US Army Garrison Bavaria

Army Cleanup Program

Installation Action Plan Final

June 2024

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STATEMENT OF PURPOSE

The Installation Action Plan (IAP) provides evidence that the Army is firmly committed to expeditious identification and cleanup of environmental contamination, and that the installation has a credible, organized program to carry out that commitment. The IAP provides an outline of the total multi-year environmental cleanup program for each site with ongoing or future planned restoration activity and includes the (1) environmental restoration requirements, (2) the rationale for the selected technical approach, and (3) foundation to develop corresponding financial needs for each cleanup site.

ACRONYMS

Acronym	Definition
AFFF	Aqueous Film-Forming Foam
ARLOC	Army Location
ASL	Above Sea Level
AST	Aboveground Storage Tank
BGS	Below Ground Surface
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
CC	Compliance-related Cleanup
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act of 1980
CHC	Chlorinated Hydrocarbon
CHPPM	Center for Health Promotion and Preventive Medicine
CRL	Cleanup Restoration & Liabilities
DD	Decision Document
DODI	Department of Defense Instruction
DPW	Department of Public Works
EC	Emerging Contaminant
EEA	Environmental Executive Agent
ENV	Environmental
FS	Feasibility Study
FY	Fiscal Year
GW	Groundwater
GWTP	Groundwater Tank Park
HN	Host Nation
HQ	Headquarters
HS	Hardstand
HTA	Hohenfels Training Area
IAP	Installation Action Plan
IAW	In Accordance With
ID	Identification
IR	Installation Restoration
IRA	Interim Remedial Action
JMRC	Joint Multinational Readiness Center
JP	Jet Propellant
kg	kilogram
km	kilometer
LTM	Long-Term Management

Acronym	Definition
m	meter
m²	square meter
m3	cubic meter
mg/kg	milligram per kilogram
MILCON	Military Construction
MOGAS	Motor Gasoline
MP	Motor Pool
MR	Munitions Response
MRSPP	Munitions Response Site Prioritization Protocol
NNW	North Northwest
NPL	National Priorities List
NW	Northwest
P&T	Pump and Treat
PA	Preliminary Assessment
PAH	Polycyclic Aromatic Hydrocarbon
PFAS	Per- and Polyfluoroalkyl Substances
PFC	Perfluorinated Compound
PFHpA	Perfluoroheptanoic Acid
PFHxS	Perfluorohexanesulfonic Acid
PFNA	Perfluorononanoic Acid
PFOA	Perfluorooctanoic Acid
PFOS	Perfluorooctanesulfonic Acid
PFOSA	Perfluorooctane Sulfonamide
RA(C)	Remedial Action (Construction)
RA(O)	Remedial Action (Operations)
RC	Response Complete
RD	Remedial Design
RDX	Royal Demolition Explosive
RI	Remedial Investigation
RIP	Remedy-in-Place
RRSE	Relative Risk Site Evaluation
SC	Site Closeout
SE	Southeast
SI	Site Inspection
SRM	Sustainment, Restoration, and Maintenance
SSE	South Southeast
SVE	Soil Vapor Extraction

Acronym	Definition
TA	Training Area
TP	Tank Park
TPH	Total Petroleum Hydrocarbons
ug/kg	micrograms per kilogram
ug/L	micrograms per liter
USAG	United State Army Garrison
UST	Underground Storage Tank
WHG	Wasserhaushaltsgesetz
WWII	World War II

PHASE TRANSLATION TABLE

CERCLA Phase	RCRA Phase	RCRA UST Phase
Preliminary Assessment (PA)	RCRA Facility Assessment (RFA)	Initial Site Characterization (ISC)
Site Inspection (SI)	Confirmation Sampling (CS)	Investigation (INV)
Remedial Investigation/ Feasibility Study (RI/FS)	RCRA Facility Investigation/Corrective Measures Study (RFI/CMS)	Corrective Action Plan (CAP)
Remedial Design (RD)	Design (DES)	Design (DES)
Interim Remedial Action (IRA)	Interim Measure (IM)	Interim Remedial Action (IRA)
Remedial Action (Construction) (RA(C))	Corrective Measures Implementation (Construction) (CMI(C))	Implementation (Construction) (IMP(C))
Remedial Action (Operations) (RA(O))	Corrective Measures Implementation (Operations) (CMI(O))	Implementation (Operations) (IMP(O))
Long-Term Management (LTM)	Long-Term Management (LTM)	Long-Term Management (LTM)

