NUTSHELL
ENTERPRISES, LTD.

Environmental
Consulting,
Engineering and
Construction

4059 Norrisville Road
Jarrettsville, MD 21084
Phone (410) 557-7583
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PROJECT REPORT

CASE NUMBER: 2005-0233HA

MONITORING WELL INSTALLATION & SAMPLING
WALKER'S GARAGE
2500 GREENE ROAD
BALDWIN, MARYLAND

RECEIVED
FEB 17 2005
OIL CONTROL PROGRAM

Prepared by:_____
C. Robert Triplett
Environmental Consultant

Approved by: _____
Arthur A. Shellhouse, CPEA

Date: January 25, 2005

Certified:

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SECTION 1

DESCRIPTION OF WORK PERFORMED

2500 GREENE ROAD

A) MONITORING WELL INSTALLATION

Three 1-inch temporary monitoring wells, MW-1, MW-2, and MW-3, were installed at 2500 Greene Road in Baldwin. A site plan with the well locations can be found in Section 2. Nutshell Enterprises contracted B. L. Myers and Company to install the wells on December 17th, 2004. The wells were installed to depths of 24.90, 25.48, and 22.98 feet. A photo-ionization detector (PID) was used to screen the soils for volatile hydrocarbon vapors. The PID readings can be found in Section 3 along with the geologic well logs. Elevated PID readings were not encountered while drilling any of the wells, and therefore no soil samples were collected. The State of Maryland Well Completion Report can be found in Section 4.

B) MONITORING WELL SAMPLING

On December 30, 2004, personnel representing Nutshell Enterprises, Ltd. visited the subject property to sample the three newly installed monitoring wells along with the existing well. The following information was developed during this process. In addition, the protocol for sampling attached in Section 5 was employed.

The wells were gauged with an electronic interface tape to detect the presence of any free product and to gauge the water depth. Free product was not present in any of the wells. The well gauging log has been attached in Section 6. All four wells contained a sufficient amount of water and were purged of three well volumes before removing the water for sampling. The technician wore disposable latex gloves that were changed after each purging and after obtaining each sample. All samples were obtained using a clean disposable bailer. All samples collected were analyzed for full suite Volatile Organic Compounds with MTBE, TPH-DRO, and TPH-GRO.

All samples were properly preserved and transported to the laboratory for analysis.

C) GROUNDWATER DIRECTIONAL FLOW

On December 22, 2004, personnel representing Nutshell Enterprises surveyed the top of casings for the 4 on-site monitoring wells. The surveying data can be found in section 7. The surveying elevations along with the groundwater depths were used to determine the groundwater directional flow.

2500 GREENE ROAD

D) CONCLUSIONS

Wells MW-1, MW-2, and the Existing Well all tested below the laboratory detection limits for all parameters tested. MW-3 tested above the Clean-Up Standard for DRO

with a concentration of 1.88 mg/L. A summary of the groundwater analytical results can be found in Section 8. The Laboratory Report of Analysis can be found in Appendix I.

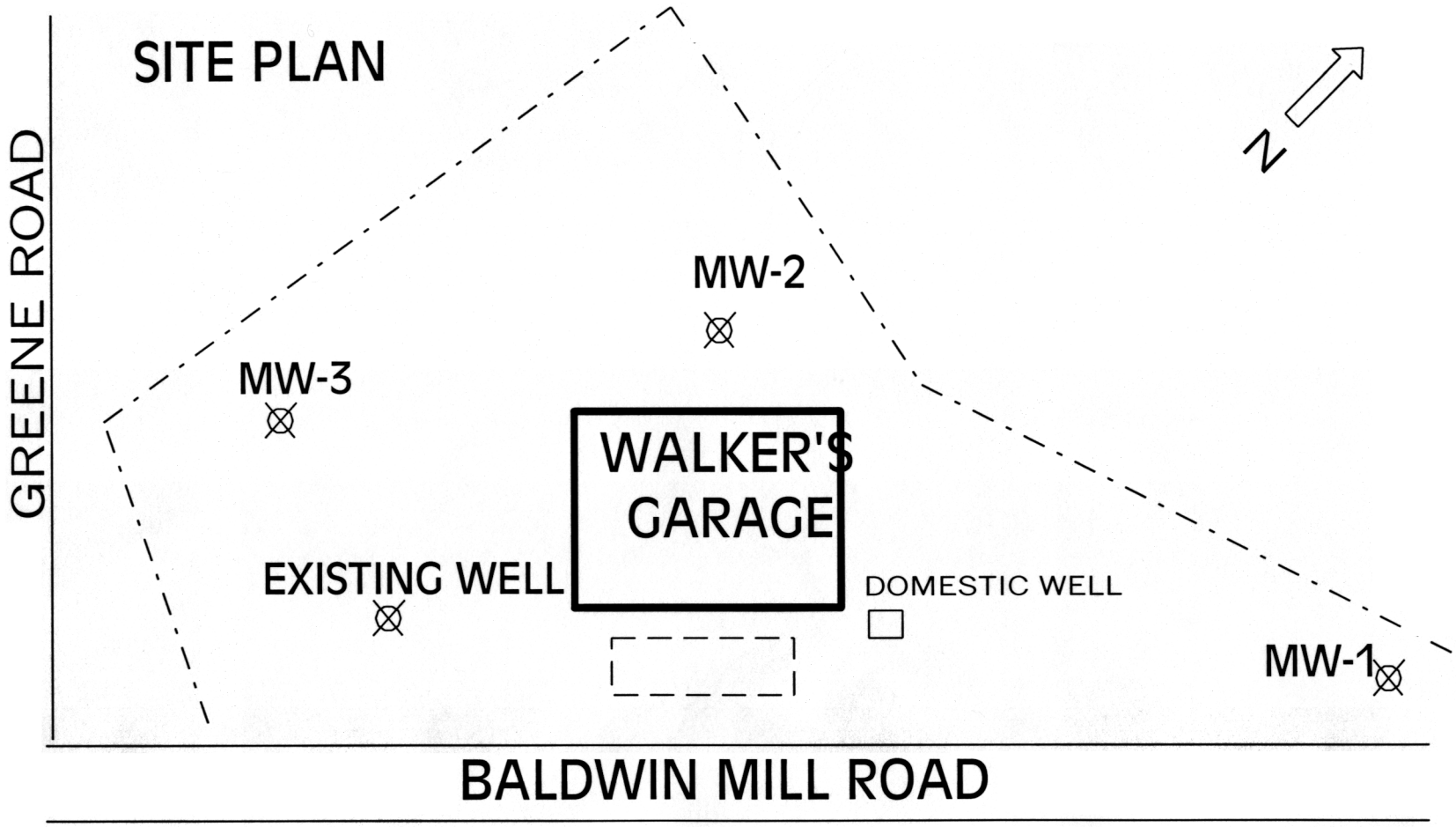
The groundwater directional flow was found to be toward the South. A groundwater directional flow map can be found in Section 9.

