

For
Rehabilitation of Dyer Road Wellfield Well Nos. 5, 14 16
PR 10914, 07089 and 07091, Code 7358

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				Engineer's Estimate		Best Drilling and Pump, Inc.	
						Colton, CA	
Item No.	Description	Qty	Unit	Unit Price	Total Amount	Unit Price	Total Amount
A1	Mobilization/Demobilization of pump rig, equipment and accessories. Remove, store and protect from damage the removable front pump house structure. Prepare contract documents and other preliminary work and prepare site as specified.	1	LS	\$60,000.00	\$60,000.00	\$121,000.00	\$121,000.00
A2	Disconnect motor from electrical system, remove discharge header, pipe, motor column pipe, vertical turbine pump, couplings, electrical cable and all other appurtenances and sound well. Deliver pump, motor, and discharge header to DISTRICT MWRP Operations Center.	1	LS	\$10,000.00	\$10,000.00	\$11,500.00	\$11,500.00
A3	Brush well casing with a steel wire brush. Conduct initial bio-cleaning of the casing walls by injecting hydrogen peroxide into the well during brushing, as specified. Bail sediment following brushing.	12	HRS	\$450.00	\$5,400.00	\$400.00	\$4,800.00
A4	Conduct well redevelopment using "air-jetting" methods, via the AirBurst® or BoreBlast® methods.	1	LS	\$15,000.00	\$15,000.00	\$18,500.00	\$18,500.00
A5	Perform chemical treatment of well water using HercChemTech chemical treatment plan, as specified.	2	EA	\$78,000.00	\$156,000.00	\$75,000.00	\$150,000.00
A6	Perform mechanical redevelopment (airlifting and swabbing) of the well.	60	HRS	\$425.00	\$25,500.00	\$500.00	\$30,000.00
A7	Conduct treatment and discharge of mechanical and/or pumping redevelopment fluids (as applicable) via neutralization and blending and disposal of solids/sludges per specifications, including treatment, sampling, analysis and reporting for NPDES compliance.	1	LS	\$15,000.00	\$15,000.00	\$20,000.00	\$20,000.00
A8	Clear water column and provide up to four downwell interim, clear-viewing, color video surveys of well casing as specified.	4	EA	\$1,300.00	\$5,200.00	\$1,200.00	\$4,800.00
A9	Mobilize, install, maintain, remove and demobilize a diesel or gasoline engine, temporary test pump, equipment and other appurtenances/accessories as necessary in accordance with specifications.	1	LS	\$25,000.00	\$25,000.00	\$17,500.00	\$17,500.00
A10	Perform pumping redevelopment of the well including monitoring of water levels, pumping rates, and sand content, as specified.	60	HRS	\$450.00	\$27,000.00	\$475.00	\$28,500.00
A11	Perform a 12-hour (maximum) step drawdown test and a minimum 24-hour (maximum 48-hour) constant rate pumping test, including monitoring of water levels, pumping rates, and sand content, as specified.	60	HRS	\$450.00	\$27,000.00	\$475.00	\$28,500.00
A12	Perform a flowmeter (spinner) survey under dynamic (pumping) conditions throughout the perforated sections of the well, as specified.	1	LS	\$6,000.00	\$6,000.00	\$3,750.00	\$3,750.00
A13	Conduct depth-specific groundwater sampling at specific depth intervals. Collection, sampling and analysis are to be performed by the DISTRICT.	4	EA	\$500.00	\$2,000.00	\$400.00	\$1,600.00
A14	Clear water column and provide a final downwell color video survey of the well casing as specified.	1	LS	\$1,300.00	\$1,300.00	\$1,200.00	\$1,200.00
A15	Conduct a static spinner survey of the well under non-pumping conditions.	1	LS	\$6,000.00	\$6,000.00	\$3,750.00	\$3,750.00
A16-1	Furnish new column pipe, couplings, line shaft, adaptors, and all other items necessary to complete pump and motor installation.	1	LS	\$18,000.00	\$18,000.00	\$53,820.00	\$53,820.00
A16-2	Obtain vertical pump, motor, discharge header from DISTRICT and re-install pump and all appurtenances to original depth or to an alternative depth, as directed.	1	LS	\$7,000.00	\$7,000.00	\$12,500.00	\$12,500.00
A16-3	Re-establish wiring and connection of permanent pump and motor into DISTRICT electrical system, in the presence of a DISTRICT electrician and conduct testing of the permanent pump for a period of three (3) consecutive days.	1	LS	\$7,500.00	\$7,500.00	\$4,500.00	\$4,500.00
