WELL COMPLETION DIAGRAM **PROJECT:** IM-3 Hydrogeologic Investigation, PG&E Topock WELL NO: CW-4M **PROJECT NO:** 326128.01.07.AR **LOCATION:** Bat Cave Wash Between East & West Mesas, Parcel No. 650-151-06 DRILLING CONTRACTOR: Prosonic Corp. Maretta, OH **DRILLING START DATE:** 01/17/2005 **DRILLING METHOD:** Rotosonic **DRILLING END DATE: 01/01/2005** LOGGER: B. Moayyad, B. Trebble WELL COMPLETION DATE: 01/17/2005 TOP OF WELL CASING (NGVD 29): 518.55 NORTHING COORDINATE (CCS DAND 27, ZONE 5): 2103268.73 **GROUND SURFACE ELEVATION (NGVD 29): 515.80** EASTING COORDINATE (CCS NAD 27 ZONE 5): 7612925.43 MONUMENT MOUNTED LOCKING WELL **WELL CONSTRUCTION & SCREEN DETAILS WELL MATERIAL:** Sch 40 PVC **CASING DIAMETER: 2-in GROUT TYPE:** Cement bentonite grout SEAL TYPE: Bentonite Pellets 1. ALL DEPTHS ARE REPORTED AS FEET BELOW GROUND SURFACE. SCREEN LENGTH: 50-ft SLOT TYPE: Sch 40 PVC, 0.02" slot PACK TYPE: #3 Monterey Sand **SUMP LENGTH: GROUT** 219.5 TOP DEPTH OF SEAL SEAL TOP DEPTH OF FILTER PACK 110.0 TOP DEPTH OF SCREEN 119.5 CENTRALIZER DEPTH(S) FILTER PACK BOTTOM DEPTH OF SCREEN 169.5 BOTTOM OF WELL CASING 169.8 -169.8 BOTTOM DEPTH OF FILTER PACK 169.8 BOTTOM DEPTH OF BOREHOLE WELL DIAGRAM IS NOT TO SCALE CH2MHILL

SHEET 1 of	10					PROJECT NUMBER:		BORING NUMBER: CW-4	
						SOIL BORING LO		CW-4	
PROJECT NAM						HOLE DEPTH (ft):	DRILLING CONTRA		
IM-3 Hydrog	/ATIO		IORTHI	ING (CCS	NAD 27 Z 5):	337.0 EASTING (CCS NAD 27 Z 5):	DATE STARTED:	C Corp. Maretta, OH DATE COMPLETED:	
515.9 ft. DRILLING ME			2,10	03,263.03		7,612,928.74 WATER LEVEL (ft):	01/10/2005 DRILLING EQUIPM	01/14/2005 ENT:	
Roto	sonic		+ 0 \\/-	M I	Parcel No. 650-1	<u></u> -		Sonic AT (track mounted)	
LOCATION: Wo	T DEW	ween cas	ot & we	st Mesas, i	-arcei No. 650-1	51-00	B. M	ayyad, B. Trebble	
	s	AMPLE				SOIL DESCRIPTION		COMMENTS	
DEPTH BGS (feet)	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)	USCS CODE	SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.			DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES , DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.	
0 45								Conductor casing set to 10 ft bgs, wash casing to 48 ft bgs without collection of core. Per work-plan, drilled interval in unsaturated zone was not logged.	
