



Exploring for Oil & Gas in Guyana

October 2020

Company Overview



- CGX Energy Inc. (TSX-V|OYL) is an oil and gas exploration company focused solely on the Guyana Basin. Headquartered in Toronto, ON, Canada with operational offices in Houston, TX, USA and Georgetown, Guyana.
- CGX, through its wholly owned subsidiary CGX Resources Inc. (CRI) holds two offshore petroleum prospecting licenses in Guyana: Corentyne PPL [66.667% Working Interest (WI)] and Demerara PPL (66.667% WI).
- CGX has a majority stake in one onshore petroleum prospecting license in Guyana: Berbice PPL (62% WI), through ON Energy Inc.
- CGX's combined PPLs encompasses 2.7 million gross acres (2.3 million WI acres) in one of the most prospective Basins in the world with immense upside potential.
- CGX, through its wholly owned subsidiary Grand Canal Industrial Estates Inc. owns a Deep Water Port Development Site North of Crab Island at the mouth of the Berbice River.
- The company has a uniquely qualified and highly skilled management team with extensive Guyanese and industry experience.
- Strong relationship with Government and People of Guyana. Operating in Guyana for past 23 years and widely acclaimed as Guyana's "*Indigenous Oil Company*".
- Supported by Frontera Energy Corp., the leading independent oil and gas company in Latin America.





CGX Resources Inc. has a 66.667% participating interest in both the Corentyne and Demerara PPLs.



• Offshore and onshore acreage

- 2.7 million (gross)
- 3 blocks (1 onshore, 2 offshore)
- 2 well drilling campaigns in 2012
 - Eagle Tertiary-1 (operator, 100% WI)
 - Oil shows present
 - Jaguar-1 (25% WI)
 - Light oil recovered
- Upcoming 2 well drilling campaigns
 - Exploration Well on the northern Region of the Corentyne Block
 - Exploration Well on the Demerara Block



Atlantic Margin Exploration Landscape



Trans-marginal Exploration Play Proven Viable through Discoveries in the Offshore Guyana/Suriname

- Guyana-Suriname Basin linked to proven Northwest Africa Basins
- CGX prospects analogous to adjacent discoveries made on Stabroek Block, Kanuku Block, Orinduik Block, and Block 58 (Suriname) in the Guyana Suriname Basin.





Stabroek Block

- Liza discovered in May 2015.
- Over 8 billion barrels of recoverable oil equivalent has been found to date with billions of barrels of undrilled potential.
- Eighteen major oil discoveries to date.
- Multiple play types: Cretaceous and Tertiary sands as well as carbonates.
- Discoveries adjacent to the Northern Region of the Corentyne Block of Pluma and Haimara found 37 meters and 63 meters of highquality hydrocarbon-bearing sandstone reservoir, respectively.

Block 58 Suriname

- In an area immediately adjacent to Northern Region of the Corentyne Block, three discoveries were made analogous to prospects identified by CGX on the Northern Region of the Block.
- In January 2020, a significant oil discovery in the Maka Central well was announced offshore Suriname approximately 7 miles from the Corentyne Block.
- In April 2020, the Sapakara-West well was announced to have at least 79 meters of net oil and gas condensate pay in two intervals. It is approximately 20 miles from the Northern Region of the Corentyne Block.
- In August 2020, it was announced that the Kwaskwasi well had 278 meters of net oil and volatile oil / gas condensate pay. It is approximately 15 miles from the Northern Region of the Corentyne Block.

Kanuku Block

- In January 2020, the Carapa-1 exploration well found 4 meters of oil pay.
- Discovery of oil adjacent to the Demerara Block has de-risked the hydrocarbon migration risk.

Orinduik Block

- In late 2019, the Jethro and Joe wells discovered oil in Tertiary reservoirs.
- The wells contained heavy oil with high Sulphur content.