E) RECOMMENDATIONS

Because MTBE was not found to be present in any of the wells, we recommend that no further action be needed.

SECTION 2

SITE PLAN



LEGEND

- MONITORING WELL
- PROPERTY LINES
- FORMER EXCAVATION AREA

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SECTION 3 - PID READINGS & GEOLOGIC WELL LOGS

MW-1

DEPTH	MATRIX	PID (ppm)
0	Brown Silty Clay	0
2		0
4		0
6		0
8		0
10		0
12	Brown Weathered Shiest	0
14		0
16	Brown Silt W/ Formica	0
18		0
20		0
22	Gray Silty Shiest	0
24		^
26	Wet Sandy Silt	0.0

MW-2

DEPTH	MATRIX	PID (ppm)
0	Brown Silty Clay	0
2		0
4		0
6		0
8	Brown Silt	0
10		0
12		0
14	Brown Sandy Silt	0
16		0
18	Brown / Black Silt	0
20		0
22	Black Silt W/ Formica	0
24		0
26	Wet Sandy Silt	^

MW-3

DEPTH	MATRIX	PID (ppm)
0	Asphalt / Rock	0
2	Orange Silty Clay	0
4		0
6	Brown Silty Clay	0
8		0
10	Brown Silty Clay W/ Formica	0
12		0
14		0
16	Brown Silty Clay	^
18	Wet Sandy Silt	0
20		0
22		0
24		0

SECTION 4

WELL COMPLETION REPORTS

1296 SEQUENCE NO. (MDE USE ONLY)

NUMBER IS TO BE PUNCHED (COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

COUNTY NUMBER 12-2071344

MDE USE ONLY Date Received DD YY (8–13)

DATE WELL COMPLETED MM DD YY 12-21-94 (15–20)

Depth of Well 23 (22–26) (TO NEAREST FOOT)

PERMIT NO. FROM "PERMIT TO DRILL WELL" HA-94-6670 (28–37)

OWNER Walker Donald (last name first name)

STREET OR RFD [illegible] Road TOWN Fallston

SUBDIVISION [illegible] SECTION ____ LOT ____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
Orange brown silty clay	0	5	
Brown [illegible]	5	23	
[illegible]			

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes Y no N

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M D 431

DRILLERS SIGNATURE (MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. ___ D ___

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes Y (44) no N (44)

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT CM (45 46) BENTONITE CLAY BC (45 46)

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER ____

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48 TOP 52) ft. to 6 (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

ST STEEL, CO CONCRETE, PL PLASTIC, OT OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL (60 61)	1 (63 64)	5 (66 70)

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

ST STEEL, BR BRASS BRONZE, HO OPEN HOLE, PL PLASTIC, OT OTHER

C 2 (1 2) DEPTH (nearest ft.)

EACH SCREEN

1	PL (8 9)	9 (11 15)	23 (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 020 2 ____ 3 ____

DIAMETER OF SCREEN 1 (56 60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68: from 6 to 23 (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) TELESCOPE CASING; (E.R.O.S.) (72) LOG INDICATOR; W Q (74 75 76) OTHER DATA

C 3 (1 2) PUMPING TEST
HOURS PUMPED (nearest hour) not (8 9)

PUMPING RATE (gal. per min.) Pulled (11 15)

METHOD USED TO MEASURE PUMPING RATE ____

WATER LEVEL (distance from land surface)

BEFORE PUMPING ____ (17 20) ft.

WHEN PUMPING ____ (22 25) ft.