A16-4	Allowance for additional costs for parts and/or materials during replacement of permanent pump.	1	LS	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
A17	Provide for vibration monitoring and testing of the permanent pump (initial).	1	LS	\$2,000.00	\$2,000.00	\$3,000.00	\$3,000.00
A18	Conduct well disinfection and clean up site as specified.	1	LS	\$7,000.00	\$7,000.00	\$7,000.00	\$7,000.00
A19-1	Standby time with active rig and crew as directed by DISTRICT.	16	HRS	\$100.00	\$1,600.00	\$50.00	\$800.00

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Item No.	Description	Qty	Unit	Unit Price	Total Amount	Unit Price	Total Amount
A19-2	Standby time with <u>inactive</u> rig and crew as directed by DISTRICT.	16	HRS	\$100.00	\$1,600.00	\$50.00	\$800.00
A20	Restore site and proximity to pre-existing conditions.	1	LS	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
SUBTOTAL, Base Bid Schedule A					\$446,100.00		\$542,820.00
B1	Mobilization/Demobilization of pump rig, equipment and accessories. Prepare contract documents and other preliminary work and prepare site as specified.	1	LS	\$50,000.00	\$50,000.00	\$92,000.00	\$92,000.00
B2	Disassembly/re-assembly of wellhead building.	1	LS	\$5,000.00	\$5,000.00	\$25,000.00	\$25,000.00
B3	(Optional) Provide site security: 1) unarmed guard Mondays through Fridays (dawn to dusk), 2) Periodic (random) site security with unarmed guard during the day on Saturdays and Sundays.	1	LS	\$12,000.00	\$12,000.00	\$55,000.00	\$55,000.00
B4	Disconnect motor from electrical system, remove discharge header, pipe, motor, vertical turbine pump, couplings, and all other appurtenances and sound well. Deliver pump, motor, and discharge header to DISTRICT MWRP Operations Center.	1	LS	\$10,000.00	\$10,000.00	\$10,500.00	\$10,500.00
B5	Brush well casing with a stiff nylon brush. Conduct initial biocleaning of the casing walls by injecting hydrogen peroxide into the well during brushing, as specified. Bail sediment following brushing.	30	HRS	\$450.00	\$13,500.00	\$400.00	\$12,000.00
B6	Conduct (optional) secondary bio-cleaning of the casing walls by swabbing methods using hydrogen peroxide, as specified.	1	LS	\$7,500.00	\$7,500.00	\$54,000.00	\$54,000.00
B7	Perform Casing Inspection Thickness Measurement (CITM) survey of full length well casing.	1	LS	\$9,000.00	\$9,000.00	\$7,500.00	\$7,500.00
B8	Conduct well redevelopment using "air-jetting" methods, via the AirBurst® or BoreBlast® methods.	1	LS	\$15,000.00	\$15,000.00	\$18,500.00	\$18,500.00
B9	Perform chemical treatment of well water using HercChemTech chemical treatment plan, as specified.	2	EA	\$60,000.00	\$120,000.00	\$65,000.00	\$130,000.00
B10	Perform mechanical redevelopment (airlifting and swabbing) of the well.	120	HRS	\$425.00	\$51,000.00	\$500.00	\$60,000.00
B11	Conduct treatment and discharge of mechanical and/or pumping redevelopment fluids (as applicable) via neutralization and blending and disposal of solids/sludges per specifications, including treatment, sampling, analysis and reporting for NPDES discharge compliance.	1	LS	\$15,000.00	\$15,000.00	\$20,000.00	\$20,000.00
B12	Clear water column and provide up to four downwell interim, clear-viewing, color video surveys of well casing as specified.	4	EA	\$1,300.00	\$5,200.00	\$1,200.00	\$4,800.00
B13	Mobilize, install, maintain, remove and demobilize a diesel or gasoline engine, temporary test pump, equipment and other appurtenances/accessories as necessary in accordance with specifications.	1	LS	\$25,000.00	\$25,000.00	\$17,500.00	\$17,500.00
B14	Perform pumping redevelopment of the well including monitoring of water levels, pumping rates, and sand content, as specified.	60	HRS	\$450.00	\$27,000.00	\$475.00	\$28,500.00
B15	Perform a 12-hour (maximum) step drawdown test and a minimum 24-hour (maximum 48-hour) constant rate pumping test, including monitoring of water levels, pumping rates, and sand content, as specified.	60	HRS	\$450.00	\$27,000.00	\$475.00	\$28,500.00
