

September 26, 2002

Chevron Products Company Retail Marketing Sales - West 145 S. State College Blvd., Suite 400 P.O. Box 2292 Brea, CA 92822-2292 Phone 714-671-3200

Ms. Kelly Dorsey California Regional Water Quality Control Board San Diego Region 9174 Sky Park Court, Suite 100 San Diego, California 92123-4340

Subject: SUBMITTAL OF AQUIFER TEST WORK PLAN FOR CHEVRON PRODUCTS COMPANY SERVICE STATION #9-1870 28900 RANCHO CALIFORNIA ROAD, TEMECULA, CALIFORNIA (CRWQCB-SDR CASE #9UT106)

Dear Ms. Dorsey:

Please find enclosed the work plan for aquifer testing as requested in agency letter dated September 24, 2002. I certify under penalty of perjury that, to the best of my knowledge, the work plan is true, complete, and correct.

If you have any questions or require additional information, please contact me at (714) 671-3347, or at e-mail address ERRO@Chevrontexaco.com.

Sincerely,

mg2 Rael

Eric R. Roehl Project Manager Chevron Products Company

Attachment: Aquifer Test Work Plan, dated September 26, 2002

cc: Central Files Mr. Barry Pulver, CRWQCB-San Diego Region



# HOLGUIN, FAHAN & ASSOCIATES, INC. ENVIRONMENTAL MANAGEMENT CONSULTANTS

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Dear Ms. Dorsey:

On behalf of Chevron Products Company (Chevron), Holguin, Fahan & Associates, Inc. (HFA) is submitting the attached Aquifer Test Work Plan for the above-referenced site. The investigation will be conducted under my immediate supervision. I certify under penalty of perjury that, to the best of my knowledge, the work plan is true, complete, and correct.

Holguin, Fahan & Associates, Inc. trusts that the California Regional Water Quality Control Board!- San Diego Region will find this letter report to its satisfaction. If you have any questions or require additional information, please contact me at (909) 422-8988, or at e-mail address Jim Haslett@hfa.com.

Respectfully submitted,

omes M. Laslet

James M. Haslett, RG, REA Senior Geologist Holguin, Fahan & Associates, Inc.

JMH:dm:rri

Attachment: Aquifer Test Work Plan, dated September 26, 2002

cc: Mr. Eric Roehl, Chevron Products Company Mr. Barry Pulver, CRWQCB-San Diego Region

ENVIRONMENTAL: SCIENTISTS • GEOLOGISTS • ENGINEERS Contaminated Site Assessment • Site Remediation • Mobile Remediation • CPT Service • Groundwater Monitoring

871 Cotting Court, Suite C Vacaville, California 95688 (707) 454-0156 (707) 454-0196 FAX John\_Hancock@hfa.com wWW.hfa.com





September 26, 2002

Ms. Kelly Dorsey California Regional Water Quality Control Board San Diego Region 9174 Sky Park Court, Suite 100 San Diego, California 92123

Subject: AQUIFER TEST WORK PLAN FOR CHEVRON PRODUCTS COMPANY SERVICE STATION #9-1870 28900 RANCHO CALIFORNIA ROAD, TEMECULA, CALIFORNIA (CRWQCB-SDR FILE #9UT106)

Dear Ms. Dorsey:

On behalf of Chevron Products Company (Chevron), Holguin, Fahan & Associates, Inc. (HFA) is pleased to submit this aquifer test work plan for the above-referenced site. In its Investigation Order No. R9-2002-318, the CRWQCB-SDR required five RPs in the vicinity of RCWD well #118 to participate in monitoring groundwater levels on their respective sites during an aquifer test conducted by the RCWD on well #118. A list of acronyms used in this work plan is attached.

## BACKGROUND

## SITE LOCATION AND CONTACT PERSONS

Chevron Service Station #9-1870 is located at 28900 Rancho California Road in Temecula, California (see Figure 1 - Site Location Map). The site environmental contact is Mr. Eric Roehl, Chevron Products Company, Post Office Box 2292, Brea, California, 92822-2292, (714) 671-3347. The!consultant contact is Mr. James M. Haslett, Holguin, Fahan & Associates, Inc., 1003!East!Cooley Drive, Suite 201, Colton, California, 92324, (909) 422-8988. The regulatory contact is Ms. Kelly Dorsey, California Regional Water Quality Control Board, San Diego Region, 9174 Sky Park Court, Suite 100, San Diego, California, 92123, (858) 467-2980.