Basin Acreage Holders



- CGX is the 6th largest acreage holder with the 2nd most Blocks in the Basin
- Recent notable farm-ins and block signings include:
 - Total farmed-in to 3 blocks in Guyana (Canje, Kanuku and Orinduik)
 - Equinor (Statoil) signed two blocks in Suriname (Block 59 with Exxon and Hess and Block 60 solo)
 - Cairn recently signed Block 61 in Suriname
 - Hess farmed-in to Block 59 and Block 42 in Suriname and Kaieteur in Guyana
 - Exxon farmed-in to Kaieteur and Canje in Guyana as well as Blocks 59 and 52 in Suriname
 - Total farmed into Block 58 in Suriname



Note:

Source: CGX Energy Inc.

Acreage includes only Guyana and Suriname. "Other" category includes CEPSA, JHI, Mid-Atlantic, Eco-Atlantic, Paradise Oil and Nabi

CGX Energy – Offshore Activity Map





CGX Work Commitments on PPLs



- Restrictions due to COVID-19 have severely impaired the freedom to operate in Guyana for CGX and its Partner.
- As a result, the Company is in discussions with the Government of Guyana on modifications to its Work Commitment Timelines.

Corentyne Block		
Deadline	Deliverables	
27 November 2019	Acquire additional seismic or conduct seismic reprocessing	
27 November 2020	Drill 1 st exploration well	
27 November 2022	Drill 2 nd exploration well	
Demerara Block Commitments		
Deadline	Deliverables	
Deadline 12 February 2020	Deliverables Complete any additional data processing and planning and secure all regulatory approvals for the drilling of an exploration well	
Deadline 12 February 2020 12 February 2021	DeliverablesComplete any additional data processing and planning and secure all regulatory approvals for the drilling of an exploration wellDrill 1st exploration well	
Deadline 12 February 2020 12 February 2021 12 February 2023	DeliverablesComplete any additional data processing and planning and secure all regulatory approvals for the drilling of an exploration wellDrill 1st exploration wellDrill 2nd exploration well	



Berbice Block			
Deadline	Deliverables		
12 February 2020	Complete Geochemical survey of a minimum area of 120 km ² and commence a seismic program defined by the aforementioned Geochemical survey		
12 February 2021	Complete seismic program and complete all processing and interpretation of data		
12 February 2023	Drill 1 st exploration well		

Corentyne Block Summary and Highlights

- The Guyana Basin is still in the early stages of exploration.
- New, state of the art 3D seismic, acquired over the northern region of the Corentyne Block provides a new look at the Corentyne Block's prospectivity in light of the discoveries in the adjacent Stabroek Block (Guyana) and Block 58 (Suriname).
- New, robust, low risk and high value prospect inventory developed from the new seismic data, augmenting the pre-existing prospect inventory.
- Re-evaluation with the new information resulted in the identification of multiple low-risk prospects within the block.
- Offset wells to the Corentyne Block encountered excellent quality sands and hydrocarbons in the Cretaceous & Miocene analogous to identified CGX prospects.





Recent Discoveries: Positive Implications for CGX C

Multibillion barrels of additional exploration potential remaining

- The *chance of finding hydrocarbons has increased* on CGX's prospects since the company last drilled wells in 2012 due to the recent discovery of billions of barrels of oil in the basin on the adjacent Stabroek Block, Orinduik Block, Kanuku Block and Block 58 (Suriname)
- There is now proof that *oil has migrated* into the area of the CGX Corentyne Block
- *Oil trapped* in plays analogous to those found on CGX blocks
- Oil trapped in *both sandstones* (Liza) and *limestones* (Ranger)
- Oil found in *Cretaceous* (Maka Central, Sapakara West, and Kwaskwasi) and *Tertiary* (Hammerhead) aged rocks



Corentyne Area: Well Results





The recent success in the area points towards low risk exploration in the Corentyne block

Corentyne Area Wells

- Offset wells to the Corentyne Block encountered good quality sands in the Cretaceous
- The discoveries are a mix of light oil, condensate and gas; all low Sulphur content
- Discoveries adjacent to Corentyne block
 - Pluma: 2 miles
 - Haimara: 8 miles
 - Maka Central: 7 miles
 - Kwaskwasi: 15 miles
 - Sapakara West-1 : 20 miles
- Northern Corentyne area expected to have light oil with a mix of condensate and gas with low Sulphur content