B16	Perform a flowmeter (spinner) survey under dynamic (pumping) conditions throughout the perforated sections of the well, as specified.	1	LS	\$6,000.00	\$6,000.00	\$3,750.00	\$3,750.00
B17	Conduct depth-specific groundwater sampling at two specific depth intervals. Collections, sampling and analysis to be performed by the DISTRICT.	2	EA	\$500.00	\$1,000.00	\$400.00	\$800.00
B18	Clear water column and provide a final downwell color video survey of the well casing as specified.	1	LS	\$1,300.00	\$1,300.00	\$1,200.00	\$1,200.00
B19	Conduct a static spinner survey of the well under non-pumping conditions.	1	LS	\$6,000.00	\$6,000.00	\$3,750.00	\$3,750.00
B20-1	Furnish new pump assembly and new pump motor as a mated pair, as necessary.	1	LS	\$110,000.00	\$110,000.00	\$155,000.00	\$155,000.00
B20-2	Furnish new column pipe, couplings, line shaft, adaptors and other items, as necessary.	1	LS	\$18,000.00	\$18,000.00	\$47,620.00	\$47,620.00
B20-3	Pick up discharge header from the DISTRICT, reinstall pump and appurtenances to depth, as directed.	1	LS	\$5,000.00	\$5,000.00	\$12,500.00	\$12,500.00

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Item No.	Description	Qty	Unit	Unit Price	Total Amount	Unit Price	Total Amount
B20-4	Re-establish wiring and connection of permanent pump/motor into DISTRICT electrical system, in the presence of a DISTRICT electrician and conduct testing of the permanent pump/motor under start-up and operating conditions for seven (7) consecutive days.	1	LS	\$15,000.00	\$15,000.00	\$4,500.00	\$4,500.00
B20-5	Allowance for additional costs for parts and/or materials during replacement of permanent pump.	1	LS	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
B21	Provide for vibration monitoring and testing of the permanent pump (initial and 6 month).	1	LS	\$2,000.00	\$2,000.00	\$7,000.00	\$7,000.00
B22	Conduct well disinfection and clean-up site, as specified.	1	LS	\$7,000.00	\$7,000.00	\$7,000.00	\$7,000.00
B23-1	Standby time with <u>active</u> rig and crew as directed by DISTRICT.	16	HRS	\$100.00	\$1,600.00	\$50.00	\$800.00
B23-2	Standby time with <u>inactive</u> rig and crew as directed by DISTRICT.	16	HRS	\$100.00	\$1,600.00	\$50.00	\$800.00
B24	Restore site and proximity to pre-existing conditions.	1	LS	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
<i>SUBTOTAL, Base Bid Schedule B</i>					\$581,700.00		\$823,520.00
C1	Mobilization/Demobilization of pump rig, equipment and accessories. Prepare contract documents and other preliminary work and prepare site as specified.	1	LS	\$50,000.00	\$50,000.00	\$118,000.00	\$118,000.00
C2	Disconnect motor from electrical system, remove discharge header, pipe, motor, vertical turbine pump, couplings, and all other appurtenances and sound well. Deliver pump, motor and discharge header to DISTRICT MWRP Operations Center.	1	LS	\$10,000.00	\$10,000.00	\$12,500.00	\$12,500.00
C3	Brush well casing with a steel wire brush. Conduct initial biocleaning of the casing walls by injecting hydrogen peroxide into the well during brushing, as specified. Bail sediment following brushing.	12	HRS	\$450.00	\$5,400.00	\$400.00	\$4,800.00
C4	Conduct (optional) secondary bio-cleaning of the casing walls by swabbing methods using hydrogen peroxide, as specified.	1	LS	\$5,000.00	\$5,000.00	\$52,800.00	\$52,800.00
C5	Perform Casing Inspection Thickness Measurement (CITM) survey of well casing.	1	LS	\$9,000.00	\$9,000.00	\$7,500.00	\$7,500.00
C6	Conduct (optional) caliper survey to the total depth of the well.	1	LS	\$1,500.00	\$1,500.00	\$1,600.00	\$1,600.00
C7	Perform (optional) plumbness & alignment survey to the total depth of the well.	1	LS	\$1,000.00	\$1,000.00	\$2,700.00	\$2,700.00
C8	Install (optional) full casing liner and gravel pack envelope inside the existing well casing, as specified.	1	LS	\$265,000.00	\$265,000.00	\$320,000.00	\$320,000.00
C9	Conduct well redevelopment using "air-jetting" methods, via the AirBurst® or BoreBlast® methods.	1	LS	\$15,000.00	\$15,000.00	\$18,500.00	\$18,500.00
C10	Perform chemical treatment of well water using HercChemTech chemical treatment plan, as specified.	2	EA	\$45,000.00	\$90,000.00	\$65,000.00	\$130,000.00