TYPE OF PUMP USED (for test)

A air (27), P piston (27), T turbine (27), C centrifugal (27), R rotary (27), O other (describe below) (27), J jet (27), S submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. ____ (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) ____ (31 35)

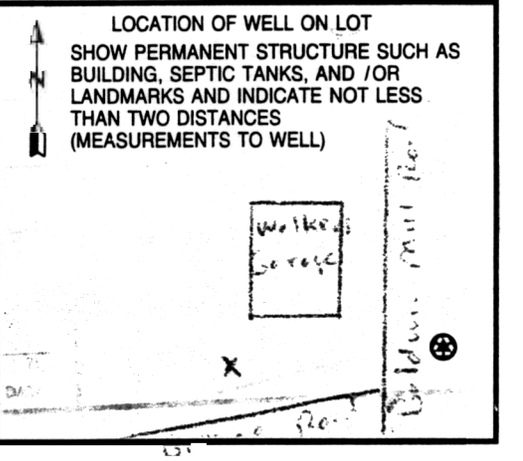
PUMP HORSE POWER ____ (37 41)

PUMP COLUMN LENGTH (nearest ft.) ____ (43 47)

CASING HEIGHT (circle appropriate box and enter casing height)

+ (49) above / − (49) below — LAND SURFACE 0 (50 51) (nearest) foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



DENV-CR00

OWNER

1291 (MDE USE ONLY)

NUMBER IS TO BE PUNCHED
OLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT
FILL IN THIS FORM COMPLETELY
PLEASE TYPE

45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER 12 (07) 13 44

TICO USE ONLY
DATE Received MM DD YY 8 13

DATE WELL COMPLETED MM 12 DD 17 YY 01 (15 20)

Depth of Well 22 26 26 (TO NEAREST FOOT) MW-2

PERMIT NO. FROM "PERMIT TO DRILL WELL" HA-01-0071 (28 29 30 31 32 33 34 35 36 37)

OWNER Walker (last name) Samuel (first name)

STREET OR RFD 3[illegible] Greene Rd. TOWN [illegible]

SUBDIVISION [illegible] SECTION ____ LOT ____

WELL LOG
Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
Top Soil	0	1	
Gray brown silt, clay	1	4	
Brown clay silt	4	9	
Brown weathered schist	9	25	
Gray schist	25	26	

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes [Y] no [N]

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M D 421

DRILLERS SIGNATURE
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. ___ D ___

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD
WELL HAS BEEN GROUTED (Circle Appropriate Box) yes [Y] 44 no [N] 44

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] 45 46 BENTONITE CLAY [BC] 45 46

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER 1

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48 TOP 52) ft. to 9 (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD
casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)!	Total depth of main casing (nearest foot)
PL (60 61)	1 (63 64)	11 (66 70)

OTHER CASING (if used) — EACH CASING

diameter inch	depth (feet) from	to

SCREEN RECORD
screen type or open hole — insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2 (1 2) DEPTH (nearest ft.)

EACH SCREEN

1	PL (8 9)	11 (11 15)	26 (17 21)
2	(23 24)	(26 30)	(32 36)
3	(38 39)	(41 45)	(47 51)

SLOT SIZE 1 026 2 ____ 3 ____

DIAMETER OF SCREEN 1 (56 60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 — from 9 to 26 (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (E.R.O.S.) W Q

70 ____ TELESCOPE CASING

72 ____ LOG INDICATOR

74 75 76 OTHER DATA

C 3 (1 2)

PUMPING TEST
HOURS PUMPED (nearest hour) NO (8 9)

PUMPING RATE (gal. per min.) PUMPED (11 15)

METHOD USED TO MEASURE PUMPING RATE —

WATER LEVEL (distance from land surface)

BEFORE PUMPING — (17 20) ft.

WHEN PUMPING ____ (22 25) ft.

TYPE OF PUMP USED (for test)

[A] air (27) [P] piston (27) [T] turbine (27)

[C] centrifugal (27) [R] rotary (27) [O] other (describe below) (27)

[J] jet (27) [S] submersible (27)

PUMP INSTALLED
DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES (NO)

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS. —

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. — (29)

CAPACITY: GALLONS PER MINUTE (to nearest gallon) ____ (31 35)

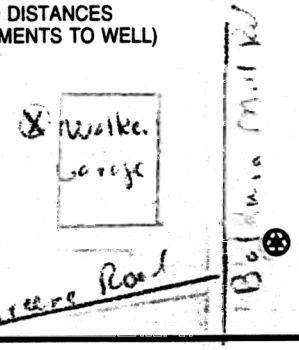
PUMP HORSE POWER — (37 41)

PUMP COLUMN LENGTH (nearest ft.) — (43 47)

CASING HEIGHT (circle appropriate box and enter casing height)

[+] above (49) / [−] below (49) LAND SURFACE 0 (50 51) (nearest) foot)

LOCATION OF WELL ON LOT
SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



DENV-CR00

OWNER

71298 (MDE USE ONLY)

6

NUMBER IS TO BE PUNCHED (COLS. 3-6 ON ALL CARDS)

STATE OF MARYLAND
WELL COMPLETION REPORT

FILL IN THIS FORM COMPLETELY
PLEASE TYPE

THIS REPORT MUST BE SUBMITTED WITHIN 45 DAYS AFTER WELL IS COMPLETED.

