporary accommodation camp. It is connected to Shire of Gingin Approved septic system. The camp also sources drinking and utility water from a rain water harvesting system. The camp has concrete walkways linking its buildings.

There is a drilling camp to the south of the RGPF camp utilised for drilling activities (outside the scope of this RGPF EP).

6.2 Facility Operational Details

Operational activities include:

- Daily checks / field readings / work orders
- House keeping
- Maintenance (preservation of equipment)
- Repair activities under Engineering Management of Change (MOC) (restoration /(like-for like) replacement of above ground equipment)
- Chemical top-ups
- Chemical pump operation and maintenance
- Pigging activities
- Operation of drain points
- Bund management
- Venting (wellhead and plants)
- Load-out and transport condensate / PFW
- Load-in PFW (as required)
- Monthly workplace inspections
- Monthly HSE meetings
- Chemical handling
- Waste management
- Weed and firebreak management
- Well tests
- Well intervention activities (as described below)
- Monitoring evaporation pond level
- Inspection (eg. Cathodic Protection, NDT) and reporting

- Groundwater monitoring
- Auditing
- Reporting

6.3 Well Operational Activities

Activities at the wellhead area are kept to a minimum as almost all routine operations can be performed remotely. The main ongoing frequent activity is rotating out / topping up production chemical containers. Wellhead valve pressure testing and servicing are conducted on an annual basis. Well intervention activities (WIAs) are performed on an "as required" basis. WIAs generally run for approximately 14 days, which includes the mobilisation / demobilisation time. A blow out preventer (BOP) is used during WIA (if required). Low pressure WIA may not necessitate a BOP.

All well intervention activities requiring down-hole chemical injection will be conducted under a bridging document which contains disclosure of down-hole chemicals to the requirement of DMP PEB (eg. Pumping, cement squeezing, plug and abandonment, coiled tubing, well side-tracking).

Well intervention activities undertaken on GGW1 and RG1 conducted as part of operations managed in accordance with the EP may include:

- Wellhead Maintenance
- Pulling and Replacing a Completion
- Slickline
- Wireline (cabling)
- Snubbing
- Well Testing

Well intervention activities undertaken on GGW1 and RG1 conducted as part of operations managed in accordance with a bridging document to this EP may include:

- Pumping
- Cement squeezing
- Coiled tubing

6.4 Oil Spill Contingency Plan

The preparedness planning and management of a spill associated with RGPF is in accordance with the OSCP. The OSCP defines how field and Perth office teams would respond to a hydrocarbon/chemical spill incident in a manner which minimises the impact on the environment. Spill sources applicable to RGPF operations include:

- Operational wells
- Above-ground pipework and flowline
- Buried pipeline
- Machinery/equipment
- Vehicles
- Storage Tanks
- Transfer operations
- Chemicals in process or storage

One emergency response drill managed under the OSCP will be conducted annually.

6.5 Details of Chemicals and Other Substances

No chemicals or other substances will be introduced into the Red Gully-1 or Gingin West-1 well, reservoir or subsurface formation as part of RGPF Operations without an approved Environment Plan Bridging Document.

7 Environmental Impacts and Risks

The environmental risks and management identified for the commissioning and operations activities ranked medium or above are presented in Table 2.

Table 2: Risk Assessment Table (Medium or Above)

