

Project Summary Table – BlackPearl Resources Inc – Blackrod Commercial SAGD Project			
Proponent Name:	BlackPearl Resources Inc.	Date:	November, 2011
Project Name:	Blackrod Commercial SAGD Project	Company Contact Name and Information:	Mike Carteri BlackPearl Resources Inc. Sr. Exploitation Engineer 700, 444 – 7 th Avenue S.W. Calgary, Alberta T2P 0X8 Ph: 403-536-4695
Name of Company that will hold approval:	BlackPearl Resources Inc.	Company Website:	www.blackpearlresources.ca
Type of Project (e.g. in-situ, mine quarry, upgrader, etc.):	In-Situ	New Project, Expansion or Modification:	New Project
Projected Construction Start (Month/Year):	Q4 2013*	Projected Operation Start (Month/Year):	Q4 2015*
Life of Project (# Years):	25-30 years	Project Location (Legal Land Description) and Municipality:	TWP 076-18 W4M Sections: 22,23,24,25,26,27,34,35,36 TWP 077-18 W4M Sections: 1, 2, 11, 12, S ½ 13, S ½ 14 TWP 077-17 W4M Sections: 17, 18, 19, 20 COUNTY: Lac La Biche
Total Project Area (ha):	4660 ha	Private or Public Land:	Public Land
Nearest Residence (km):	Wandering River, Alberta – Approx 50 km	Nearest First Nation Reserve(s) (name and km):	Beaver Lake Cree Nation Lac La Biche – Approximately 100km
Types of Activity (major project processes):	<ul style="list-style-type: none"> • Steam Generation, distribution and injection • Oil production, collection and separation • Water treatment • Tankage • Sulphur recovery • Saline Water source and disposal wells 	Power Source (If on site power generation describe quantity [MW] and facilities):	Third-party utility company
Project Products:	Bitumen	Average Production Capacity per Year (specify units)	Phased Approach to peak production of 80,000 bbl/day Phase 1: 20,000 bopd - 2016 Phase 2: 30,000 bopd Phase 3: 30,000 bopd

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Method of Product Transportation (e.g., pipeline, rail, truck):	Pipeline	Location of End Market:	Canada or the USA
Infrastructure Requirements (roads, pipelines, water intake, storage tankage):	Central processing facility, production well pads, roads, fuel gas pipeline, electrical power line, dilute supply pipeline, bitumen sales pipeline, water source and disposal pipeline, wells for water disposal and make-up.	Project By-Products:	Process by-products which will be disposed into disposal wells will be surplus produced water and evaporator blowdown. Other by-products include drilling waste and lime sludge.
Expected Types of Air Emissions (e.g., SO ₂ , NO _x , CO ₂):	SO ₂ , NO _x , CO ₂ . Also refer to Table 1.0	Expected Types of Effluent Releases (note the water bodies to effluent will be released to):	None
Types of Wastes Generated:	Refer to Table 2.0	Waste Management Facilities (i.e., Disposal Well, Salt Caverns, Landfill, or Third-Party):	Refer to Table 2.0
Nearest Waterway/Water body (name and km):	Athabasca River – Approximately 7 km	Watercourse Crossings (type of crossing, any Class A to C waterbodies):	Currently we know that there may potentially be some water crossings. However we have no information available of the exact location of any water crossings. If it is determined that a water crossing is required, we will provide the crossing information to Transport Canada.
EPEA Approval Required (Y/N/Unknown):	Yes	Regulatory Board(s) (ERCB/NRCB/AUC):	ERCB
Water Act Licence Required (Y/N/Unknown. If yes: purpose, source and estimated volumes):	No – Saline water utilization from Grosmont Fm.	Water Act Approval Required (Y/N/Unknown. If yes, purpose):	No
Fisheries Act Authorization Required (Y/N/Unknown):	Unknown	Navigable Waters Protect Act Authorization Required (Y/N/Unknown):	Unknown - Currently we know that there may potentially be some water crossings. However we have no information available of the exact location of any water crossings. If it is determined that a water crossing is required, we will provide the crossing information to Transport Canada.

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Waterbodies Required (Y/N/Unknown/NA. If yes, # and ha):	No	Nearest Water Well (km) (Domestic and Commercial):	Wandering River, Alberta (50km): Domestic Water 1F1/14-24-076-18 W4M – Lower Grand Rapids 3, source water for SAGD Pilot Facility
Nearest Provincial Highway (# and distance):	Highway 63 – approximately 25 kilometers	Access Improvements to Provincial Highway:	In place
Traffic Impact Assessment Required (Yes/No/Unknown):	Yes	Total Area to be Disturbed (ha):	650 ha* for CPF, pads and ROW for pipelines, roads and power. Does not include strat, seismic programs and power lines and diluent and sales pipeline into CPF
Existing Land Use(s):	Traditional, recreational, industrial, forestry	Post-Reclamation Land Use(s):	Traditional, recreational, industrial, forestry
Reclamation Start and End (YYYY – YYYY)	2035 – 2050	Any Unique Environmental or Social Considerations (if yes, describe):	No
Historic Resources Impact Assessment Required (Y/N/Unknown):	Yes	Estimated Construction Person-Years of Employment:	Approximately 1000* person-years of construction required for each phase.
Estimated Operation Person-Years of Employment:	Approximately 5,000* persons-years for the operations.	Construction or Operation Camp Required (Y/N/Unknown. If yes, on-site or off-site):	Yes – on-site
Method of Transport of Employees to Site (Construction and Operation)	Construction workers will stay in a camp on site. At the end of their rotation the workforce will commute to their home destination via their own personal vehicles. Operations workers will come from neighboring communities. If a camp is built workers will stay in the camp during their shift and commute to their home destination via their own vehicles. As an alternative to a camp, another option being considered is transportation buses that would run on a daily basis to and from local communities.	Date Stakeholder Engagement Started (Public/Aboriginal):	Serrano Energy Ltd., the previous operator of the project initiated consultation in January 2008. See the Consultation Log.
Aboriginal Groups Involved in Stakeholder Engagement:	Ft. McMurray First Nations, Heart Lake First Nations, Beaver Lake Cree Nation, Chipewyan Prairie Dene First Nations.		