					10YR3/2, 50 ^o	DED SAND WITH GRAVEL AND S % sand, 35% gravel up to 2.2" long inantly f sand), subang Igneous and	, 15% fines (silt), no	cuttings well graded sand with gravel, brn 10YR5/3, medium hard, dry continuous coring started at 48 ft bgs	
50 - 55 		CC1	10	SW	- become	s moist comes more coarse. Pale brn 10YR	,	saturated (water table)	
60	Λ							groundwater grab sample collected from 58-78 ft bgs	
65 		CC2	10	SW	sand, 15-20% metamorphic	s subang with more clay, 65% sand	brnd, igneous and	some decomposing MM gravels drilling becomes difficult	
				SW	10YR4/3, 55 ^o	DED SAND WITH CLAY AND GRA % f sand, 25% fines, 20% gravel, s orphic. hard, wet.		collect CW-4-68 @ 10:40 on 1/11/05	



SHEET 2 of 1	.0					PROJECT NUM			BORIN	G NUMBER: CW-4	
						SOIL BORIN	.01.07.AR NG LOC				
PROJECT NAMI IM-3 Hydrog		Investic	nation [PG&F Tono	ck	HOLE DEPTH (ft): 337.0		DRILLING CONTRA	CTOR: Corp. Mare		
SURFACE ELEV 515.9 ft.	ATION		IORTH		NAD 27 Z 5):	EASTING (CCS NAD 2		DATE STARTED:	. Corp. Mare	DATE COMPLETED:	
DRILLING MET	HOD:		2,1	03,203.03		7,612,928.74 WATER LEVEL (ft):	<u>†</u>	DRILLING EQUIPM		01/14/2005	
Rotos LOCATION: Wa		veen Eas	st & We	st Mesas, F	arcel No. 650-1	151-06 LOGGED BY:			oayyad, B. T	ack mounted)	
	s	AMPLE				SOIL DESCRIP	TION	D. 11	odyydd, D. 1	COMMENTS	
DEPTH BGS (feet)	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)	USCS CODE	PERCENT COI	SOIL NAME, USCS SYME MPOSITION, GRADING, GI ITY/CONSISTENCY, STRU	BOL, COLOR, RAIN SHAPE ICTURE, MOI	, MINERALOGY, STURE.	DAILY ST	OBSERVATIONS AND OPERATI ART AND END TIMES , DRILL R S, SAMPLING AND TESTING NO	ATE,
		ССЗ	9.5	SW	10YR4/3, 70°	DED SAND WITH CLAY % sand, 20% gravel, 10% orphic, hard, wet.					
80 85 		CC4	9.5	SW	brn 10YR4/2, fines, 10% co	DED SAND WITH GRAV, 45% ang sand with med obbles up to 4.5", igneous obbles up to 4.5", igneous oles, 60% sand, 25% grav	l c grains, 25 s and metan		illing at 78ft to bail from 58-78 fficult drilling	ft	
90		CC5	9	SW		DED SAND WITH GRAV % subrnd sand, 25% suba se, wet.		cleaner	, grayer zone		
95 				SW-GW		DED SAND AND GRAVE 0% gravel, 10% fines, su		decomp	oosing MM cobbles		
		CC6	9	SW	7.5YR3/3, 65	DED SAND WITH GRAV 9% sand, 20% gravel, 15°	% fines, hard	d, wet.			
105			3			DED SAND WITH GRAV brnd sand, 20% subang o					



SHEET 3 of 1	.0					PROJECT NUMBER: 326128.01.07.A	D	BORING NUMBER: CW-4				
						SOIL BORING LO			CW-4			
PROJECT NAMI		Investi	antion I	OC&E Tono	ol.	HOLE DEPTH (ft):	DRILLING CONTRA		011			
IM-3 Hydrog SURFACE ELEV	OITA		IORTH	ING (CCS	NAD 27 Z 5):	337.0 EASTING (CCS NAD 27 Z 5):	DATE STARTED:	c Corp. Mare	DATE COMPLETED:			
515.9 ft. DRILLING MET			2,1	03,263.03		7,612,928.74 WATER LEVEL (ft):	01/10/2005 DRILLING EQUIPM	ENT:	01/14/2005			
Rotos	onic		-+ 0 \\/-	M I	Dawasi Na CEO 1	<u></u> ,			ack mounted)			
LOCATION: Wa	sn betv	ween Eas	st & we	st Mesas, i	arcei No. 650-1	51-06	oayyad, B.	Trebble				
	S	AMPLE				SOIL DESCRIPTION			COMMENTS			
DEPTH BGS (feet)	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)	USCS CODE	PERCENT COI DENS	SOIL NAME, USCS SYMBOL, COLOR MPOSITION, GRADING, GRAIN SHAPI ITY/CONSISTENCY, STRUCTURE, MO	, E, MINERALOGY, ISTURE.	DATLY S	G OBSERVATIONS AND OPERATIONS, TART AND END TIMES , DRILL RATE, S, SAMPLING AND TESTING NOTES.			