Aspect	Source of Risk	Potential Impacts	Description	Risk Ranking (Post Treatment)		
				Consequence (0-5)	Likelihood (A-E)	Residual Risk
Fire	*Bushfire* *Plant event*	*Loss of fauna, habitat or personnel* *Public third party damage* *Loss of containment*	Fire break maintained around facility - annually before bushfire season as per Shire compliance requirements Weed management systems developed and implemented Designated smoking area Upstream PS PTW in place for hot work activities RGPF Operations Emergency Response Plan (ERP) includes evacuation, bushfire and process plant fire Total Fire Bans - exemptions in place for operational activities Vehicles and machinery parked in designated areas DFES-ERG in place Continuous ongoing relationship with the local DFES authority (stakeholder engagement) ERP contact list readily available and distributed accordingly Portable fire extinguishers as per ERP, complying with the relevant standards Fire hose reel on fire trailer which can be used by site personnel or by Fire Service personnel Personnel training / induction / Emergency Response Competency Based Training Assessment Emergency Shutdown System Monthly workplace inspections include checking fire breaks Emergency Drills conducted in accordance with ERP requirements (includes one fire drill per year) Landowner liaison communicates with landowners during a fire event initiating on site Sheep currently used around the areas of Cattamarra farm (adjacent to site) to reduce fire load external to site Critical function testing on all SIL1 instrumentation fire and gas detection	2	C	Medium
Soil and Landform	*Soil erosion* *Vehicles* *Vegetation clearing (Fire breaks, weed spraying)* *Weather* *Third Party* *Ground disturbance activities*	Loss of habitat Exceeding approved licence (clearing permit) Erosion Dust Soil compaction Local complaints	Stakeholder engagement and communication on activities Environmental audits pipeline markers and authorised entry only signage Pipeline easement inspections as per Australian Standard for Pipelines – Gas and Liquid Petroleum (AS 2885) Monthly workplace inspections include access tracks Access track maintenance Appropriate erosion control measures implemented on site to mitigate existing drainage as they arise to minimise further erosion activity Excavation/penetration procedure and Upstream PS PTW in place for ground disturbing activities	2	C	Medium

Aspect	Source of Risk	Potential Impacts	Description	Risk Ranking (Post Treatment)		
				Consequence (0-5)	Likelihood (A-E)	Residual Risk
			Personnel induction covers speed limits and reporting of environmental hazards			
			Adherence to designated tracks			
			Site drainage design: • Stabilised Condensate Loading bay (design including capacity as per AS1940) allows contaminated liquids to drain into a "Humeceptor" • Tank bund designed to contain 110% of liquid stored and 25% of largest tank • Contaminated storm water from process permanent bunds (designed for 1 in 100 year storm) drain to a low point with locked valve and connection for collection of contaminated liquids by vacuum truck for offsite disposal			
			Legislative instruments in place (permits or exemption under Regulations) for clearing activities			
			Dust suppression on site with activities as required basis.			
			Well site leases constructed by an approved contractor to a defined compaction standard			
			Restricted speed limit 20km/h on site			
			Erosion and compound inspections and maintenance as required			
Produced water storage Condensate storage tanks	*Storage of hydrocarbon andproduced liquids*	Cold venting of hydrocarbon gas Loss of containment from the vessel and feed pipe Leak - Evaporation Pond	Bunding capacity designed to AS 1940-2004 The storage and handling of flammable and combustible liquids flammable and combustible liquids	1	C	Medium
			Tank designed to requirements of AS1692			
			Work orders in place for regular in-service inspections for storage vessels			
			Instrument calibrations			
			Monthly workplace/ inspection includes liquid stock tank and bunded area			
			Environmental audits completed annually			
			Daily checks			
			ERP includes loss of containment response scenario			
			Emergency drills conducted in accordance with ERP requirements (includes at least one spill drill per annum)			
			Dangerous Goods (DG) manifest located in emergency capsule front gate of site			
			Tank is coated in chemical resistant coating (internal)			
			Regular maintenance undertaken in accordance with Preventative Maintenance Management strategy			
			Procedure in place to check and if necessary maintain capacity of permanent bunds [EGO-RGPF-OPS-016], e.g. pump out to remove accumulated rainwater			
			HDPE lined earthen bund for condensate storage tanks and produced water storage tank			
			Annual weeds spray			
Condensate Load-Out	*Transfer and Handling of liquids*	Spills – potential for condensate spillage outside	OSCP and spill response equipment available on site	2	B	Medium
			ERP includes loss of containment and chemical or hazardous material spill			

