EPA RECOMMENDED SWDW STANDARDS	PROPOSED JEMEZ, LLC SWDW	EXISTING BES ENVIRONMENTAL SERVICES, INC. SWDW	EXISTING DEWEY BELLOWS OPERATING COMPANY, LTD. SWDW
Injection Interval			
1. Thick with adequate porosity and permeability.	Injection interval is 1,412 ft thick (4,870 – 6282 ft), overall porosity and permeability is favorable.	Injection interval is 300 ft thick (4,600 – 4,900 ft), overall porosity and permeability favorable.	Injection interval is 484 ft thick (4,446 – 4,930 ft), overall porosity and permeability is favorable.
2. Large areal extent.	The Midway in the injection interval is extensive.	The Midway in the injection interval is extensive.	The Midway in the injection interval is extensive.
3. Homogeneous, without lenses or streaks.	Injection interval is heterogeneous containing shale, silt, fine grain sands and sandstones.	Injection interval is heterogeneous containing shale, silt, fine grain sands and sandstones.	Injection interval is heterogeneous containing shale, silt, fine grain sands and sandstones.
Confining Beds			
1. Thick and impermeable so that flow across confining beds is negligible.	Confining strata consists of alternating layers of sand and shale. Top of the injection interval - 670 ft below the base of the brackish water (>3,000 – 10,000 mg/L TDS) estimated at 4,200 ft. Top of injection interval - 1,570 ft below the base of the fresh to slightly saline water (<3,000 mg/L TDS) estimated at 3,300 ft.	Confining strata consists of alternating layers of sand and shale. Top of the injection interval - 50 ft below the base of the brackish water (>3,000 – 10,000 mg/L TDS) estimated at 4,550 ft. Top of injection interval - 1,300 ft below the base of the fresh to slightly saline water (<3,000 mg/L TDS) estimated at 3,300 ft.	Confining strata consists of alternating layers of sand and shale. Top of the injection interval - 146 ft below the base of the brackish water (>3,000 – 10,000 mg/L TDS) estimated at 4,300 ft. Top of injection interval - 1,646 ft below the base of the fresh to slightly saline water (<3,000 mg/L TDS) estimated at 2,800 ft.
Geologic Structure			
1. Reasonably free of complex faulting and folding.	No faulting or folding information submitted in SWDW application. Up and down to coast faulting is present in the vicinity.	No faulting or folding information submitted in SWDW application. Scissor faults and both up and down to coast faulting are present in the vicinity.	No faulting or folding information submitted in SWDW application.
Well Construction			
1. Cemented top to bottom.	Surface Casing – cemented from 850 ft to surface. Production Casing – cemented from 3264 to surface and 4,870 – 4,270 (600 ft above inj. zone). Casing Liner – cemented from 4,870 to the surface.	Surface Casing – cemented from 3,334 ft to surface. Long String Casing – cemented from 4,966 ft to the surface.	Surface casing – cemented from 2900 ft to surface. Long String casing – cemented from 3,700 – 5,000 ft (746 ft above inj. zone).
2. Primary cement job should be checked for channelization between the casing and borehole and bonding to the casing.	W14 does indicate intent to run external mechanical integrity tests to check for channelization or bonding to the casing.	Owner/Operator did not run external mechanical integrity tests to check for channelization or bonding to the casing.	Owner/Operator did not run external mechanical integrity tests to check for channelization or bonding to the casing.
Hydraulic Fracture Gradient			
1. The hydraulic fracturing gradient is the injection pressure required per foot of depth to initiate hydraulic fractures and generally ranges from 0.5 to 1.0 psi per foot of depth. However it is seldom allowed to exceed 0.8 psi/ft.	The proposed SWD well utilizes a limiting value of 1.0 psi/ft to calculate maximum allowable surface injection pressure.	The proposed SWD well utilizes a limiting value of 1.0 psi/ft to calculate maximum allowable surface injection pressure.	The proposed SWD well utilizes a limiting value of 0.7 psi/ft to calculate maximum allowable surface injection pressure.