Well Results

- Stabroek Pluma
 - 37 meters of high-quality hydrocarbon-bearing sandstone reservoir.
- Stabroek Haimara
 - 63 meters of high-quality, gas-condensate bearing sandstone reservoir
- Block 58 Maka Central
 - 73 meters of oil pay (API oil gravities between 35 and 45 degree)
 - 50 meters of light oil and gas condensate pay
- Block 58 Sapakara West-1
 - Campanian: 13 meters of net gas condensate & 30 meters of net oil pay (API oil gravities between 35 and 40 degrees)
 - Santonian: 36 meters of net oil-bearing reservoir (API oil gravities between 40 and 45 degrees)
- Block 58 Kwaskwasi-1
 - Campanian: 63 meters of net oil pay & 86 meters of net volatile oil / gas condensate pay (API oil gravities are between 34 and 43 degrees)
 - Santonian: 129 meters of net hydrocarbon reservoir

- CGX has acquired 3D seismic over the most prospective Northern Region of the Corentyne Block
- The Northern Corentyne Region is adjacent to recent commercial discoveries providing for *low risk exploration*
 - Haimara and Pluma on the Stabroek Block to the North
 - Maka Central, Sapakara West, and Kwaskwasi on Block 58 to the East
- Acquisition of 3D Seismic data was successfully completed on 2 November 2019 using the PGS Ramform Titan
- Seismic processing has been completed PSTM and PSDM data have been received and analyzed. A Quantitative Interpretation (QI)/AVO study has also been completed
- Low risk/high value prospect inventory has been developed





Northern Corentyne 3D Seismic Survey



- Two large deeper channel complexes identified
 - Eastern Prospect of interest due to:
 - Proximity to recent Block 58 (Suriname) oil discoveries (Santonian age also)
 - Large high amplitude area (~10,000 acres)
 - Prospect stands out from background on initial amplitude analysis
 - Stacked Western Area
 - Stacked pay potential; Reduces risk
 - Eocene through Cretaceous age targets across multiple play types
- Two Shallower Miocene large channel complexes identified
 - Analogous to adjacent Stabroek Block Hammerhead discovery
- Kawa in the eastern area shows significant promise for a low risk, high reward prospect.

Kawa: Maps





- Seismic Amplitude Analysis shows the remarkable potential of the Prospect
- The Seismic attribute maps are indicative of the low risk for finding high potential hydrocarbons and sandstone reservoirs



Kawa: Seismic Section

-4000



<u>Kawa</u>

- Objective: Santonian
- Trap type: Stratigraphic



Random line [FXFN] [Guyana_Final_03-30DEG_FULL Stack



- High amplitude seismic marker seen in yellow on the seismic section indicative of hydrocarbon bearing sandstones
- Amplitude stands out from background seismic

Kawa: Depth Seismic Section



• This Santonian sandstone prospect is the same age and play type to the offsetting Block 58 Suriname discoveries of Maka Central, Kwaskwasi, and Sapakara West



Demerara Block – 3D Seismic Interpretation CQX

3D Seismic interpretation indicates multiple play types and robust prospectivity

- 3,100 km² of modern 3D seismic was acquired in 2014
- The seismic revealed a variety of play types as seen in the seismic section below
- The diverse prospect inventory provides for multiple independent prospects to be drilled increasing the chance of finding hydrocarbons



Demerara Block – Prospects C, D, E & F Outlines



Demerara Block – F Prospect



PROSPECT NAME:	Demerara F
WATER DEPTH:	1,719 feet (524m)
OBJECTIVE:	Albian/Aptian sediment fan
TRAP TYPE:	Stratigraphic:
DEPTH OF OBJECTIVE:	10,190 feet (3,106m)
WELL DEPTH:	11,155 feet (3,400m)



- The F Prospect represents a low risk, high return prospect
- The seismic amplitude map of the prospect is over 30,000 acres in size
- Shallow depth of the well provides a low cost exploration well with significant upside

