

September 23, 2016

Mr. Ray Leonard
Hyperdynamics Corporation
12012 Wickchester Lane, Suite 475
Houston, Texas 77079

Dear Mr. Leonard:

In accordance with your request, we have met with the Hyperdynamics Corporation (Hyperdynamics) technical team and an outside consultant to review the results of recent seismic reprocessing and analysis on the Fatala and Buried Hill 1 Prospects, offshore Guinea, to quantify the impact of these new data on our geologic risk assessment. Even though these new data would probably have a minor impact on our prospective resources assessments of the Fatala and Buried Hill 1 Prospects, at this time we are not updating our estimates of unrisks prospective oil resources for these prospects, which are documented in our prospective resources assessment report dated April 13, 2016, with an as-of date of March 1, 2016. We completed our reevaluation of geologic risk for the Fatala and Buried Hill 1 Prospects on or about the date of this letter. It is our understanding that Hyperdynamics signed an agreement with the Republic of Guinea for a one-year extension of its offshore Guinea Production Sharing Contract on September 15, 2016. Under the terms of this agreement, Hyperdynamics, through its wholly owned subsidiary SCS Corporation Limited, owns a 100 percent working interest in the now approximately 5,000-square-kilometer (km²) offshore Guinea license area through September 22, 2017. Along with other obligations, Hyperdynamics is required to drill a US\$46,000,000 exploration well during the one-year extension period.

On September 12, 2016, we received a presentation at Hyperdynamics' Houston office from Mr. Roger Young of eSeis, Inc. (eSeis), a Houston-based specialty seismic reprocessing company. We also received presentations from Hyperdynamics technical staff (Mr. Don Rice and Mr. Ken Nibbelink) describing their views on the impact of the eSeis reprocessing on its estimations of geologic risk for the Fatala and Buried Hill 1 Prospects. While we also discussed the potential impact these new reprocessed data would have on prospective resources estimates, we collectively agreed that the impact, while noticeable, would be relatively minor. Therefore, prospective resources assessments for Fatala and Buried Hill 1 Prospects will not be updated as part of this assessment.

eSeis employed its patented SAIL (Spectral AVO Inversion for Lithology) methodology on an approximately 150-km² subset of the Hyperdynamics offshore Guinea 3-D seismic data across the Fatala Prospect and on an approximately 77-km² subset across the Buried Hill 1 Prospect. According to eSeis, the SAIL process is a data quality improvement and interpretability enhancement methodology that combines elements of amplitude versus offset (AVO) gather flattening, spectral decomposition, and seismic inversion to create a more coherent and cleaner 3-D seismic amplitude volume and an inversion volume that represents lithology (sandstones and shales in the case of the Fatala and Buried Hill 1 Prospects). During the AVO gather flattening process within SAIL, velocity is modified both vertically and horizontally across the AVO gather in an attempt to maximize the flattening of the AVO gather reflections. During routine seismic processing, a single stacking velocity is applied at a given depth and is not typically allowed to vary horizontally, which often leaves portions of the gather, especially in the reflections with the farthest offset from vertical, not flat and therefore not accurately summed together or stacked into the single seismic trace observed on 3-D seismic data. In the case of its application over Fatala and Buried Hill, the eSeis SAIL methodology appears to have created a more visually clean and more coherent 3-D seismic volume relative to the previously available, more routine seismic processing. While a number of steps within the proprietary process likely

contribute to processing improvements, the processing methodology of spatially varying velocity across the gather to maximize flattening is thought to have particular significance.