Aspect	Source of Risk	Potential Impacts	Description	Risk Ranking (Post Treatment)		
				Consequence (0-5)	Likelihood (A-E)	Residual Risk
Water Load-Out		secondary containment (human error / equipment failure) PFW loss containment and soil contamination Venting	Spill kit located adjacent to loading bay (kit fitted with tamper tag)			
			Contractor Management Plan / procedures – use of suitably qualified / licensed contractors			
			Condensate load-out design includes dry breaks, DG registered vehicles, hose management			
			Secondary containment (bunded areas)			
			Procedure in place to check and if necessary maintain capacity of permanent bunds [EGO-RGPF-OPS-016], e.g. pump out to remove accumulated rainwater			
			Environmental audits completed annually			
			Hose floating aids to be provided to prevent potential hose coupling caused damage to liner			
			Personnel training / induction covers condensate and water load-out			
			Emergency drills conducted in accordance with ERP requirements			
			Procedure for condensate load out			
			Procedure for PFW load out			
			Loading bay inspected during daily walk around			
			Plant design for most severe anticipated local weather conditions			
			Competent and trained personnel			
			Kerbed bund for condensate pumps			
			Scully system Is used to prevent static earth bond			
			Fully manned load out operation for both condensate and PFW			
			Level check by dedicated spotter with radio communication during PFW pumping operations			
Chemical Storage, Handling and Transport	*Rupture of container* *Dropped drum during transfer* *Leakage during transport of chemicals* *Chemical loss during load out* *Vehicle accident* *Pump failure* *Diesel spill during loading*	Soil contamination Soil erosion	Fixed plant pumps at wellheads are self bunded	2	B	
			Procedure in place to check and if necessary maintain capacity of permanent bunds [EGO-RGPF-OPS-016], eg. pump out to remove accumulated rainwater			
			Emergency drills conducted in accordance with ERP requirements			
			Reduced inventories stored to minimise potential spill volume			
			Spill kits located in / adjacent to potential spill risk areas (kits fitted with tamper tags)			
			Monthly workplace inspections include chemical storage and handling areas			
			Daily checks			
			Environmental audits completed annually			
			Chemical Management Procedure covers storage, handling and transport			
			SDS available at the facility			
			OSCP available to personnel with personnel aware of its requirements			
			Transfer of chemicals not undertaken during extreme weather conditions			
			Drip trays in place for transfer operations			
			Low volume quantities being transported and stored at wellhead			
			Secure loads			

Aspect	Source of Risk	Potential Impacts	Description	Risk Ranking (Post Treatment)		
				Consequence (0-5)	Likelihood (A-E)	Residual Risk
			Personnel training / induction / CBTA cover chemical storage and handling			
			Personnel training and competency of using plant vehicles on site			
			Detection by site personnel (visual)			
			Fuel, oil and chemical storage areas segregated, labelled and bunded in accordance with their respective SDS, the Dangerous Goods Safety Act 2004 and Code of Practice, and Australian Standard 1940:2004, 'The storage and handling of flammable and combustible liquids'			
			During diesel refueling operations, personnel must be present at all time			
Unplanned Site Event	*Major loss of containment (eg. Well integrity failure, pipeline / flowline rupture, process failure)*	Fire Hazard Greenhouse gas emissions Spills and soil contamination	Emergency Shutdown (ESD)	2	B	Medium
			Remote monitoring capability			
			ERP includes unplanned gas release and process plant fire / explosion			
			OSCP and spill response equipment available on site			
			Pipe and vessel design, construction and inspection as per Australian standards			
			Bunded vessels/tanks to provide secondary containment			
			Cathodic protection system in place for export pipelines (underground)			
			Underground pipeline and flowline have an external protective coating, (3 layer polypropylene)			
			Flowline is managed under a periodic inspection program subject to continuous corrosion inhibitor injection at the wellhead			
			Corrosion inhibitor injection at plant in gas phase			
			Moisture analyser monitoring moisture content at export gas pipeline and upstream filtering equipment			
			Pipeline is designed in accordance to AS2885 (pipeline constructed in 2013)			
			Pipeline Warning Sign positioned as per requirements under AS2885.1-2007 Pipelines—Gas and liquid petroleum			
			Pipeline integrity management plan (PIMP)			
			Periodic In-Line Inspection (ILI) for pipeline (intelligent pigging)			
			Export gas is dehydrated			
			Operator competency and training			
			Detection by site personnel when manned (visual, audible)			
			Process instrumentation / trips firing gas system, pipeline HH pressure trip)			
			Explosions not credible in open areas / low congestion			
			Operating and maintenance procedures			
			Vehicle management, including restricted vehicle access, vehicle speed restrictions, kerbs and barriers, road maintenance.			
			Security management, including fence and gate, security procedures, process equipment located away from the fence line.			
			Work orders in place for wellhead equipment test/inspection			
Wellhead Operations (WIA)	*Fuel, oil or chemical spills* *Gas release*	Contaminated soil Ignition of release – resulting in fire	Details as mentioned in above control measures for this assessment (refer to Aspects)	3	B	Medium
			Approved program with DMP for operation			