Demerara Block – F Prospect



Berbice Block – Prospectivity & Workplan

Proximity of CGX's Berbice Block to Tambaredjo/Calcutta producing oilfields onshore Suriname



- Evidence that oil has migrated onshore Guyana and been trapped
 - Presence of Tambaredjo/Calcutta onshore heavy oilfields in coastal Suriname
 - Source for Tambaredjo oil is the same as that of offshore wells in the Basin
 - Reported oil and gas seeps in Guyana
 - Pay on logs and oil shows in cuttings from previously drilled Berbice wells
 - Large structures and stratigraphic changes on Berbice provide hydrocarbon traps
- Geochemical survey completed in December 2018
 - Shows thermogenic hydrocarbons in samples

Berbice Block – Exploration History

- CGX through ON Energy Inc. drilled 3 wells on the block
 - Albion-1 (2005): Found reservoir quality sands and has possible oil shows
 - Yakusari-1 (2005): Found reservoir quality sands and possible trace hydrocarbons.
 - Hermitage-1 (2006): Found reservoir quality sands and has possible oil shows
- 2 wells drilled by prior operators
 - Rose Hall-1 (1942): Good oil shows
 - L'Esperance-1 (1966): Sands & no shows
- 2D seismic acquired and processed: 17 lines
- Microbial geochemical survey in 2003
- Aeromagnetic and gravity acquired in 2015 & 2016
- Geochemical Soil Survey in 2018





Potential Hydrocarbon Traps – Berbice Block





• 2D seismic indicates large structures and pinch-outs of potential reservoirs suggesting traps for hydrocarbons

The Basin's Unique Upside Potential



- Guyana-Suriname Basin significantly de-risked with discoveries adjacent to the CGX offshore Blocks
 - The discoveries in 2020 of Maka Central, Sapakara West, and Kwaskwasi immediately adjacent provide a direct analog to low risk prospects on the Corentyne block
 - These discoveries are reported to be of Santonian in age and amplitude supported just as the prospect identified on the Corentyne Block
 - On the Stabroek Block, there have been 18 discoveries over the last 5 years accounting for over 8 billion barrels of oil equivalent
 - Adjacent to CGX acreage there have been numerous discoveries de-risking the prospects
 - Liza discovery : 40 miles Northwest of Corentyne
 - Turbot discovery: 16 miles North of Corentyne
 - Pluma discovery: 2 miles North of Corentyne
 - Haimara discovery: 8 miles North of Corentyne
 - Maka Central discovery: 7 miles Northeast of Corentyne
 - Sapakara West discovery: 20 miles East of Corentyne
 - Kwaskwasi discovery: 15 miles East of Corentyne



- Grand Canal Industrial Estates Inc. incorporated in Guyana on 30th June 2010
- Registered office at 234 Lance Gibbs and Irving Streets, Georgetown. Principal activity is to build and operate the Berbice Deep Water Port on the Berbice River in Guyana
- GCIE acquired a Government of Guyana Lease of 54.96 Acres of Berbice River Front land adjacent to and North of "Crab Island" from CGX Resources Inc. on 10th August 2012
- Lease was acquired by CGX Resources Inc. on 4th February 2010, for a period of 50 years

GCIE Vision



- Berbice Deep Water Port servicing:
 - Oil and Gas Exploration
 - Oil and Gas Production
 - Agricultural export
 - Containerized import/export
 - Cruise Ship docking
 - Regional Shipping



- Phase 1 (Target: Oct 2020 to Dec 2021):
 - 91m x 30m wharf platform built out into the channel and accessed via a 49m long, 12m wide trestle.
 - Facility targets supply of fuel, mud, cement, water, electricity.
 - Facility will include Warehouse, Workshop, Office Block, Open Logistics Yard at Port Site and Waste Management Facility
- Expansion (Target: 2022 to 2025):
 - Container Stackers, Container Yard, Silos
 - Wharf expansion, bulk traffic