While the eSeis reprocessing over Fatala and Buried Hill 1 Prospects clearly improved the quality and interpretability of the 3-D seismic data relative to previous processing, the more detailed velocity analysis performed by eSeis on the subset volumes also allowed for the examination and interpretation of seismic velocity heterogeneity and anisotropy that could be a direct indicator of the presence of hydrocarbons in the area of the prospects. For instance, over the Fatala Prospect, a comparison of eSeis processing vertical velocity with far-offset velocity indicated the presence of a velocity anomaly over the prospect that could be indicative of small amounts of gas in the sediments directly above the main reservoir targets for the prospect. Vertical velocity from the near offsets would be influenced (slowed) by the possible presence of gas that has seeped out of a potential hydrocarbon accumulation, while the far offsets, where the seismic energy pathway is more parallel to rock bedding planes, would be less influenced (not slowed as much) by this same potential presence of gas in the fluids of the pore spaces. This anomaly is imaged by examining and mapping the spatial ratio of far offset velocity and near offset velocity. eSeis and Hyperdynamics have indicated that velocity anomalies of this type have been observed in West Africa above hydrocarbon fields and prospects similar to Fatala, with similar anomalies over prospects having been drilled and shown to be hydrocarbon-bearing. The anomaly at Fatala is limited in extent both vertically and laterally, suggesting that gas migration upward was stopped by impermeable layers and was stopped laterally by the same normal faults in the shallow section that may be the main trapping fault for the Fatala Prospect. While a similar velocity anomaly is not observed above the Buried Hill 1 Prospect, a velocity anomaly is observed in a deeper objective layer of the prospect, suggesting the presence of a gas reservoir or a gas cap above oil in the faulted anticlinal structure of the prospect.

At Fatala and Buried Hill 1 Prospects, eSeis also predicted pore pressure variations using a patented methodology that is designed to use seismic data frequency attenuation to estimate relative changes in pore pressure. Reservoir rocks that are normally pressured transmit seismic energy mainly through the rock matrix as the grain-to-grain contacts support the rock (not the fluids), so seismic energy is relatively easily transmitted with little attenuation of seismic frequency. This type of reservoir is said to have a high Q, or quality, factor. In contrast, a reservoir rock that is overpressured relative to hydrostatic pressure will have a relatively low Q factor because the fluids in the pore spaces are supporting some of the overburden and grain-to-grain contacts are relatively weaker, causing energy transmission to be relatively poorer. Poorer seismic energy transmission may lead to a detectable loss of seismic frequencies. Hyperdynamics requested that eSeis attempt to predict seismic pore pressures at Fatala and Buried Hill 1 Prospects using this Q-based (frequency-based) methodology. In doing so, eSeis identified what it believes to be distinct pore pressure increases associated with the potential reservoir intervals at the target depths, suggesting the effectiveness of overlying seals necessary for the trapping of hydrocarbons. Success of this process is dependent on the proper assessment and identification of lithological variations, which remain an additional, though small, uncertainty. Nevertheless, the results of eSeis pore pressure work appear directionally positive.

After thoroughly reviewing the results of the eSeis work, interrogating the eSeis technical representative regarding the process, and reviewing Hyperdynamics' interpretations of the eSeis work, we conclude that the eSeis reprocessing and analysis conducted on behalf of Hyperdynamics at Fatala and Buried Hill 1 Prospect areas, offshore Guinea, reduces geologic risk in these two prospects relative to the geologic risk estimated using the previously available seismic processing. Thus we conclude after reviewing the newly processed data that an increase in the probability of geologic success (P_g) for both prospects is warranted, relative to the P_g published in our April 13, 2016, report. Geologic risking of prospective resources addresses the probability of success for the discovery of a significant quantity of potentially moveable petroleum; this risk analysis is conducted independent of estimations of petroleum volumes and without regard to the chance of development. Principal geologic risk elements of the petroleum system include (1) trap and seal characteristics; (2) reservoir presence and quality; (3) source rock capacity, quality, and maturity; and (4) timing, migration, and preservation of petroleum in relation

to trap and seal formation. Risk assessment is a highly subjective process dependent upon the experience and judgment of the evaluators and is subject to revision with further data acquisition or interpretation.

Based on the data and analysis available at the time of our prospective resources assessment for the Hyperdynamics offshore Guinea license area dated April 13, 2016, the P_g for the Fatala Prospect was estimated at 0.25 and the P_g for the Buried Hill 1 Prospect was estimated at 0.20. We have used a risking methodology based on the techniques of Otis and Schneidermann (1997). By their definition, these prospects would have been moderate to low risk.

