

General Pumping Recommendations for the OWB™ Cement Control Additive

Primary Cementing

OWB™ cement control can be pumped through retainers, packers, and most bottom-hole assemblies. The ratio of OWB™ per sack of cement can vary depending on the knowledge gained from previous jobs and the design of the cement job. The following recommended concentrations of OWB™ will help achieve the proper placement of good cement behind pipe and also help in achieving the desired height or top of cement. Without experience gained from previous jobs in an area, the question becomes how much OWB™ to use with what design. Below are some recommended options.

- Option 1 – For a primary cementing job, use a small amount of OWB™ throughout the entire volume of cement pumped. The recommend amount is 1/4 pound OWB™ per sack.
 - For example 1,000 sacks of cement would need 250 pounds OWB™.
- Option 2 – Use OWB™ only in the lead part of the cement slurry and not the full volume to be pumped. This method would place the OWB™ ahead of the remaining cement volume to be pumped and allow this tail volume to be lifted past the zones that have been sealed by OWB™.
 - For example, for a 1,500 sack job, pump 125 to 167 #'s OWB™ in the first 500 sacks and no OWB™ in the remaining 1,000 sacks.
 - Note: It is not recommended to pump OWB™ only in the tail of the cement slurry, as the lead cement slurry will be at risk of being misplaced, lost, and wasted. Even worse, the lead slurry could be pumped directly into the target producing zone.
- Option 3 – Don't use any OWB™ and risk getting the improper placement of cement, leaving casing exposed and reserves at risk. Casing failures from highly corrosive zones or watering out from nearby zones are huge industry problems. These problems begin as unnecessary risk that go undetected and may occur a few months or twenty years out from initial completion. These problems can be alleviated with proper placement of good cement. Simply put, "an ounce of prevention is worth a pound of cure".

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Squeeze Cementing

It is recommended that the entire volume of cement pumped in a squeeze operation, include the OWB™ cement control additive. For larger volumes of cement, it is recommended to use the 1/4 pound ratio and for smaller volumes, it is recommended to use the 1/3 pound ratio.

- For example an 800 sack squeeze job, would need 200 #'s of OWB™.
- For example a 150 sack squeeze job, would need 50 #'s OWB™.

Plugging Operations

It is recommended that the entire volume of cement pumped in plugging operations, include the OWB™ cement control additive. For most volumes of cement, it is recommended to use the 1/3 pound ratio. For more challenging situations needing larger concentrations of OWB™, it is recommended to use 1/2 pound OWB™ per sack of cement.

- For example a 300 sack cement plug would need 100 #'s of OWB™.
- For a more challenging job, use 150 #'s of OWB™ in the 300 sack cement plug.

Drilling Operations

Typical concentrations for cement plugs pumped during drilling operations should be 1/2 pound per sack of cement. Larger concentrations of OWB™ can be used, if pumping through open ended drill string, pumping down back side, or a bullheading procedure is used.

- For example a 250 sack cement plug would need 125 #'s of OWB™.

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Quick Reference Table - Pounds OWB™ to Sacks of Cement			
	Pounds OWB	Pounds OWB	Pounds OWB
	@	@	@
Sacks	1/4	1/3	1/2
Cement	Pound	Pound	Pound
50	13	17	25
100	25	33	50
150	38	50	75
200	50	67	100
250	63	83	125
300	75	100	150
350	88	117	175
400	100	133	200
450	113	150	225
500	125	167	250
550	138	183	275
600	150	200	300
650	163	217	325
700	175	233	350
750	188	250	375
800	200	267	400
850	213	283	425
900	225	300	450
950	238	317	475
1,000	250	333	500
1,050	263	350	525
1,100	275	367	550
1,150	288	383	575
1,200	300	400	600
1,250	313	417	625
1,300	325	433	650
1,350	338	450	675
1,400	350	467	700
1,450	363	483	725
1,500	375	500	750
1,550	388	517	775
1,600	400	533	800
1,650	413	550	825
1,700	425	567	850
1,750	438	583	875
1,800	450	600	900
1,850	463	617	925
1,900	475	633	950
1,950	488	650	975
2,000	500	667	1,000

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