COUNTY NUMBER 12 Tar E

MGS USE ONLY
DATE Received MM DD YY (8–13)

DATE WELL COMPLETED MM 12 DD 15 YY 84 (15–20)

Depth of Well 22 24 26 (TO NEAREST FOOT)

MW-3

PERMIT NO. FROM "PERMIT TO DRILL WELL" 28 29 30 31 32 33 34 35 36 37

OWNER Walker

STREET OR RFD [illegible] TOWN [illegible]

SUBDIVISION [illegible] SECTION ____ LOT ____

WELL LOG

Not required for driven wells

STATE THE KIND OF FORMATIONS PENETRATED, THEIR COLOR, DEPTH, THICKNESS AND IF WATER BEARING

DESCRIPTION (Use additional sheets if needed)	FEET FROM	FEET TO	check if water bearing
Top Soil	0	1	
Orange-brown Silty Clay	1	10	
Brown weathered schist	10	21	
Grey Brown weathered schist	21	24	

NUMBER OF UNSUCCESSFUL WELLS: 0

WELL HYDROFRACTURED yes [Y] no [N]

CIRCLE APPROPRIATE LETTER
- A A WELL WAS ABANDONED AND SEALED WHEN THIS WELL WAS COMPLETED
- E ELECTRIC LOG OBTAINED
- P TEST WELL CONVERTED TO PRODUCTION WELL

I HEREBY CERTIFY THAT THIS WELL HAS BEEN CONSTRUCTED IN ACCORDANCE WITH COMAR 26.04.04 "WELL CONSTRUCTION" AND IN CONFORMANCE WITH ALL CONDITIONS STATED IN THE ABOVE CAPTIONED PERMIT, AND THAT THE INFORMATION PRESENTED HEREIN IS ACCURATE AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

DRILLERS LIC. NO. M D 421

DRILLERS SIGNATURE [signature]
(MUST MATCH SIGNATURE ON APPLICATION)

LIC. NO. ___ D ___

SITE SUPERVISOR (sign. of driller or journeyman responsible for sitework if different from permittee)

GROUTING RECORD

WELL HAS BEEN GROUTED (Circle Appropriate Box) yes [Y] 44 no [N] 44

TYPE OF GROUTING MATERIAL (Circle one)

CEMENT [CM] 45 46 BENTONITE CLAY [BC] 45 46

NO. OF BAGS ____ NO. OF POUNDS ____

GALLONS OF WATER 1

DEPTH OF GROUT SEAL (to nearest foot)

from 0 (48 TOP 52) ft. to 7 (54 BOTTOM 58) ft.

(enter 0 if from surface)

CASING RECORD

casing types insert appropriate code below

[ST] STEEL [CO] CONCRETE [PL] PLASTIC [OT] OTHER

MAIN CASING TYPE	Nominal diameter top (main) casing (nearest inch)	Total depth of main casing (nearest foot)
PL (60 61)	1 (63 64)	9 (66 – 70)

EACH CASING

OTHER CASING (if used)

diameter inch	depth (feet) from	to

SCREEN RECORD

screen type or open hole insert appropriate code below

[ST] STEEL [BR] BRASS BRONZE [HO] OPEN HOLE [PL] PLASTIC [OT] OTHER

C 2 (1 2)

DEPTH (nearest ft.)

EACH SCREEN

1	PL (8 9)	9 (11 – 15)	24 (17 – 21)
2	(23 24)	(26 – 30)	(32 – 36)
3	(38 39)	(41 – 45)	(47 – 51)

SLOT SIZE 1 020 2 ____ 3 ____

DIAMETER OF SCREEN 1 (56 60) (NEAREST INCH)

GRAVEL PACK IF WELL DRILLED WAS FLOWING WELL INSERT F IN BOX 68 — from 7 to 24 (68)

MDE USE ONLY (NOT TO BE FILLED IN BY DRILLER)

T (70) (E.R.O.S.) (72) W Q (74 75 76)

TELESCOPE CASING LOG INDICATOR OTHER DATA

C 3 (1 2)

PUMPING TEST

HOURS PUMPED (nearest hour) NOT (8 9)

PUMPING RATE (gal. per min.) Pump (11 – 15)

METHOD USED TO MEASURE PUMPING RATE —

WATER LEVEL (distance from land surface)

BEFORE PUMPING ____ (17 – 20) ft.

WHEN PUMPING ____ (22 – 25) ft.

TYPE OF PUMP USED (for test)

[A] air (27) [P] piston (27) [T] turbine (27)
[C] centrifugal (27) [R] rotary (27) [O] other (describe below) (27)
[J] jet (27) [S] submersible (27)

PUMP INSTALLED

DRILLER INSTALLED PUMP (CIRCLE) (YES or NO) YES NO

IF DRILLER INSTALLS PUMP, THIS SECTION MUST BE COMPLETED FOR ALL WELLS.