			<u> </u>	SW		DED SAND WITH GRAVEL (SW) - brnd sand, 20% subang gravel, 5%						
				GW		DED GRAVEL AND COBBLES (GW)) - 40% gravel, 10%					
				SW	sand, 10% fines, subrnd. WELL GRADED SAND WITH GRAVEL	DED SAND WITH GRAVEL (SW)	/EL (SW) - 75% sand, 20%					
 110	\			ML	¬ gravel, 5% fi SANDY SIL [¬]	nes. 「(ML) - brn 7.5YR4/3, 35% sand, !						
				1112	plastic, firm,							
- 		CC7	9.5			ravel, 10% fines, subang, medium d						
- 115 												
	\				- 65% sa	nd, 5% fines, gravel is predominantl	y gneiss					
	_					subrnd sand, 10% gravel, 5% fines	, 5	-	lwater grab sample collected 18-138 ft bgs			
120					- silty lay	er, 60% sand, 25% gravel, 5% fines						
 - 125		CC8	10	SW	subrnd sa metamor	ded sand with gravel (SW), grayish l and, 20% subang gravel, 5% fines, ig phic, medium density, wet						
	$/ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$				- cobbles							
130									sample CW-4-128 on 1/11/05. 1/11/05 drilling day			
- - -		CC9	10		- color ch	anges to brn 7.5YR4/3						
 135	$/ \setminus $				- 75% sa	and, 15% gravel, 10% fines						
	$/ \setminus $				WELL GRAD 7.5YR4/3, 65 metamorphic	DED SAND WITH GRAVEL AND SI % sand, 20% gravel, 15% fines, sub t, hard, wet.	(LT (SW) - brn pang, igneous and	at 15:45 stop drilling to bail for sample				
				SW	- cobble :	zone						
140	X						_					
								•	CH2MHILL			

SHEET 4 of 1	.0					PROJECT NUMBER:		BORIN	IG NUMBER:
						326128.01.07. SOIL BORING LO			CW-4
PROJECT NAMI IM-3 Hydrog		Investic	ation [DC&F Tono	ck	HOLE DEPTH (ft):	DRILLING CONTRA		-H- OII
SURFACE ELEV	ATIOI		IORTH	ING (CCS	NAD 27 Z 5):	337.0 EASTING (CCS NAD 27 Z 5):	DATE STARTED:	ic Corp. Mar	DATE COMPLETED:
515.9 ft. DRILLING MET	HOD:		2,1	03,263.03		7,612,928.74 WATER LEVEL (ft):	01/10/2005 DRILLING EQUIPM		01/14/2005
Rotos LOCATION: Wa		ween Eas	st & We	st Mesas, I	Parcel No. 650-1	51-06	LOGGED BY:	Sonic AT (tr Moayyad, B.	ack mounted) Trebble
	S	AMPLE				SOIL DESCRIPTION			COMMENTS
DEPTH BGS (feet)	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)	USCS CODE	PERCENT COI	SOIL NAME, USCS SYMBOL, COL MPOSITION, GRADING, GRAIN SHA ITY/CONSISTENCY, STRUCTURE, I	OR, APE, MINERALOGY, MOISTURE.	DAILY S	G OBSERVATIONS AND OPERATIONS, TART AND END TIMES , DRILL RATE, .S, SAMPLING AND TESTING NOTES.
145		CC10	10	SW	and c sand, 2	DED SAND WITH GRAVEL (SW) 20% predominantly f gravel, 5% fi rphic, medium density, wet, occasi	slough	not kept for core box	
				GW	WELL GRADED GRAVEL WITH COBBLES (GW) - gray 10YR6/1, 55% gravel, 35% subang cobbles up to 5.7" long, 5% sand, igneous and metamorphic, hard, dry.				ash into cobbles and gravel?