## SITE DESCRIPTION

The subject site is an active Chevron service station located on the northeastern corner of the intersection of Rancho California Road and Front Street in Temecula, California. Current site features include a mini-mart building, one 20,000-gallon gasoline UST, one 15,000-gallon gasoline UST, four dispensers on two dispenser islands, and the associated product and vent piping (see!Figure 2 - Plot Plan for current site features).



#### **PROPOSED WORK**

#### JUSTIFICATION FOR PROPOSED INVESTIGATION

In its Investigation Order No. R9-2002-318, the CRWQCB-SDR required five RPs in the vicinity of RCWD well #118 to participate in monitoring groundwater levels on their respective sites during an aquifer test conducted by the RCWD on well #118.

## **RCWD AQUIFER TEST**

The RCWD has proposed to conduct a 72-hour aquifer test using well #118 as the extraction well. On October 17, 2002, well #118 will be shut down to allow groundwater levels to recover to static conditions prior to the test. The test is tentatively scheduled to begin at 6:00 a.m. on Tuesday, October 22, 2002 and continue until 6:00 a.m. on Friday, October 25, 2002. Following completion of the test, well #118 will be allowed to recover for at least 72 hours prior to being placed back in service.

#### **OBSERVATION WELLS**

HFA proposes using Chevron wells R-1S, R-1D, GT-2S, GT-2D, GT-3S, and GT-3D as observation wells during the RCWD aquifer test (see Figure 2 for well locations). Wells R-1S, GT-2S, and GT-3S are screened in the shallowest groundwater-bearing zone. Wells R-1D, GT-2D, and GT-3D are screened in deeper groundwater-bearing zones. These wells were selected to provide both shallow and deep groundwater data at three non-linear locations across the site so groundwater contour maps can be prepared for both the shallow and deeper groundwater intervals.

Each well is constructed of 4-inch-diameter PVC casing. Depth to groundwater measurements and elevations measured during second quarter 2002 groundwater monitoring (HFA, 2002, Second Quarter 2002 Groundwater Monitoring and Progress Report, June 21, 2002), and the screened intervals for the six proposed observation wells are presented in the following table. Logs of exploratory borings for the wells are included in Attachment 1.

Well	Date	Depth to Groundwater	Groundwater Elevation	Screened Interval
Number		(ft-TOC)	TOC) (feet above MSL)	
R-1S	6-29-02	23.06	23.06 1,012.20	
GT-2S	6-29-02	29-02 23.15 1,011.13		10-35
GT-3S	6-29-02	27.03	1,014.73	10-35
R-1D	6-29-02	24.72	1,012.27	48-58
GT-2D	6-29-02	24.84	1,011.57	66-76
GT-3D	6-29-02	27.71	1,014.65	70-80



Depths to groundwater in monitoring wells B-13, B-15, and MW-25 will also be measured prior to the beginning of the pumping, at the end of pumping, and at the end of the recovery period (see Figure 2 for the well locations) using an electronic water level indicator. Well MW-26A will not be monitored because the well is located in Rancho California Road and cannot be safely monitored during daylight hours.

# EQUIPMENT AND PROCEDURES

An In-Situ Inc. miniTROLL data logger will be placed in each observation well to monitor groundwater levels during the RCWD test. The miniTROLL has an onboard data logger capable of storing up to 440,000 data points. The miniTROLL is also capable of compensating for changes in atmospheric pressure and temperature.

The data loggers will be placed in the observation wells on Friday, October 18, 2002, to monitor ambient groundwater water conditions for 3 days prior to the beginning of the RCWD test. The!data loggers will remain in the wells until Monday, October 28, 2002, following completion of the recovery test on well #118. Groundwater measurements will be collected at a minimum of once every 5 minutes through the duration of the RCWD test.

# DATA EVALUATION

Groundwater data collected from wells R-1S, R-1D, GT-2S, GT-2D, GT-3S, and GT-3D and data provided by the RCWD will be evaluated using Geraghty & Miller Modeling Group's AQTESOLV<sup>™</sup> computer program, or an equivalent program. If sufficient drawdown is measured in the observaton wells, AQTESOLV<sup>™</sup> can be used to plot the data, fit "type curves" to the data, and estimate aquifer properties such as transmissivity (T), coefficient of storage (S), and hydraulic conductivity!(K), from which estimates of groundwater velocity, ROI, and the capture zone of a pumping well can be made.