TYPE OF PUMP INSTALLED PLACE (A,C,J,P,R,S,T,O) IN BOX 29. (29) —

CAPACITY: GALLONS PER MINUTE (to nearest gallon) (31 – 35) —

PUMP HORSE POWER (37 – 41)

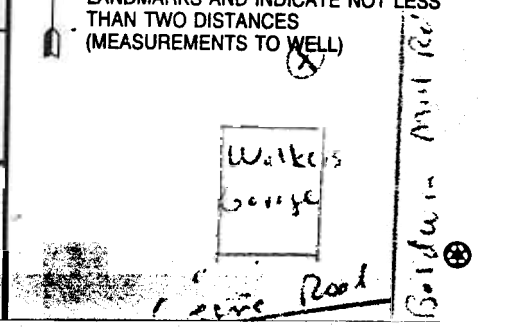
PUMP COLUMN LENGTH (nearest ft.) (43 – 47)

CASING HEIGHT (circle appropriate box and enter casing height)

[+] above (49) [–] below (49) LAND SURFACE 0 (50 51) (nearest) foot)

LOCATION OF WELL ON LOT

SHOW PERMANENT STRUCTURE SUCH AS BUILDING, SEPTIC TANKS, AND /OR LANDMARKS AND INDICATE NOT LESS THAN TWO DISTANCES (MEASUREMENTS TO WELL)



SECTION 5

MONITORING WELL SAMPLING PROTOCOL

For each well to be sampled use the following procedure:

1. Purge well of water by bailing or pumping of three times the volume of water contained in the well.

   A. If the well goes dry during the purging, allow at least 20 minutes for the ground water to recharge the well.

   B. For wells with groundwater recovery rates too great to allow for complete evacuation, pump at least three times the volume contained in the well prior to sampling.*

2. Sampling of the wells should be performed with clean or disposable bailors dedicated to the well being sampled.

   Samples should be placed in clean glass vials, iced, and transported to the laboratory.

- Dispose of the water generated during the purging operation in an approved manner. (ie: Remove to treatment facility, treat on site through carbon, treat on site using air stripping.)

SECTION 6

WELL GAUGING LOG

Company: WALKER GARAGE
Date:12/31/04

Address: 2500 GREENE ROAD
City: BALDWIN

Consultant: NUTSHELL ENTERPRISES

Field Personell: BOB TRIPLETT

Well Number	Product Depth (ft)	Water Depth (ft)	Product Thichness (ft)	Total Well Depth (ft)	Comments
MW-1	ND	21.70		24.90	
MW-2	ND	19.05		25.48	
MW-3	ND	13.44		22.98	
Existing Well	ND	11.99		18.30	

ND = Non Detect

SECTION 7

SURVEYING DATA
2500 GREENE ROAD
DECEMBER 2004

WELL	LEVATION	DTW	CORRECTED ELEVATION
MW-1	95.40	21.70	73.70
MW-2	92.83	19.05	73.78
MW-3	86.90	13.44	73.46
xisting Well	85.60	11.99	73.61

DTW= Depth to Water

SECTION 8

SUMMARY OF GROUNDWATER ANALYSIS

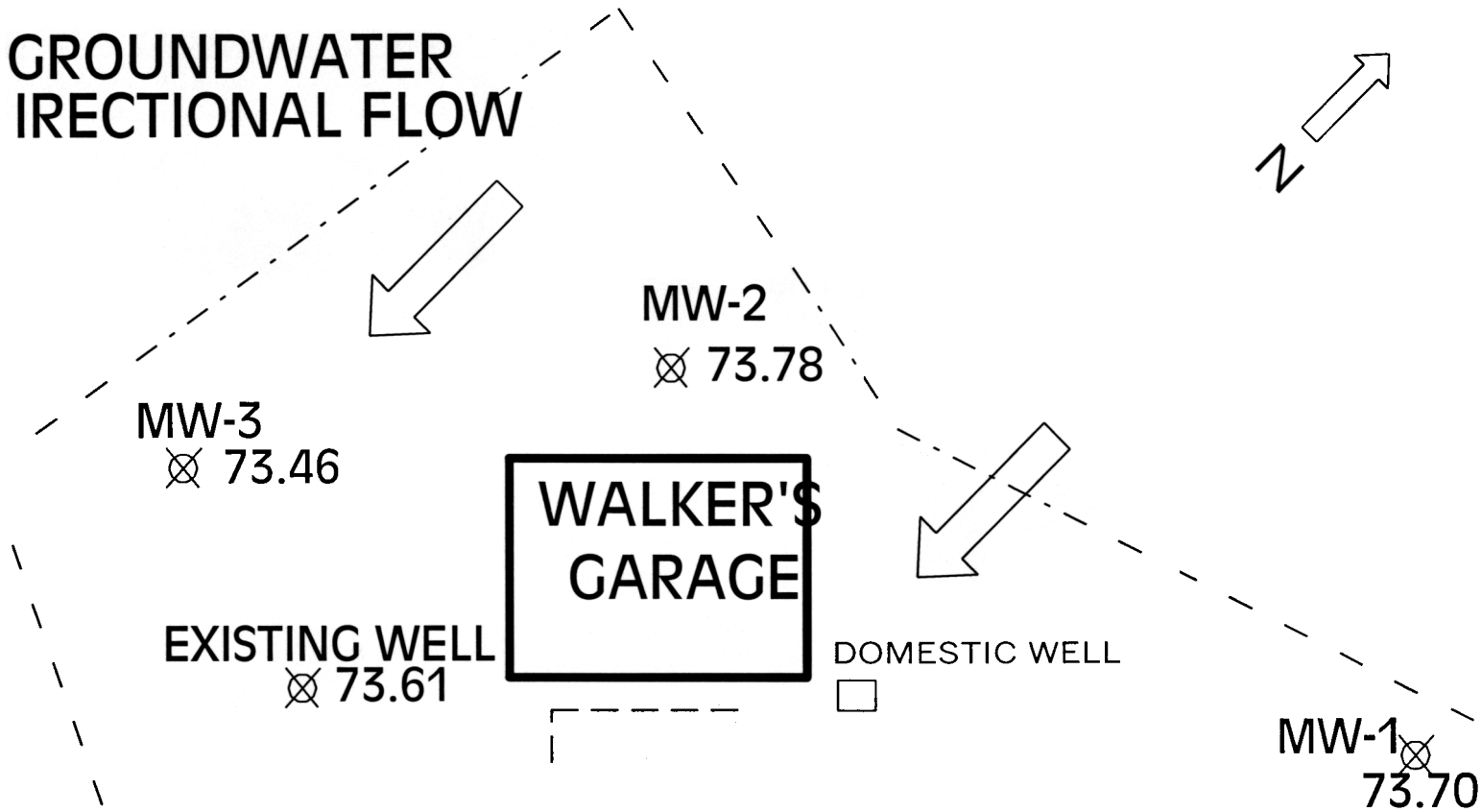
2500 GREEN RD.
GROUNDWATER ANALYTICAL RESULTS
DECEMBER 30, 2004