- - 		CC11	9.5	SW	25% gravel,				
				SW	gravel, strong	DED SAND WITH GRAVEL (SW) g brn 7.5YR4/6 fines, 65% sand, 3 bang to ang, igneous and metamo	30% gravels up to 2.5",		
					- gray sar	nd			
160	\ /			SW		DED SAND (SW) - dk gray 7.5YR avel, subang, medium.	84/2, 85% sand, 10%	-	
- - 		CC12	10	SW	WELL GRAD 7.5YR4/4, 55 wet.	DED SAND WITH GRAVEL AND % sand, 30% gravel, 15% fines, s	subang, medium hard,		
· _	Λ	3012				s mostly coarse, cobbles present upper sand with GRAVEL (SW)	<u> </u>	-	
165 - -	$/ \setminus$				sand, 30% g	ravel which is mostly fine, 5% fine , medium density, wet.			
170 					- 60% sa	nd, 10% fines			
- - 175		CC13	9.5		- color ch	ange to gray and brn 7.5YR5/1 ar	nd 5/2		



SHEET 5 of 1	10						PROJECT NUMBER:			BORIN	G NUMBER: CW-4
						_	326128.01.03 OIL BORING L				CW-4
PROJECT NAM							LE DEPTH (ft):	.00	DRILLING CONTRAC		
IM-3 Hydrog					NAD 27 Z 5):	EAS	337.0 STING (CCS NAD 27 Z 5)	:	Prosonic DATE STARTED:	Corp. Mare	tta, OH DATE COMPLETED:
515.9 ft. DRILLING MET			2,1	03,263.03	•	W/A	7,612,928.74 TER LEVEL (ft):		01/10/2005 DRILLING EQUIPME	NT·	01/14/2005
Rotos	sonic					Sonic AT (track mounted)				nck mounted)	
LOCATION: Wa	ish Bet	ween Eas	st & We	st Mesas, F	Parcel No. 650-1	650-151-06 LOGGED BY: B. Mod			ayyad, B. T	rebble	
		SAMPLE					SOIL DESCRIPTION				COMMENTS
DEPTH BGS (feet)	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)	USCS CODE	PERCENT COM	SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.					OBSERVATIONS AND OPERATIONS, ART AND END TIMES , DRILL RATE, 5, SAMPLING AND TESTING NOTES.
			_	SW	sand, 30% gr metamorphic,	ravel , med	SAND WITH GRAVEL (SV which is mostly fine, 5% fir dium density, wet.	nes, s	ubang, igneous and		
						-	'5% sand, 20% gravel, 5% '1, 55% sand, 35% gravels			around	water grab sample collected
	- gray 7.						1, 33 % sand, 33 % gravers	, 10 %	illies, cobbles up	"	'8-198 ft bgs
					- less grav	vel, 7	75% sand, 20% gravel, 5%	fines			
		CC14	9.5			-	ł, better grading below 185 nd, 10% gravel, 5% cobble				
	\			CD	POORLY GR	ADE	D SAND (SP) - gray, f sa	nd fin	ing upwards, <3%		
	\setminus			SP	_ fines, subang	, clea					
190	\			GP			ornd c sand		,		
	$ \ $			<u>.</u>	- fine grav	vel					
- 		CC15	9				SAND WITH GRAVEL (SV c gravel, 5% fines, wet.	V) -	gray, 80% sand, 15%		
195				SW							
							with more gravel and cobb % gravel, 5-10% fines	oles u	p to 3 inch long,		
				SC			VITH GRAVEL (SC) - brn fines, ang, igneous and me				
 				CM			SAND WITH GRAVEL AN bang sand, 30% ang grave				
205				SW							
- - 		CC16	18				SAND WITH GRAVEL (SV ravel, 5% fines, subrnd ign				
210											
										•	CH2MHILL

SHEET 6 of	10					PROJECT NUMBER: 326128.01.07.	AR	BORING NUMBER: CW-4																																	
						SOIL BORING LO																																			
PROJECT NAM IM-3 Hydro	E:	c Invection	nation [OC&E Tono	nck	HOLE DEPTH (ft):	DRILLING CONTRA																																		
SURFACE ELEN 515.9 ft.	/ATIO		IORTH:		NAD 27 Z 5):	337.0 EASTING (CCS NAD 27 Z 5): 7,612,928.74	DATE STARTED: 01/10/2005	Corp. Maretta, OH DATE COMPLETED: 01/14/2005																																	
DRILLING MET						WATER LEVEL (ft):	DRILLING EQUIPM																																		
		ween Eas	st & We	st Mesas, I	Parcel No. 650-1	51-06	LOGGED BY:	,																																	
		SAMPLE				SOIL DESCRIPTION	oayyad, B. Trebble COMMENTS																																		
DEPTH BGS (feet)	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)	USCS CODE	PERCENT COI	SOIL NAME, USCS SYMBOL, COLO	PE. MINERALOGY.	DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE,																																	
- 	NI FE		REC	SW	WELL GRAD	otty/consistency, structure, Model (SW) DED SAND WITH GRAVEL (SW) 5% gravel, 5% fines, subrnd igneo	- strong brn 7.5YR4/6,	REFUSALS, SAMPLING AND TESTING NOTES.																																	
