

COST OF REMOVAL OF MUD IN THE STABILIZATION POND USING BAG A CASE STUDY OF THE WTP OF JABORANDI CITY – SÃO PAULO STATE

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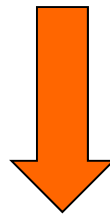
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- Ponds Sistem of Jaborandy city
 - One anaerobic pond
 - One facultative pond

to prevent fetid odor

Facultative pond  aerated pond



Mud was carried to facultative pond

Photo 1: Draga performing the suction at the Jaborandi pond



Photo 2: BAG prepared for receive the mud bag dimensions: 30.0 X 8.0m



1,500 m³ mud per bag

Photo 3: BAG full of mud in the process of dehydration



Amount mud treated

- 3,000 m³

Number of bags used

- 2 bags

Amount mud per bag

- 1,500 m³

Table 1 - The costs to remove mud of the pond of Jaborandi City; April / May 2007

Description	Quant.	Value Unit - R\$	Total Amount - R\$	US\$
BAG 18,3X30 m	02	30.300,00	60.600,00	26,348.00
Polyelectrolyte emulsion	1780Kg	9,74	17.337,20	7,537.00
Dragage of sludge	3000 m ³	24,66	73.980,00	32,165.20
Hand of outsourced work (cleaning the area, construction of 2 cells with the placement of plastic canvas and 56 m ³ of crushed stone and 1 installation of electric energy in place)	58 daily	50,00	2.900,00	
Plastic canvas of 200 micras 12X48	1152 m ²	1,65	1.900,80	
crushed stone I	56 m ³	25,50	1.428,00	
Backhoe (construction of the tank and homogenization of cutting slope for construction of 2 cells)	80 hours	70,00	5.600,00	
Tipper truck	24 hours	35,00	840,00	
Consumption of water, electricity and daily (estimate)			3.000,00	
TOTAL			167.586,00	

R\$ 55.86 per m³

Considering US\$ 1.00 = R\$ 2.30

Total cost is US\$ 72,836.00

or

US\$ 24.2 per m³ mud

Difficulty

- Some difficulties with the submersible pump to dredge, because mud was very dense
 - Better pump used: open rotor

Thank you