WELL ID	DATE SAMPLED	BENZENE (ug/L)	TOLUENE (ug/L)	ETHYLBENZENE (ug/L)	XYLENES (ug/L)	TOTAL BTEX (ug/L)	MTBE (ug/L)	GRO (mg/L)	DRO (mg/L)
MW-1	12/30/04	<5	<5	<5	<5	<5	<5	<0.1	<0.5
MW-2	12/30/04	<5	<5	<5	<5	<5	<5	<0.1	<0.5
MW-3	12/30/04	<5	<5	<5	<5	<5	<5	<0.1	1.88
Existing Well	12/30/04	<5	<5	<5	<5	<5	<5	<0.1	<0.5
Clean-up Standard		5	1,000	700	10,000	11,705	20	0.047	0.047

concentrations over the clean-up standards

SECTION 9

GROUNDWATER DIRECTIONAL FLOW MAP



LEGEND

- MONITORING WELL
- PROPERTY LINES
- FORMER EXCAVATION AREA

NUTSHELL ENTERPRISES, LTD.

Environmental Consulting, Engineering and Construction

4059 Norrisville Road
Jarrettsville, MD 21084
Phone (410) 557-7583
Fax (410) 557-8804

APPENDIX I

LABORATORY REPORT OF ANALYSIS

PENNIMAN & BROWNE, INC.

CHEMISTS / ENGINEERS / INSPECTORS
INDUSTRIAL HYGIENE SERVICES
FOUNDED 1896

REPORT OF ANALYSIS

PB Report No.: 050061 January 14, 2005

For Nutshell Enterprises
4059 Norrisville Road
Jarrettsville, MD 21084

Sample: Ground Water sampled by Client

Date Received: 1/ 5/05 at 16:15

Marks or Other Data: Walkers Garage

Lab Number: 05-A182

MW1	MDL	Results	Analyzed
Volatile Organic Compounds (ug/L)			01/13,2338 DW-EPA 8260
Dichlorodifluoromethane	5	<5	
Chloromethane	5	<5	
Vinyl Chloride	5	<5	
Bromomethane	5	<5	
Chloroethane	5	<5	
Trichlorofluoromethane	5	<5	
1,1-Dichloroethene	5	<5	
1,1-Dichloroethane	5	<5	
Methylene Chloride	5	<5	
Trans-1,2-Dichloroethylene	5	<5	
2,2-Dichloropropane	5	<5	
Cis-1,2-Dichloroethene	5	<5	
Chloroform	5	<5	
Bromochloromethane	5	<5	
1,1,1-Trichloroethane	5	<5	
1,1-Dichloropropene	5	<5	
Carbon Tetrachloride	5	<5	
Benzene	5	<5	
1,2-Dichloroethane	5	<5	
Trichloroethene	5	<5	
1,2-Dichloropropane	5	<5	
Bromodichloromethane	5	<5	
Dibromomethane	5	<5	
Cis-1,3-Dichloropropene	5	<5	
Toluene	5	<5	
Trans-1,3-Dichloropropene	5	<5	
1,1,2-Trichloroethane	5	<5	
Tetrachloroethene	5	<5	

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Client: Nutshell Enterprises

Lab Number: 05-A182

MW1	MDL	Results	Analyzed
Volatile Organic Compounds (ug/L) continued . . .			
1,3-Dichloropropane	5	<5	
Dibromochloromethane	5	<5	
1,2-Dibromoethane	5	<5	
Chlorobenzene	5	<5	
Ethylbenzene	5	<5	
Xylene	5	<5	
Styrene	5	<5	
Isopropylbenzene	5	<5	
Bromoform	5	<5	
1,1,2,2-Tetrachloroethane	5	<5	
1,2,3-Trichloropropane	5	<5	
N-Propylbenzene	5	<5	
Bromobenzene	5	<5	
1,3,5-Trimethylbenzene	5	<5	
2-Chlorotoluene	5	<5	
4-Chlorotoluene	5	<5	
Tert-Butylbenzene	5	<5	
1,2,4-Trimethylbenzene	5	<5	
Sec-Butylbenzene	5	<5	
P-Isopropyltoluene	5	<5	
1,3-Dichlorobenzene	5	<5	
1,4-Dichlorobenzene	5	<5	
N-Butylbenzene	5	<5	
1,2-Dichlorobenzene	5	<5	
1,2-Dibromo-3-Chloropropane	5	<5	
1,2,4-Trichlorobenzene	5	<5	
Hexachlorobutadiene	5	<5	
Naphthalene	5	<5	
1,2,3-Trichlorobenzene	5	<5	
MTBE	5	<5	
Gasoline Range Organics, mg/L	0.1	<0.1	01/06,1430 MSS-EPA 8015B
Diesel Range Organics, mg/L	0.5	<0.5	01/12,0051 DW-EPA 8015B