215				SW	WELL GRAD	up to 1.5 inch DED SAND WITH GRAVEL AND 6 % sand, 30% gravel, 15% fines, s																																			
						DED SAND WITH GRAVEL (SW) ravel, 10% fines, subang to subrno																																			
			19	SW	- cobble : - brn 7.5	zone, 35% sand, 30% cobbles, 20 ^c 4R4/3	% gravel, 15% fines																																		
		CC17		19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19	19			s strong brn 7.5YR4/6 with more c vel, 10% fines	sand, 65% sand,
. 235 				SW	7.5YR4/3, 45	DED SAND WITH GRAVEL AND (% sand, 35% gravel, 20% fines, s c, medium hard, wet.																																			
				SW	WELL GRAE subrnd sand, density, wet.	DED SAND WITH GRAVEL (SW) 15% subang gravel up to 2" long,	- brn 7.5YR4/3, 78% 7% fines, medium	groundwater grab sample collected from 238-258 ft bgs																																	



SHEET 7 of 2	10					PROJECT NUMBER:	<u> </u>	BORIN	IG NUMBER: CW-4		
						SOIL BORING LO			CVV-4		
PROJECT NAM		- T		DC0 F T	-1.	HOLE DEPTH (ft):	DRILLING CONTRAC				
IM-3 Hydrog SURFACE ELEV			· .		NAD 27 Z 5):	337.0 EASTING (CCS NAD 27 Z 5):	DATE STARTED:	Corp. Mare	etta, OH DATE COMPLETED:		
515.9 ft. DRILLING MET			2,1	03,263.03		7,612,928.74 WATER LEVEL (ft):	01/10/2005 DRILLING EQUIPME	ENT:	01/14/2005		
Rotos	onic		-1-0-14/-	-1-14	David No. CEO 1	<u> </u>			ack mounted)		
LOCATION: Wa	sn Bet	ween Ea	st & we	st Mesas, F	arcei No. 650-1				payyad, B. Trebble		
	:	SAMPLE				SOIL DESCRIPTION			COMMENTS		
DEPTH BGS (feet)	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)	USCS CODE	PERCENT CON DENS	SOIL NAME, USCS SYMBOL, COLOI MPOSITION, GRADING, GRAIN SHAP ITY/CONSISTENCY, STRUCTURE, MC	E. MINERALOGY.	DAILY S	G OBSERVATIONS AND OPERATIONS, FART AND END TIMES , DRILL RATE, S, SAMPLING AND TESTING NOTES.		
				GW	7.5YR4/3, 40	DED GRAVEL WITH COBBLES AN % gravel, 30% sand, 20% cobbles,					
 - 250		CC18 18		CC18	18	SW	gravel. - cobble z	cone, 45% sand, 25% gravel, 20% ond, 40% gravel, 10% fines	,		
 				SW		PED SAND WITH GRAVEL AND C % sand, 30% gravel, 10% fines, 10 , wet.					