*All figures denoted with an asterisk are preliminary estimates.

TABLE 1.0: Expected Air Emissions

Air Contaminant	Emission Sources
Sulphur Dioxide (SO₂)	1 - Steam Generators 2 - Emergency Flaring
Carbon Monoxide (CO)	1 - Facility combustion sources a) Steam Generators b) Flash Heaters c) Emergency Flare d) Back-up Power Generators e) Glycol Heaters
Oxides of Nitrogen (NO_x)	1 - Facility combustion sources a) Steam Generators b) Flash Heaters c) Emergency Flare d) Back-up Power Generators e) Glycol Heaters
Particulate Matter (PM_{2.5})	1 - Facility combustion sources a) Steam Generators b) Flash Heaters c) Emergency Flare d) Back-up Power Generators e) Glycol Heaters
Greenhouse Gases (CO₂, CH₄, N₂O)	1 - Facility combustion sources a) Steam Generators b) Flash Heaters c) Emergency Flare d) Back-up Power Generators e) Glycol Heaters 2 - Fugitive emission sources
Volatile Organic Compounds (VOC's)	1 - Facility combustion sources a) Steam Generators b) Flash Heaters c) Emergency Flare d) Back-up Power Generators e) Glycol Heaters 2 - Fugitive emission sources

TABLE 2.0: Anticipated Waste Stream and Disposal Method

WASTE DESCRIPTION	CLASSIFICATION/TYPE	STORAGE LOCATION	DISPOSAL LOCATION
Packing Materials	Domestic Waste	Bins	Landfill / Recycle
Cardboard / Paper	Domestic Waste	Bins	Landfill / recycle
General Kitchen/Camp Waste	Domestic Waste	Bins	Landfill
Pallets / Wood	Construction	Bins	Recycling
Insulation	Construction	Bins	Landfill
Sand Blast	Construction	Sealed Drums	Class 1b Landfill
Welding Rods	Construction	Bins	Recycling
Glass	Construction	Bins	Recycling
Scrap Metal	Metal	Bins	Recycling
Cable Cut-offs	Metal	Bins	Recycling
Oil Filters	Filters	Drums	Recycling
Glycol Filters	Filters	Drums	Class 1b Landfill
Raw Water Filters Pressure	Filters	Drums	Reuse / Recycle
Filters	Filters	Drums	Class 1b Landfill
Oil Removal Filters	Filters	Drums	Recycle/Thermal Treatment/Class 1b Landfill
Lube Oil Filters	Filters	Drums	Recycle
Produced Oil Filters	Filters	Drums	Recycle
Filter Backwash	Miscellaneous	Tank/Lidded Drum	Back into Process
Batteries	Miscellaneous	Bins	Recycle
Oily Rags	Miscellaneous	Bins	Recycle / Class 1b Landfill
Produced Sand	Sand	Bins	Class 1b or Class 2 Landfill
Cement	Cement		Onsite disposal / Class 2 Landfill
Boiler Blowdown Water	Effluent	Tank	Downhole Injection – Class 2 Disposal Well / Recycle
De-oiled Produced Water	Effluent	Tank	Downhole Injection – Class 2 Disposal Well / Recycle
Utility Water	Effluent	Tank	Downhole Injection – Class 2 Disposal Well / Recycle
Surface Run-off Water	Effluent	Tank	Downhole Injection Class 2 Disposal Well/Recycle/Release
Septic Wastes	Effluent	Tank	Sanitary Sewage Treatment Facility / On-site Treatment
Produced Water	Effluent	Tank	Downhole Injection – Class 2 Disposal Well
Sludge: Process	Process Sludge	Pond	Class 2 landfill
Lubricants	Lube Oils	Drums	Recycling
Solvents	Miscellaneous	Drums	Recycle
Spent Chemicals	Inorganic Chemicals	Bins	Return to Supplier
Ion Exchange Resin	Resins	Bins / Drums	Class 2 Landfill
Containers (pesticide/Herbicide)	Construction/Drilling	Bins	Recycling
Acid		Tanks	Treatment / Class 1a or 1b Disposal Well
Well Workover Fluids	Oilfield Waste	Tanks	Class 1a or 1b Disposal Well
Spent Lime	Process Sludge	Pond	Class 2 Landfill