

ConocoPhillips ADW – Dodo Canyon E-76 and Mirror Lake P-20

EL 470

IR #1

Reference: *Filing Requirements for Onshore Drilling Operations Involving Hydraulic Fracturing* (Section: 4.3.2) (<http://www.neb-one.gc.ca/clf-nsi/rthnb/nrthffshr/pblctnrprt/flngrqrmntnshdrllnghdrlcfrctrng/flngrqrmntnshdrllnghdrlcfrctrng-eng.html>)

Preamble: In order to fully evaluate this application the seismic lines used to identify well locations and target formations are required.

Request: Provide the interpreted seismic sections used to identify the specific well locations and target formations of the exploratory wells. Include an interpretation of all faults and monitoring wells with the data set. Be guided by the *Filing Requirements for Onshore Drilling Operations Involving Hydraulic Fracturing* (Section: 4.3.2).

Justification: Well locations are not just based on spacing but on the evaluation of seismic data.

IR #2

Reference: *Filing Requirements for Onshore Drilling Operations Involving Hydraulic Fracturing* (Section: 4.3.3) (<http://www.neb-one.gc.ca/clf-nsi/rthnb/nrthffshr/pblctnrprt/flngrqrmntnshdrllnghdrlcfrctrng/flngrqrmntnshdrllnghdrlcfrctrng-eng.html>)

Preamble: The geomechanical properties of the formation to be fractured are essential in designing the fracture geometry, the fracture fluid composition and amount.

Request: Provide the geomechanical properties such as Poisson's Ratio and Young's Modulus of the target and overlying formations. Be guided by the *Filing Requirements for Onshore Drilling Operations Involving Hydraulic Fracturing* (Section: 4.3.3).

Justification: Determination of an effective barrier is not simply a matter of the vertical distance of the fracture formation from the ground water zone but is based on the contrast between the geomechanical properties of the intervening rocks with the fractured formation.