## **REPORT PREPARATION**

Preliminary test data will be submitted to the CRWQCB-SDR by December 2, 2002, in accordance with the CRWQCB-SDR's Investigation Order No. R9-2002-318. Preliminary data will include paper and electronic copies of groundwater elevation contour maps and a summary table of depth to groundwater, groundwater elevations, and time since the start of the test.

A final report will be submitted to the CRWQCB-SDR by January 18, 2003, in accordance with the CRWQCB-SDR's Investigation Order No. R9-2002-318. The final report (paper and electronic copies) will include a summary of field procedures, groundwater elevation contour maps, summary tables, estimates of aquifer parameters, interpretations of the results, and conclusions.



ENVIRONMENTAL MANAGEMENT CONSULTANTS

Ms. Kelly Dorsey CRWQCB-SDR September 26, 2002 – Page 4

The report will be reviewed and stamped by the registered geologist or registered professional engineer overseeing the work.

Holguin, Fahan & Associates, Inc. trusts that this work plan provides you with the information you require. If you have any questions or require additional information, please contact Mr.!James!Haslett at (909)!422-8988 or at e-mail address Jim\_Haslett@hfa.com.

Respectfully submitted,

nus M. Daslet

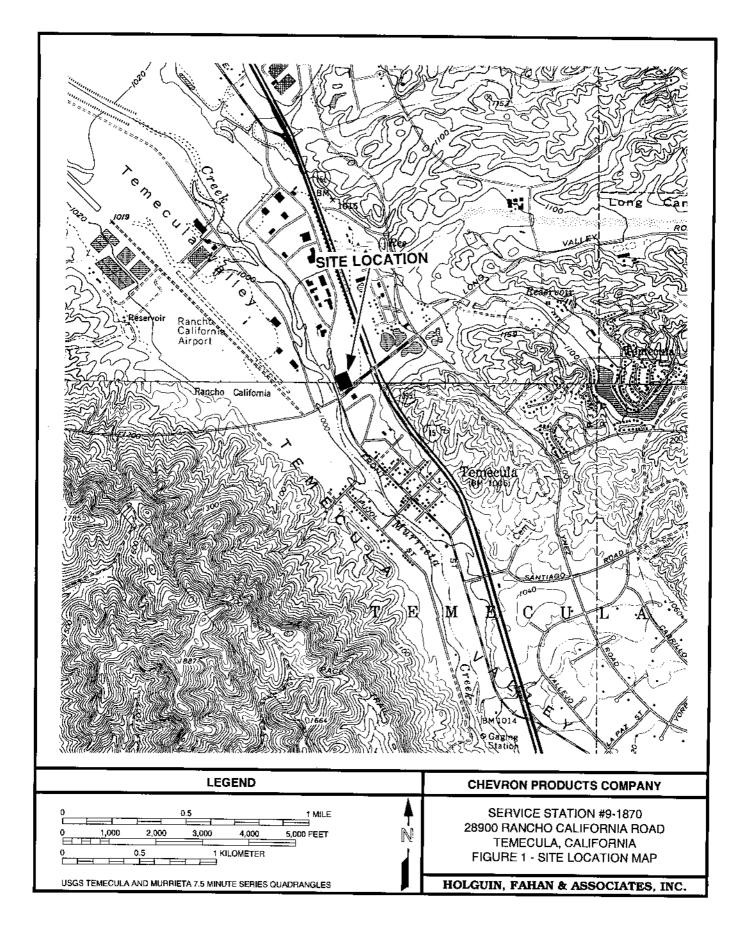
James M. Haslett, RG, REA Senior Geologist Holguin, Fahan & Associates, Inc.