				SW		PED SAND WITH GRAVEL (SW) ravel, 5% fines, subang to ang, hard					
260				GW		DED GRAVEL WITH SILT AND SA g gravel, 20-25% sand, 15-20% find					
		CC19	9	SW	WELL GRAD 40% gravel,	DED SAND WITH GRAVEL AND S	ILT (SW) - 45% sand,				
265				GW	WELL GRAD	DED GRAVEL WITH SAND AND Some sand, 15-20% fines, hard.	ILT (GW) - brn, 60%				
				GW	WELL GRAD gravel, 32%	DED GRAVEL (GW) - bluish gray 1 sand, 3% fines, hard, wet.	0YR36/1, 65% ang				
						DED SAND WITH GRAVEL (SW) ne gravel, subrnd igneous and meta					
				SW	- gravel b	ecomes more coarse and subang be	elow 273 ft				
 - 280		CC20	18	GW	cobbles. WELL GRAD	ITH SAND - bluish gray, 25% sand SAND WITH GRAVEL (SW) sand, 40% c gravel, 5% reddish brr	reddish brn 7.5YR4/4,				



SHEET 8 of 3	10					PROJECT NUMBER:	AP		BORIN	G NUMBER: CW-4		
						326128.01.07 SOIL BORING L				CW-4		
PROJECT NAM	E:					HOLE DEPTH (ft):	DRILLING C					
IM-3 Hydrog			· · ·		nad 27 Z 5):	337.0 EASTING (CCS NAD 27 Z 5):	DATE START		Corp. Mare	tta, OH DATE COMPLETED:		
515.9 ft.	MSL			.03,263.03		7,612,928.74	01/10/2005		MT.	01/14/2005		
DRILLING MET Rotos						WATER LEVEL (ft):	DRILLING E	Sc		ick mounted)		
LOCATION: Wa	sh Bet	ween Eas	st & We	est Mesas, P	arcel No. 650-1	50-151-06 LOGGED BY: B. Mc			ayyad, B. T	rebble		
	S	SAMPLE				SOIL DESCRIPTION				COMMENTS		
DEPTH BGS (feet)	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)	USCS CODE		SOIL NAME, USCS SYMBOL, COL MPOSITION, GRADING, GRAIN SH. ITY/CONSISTENCY, STRUCTURE,	APE, MINERALOGY	,	DRILLING OBSERVATIONS AND OPERATIONS DAILY START AND END TIMES , DRILL RATE REFUSALS, SAMPLING AND TESTING NOTES			
- - -			<u> </u>	SW		WELL GRADED SAND WITH GRAVEL (SW) - reddish brn 7.5YR4/4, 55% subang sand, 40% c gravel, 5% reddish brn silt, ang, medium hard, wet.						
				SW	gray 10B6/1, wet.	DED SAND WITH GRAVEL AND 55% sand, 25% cobbles, 15% g	ravel, 5% fines, ha	ard,				
- -						DED SAND AND GRAVEL (SW / rel, 45-50% sand, 3-5% fines, har	,	R5/4, ang				
290				SW / GW	- silty zor	ne, 50% gravel, 35% sand, 15% f	înes					
-	$ \cdot $											
		CC21	C21 9.5	9.5	9.5	SW	5YR4/4 and 2	DED SAND WITH GRAVEL AND 2.5YR4/4, 50% sand, 25% gravel, ium density, wet.		ldish brn	red fang	glomerate (reworked)
					- metamo	orphic, boulder? cobbles? weather	ed					
 300					CLAYEY SA	ND AND GRAVEL (GC / SC) - r gravel, 35-40% subang sand, 250	eddish brn 5YR4/4		_	water grab sample collected 18-318 ft bgs		
									red fang	glomerate (reworked)		
305		CC22	9	GC / SC	- weather	red MM bedrock, bolder? cobbles?	,					
 	\				- cobbles							
310	$\left \cdot \right $					DED SAND WITH GRAVEL (SW gravel, 5% fines, subang to ang,		60%	oldest a	ılluvium?		