Aspect	Source of Risk	Potential Impacts	Description	Risk Ranking (Post Treatment)		
				Consequence (0-5)	Likelihood (A-E)	Residual Risk
	Crude Oil / Condensate release *Instrument gas venting* *Breathing at vent on storage tanks* *PSV lifting* *Overpressure of line* *Pipeline leak / failure* *Loss of Well Control* *Blowout* *Uncontrolled Vehicle access* *Site wastes and chemicals not removed at end of program* *Failure to meet Environmental commitments* *Ignition from non-intrinsically safe equipment* *Sabotage* *Human error* *Systems failure* *Movement of equipment* *Nitrogen gas release* *Chemicals being released down hole*	Mortality of Flora/Fauna Landowner complaints Legislative Non compliance Atmospheric emissions	Trained and competent personnel supervising activity			
			Daily reports and documents, fuel usage and well inspection			
			Site access and induction requirements to be rolled out for all personnel.			
			General area has low population density and is remote from high density populations			
			Chemicals oriented within bunded areas as required			
			Containers checked to ensure they are in sound order			
			Operate equipment to specifications and vendor standard procedures			
			Routine maintenance and inspections			
			RGPF OSCP and ERP in place			
			Blow out preventer (if required) in use and regularly tested			
			Diesel vehicles only on site			
			Segregation of wastes and stored appropriately for offsite disposal by waste management contractor			
			Short duration of WIA			
			Site inspection at conclusion of WIA			
			Annual environmental report at RGPF			
			Tracking of all fuel usage for project			
			Light at project infrastructure will be turned inwards to minimise the risk of attracting some native fauna			
			Stakeholder register and communication strategy in place and implemented			
			Empire owned site vehicles and permanent RGPF personnel to be trained in use of fire extinguishers			
			Contractors to conduct regular WIA emergency scenarios on site as required for high risk work scenarios			
			All spills cleaned immediately if safe to do so in accordance with OSCP requirements			
			Third party training matrix and certification checked to comply with WIA activities			
			PTW shall be implemented			
			Personnel must have shot firers license for perforation activities			
			Pre start/tool box meeting			
			Completion of pre operation checklist			
			Chemical handling on surface to be in accordance with Standard Operating Procedures			
			SDS available for all down hole chemicals			

8 Implementation Strategy

The objective of the implementation strategy below is to describe how all aspects of the activity will be directed, reviewed and managed to ensure that all potential impacts and risks are continuously reduced to ALARP:

1. Ensure that the agreed environmental performance objectives and standards are met
2. Identify specific systems, practices and procedures to be used to ensure that environmental risks and effects are reduced to ALARP
3. Establish a commitment to the protection of the environment
4. Establish a clear chain of command that sets out the roles and responsibilities of Personnel in relation to the implementation, management and review of the EP
5. Ensure that each Employee or Contractor working on or in connection with RGPF has the appropriate skills and training
6. Monitor, audit and review environmental performance and the Implementation Strategy
7. Maintain quantitative records
8. Develop and implement emergency and spill preparedness planning and response capability
9. Report on environmental performance
10. Provide for appropriate consultation with relevant government authorities and other interested persons or organisations

Details of Empire systems, practices and procedures relating to the management of all potential impacts and risks of the activity are included in Table 3. The objective of these systems, practices and procedures is to continuously reduce the potential impacts and risks of the activity to ALARP.

Table 3: Empire Systems, Practices and Procedures

Item	Objective to achieve ALARP	Details of Location
Standard of Practice for Empire sites	To outline the main HSE criteria to be observed by Empire and third party providers	Empire Environment Policy
Environment Plan	To document environmental management of operations	Red Gully Gas Pipeline & Processing Facility Environment Plan
Emergency Response Plan	To provide guidance on the management of an emergency situation	Empire Emergency Response Plan
Oil Spill Response Plan	To provide guidance on the management of a spill	Empire OSCP
Compliance scheduling – Environmental	To prompt environmental compliance requirements (reporting, auditing, license renewal and document updates)	Environmental Compliance Register
HSEQ Management System Manual	To provide a framework of the systems, procedures and processes which Empire use to effectively manager operations to meet the objectives of the Empire Environment Policy	HSEQ Management System Manual

Item	Objective to achieve ALARP	Details of Location
Preventative Maintenance Management	To provide a preventative maintenance management tool that stores records, schedules maintenance and documents activities undertaken	Preventative Maintenance Management Program
Standard Operating Procedures	To guide personnel on how to conduct tasks to meet environmental performance throughout operations	Empire IMS
Audit management Strategy	To plan and document the independent examination and verification of activities, records, processes, and other elements to determine conformity to documented requirements and standards	HSE Audit Plan
Training Management	To provide the framework for all personnel to have the competency for their respective roles for the management of safety and environmentally critical risks and daily work activities	Training Management Plan (site personnel)
Permit to Work System	To ensure facilities are in a safe and environmentally acceptable condition before works starts and is kept in this condition until all personnel involved in the work have signed off completion	• Upstream Production Solutions IMS • Empire site office
Landowner Communications	To guide all personnel working at Empire owned assets on interactions with landowners (including tenants and staff)	Stakeholder Management Plan
Hazard and Incident Reporting	To ensure a systematic approach for reporting and investigating an incident is adopted across the Australian Operations of the company, identify causes of the incident and not attribute blame when conducting investigations, and prevent future incidents	Hazard and Incident Reporting Procedure

9 Consultation

Empire has engaged with stakeholders since the planning phase for the drilling of the Red Gully-1 and Gingin West wells through to RGPF construction and operations. During this time the stakeholders consulted with include:

- Office of Environmental Protection Authority
- Department of Environment Regulation – Swan Region, Midwest Region, Industry Regulations
- Department of Mines and Petroleum
- Mining tenement holders (Kingsreef Pty Ltd / Image Resources)
- Landholder for Lot 5550
- Freehold landholders (directly impacted and adjacent)
- Main Roads WA
- APA Group
- RAAF – Pearce and William Town
- Shire of Gingin
- Yued Native Title Group representatives
- Department of Water
- Department of Fire and Emergency Services
- Department of Parks and Wildlife
- Department of Regional Development and Lands
- Dampier Bunbury Group
- South West Aboriginal Land and Sea Council
- Local Business owners and service providers
- Gingin Community ER

Empire will continue to engage the above and additional stakeholders during RGPF operations. Empire are continually liaising with the community in order to be cognizant of any other potential stakeholders that may need to be engaged for both current and future works with RGPF.