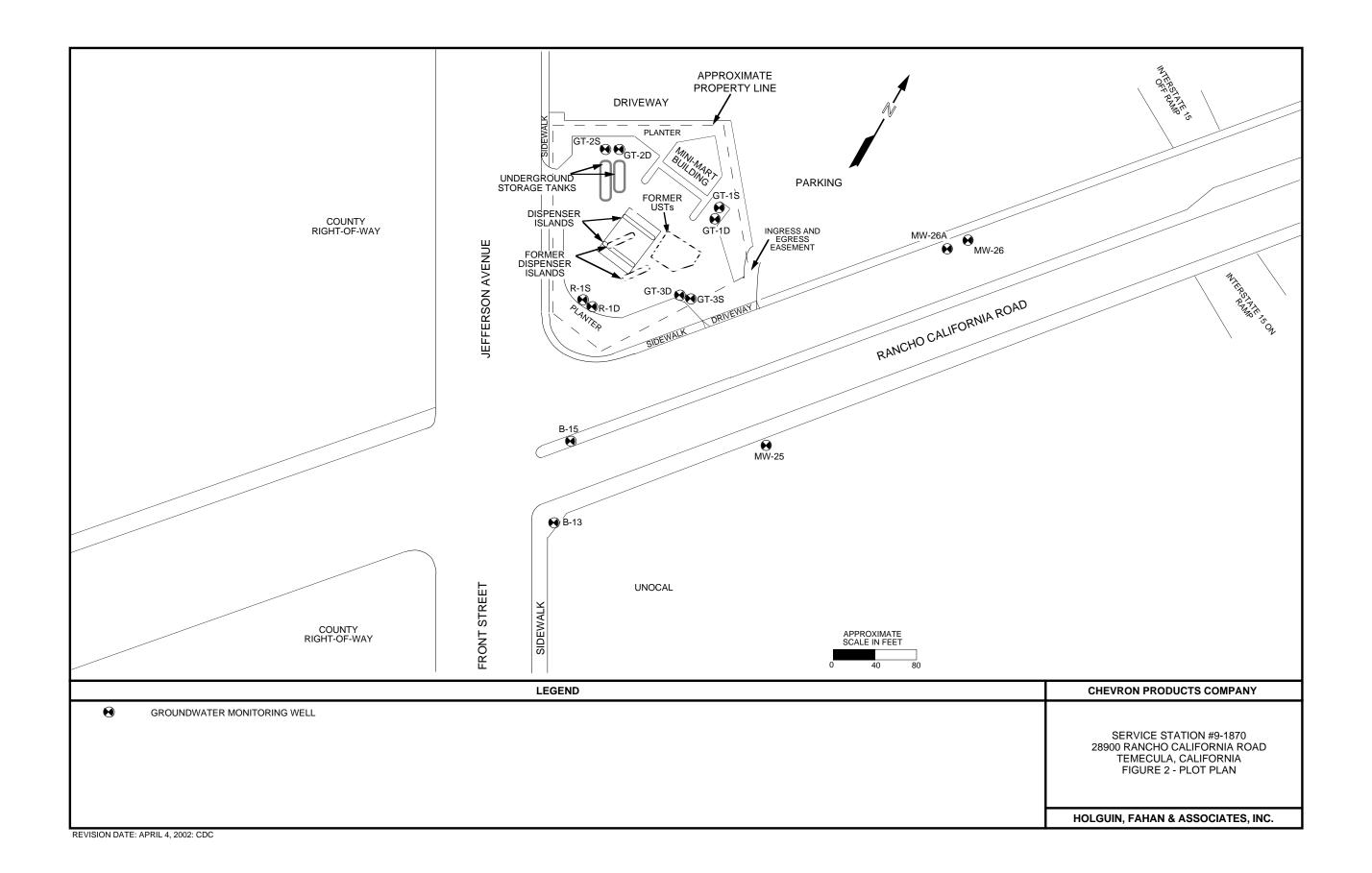
JMH:dm:rri

- Enclosures: Figure 1 Site Location Map Figure 2 - Plot Plan List of Acronyms Attachment 1 - Logs of Exploratory Borings
- cc: Mr. Eric Roehl, Chevron Products Company Mr. Barry Pulver, CRWQCB-SDR











## LIST OF ACRONYMS

CRWQCB-SDR fbg	California Regional Water Quality Control Board, San Diego Region (9) feet below grade
ft-TOC	feet below top of casing
MSL	mean sea level
PVC	polyvinyl chloride
ROI	radius of influence
RP	responsible party
RCWD	Rancho California Water District
USGS	United States Geological Survey
UST	underground storage tank



ATTACHMENT 1.

LOGS OF EXPLORATORY BORINGS

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ASSOCIATES, INC.						P	age 1 of 2

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SA	AMPLE	CLIENT: Chevron Products Company	. œ					ION DETAIL
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ASSOCIATES, INC. LOG OF EXPLORATORY BORING					Page 3	of 3			