Lab Number: 05-A183

MW2	MDL	Results	Analyzed
Volatile Organic Compounds (ug/L)			01/13,2338 DW-EPA 8260
Dichlorodifluoromethane	5	<5	
Chloromethane	5	<5	
Vinyl Chloride	5	<5	
Bromomethane	5	<5	
Chloroethane	5	<5	
Trichlorofluoromethane	5	<5	
1,1-Dichloroethene	5	<5	
1,1-Dichloroethane	5	<5	
Methylene Chloride	5	<5	
Trans-1,2-Dichloroethylene	5	<5	
2,2-Dichloropropane	5	<5	
Cis-1,2-Dichloroethene	5	<5	

continued

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Client: Nutshell Enterprises

Lab Number: 05-A183

MW2	MDL	Results	Analyzed
Volatile Organic Compounds (ug/L) continued . . .			
Chloroform	5	<5	
Bromochloromethane	5	<5	
1,1,1-Trichloroethane	5	<5	
1,1-Dichloropropene	5	<5	
Carbon Tetrachloride	5	<5	
Benzene	5	<5	
1,2-Dichloroethane	5	<5	
Trichloroethene	5	<5	
1,2-Dichloropropane	5	<5	
Bromodichloromethane	5	<5	
Dibromomethane	5	<5	
Cis-1,3-Dichloropropene	5	<5	
Toluene	5	<5	
Trans-1,3-Dichloropropene	5	<5	
1,1,2-Trichloroethane	5	<5	
Tetrachloroethene	5	<5	
1,3-Dichloropropane	5	<5	
Dibromochloromethane	5	<5	
1,2-Dibromoethane	5	<5	
Chlorobenzene	5	<5	
Ethylbenzene	5	<5	
Xylene	5	<5	
Styrene	5	<5	
Isopropylbenzene	5	<5	
Bromoform	5	<5	
1,1,2,2-Tetrachloroethane	5	<5	
1,2,3-Trichloropropane	5	<5	
N-Propylbenzene	5	<5	
Bromobenzene	5	<5	
1,3,5-Trimethylbenzene	5	<5	
2-Chlorotoluene	5	<5	
4-Chlorotoluene	5	<5	
Tert-Butylbenzene	5	<5	
1,2,4-Trimethylbenzene	5	<5	
Sec-Butylbenzene	5	<5	
P-Isopropyltoluene	5	<5	
1,3-Dichlorobenzene	5	<5	
1,4-Dichlorobenzene	5	<5	
N-Butylbenzene	5	<5	
1,2-Dichlorobenzene	5	<5	
1,2-Dibromo-3-Chloropropane	5	<5	
1,2,4-Trichlorobenzene	5	<5	
Hexachlorobutadiene	5	<5	
Naphthalene	5	<5	
1,2,3-Trichlorobenzene	5	<5	
MTBE	5	<5	
Gasoline Range Organics, mg/L	0.1	<0.1	01/06,1430 MSS-EPA 8015B
Diesel Range Organics, mg/L	0.5	<0.5	01/12,0051 DW-EPA 8015B

continued . . .

Report Number: 050061 January 14, 2005
Client: Nutshell Enterprises

Lab Number: 05-A184

MW3	MDL	Results	Analyzed
Volatile Organic Compounds (ug/L)			01/13,2338 DW-EPA 8260
Dichlorodifluoromethane	5	<5	
Chloromethane	5	<5	
Vinyl Chloride	5	<5	
Bromomethane	5	<5	
Chloroethane	5	<5	
Trichlorofluoromethane	5	<5	
1,1-Dichloroethene	5	<5	
1,1-Dichloroethane	5	<5	
Methylene Chloride	5	<5	
Trans-1,2-Dichloroethylene	5	<5	
2,2-Dichloropropane	5	<5	
Cis-1,2-Dichloroethene	5	<5	
Chloroform	5	<5	
Bromochloromethane	5	<5	
1,1,1-Trichloroethane	5	<5	
1,1-Dichloropropene	5	<5	
Carbon Tetrachloride	5	<5	
Benzene	5	<5	
1,2-Dichloroethane	5	<5	
Trichloroethene	5	<5	
1,2-Dichloropropane	5	<5	
Bromodichloromethane	5	<5	
Dibromomethane	5	<5	
Cis-1,3-Dichloropropene	5	<5	
Toluene	5	<5	
Trans-1,3-Dichloropropene	5	<5	
1,1,2-Trichloroethane	5	<5	
Tetrachloroethene	5	<5	
1,3-Dichloropropane	5	<5	
Dibromochloromethane	5	<5	
1,2-Dibromoethane	5	<5	
Chlorobenzene	5	<5	
Ethylbenzene	5	<5	
Xylene	5	<5	
Styrene	5	<5	
Isopropylbenzene	5	<5	
Bromoform	5	<5	
1,1,2,2-Tetrachloroethane	5	<5	
1,2,3-Trichloropropane	5	<5	
N-Propylbenzene	5	<5	
Bromobenzene	5	<5	
1,3,5-Trimethylbenzene	5	<5	
2-Chlorotoluene	5	<5	
4-Chlorotoluene	5	<5	
Tert-Butylbenzene	5	<5	
1,2,4-Trimethylbenzene	5	<5	
Sec-Butylbenzene	5	<5	
P-Isopropyltoluene	5	<5	
1,3-Dichlorobenzene	5	<5	