Our updated assessments of prospect risk incorporating the data and analysis from the eSeis reprocessing of the 3-D seismic data over the Fatala and Buried Hill 1 Prospects are shown in the table below:

Prospect	Risk Assessment Parameters (decimal)				$P_g^{(1)}$ (decimal)
	Trap Integrity	Reservoir Quality	Source Evaluation	Timing/Migration	
Fatala Fan Prospect ⁽²⁾	0.65	0.70	0.90	0.75	0.31
Buried Hill 1 Prospect	0.75	0.65	0.90	0.55	0.24

(1) The P_g for these prospects ranges from 0.24 to 0.31, which is equivalent to 69 to 76 percent chance of failure and therefore represents low risk exploration.

(2) This prospect comprises multiple reservoir targets that cannot be optimally drilled and tested by a single wellbore.

The potential direct and indirect hydrocarbon indicators identified on the eSeis reprocessing of the 3-D seismic data over the Fatala and Buried Hill 1 Prospects, offshore Guinea, were key factors in our conclusion that a reduced exploration risk was warranted, which is reflected in our increased estimate of P_g . The trap integrity risk factor for each prospect was increased as the eSeis data and analysis more strongly suggested the presence of a working hydrocarbon trap. Similarly, the timing/migration risk factor for each prospect was increased as the eSeis data suggested that migration pathways required to charge these prospects were more effective.

Netherland, Sewell & Associates, Inc. (NSAI) was established in 1961 and has offices in Dallas and Houston, Texas. Our company has conducted technical reserves, resources, and deliverability studies for financial institutions, private and government companies, and government agencies throughout the world. Our staff and associates work as a team to provide the integrated expertise required for complex field studies and reserves and resources evaluations. We are independent petroleum engineers, geologists, geophysicists, and petrophysicists; with the exception of the provision of professional services on a fee basis, NSAI has no commercial arrangement with any person or company involved in the production sharing contract for the license located offshore Guinea that is the subject of this report. Our fee for this evaluation and report is not contingent on the results obtained and reported, and NSAI will receive no other benefit for the preparation of this report. We have not performed any other work that might affect our objectivity. Neither NSAI nor any of its directors, officers, employees, or subconsultants has any pecuniary or other interests in the subject production sharing contract for the license located offshore Guinea or in Hyperdynamics or any related companies.


This evaluation has been led by Mr. Philip R. Hodgson. Mr. Hodgson is a Vice President of NSAI and is a team leader in the firm's Dallas office at 2100 Ross Avenue, Suite 2200, Dallas, Texas, 75201. He has over 32 years of experience in the petroleum industry with over 18 years at NSAI. He is a Licensed Professional Geoscientist in the State of Texas (Texas License No. 1314), a member of the American Association of Petroleum Geologists, and a member of the Society of Exploration Geophysicists. Mr. Hodgson has extensive international experience in reserves, contingent resources, and prospective resources assessments, including evaluations in Mauritania,

Nigeria, Cameroon, Equatorial Guinea, Côte d'Ivoire, Gabon, Congo, and Angola. Mr. Hodgson has performed numerous prospective resources assessments.

The data used in our estimates were obtained from Hyperdynamics, public data sources, and the nonconfidential files of NSAI and were accepted as accurate. Supporting work data are on file in our office. We have not examined the contractual rights to the prospects and leads or independently confirmed the actual degree or type of interest owned. The technical person primarily responsible for preparing the estimates presented herein meets the requirements regarding qualifications, independence, objectivity, and confidentiality set forth in the SPE Standards.

Sincerely,

NETHERLAND, SEWELL & ASSOCIATES, INC.
Texas Registered Engineering Firm F-2699

By: 

C.H. (Scott) Rees III, P.E.
Chairman and Chief Executive Officer

By: 

Philip R. Hodgson, P.G. 1314
Vice President

Date Signed: September 23, 2016

PRH:RMG