DEPTH TO WATER: ~24 fbg DRILLED BY: Cascade Drilling HOLGUIN, FAHAN & ASSOCIATES, INC.					ng	G	<b>Г-2S</b> e 1 of 1	
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-	20 			0	_	<u> </u>		20  
	— 15 — —	grained, stiff, moist, no odor, no stain		0	UL			— 15 — — —
	— 10 — —	CLAY: 0/0/100, low plasticity, dark brown, fine-			CL			10 
	5 							5
		6" of concrete SILT: 0/5/95, low plasticity, brown, trace fine-grained sand, soft, dry, no odor, no stain			ML			
INT	0	DESCRIPTION AND SOIL CLASSIFICATION NAME: %gravel/sand/fines, gradation/plasticity, color, angularity, maximum size (gravels), density/consistency, moisture, odor, stain	8 8				SIZE:	ch SCH 40 PVC 0.02 inch #3 Monterey Sand
	DEPTH H	CLIENT: Chevron Products Company PROJECT: Service Station #9-1870 LOCATION: 28900 Rancho California Road, Temecula, CA	BLOWS PER 6 INCHES	(nudd) Old	nscs		GROUNDW /ADOSE W SPARGE W BORING	ÆLL

S	AMPLE	CLIENT: Chevron Products Company	~ ~					ION DETAIL
٩L	Ŧ	PROJECT: Service Station #9-1870	BLOWS PER 6 INCHES	<u>_</u> 2	SS		ADOSE	WELL
INTERVAL	DEPTH (fbg)	LOCATION: 28900 Rancho California Road, Temecula, CA		(hudd) (DID	uscs	В	ORING	
INT	EC D	DESCRIPTION AND SOIL CLASSIFICATION	BLO				∖G: <u>4-ir</u> SIZE:	nch SCH 40 PVC 0.02 inch
		NAME: %gravel/sand/fines, gradation/plasticity, color, angularity, maximum size (gravels), density/consistency, moisture, odor, stain				FILTE	R PACK:	#3 Monterey Sand
	— O	6" of concrete				1		0
		SILTY CLAY: 0/0/100, low plasticity, brown, soft,			CL			
		moist, no odor, no stain						
								_
	— 5							- 5
	—							—
	—	SANDY SILT: 0/10/90			ML			-
		SILTY SAND: 0/80/20			SM			
	— 10	SAND: 0/100/0		0	SP			- 10
		CLAY: 0/0/100, low plasticity, gray, stiff, moist, no			CL			—
	—	odor, no stain						—
	—							—
	— — 15							
				0				
	_							_
	—							—
	20			0				20
								_
	_	SAND: 0/100/0, poorly graded, gray, fine-grained,			SP			_
		subrounded, loose, moist, no odor, no stain						—
	— 25			0				- 25
		wet			_	Ŧ		_
	—							—
	— 30			0				— 30
	—							_
								_
	— 35			0				— 35
D	RILLING	METHOD: CME-75, 10"-OD Hollow-stem auger	DATE DR	ILLED: Ja	nuary 3, 2	2002		
S	AMPLE	R TYPE: 2.5-inch-diameter Continuous Core Sampler		BY: T. Jo				
		ORING DEPTH: 80 fbg		ED BY: J.			641	
D	EN LH T	O WATER: ~28 fbg	DRILLED	BY: Casca	ade Drillir	ng I		
-	×.	FAHAN & LOG OF EXPL	ORAT			ا م	G	T-3D
5		ASSOCIATES, INC.				~	Pa	ge 1 of 3

SA	MPLE	CLIENT: Chevron Products Company	. œ			COMPLETION DETAIL		
'AL	т	PROJECT: Service Station #9-1870	BLOWS PER 6 INCHES	(JIH (Jund)	nscs	VADOSE WELL SPARGE WELL		
INTERVAL	DEPTH (fbg)	LOCATION: 28900 Rancho California Road, Temecula, CA	NON NO	Id d	SU	BORING CASING: <u>4-inch SCH 40 PVC</u>		
Ξ	Ω	DESCRIPTION AND SOIL CLASSIFICATION NAME: %gravel/sand/fines.gradation/plasticity.color.angularity.				SLOT SIZE: 0.02 inch		
		NAME: %gravel/sand/fines, gradation/plasticity, color, angularity, maximum size (gravels), density/consistency, moisture, odor, stain				FILTER PACK: <u>#3 Monterey</u> Sand		
	— 35				SP	35		
		SILT: 0/0/100, low plasticity, gray, hard, moist, no odor, no stain			ML			
	_							
	_							
	<del>-</del> 40			0		-40		
	_							
	_							
	<u> </u>			0		-45		
	_							
	_							
	— 50			0		- 50		
	_							
	- 55			0		- 55		
	_							
	_							
	60			0				
	_			Ů				
	—							
	— — 65							
	- 00	SILTY SAND: 0/80/20, gray, fine-grained sand, very		0	SM	65		
	_	dense, wet, no odor, no stain						
	_							
	- 70							
	70	heaving sands		0				
		METHOD: CME-75, 10"-OD Hollow-stem auger R TYPE: 2.5-inch-diameter Continuous Core Sampler		BY: T. Jo		2002		
		ORING DEPTH: 80 fbg		ED BY: J.		 {G #5641		
		O WATER: ~28 fbg		BY: Casc				
		HOLGUIN,	•					
		FAHAN & LOG OF EXPI	ORAT	ORY B	ORIN	G GT-3D Page 2 of 3		
	ASSOCIATES, INC.							