C11	Perform mechanical redevelopment (airlifting and swabbing) of the well.	60	HRS	\$425.00	\$25,500.00	\$500.00	\$30,000.00
C12	Conduct treatment and discharge of mechanical and/or pumping redevelopment fluids (as applicable) via neutralization and blending and disposal of solids/sludges per specifications, including treatment, sampling, analysis and reporting for NPDES discharge compliance.	1	LS	\$15,000.00	\$15,000.00	\$20,000.00	\$20,000.00
C13	Clear water column and provide up to four downwell interim, clear-viewing, color video surveys of well casing as specified.	4	EA	\$1,300.00	\$5,200.00	\$1,200.00	\$4,800.00
C14	Mobilize, install, maintain, remove and demobilize a diesel or gasoline engine, temporary test pump, equipment and other appurtenances/accessories as necessary in accordance with specifications.	1	LS	\$25,000.00	\$25,000.00	\$17,500.00	\$17,500.00
C15	Perform pumping redevelopment of the well including monitoring of water levels, pumping rates, and sand content, as specified.	60	HRS	\$450.00	\$27,000.00	\$475.00	\$28,500.00
C16	Perform a 12-hour (maximum) step drawdown test and a minimum 24-hour (maximum 48-hour) constant rate pumping test, including monitoring of water levels, pumping rates, and sand content, as specified.	60	HRS	\$450.00	\$27,000.00	\$475.00	\$28,500.00
C17	Perform a flowmeter (spinner) survey under dynamic (pumping) conditions throughout the perforated sections of the well, as specified.	1	LS	\$6,000.00	\$6,000.00	\$3,750.00	\$3,750.00
C18	Conduct depth-specific groundwater sampling at seven specific depth intervals. Collection, sampling and analysis to be performed by the DISTRICT.	7	EA	\$500.00	\$3,500.00	\$400.00	\$2,800.00

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Item No.	Description	Qty	Unit	Unit Price	Total Amount	Unit Price	Total Amount
C19	Clear water column and provide a final downwell color video survey of the well casing as specified.	1	LS	\$1,300.00	\$1,300.00	\$1,200.00	\$1,200.00
C20	Conduct a static spinner survey of the well under non-pumping conditions.	1	LS	\$6,000.00	\$6,000.00	\$3,750.00	\$3,750.00
C21-1	Furnish new pump assembly, new column pipe, couplings, line shaft, adaptors, and all other items necessary for complete pump and motor unit, as necessary.	1	LS	\$53,000.00	\$53,000.00	\$55,000.00	\$55,000.00
C21-2	Obtain serviced existing pump motor and discharge head, as necessary.	1	LS	\$5,000.00	\$5,000.00	\$56,730.00	\$56,730.00
C21-3	Re-install pump assembly to depth as directed, appurtenances and discharge header, as specified.	1	LS	\$15,000.00	\$15,000.00	\$12,500.00	\$12,500.00
C21-4	Re-establish wiring and connection of permanent pump/motor into DISTRICT electrical system, in the presence of a DISTRICT electrician and conduct testing of the permanent pump for a period of three (3) consecutive days.	1	LS	\$7,500.00	\$7,500.00	\$4,500.00	\$4,500.00
C21-5	Allowance for additional costs for parts and/or materials during replacement of permanent pump.	1	LS	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
C22	Provide for vibration monitoring and testing of the permanent pump (initial and 6 month).	1	LS	\$2,000.00	\$2,000.00	\$6,500.00	\$6,500.00
C23	Conduct well disinfection and clean up site, as specified.	1	LS	\$7,000.00	\$7,000.00	\$7,000.00	\$7,000.00
C24-1	Standby time with <u>active</u> rig and crew as directed by DISTRICT.	16	HRS	\$100.00	\$1,600.00	\$50.00	\$800.00
C24-2	Standby time with <u>inactive</u> rig and crew as directed by DISTRICT.	16	HRS	\$100.00	\$1,600.00	\$50.00	\$800.00
C25	Restore site and proximity to pre-existing conditions.	1	LS	\$5,000.00	\$5,000.00	\$5,000.00	\$5,000.00
SUBTOTAL, Base Bid Schedule C					\$701,100.00		\$968,030.00
TOTAL SCHEDULES A, B & C:					\$1,728,900.00		\$2,334,370.00
Adjustment (+ or -)					\$0.00		\$0.00
TOTAL AMOUNT OF BID					\$1,728,900.00		\$2,334,370.00
				Item		Manufacturers:	
				Well 14 Pump		Flowserve	
				Well 16 Pump		Flowserve	
				Well 14 Motor		U.S. Motors	
						Subcontractors:	
						Air-Burst - General Pump Company, Inc.	