continued

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Lab Number: 05-A184

MW3	MDL	Results	Analyzed
Volatile Organic Compounds (ug/L) continued			
1,4-Dichlorobenzene	5	<5	
N-Butylbenzene	5	<5	
1,2-Dichlorobenzene	5	<5	
1,2-Dibromo-3-Chloropropane	5	<5	
1,2,4-Trichlorobenzene	5	<5	
Hexachlorobutadiene	5	<5	
Naphthalene	5	<5	
1,2,3-Trichlorobenzene	5	<5	
MTBE	5	<5	
Gasoline Range Organics, mg/L	0.1	<0.1	01/12,1430 MSS-EPA 8015B
Diesel Range Organics, mg/L	0.5	1.88	01/12,0051 DW-EPA 8015B

Lab Number: 05-A185

Existing Well	MDL	Results	Analyzed
Volatile Organic Compounds (ug/L)			01/13,2338 DW-EPA 8260
Dichlorodifluoromethane	5	<5	
Chloromethane	5	<5	
Vinyl Chloride	5	<5	
Bromomethane	5	<5	
Chloroethane	5	<5	
Trichlorofluoromethane	5	<5	
1,1-Dichloroethene	5	<5	
1,1-Dichloroethane	5	<5	
Methylene Chloride	5	<5	
Trans-1,2-Dichloroethylene	5	<5	
2,2-Dichloropropane	5	<5	
Cis-1,2-Dichloroethene	5	<5	
Chloroform	5	<5	
Bromochloromethane	5	<5	
1,1,1-Trichloroethane	5	<5	
1,1-Dichloropropene	5	<5	
Carbon Tetrachloride	5	<5	
Benzene	5	<5	
1,2-Dichloroethane	5	<5	
Trichloroethene	5	<5	
1,2-Dichloropropane	5	<5	
Bromodichloromethane	5	<5	
Dibromomethane	5	<5	
Cis-1,3-Dichloropropene	5	<5	
Toluene	5	<5	
Trans-1,3-Dichloropropene	5	<5	
1,1,2-Trichloroethane	5	<5	
Tetrachloroethene	5	<5	
1,3-Dichloropropane	5	<5	
Dibromochloromethane	5	<5	
1,2-Dibromoethane	5	<5	
Chlorobenzene	5	<5	
Ethylbenzene	5	<5	

continued

Report Number: 050061 January 14, 2005
Client: Nutshell Enterprises

Lab Number: 05-A185

Existing Well	MDL	Results	Analyzed
Volatile Organic Compounds (ug/L) continued . . .			
Xylene	5	<5	
Styrene	5	<5	
Isopropylbenzene	5	<5	
Bromoform	5	<5	
1,1,2,2-Tetrachloroethane	5	<5	
1,2,3-Trichloropropane	5	<5	
N-Propylbenzene	5	<5	
Bromobenzene	5	<5	
1,3,5-Trimethylbenzene	5	<5	
2-Chlorotoluene	5	<5	
4-Chlorotoluene	5	<5	
Tert-Butylbenzene	5	<5	
1,2,4-Trimethylbenzene	5	<5	
Sec-Butylbenzene	5	<5	
P-Isopropyltoluene	5	<5	
1,3-Dichlorobenzene	5	<5	
1,4-Dichlorobenzene	5	<5	
N-Butylbenzene	5	<5	
1,2-Dichlorobenzene	5	<5	
1,2-Dibromo-3-Chloropropane	5	<5	
1,2,4-Trichlorobenzene	5	<5	
Hexachlorobutadiene	5	<5	
Naphthalene	5	<5	
1,2,3-Trichlorobenzene	5	<5	
MTBE	5	<5	
Gasoline Range Organics, mg/L	0.1	<0.1	01/06,1430 MSS-EPA 8015B
Diesel Range Organics, mg/L	0.5	<0.5	01/12,0051 DW-EPA 8015B

MDL = Method Detection Limit

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CHAIN OF CUSTODY

CLIENT: Nutshell

CHAIN OF CUSTODY INITIATION: (SIGNATURE) Bob Triplett

ADDRESS:

PROJECT: Walkers Garage

SAMPLE IDENTIFICATION	SAMPLER	DATE	TIME	MATRIX	AMOUNT	ANALYSES
MW-1	BT	12/30		GW	4	VOCs w/MTBE, GRO/DRO
MW-2	↓	↓		↓	4	↓
MW-3	↓	↓		↓	4	↓
Existing well	↓	↓		↓	4	↓

REMARKS:

RELINQUISHED BY: (SIGNATURE)	DATE:	TIME:	RECEIVED BY: (SIGNATURE)	DATE:	TIME:
[signature]	1/5/05	16:00	Barbara Brook	1-5-05	1615
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