

INTRODUCTION

BHP Billiton Petróleo Operaciones de México, S. De R.L. De C.V. ("BHP") is currently progressing appraisal activities in the Trion field in Mexico to assess the viability of its development. If the field is declared commercial, the development will require an in-field drilling and completion program ("Drilling Program") with the use of Lower Completion Equipment.

PURPOSE OF THIS EOI

BHP is soliciting the interest of reputable Drilling Contractors (hereinafter referred to as "Contractors") experienced in the provision of Lower Completion Equipment & Services, to develop a list of suitable Contractors who may subsequently be invited into the bidding process for the execution of the here-in described Scope of Work. This process may eventually lead to the award of a contract for the provision of Lower Completion Equipment & Services.

The EOI seeks to provide prospective Contractors with relevant background information regarding the Trion project and to describe the information to be submitted by prospective Contractors in order to assist BHP in compiling a list of suitable Contractors for further assessment.

Key project metrics and specifications are as follows:

Trion Lower Completion Equipment Summary General Data				
Water Depth	~ 2,500 m / 8,200 ft			
Well Depth Range	~ 4,500 - 5,500 m MD/ 14,800 - 18,000 ft MD			
BHT Range	55 - 85 °C / 132 - 185 °F (4°C / 40°F Seabed Temp)			
H2S	No			
CO2	<1.15% Mol			
Number of wells	11 to 18			
Production Liner	9.875" 62.8 ppf 1Cr P110			
Completion Type	Stacked frac pack with downhole flow control			
Brine	9.4 ppg - 10.8 ppg CaCl2 / KCl / MEG (TBC)			
Rig	TBD			
	Work execution estimated between: 2024 - 2027			
Work Schedule	Surface sections to be batch drilled.			
Work Schedule	Average total well drilling duration (including batch section) is 26 days.			
	Average total well completion duration is 36 days.			
	Well Design - Equipment & Tools			
	10,000 psi differential			
	Hydraulic set packer (ball drop), retrievable			
Frac Pack Packer, Extension & Service Tool	Secondary (back-up) release mechanism for service tool			
Extension a dervice 100	6.0" ID x 10 ft seal bore to host production seals or seals from upper zone screens			
	Weight down circulate, weight down reverse positions (squeeze position optional)			



	Trion Lower Completion Equipment Summary	
	Capable of supporting 80-100Klbs	
	Experience in water depths over 4,000' is beneficial	
	Sealing frac port closure sleeve	
	MUST accommodate 3.5" flush joint isolation tubing for DHFC installation	
	Capable of pumping 400klbs of ceramic proppant at 50 bpm	
	Resistant to HCl, HF, and CH3COOH acid, Toluene, and Xylene	
	Lower Zone : Expendable ball or flapper, or radial type, ID TBD (pending isolation string design)	
Fluid Loss Device	Upper Zone : Radial type and/or screens with sliding side doors, must be suitable for use in upper of dual zone intelligent completion, ≥ 4.5 " ID	
	Design must be hydraulically actuated and must minimize pressure surge to formation when opening.	
	60 - 80k lb shear	
Safety Shear Sub	≥ 4.6" ID	
	Suitable for installation on electric line with drill pipe contingency	
	6.0" ID Seal Bore to host screen seals	
Sump Packer	Snap Collet must be clearly visible at surface (20 kip minimum), to locate screens	
	Indexing Muleshoes (for screen assemblies)	
	Optional	
Multi-Zone Single Trip System	Systems For 9.875" and 7.625" casing	
Seal Assemblies	Provision of all seal assemblies (nominally 6" and 4") for installation on base of screen assemblies and base of upper completion.	
	Producers: 13Cr up to 95 KSI MYS, Ni alloy if higher strength is needed. Viton	
Materials	seals.	
	Water Injectors: API T-95, AISI 4130 or 4140 up to 110 KSI, 25Cr or Ni alloy if higher strength is needed. HNBR seals.	
Back-up Equipment	100% Tool redundancy on rig	
	Services	
	All necessary equipment and services required to execute the drilling programs and well designs including:	
	Onshore support base	
	Running Equipment	
Technical Support and	 Technical engineering support on BHP's office in CDMX. 	
Facilities	 Appropriate facilities for storage and maintenance of equipment and chemical products. 	
	 Qualified engineers, technicians, supervisors and operators for equipment maintenance and services. 	
	Note: All equipment and facilities must be fully compliant with local regulations and industry best practices.	