. <u> </u>		CC23	9.5	SW	- more si	it below 312 ft, 60% sand, 25% g						
315												



SHEET 9 of 1	10					PROJECT NUMBER: 326128.01.07.	ΔR	BORIN	IG NUMBER: CW-4				
						SOIL BORING LO							
PROJECT NAMI IM-3 Hydrog		Invect	igation [DC&F Topo	ck	HOLE DEPTH (ft):	DRILLING CONTRA		-H- OII				
SURFACE ELEV	/ATIO		NORTH	ING (CCS	NAD 27 Z 5):	337.0 EASTING (CCS NAD 27 Z 5):	DATE STARTED:	Corp. Mare	DATE COMPLETED:				
515.9 ft. DRILLING MET	HOD:		2,1	03,263.03		7,612,928.74 WATER LEVEL (ft):	01/10/2005 DRILLING EQUIPM		01/14/2005				
Rotos		ween Ea	ast & We	st Mesas, P	arcel No. 650-1	51-06	Sonic AT (track mount						
			_			COLUMN DECORATION	В. М	oayyad, B. ⁻					
	—	AMPLE		USCS		SOIL DESCRIPTION			COMMENTS				
DEPTH BGS (feet)	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)	CODE	PERCENT CON DENS	SOIL NAME, USCS SYMBOL, COLO MPOSITION, GRADING, GRAIN SHAI ITY/CONSISTENCY, STRUCTURE, M	PE, MINERALOGY,	DAILY ST	G OBSERVATIONS AND OPERATIONS, FART AND END TIMES , DRILL RATE, .S, SAMPLING AND TESTING NOTES.				
 				BR		RATE (BR) - brn 7.5YR4/4, 55% 0% gravel, subang, non plastic, hai	top Mid 315 ft l	ocene conglomerate estimated at bgs					
320							BR		RATE (BR) - reddish brn (5YR4/1 o rnd, 45% fines.	.4), hard, 25% gravel,	encountered rocks at 323'		
325 		CC24	17.1			RATE (BR) - brn 7.5YR4/4, hard, , 25% sand, 40% fines	20% subang gravel,						
330				BR	- cobbles	and ang rock fragments are metan							
335				BR	BEDROCK ((BR) - weathered, fractured metar	morphic rock with fill						
					cc = cont brn = bro It = light dk = dark vf = very f = fine-g m = medi c = coars vc = very ang = ang subang = subrnd = rnd = rou	fine-grained prained prained prained prained processe-grained gular pubangular pubangular pubrounded prock formation	ft						



SHEET 10 of	10						PROJECT N	UMBER: 28.01.07.AR	BORING NUMBER: CW-4		
						S	OIL BOR			 	
PROJECT NAM	E: _	_			. 1		E DEPTH (ft):		DRILLING CONTRA		
IM-3 Hydrog		_	-		NAD 27 Z 5):		337.0)	Prosonic DATE STARTED:	C Corp. Maretta, OH DATE COMPLETED:	
515.9 ft.		N:	2,1	03,263.03	NAU 27 Z 5):	EAS	TING (CCS NA 7,612,928	B.74	01/10/2005	01/14/2005	
DRILLING MET Rotos		•				WA	TER LEVEL (ft)		DRILLING EQUIPM	ENT: Sonic AT (track mounted)	
LOCATION: Wa		ween Eas	st & We	st Mesas, I	Parcel No. 650-1	.51-06	<u> </u>		LOGGED BY:		
	ı								B. M	loayyad, B. Trebble	
	5	SAMPLE					SOIL DESCR	RIPTION		COMMENTS	
DEPTH BGS (feet)	INTERVAL	TYPE/ NUMBER	RECOVERY (ft)	USCS CODE	SOIL NAME, USCS SYMBOL, COLOR, PERCENT COMPOSITION, GRADING, GRAIN SHAPE, MINERALOGY, DENSITY/CONSISTENCY, STRUCTURE, MOISTURE.			YMBOL, COLOR, , GRAIN SHAPE, TRUCTURE, MOI	MINERALOGY, STURE.	DRILLING OBSERVATIONS AND OPERATIONS, DAILY START AND END TIMES, DRILL RATE, REFUSALS, SAMPLING AND TESTING NOTES.	
					conglom : comptd = qtz = qua	= com	glomerate pacted				
										CH2MHILL	