- Currently, there are two functional Oil and Gas Ports in Guyana
- Located South of the Georgetown Harbour. The Demerara River has a depth of 5.5 5.9m at low water. Georgetown Harbour is congested with little room for expansion
- Stabroek Block Partners utilize current ports as well as ports outside of Guyana
- Exploration activities in the basin are increasing rapidly, with limited local shorebases available: despite a strong desire for local ports to be utilized and local content maximized
- There has been three recent offshore discoveries in Suriname
- There is significant exploration activity planned in both Guyana and Suriname in the near term
- The Government of Guyana has clearly identified the development of a Deep Water Port in Berbice as a priority
- Agricultural products in Regions 5 and 6 (produces ~65% of national rice crop) acquires a 20% surcharge to ship out of Port Georgetown



Build and operationalize initial phase of the **Berbice Deep Water Port** to service the highly active offshore oil and gas exploration industry in the Guyana-Suriname Basin

- 91m x 30m wharf platform and 49m x 12m approach trestle from shoreline into Berbice River, capable of accommodating two Platform Supply Vessels or Anchor Handlers simultaneously
- Flood protection of site
- World-class compacted yard at port site, covered warehousing and tubular storage
- Construction of access road and bridges, relocation of utility services
- Full range of services: water, bulk and liquid mud supply, cement, electricity, telecommunications, fuel
- Full range of security services and secure bonded area for controlled customs accountability (fenced and protected)
- Dredging of an access channel and basin alongside wharf, complete shoreline protection
- Full wharf support for offshore drilling
- Administrative offices and customs administration offices
- Workshop and covered warehouse
- Fire protection system
- Completely contained waste management
- Facility targeted to be fully operational by December 2021
- Full indemnification insurance will be procured to protect environment, existing infrastructure, public and client property

Berbice Deep Water Port Targeted Expansion: December 2021 – December 2025



This targeted expansion will support:

- Oil and Gas operations and production support
- Agricultural export
- Containerized import/export
- Cruise ship docking
- Regional shipping





- GCIE selected this site for its shore-base and port facility based on the following:
 - Berbice River is one of three major rivers in Guyana 600 kilometres long, and 2.3 kilometres wide at the project location
 - Berbice River channel is currently dredged and maintained at a depth of 8.3m at low water
 - GCIE is located in a sheltered area, 4.8 km from the river mouth, with no hindrances to the open sea
 - The site location is 11 13 hours sailing to the Stabroek Block and shorter times to the Corentyne, Kanuku, Orinduik and Demerara Blocks (compared to 2.5 days from Trinidad)
 - There is no congestion and significant land available for expansion contiguous to the site (> 170 acres)
 - Site is well serviced by roads that is connected to the existing highway system
 - Site is located away from environmentally sensitive or residential areas, but easily accessible by abundantly available skilled labour

GCIE Site Advantages



- In 2010, Guyana Lands and Surveys Commission in its land use planning map for Region 6 list the area for the development of a deep sea port, new airport runway of 1.2km and an industrial park
- The GCIE location can also service import/export of agricultural and other goods which are transported from the landlocked state of Roraima in Brazil, when the Brazil/Guyana road is completed
- A report prepared by the study team of the Ministry of Shipping, Government of India ⁽¹⁾, on the construction of a deep sea port in Guyana, also identified the eastern bank of the Berbice River as the preferred location
- Quote from this Report: "The aforementioned factors strongly suggest need for a deep sea port with a modern container terminal in Guyana. This will greatly improve Guyana's maritime access, reduce its dependence on transshipment of its cargo at a Caribbean port resulting in savings in freight/handling costs and also help Guyana reap economic benefits from its integration into North East Brazil. The ideal location for this purpose appears to be New Amsterdam near the mouth of Berbice River considering the available channel depth and large tract of available land suitable for multi user terminals with ancillary facilities."

⁽¹⁾ "Report Of The Study Team On Construction Of Deep Water Port In Berbice River Of Guyana"
Prepared by Ministry of Shipping on the Request of Ministry of External Affairs, Government of India (April 2010)

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Thank You