Trion Lower Completion Equipment Summary				
Logistics				
Trion Field Location	180 km East off the coast of Tamaulipas (Matamoros)			
BHP Rig operations Shorebase	Likely to be in Altamira/Tampico Note: If required contractor to provide transportation of the Contractor's Equipment and Contractor's Goods and Consumables between Contractor's Operations Base and BHP's Supply Base or Shorebase.			
Heliport	Likely to be in Matamoros			
Minimum Personnel Requirements				
Contract Coordinator / Engineer	Yes, onshore at BHP's Mexico office			
Field Engineer	Yes, offshore (2 - 4)			
HSE				
Minimum requirements	Must comply with BHP's HSE requirements and local regulations, including COVID-19 protocols (if applicable).			

Any entity responding to this EOI must have the capacity and capability to provide and safely install the Lower Completion Equipment that meet or exceed the specification noted above without co-venturing for supply.

<u>Note:</u> The scopes and specifications presented in this document are the most accurate estimates at this time and are subject to change. Any information included in this EOI is not to be associated with any other EOI or tender from BHP.

INFORMATION REQUIRED FROM PROSPECTIVE CONTRACTORS

Interested Contractors must provide the information requested below in order to be considered for further assessment (this information is also listed in the attached Expression of Interest (EOI) Response Form).

Company Name:	
Legal Entity Name (if different from Company Name):	
Company Type (Blacce check and)	☐ Local ☐ Foreign ☐ Joint Venture (JV)
Company Type (Please check one):	If JV, please list involved Companies:
Mailing Address:	
Country:	
Designated Contact (name and title):	
Email Address:	
Telephone:	
Year Company founded:	



Website URL:	
Please list your top three (2-3) competitors:	
Please list your top five (5) clients:	
Number of years' experience operating in Mexico:	
Deepwater Operating Experience:	
Anticipated lead time (per well if possible) required to support the proposed scope:	
Anticipated Mexican content (local Content) in your operation:	

Confirmation of Interest – prospective Contractor is requested to confirm their company interest and compliance with requirements outlined in this EOI Letter by completing and signing the EOI Response Form.

EOI RESPONSE SUBMISSION REQUIREMENTS

Prospective Contractors interested in participating in the identification/assessment process must download, complete and sign the EOI Response Form attached. This Form should be signed by a legal representative of the Contractor. The representative's name should also be printed where requested. The electronic version of the Form is located at https://www.bhp.com/our-businesses/petroleum/trion/, and submit to the following inbox:

BHP Petroleum (BHP) <u>jessica.ruiz@bhp.com</u>

Submissions should be made electronically by no later than close of business 5:00 pm (CST) on 5th April 2021. BHP reserves the right not to accept submissions after this time. Submissions must be kept short and concise. Please endeavor to keep the submission under 5 MB, if possible.

Please note that this invitation to submit expression of interest does not constitute a formal request for quotation or proposal, nor is it intended to create any expectations regarding future business dealings between BHP and recipient.

All EOI documents will become and remain BHP's property. BHP shall not be liable in any respect for any costs, damages, charges or expenses incurred by the contractor in relation to preparing or submitting this EOI response. BHP reserves the right to accept or reject any or all EOI submissions that may be received related to the services requested. BHP reserves the right to change the requirements of this EOI, terminate further participation in the EOI process and change or terminate the contracting process at any time.

Thank you in advance for your willingness to respond to this EOI. We look forward to hearing from you. Should you have any questions or issues regarding the process outlined above, please contact the undersigned at jessica.ruiz@bhp.com

Sincerely,

Jessica Ruiz

Principal Category Management

Enclosures:

Expression of Interest (EOI) Response Form