

Shams South (Taher-16 Phase)

Hydraulic Analysis (m³/yr)

Item	Allocation	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Water Produced		0	0	0	0	1,403,160	1,443,859	1,489,352	1,535,045	1,581,509	1,628,239	1,675,526	1,723,465	1,781,964	1,835,482	1,889,481	1,943,128	2,005,455	2,067,798	2,138,120	2,192,401	2,254,786
Industrial Water	0.00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Physical Losses (%)		0.24	0.23	0.22	0.21	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Physical Losses		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Administrative/Managerial Losses (%)		0.21	0.19	0.18	0.14	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Administrative/Managerial Losses		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quantity Delivered		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Quantity Where Bills are Collected		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Industrial Water	1.00	0	0	0	0	1,403,160	1,443,859	1,489,352	1,535,045	1,581,509	1,628,239	1,675,526	1,723,465	1,781,964	1,835,482	1,889,481	1,943,128	2,005,455	2,067,798	2,138,120	2,192,401	2,254,786
Physical Losses (%)		0.24	0.23	0.22	0.21	0.21	0.20	0.19	0.18	0.17	0.16	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15	0.15
Physical Losses		0	0	0	0	180,594	200,412	203,877	204,416	208,517	205,517	211,178	199,327	207,395	205,252	203,410	201,401	200,818	210,148	219,519	228,869	238,219
Administrative/Managerial Losses (%)		0.21	0.19	0.18	0.14	0.12	0.10	0.09	0.08	0.07	0.06	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Administrative/Managerial Losses		0	0	0	0	170,344	144,336	134,842	122,852	118,728	97,694	85,728	86,412	89,808	81,794	84,470	97,158	100,273	105,308	108,908	109,823	112,240
Quantity Delivered		0	0	0	0	1,212,566	1,154,447	1,284,375	1,258,230	1,313,018	1,307,715	1,423,347	1,469,808	1,534,869	1,568,130	1,605,991	1,651,652	1,704,637	1,757,622	1,810,807	1,861,592	1,914,577
Quantity Where Bills are Collected		0	0	0	0	842,322	1,000,141	1,072,134	1,136,378	1,200,224	1,270,021	1,339,621	1,382,996	1,425,571	1,468,546	1,511,521	1,554,496	1,604,384	1,654,232	1,704,100	1,753,869	1,803,637

Financial Analysis (JD at 2000 Prices)

Item	Percent	Amount	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Local Components	44%	337,822	0	0	0	192,621	0	0	0	0	0	0	0	0	0	345,301	0	0	0	0	0	0	0
Foreign Components	56%	422,835	0	0	0	211,439	0	0	0	0	0	0	0	0	0	211,419	0	0	0	0	0	0	0
Duty & Taxes	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Capital Costs		760,780	0	0	0	404,060	0	0	0	0	0	0	0	0	0	556,720	0	0	0	0	0	0	0
Contingent Costs		0	0	0	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	
O & M Costs		0	0	0	0	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	
Total Costs		0	0	0	404,060	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	391,917	36,759	36,759	36,759	36,759	36,759	36,759	
Revenue		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Industrial Usage Qty (m³)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Industrial Tariff (JD/m³)	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Industrial Revenue (JD)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Impingement Usage Qty (m³)		0	0	0	0	842,322	1,030,141	1,072,134	1,136,378	1,200,224	1,270,021	1,339,621	1,382,996	1,425,571	1,468,546	1,511,521	1,554,496	1,604,384	1,654,232	1,704,100	1,753,869	1,803,637	
Impingement Tariff (JD/m³)	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	0.838	
Impingement Revenue (JD)		0	0	0	0	35,804	38,385	48,249	43,182	45,688	46,261	50,908	52,539	54,172	55,805	57,438	59,071	60,708	62,361	64,756	66,851	68,546	
Total Revenue (JD)		0	0	0	0	35,804	38,385	48,249	43,182	45,688	46,261	50,908	52,539	54,172	55,805	57,438	59,071	60,708	62,361	64,756	66,851	68,546	
Net Cash Flow (JD)		0	0	0	-404,060	67	3,188	5,985	16,449	13,684	15,708	17,342	38,975	-316,312	28,295	23,212	24,207	26,102	27,807	29,892	31,977		
Discounting (DGR=3%)	0.93697	0.89164	0.82705	0.77723	0.73988	0.68533	0.64251	0.60423	0.56725	0.53273	0.50023	0.46948	0.44022	0.41410	0.39083	0.36918	0.34921	0.33081	0.31388	0.29824	0.28380	0.26947	
Total Qty Where Bills are Collected (m³)		0	0	0	0	842,322	1,030,141	1,072,134	1,136,378	1,200,224	1,270,021	1,339,621	1,382,996	1,425,571	1,468,546	1,511,521	1,554,496	1,604,384	1,654,232	1,704,100	1,753,869		
EBR	40.00%		0	0	0	-314,078	-443	2,185	3,753	4,825	5,961	6,958	7,824	8,348	139,194	8,240	8,144	8,208	8,403	8,482	8,483		
NPV (JD)	-273,536		0	0	0	314,078	25,800	34,122	33,440	21,267	18,549	18,759	17,604	16,531	15,522	14,283	13,111	12,603	11,253	11,110	10,432		
PV of Total Costs (JD)	82,175		0	0	0	314,078	25,800	34,122	33,440	21,267	18,549	18,759	17,604	16,531	15,522	14,283	13,111	12,603	11,253	11,110			
PV of Total Qty Collected (m³)	14,328,642		0	0	0	87,710	682,394	698,855	698,635	692,134	676,573	670,095	649,352	638,701	628,125	607,310	597,539	589,998	572,408	555,884	497,771		
Unit Water Price (JD/m³)	57		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			

Economic Analysis (JD at 2000 Prices)

Item	Percent	Amount	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Local Components	44%	337,822	0	0	0	192,621	0	0	0	0	0	0	0	0	0	345,301	0	0	0	0	0	0	
Foreign Components	56%	422,835	0	0	0	211,439	0	0	0	0	0	0	0	0	0	211,419	0	0	0	0	0	0	
Duty & Taxes	0%	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Total Capital Costs		760,780	0	0	0	404,060	0	0	0	0	0	0	0	0	0	556,720	0	0	0	0	0	0	
Contingent Costs		0	0	0	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060	404,060		
O & M Costs		0	0	0	0	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197		
Total Costs		0	0	0	404,060	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	35,197	391,917	36,759	36,759	36,759	36,759	36,759		
Revenue		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Industrial Usage Qty (m³)		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
Unit Benefit of Industrial Water (JD/m³)	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740	2.740		
Industrial Benefit (JD)		0	0	0	0	0																	