INTERVAL 0	AMPLE DEPTH (fbg)	CLIENT: Chevron Products Compa PROJECT: Service Station #9-1870 LOCATION: 28900 Rancho Califorr DESCRIPTION AND SOIL C NAME: %gravel/sand/fines, gradation/p maximum size (gravels), density/consist	0 nia Road, Temecula, CA LASSIFICATION	BLOWS PER 6 INCHES	(nudd) Clid	nscs	X G V S B CASIN SLOT	MPLETION D ROUNDWATER ADOSE WELL PARGE WELL ORING NG: 4-inch SCH SIZE: 0.02 in R PACK: #3 Mo Sai	WELL 1 40 PVC http://www.ach htterey
	— 70 — — —	heaving sands				SM			— 70 — —
	75   80	CLAY: 0/0/100, low plasticity, y no stain	gray, damp, no odor,			CL			— 75 — — — — 80
	 85								  85
	 90							-	 90
	 95 							- - - - -	 95 
	 100 								 100 
D		METHOD: CME-75, 10"-OD Hollow	v-stem auger	DATE DR	ILLED: Ja	nuary 3, :	2002	-	— — — 105
SAMPLER TYPE: 2.5-inch-diameter Continuous Core Sampler TOTAL BORING DEPTH: 80 fbg DEPTH TO WATER: ~28 fbg			us Core Sampler	LOGGED BY: T. Jones APPROVED BY: J. Haslett, RG #5641					
		HOLGUIN, FAHAN & ASSOCIATES, INC.	LOG OF EXPL	DRILLED BY: Cascade Drilling				<b>GT-3D</b> Page 3 of 3	

SAMPLE		CLIENT: Chevron Products Company						ON DETAIL
AL	DEPTH (fbg)	PROJECT: Service Station #9-1870 LOCATION: 28900 Rancho California Road, Temecula, CA		(nmqd) UId	uscs	V	ADOSE W	/ELL
INTERVAL						В	ORING	
INT	ō	DESCRIPTION AND SOIL CLASSIFICATION NAME: %gravel/sand/fines, gradation/plasticity, color, angularity,	BLOWS PER 6 INCHES			SLOT	SIZE:	ch SCH 40 PVC 0.02 inch
		maximum size (gravels), density/consistency, moisture, odor, stain				FILTE	R PACK: _	#3 Monterey Sand
	— 0	6" of concrete				Í		0
		SILTY CLAY: 0/0/100, low plasticity, brown, soft,			CL			
		moist, no odor, no stain						
	— 5							— 5
	_	SANDY SILT: 0/10/90			ML			
		SILTY SAND: 0/80/20		1	SM			
	— 10	SAND: 0/100/0			SP		E	- 10
	_	CLAY: 0/0/100, low plasticity, gray, stiff, moist, no			CL			
		odor, no stain						
	— 15							- 15
	—							
	<u> </u>							20
	—	SAND: 0/100/0, poorly graded, gray, fine-grained to medium-grained, subrounded, loose, moist, no odor, no stain			SP			
	_							
	— 25	25						- 25
	—							-
	—					$\nabla$	Ē	-
		wet				=	E	
	30							30
	_						E	—
	—	SILT: 0/0/100 low plasticity gray maint pa oder pa		ļ	ML			—
	—	SILT: 0/0/100, low plasticity, gray, moist, no odor, no stain						-
	— — 35	- 35					目	35
D		METHOD: CME-75, 10"-OD Hollow-stem auger	DATE DRILLED: December 31, 2001					
		R TYPE: California-modified, split spoon	LOGGED BY: T. Jones					
		DRING DEPTH: 35 fbg	APPROVED BY: J. Haslett, RG #564				641	
DEPTH TO WATER: ~28 fbg DRILLED BY: Cascade Drilling								
HOLGUIN, FAHAN & LOG OF EXPLORATORY E						ا م	G	T-3S
ASSOCIATES, INC.						9	Pag	je 1 of 1