PROGRAM SUMMARY

Number of Open Sites with Response Complete/Total Open IR Sites: 0/0

Number of Open Sites with Response Complete/Total Open MR Sites: 0/0

Number of Open Sites with Response Complete/Total Open CC Sites: 10/33

SITE-LEVEL INFORMATION

GE186 - East Camp Grafenwoehr

Installation Name: US Army Garrison Bavaria

Installation City: GRAFENWOEHR

5603A.1001_CCGF003_GE186_Fmr Landfill Haderbuehl

Env Site ID: CCGF003

Cleanup Site: GE186_Fmr Landfill Haderbuehl

Alias: CCGF003

Regulatory Driver: DODI

RIP Date: 5/15/2014

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	10/31/1999	9/30/2000
SI:	10/31/1999	9/30/2000
RI/FS:	10/31/2004	12/15/2012
RD:	3/31/2008	12/15/2012
IRA:	- -	- -
RA(C):	8/31/2011	5/15/2014
RA(O):	5/15/2014	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The sanitary landfill Haderbuehl is located within the GRAFENWOEHR TRAINING AREA, approximately 4 km south of the TOWER BARRACKS (GE186). The site is located approximately 3 kilometers from the eastern ARLOC boundary (= off post boundary). 2. Physical Layout/Site Use- The old landfill only comprises an area of approximately 5.5 hectares while the total landfill site extends to about 11 hectares. Current activities at the site include shredding of household waste for eventual delivery to an off-post incinerator facility. Additionally various recycling material is intermediately stored at this site. Most of the landfill entrance area is paved and the area surrounding the landfill is unpaved. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. The contamination is associated with unauthorized and uncontrolled waste disposal of all kinds at the site in the 1960s to 1970s. 2. Media Impacted- Mercury and copper in groundwater exceed the applicable Bavarian Tier 2 assessment criteria for mercury of 4 ug/L and copper of 200 ug/L. 3. Nature and Extent of Contamination- The volume of heavy metal contaminated groundwater at the site has been estimated to be approximately 2,5000 m3. The depth to groundwater downstream of the site is 2.0 - 3.0 m bgs. The direction of groundwater flow is north-northeast towards the Rod & Gun Creek, Feldweiherholz Creek, and finally Creussen River. The groundwater flow velocity is low and therefore migration of contamination is slow. 4. Receptors- The downgradient residential irrigation water wells located 3.5 km north-east of the site are the primary receptors at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Control groundwater migration around the landfill site as required according to landfill permit by monitoring. 2. Achievable Remedial Action Objective- Maintain final capping of the landfill. 3. Specific Regulatory Standards and Legal Drivers- The requirements of the landfill permit issued by the District Government of the Upper Palatinate on 08 November 1999, addenda dated 07 Jun 2000 and 22 Dec 2000 and the Water Board Weiden letter dated 17 Mar 2005 apply. Threshold values according to the LfW-Merkblatt 3.8/1 from May 2023. 4. Remediation Methods Planned or Being Conducted- A permanent final cap meeting Host Nation standards has been constructed in 2014. Funding was through SRM. 5. Response Complete- Has been achieved in May 2014. 6. Site Closure- Will be achieved when the

Host Nation authorities allow termination of groundwater monitoring and receipt of HN closure letter. 7. Host Nation Involvement- The Water Board and District Government have been involved with landfill operation/site management/monitoring and remediation since it began in 1990 and issued several permits related to remediation and monitoring. PHASE SCHEDULE 1. Current Phase Objective- A permanent final cap meeting Host Nation standards has been constructed under the RAC phase. RAO started in FY19 and is assumed to be necessary until 2054. 2. Milestones- RAC (201405), Site closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule for the site has been reflect the new closeout date.

5603A.1002_CCGF007_GE186_Bldg 621/Fmr MP9/Bldg 636

Env Site ID: CCGF007

Cleanup Site: GE186_Bldg 621/Fmr MP9/Bldg 636

Alias: CCGF007

Regulatory Driver: DODI

RIP Date: 7/31/2002

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	6/30/1987	5/31/1988
SI:	11/30/1991	12/31/1996
RI/FS:	11/30/1997	2/28/1999
RD:	10/31/2000	9/30/2001
IRA:	- -	- -
RA(C):	6/15/2002	7/31/2002
RA(O):	6/30/2002	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The site is identified as Bldg. 621 and is located within the central portion of the TOWER BARRACKS (GE186). Groundwater contamination at MP9 and Bldg 636 is also handled under this site. The average distance to the northern post boundary is 450 m. 2. Physical Layout/Site Use- Currently, the area is used for parking, administrative and barracks buildings. Site is partially paved as well as covered with greenery. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of CHC released is unknown. Source area(s) are not known. It is assumed that contamination was caused in two release areas. One is the former blueprint room of Bldg. 621 and the other is the former MP9 at which solvents may have very likely been used for cleaning equipment. The exact release areas have not been found. It is assumed that the hot spots are no more existing as they have spread out in the plumes. 2. Media Impacted- Contaminant concentrations in groundwater exceed the applicable Bavarian Tier 2 assessment criteria for CHC of 40 ug/L, TPH of 1,000 ug/L PAH of 2 ug/L, Naphthalene of 8 ug/L and BTEX of 100 ug/L. 3. Nature and Extent of Contamination- The site encompasses an area of about 200,000 m^2. Two aquifers that can hardly be separated from one another lithologically are contaminated. The geology consists of confined sandstone. The groundwater flow direction is SE. The shallowest depth to groundwater is 2.5 m. The coefficient of permeability is in the range 10E-5. 4. Receptors- The downgradient residential irrigation water wells located 400 m northeast and the Schaumbach creek located 650 m southeast of the site are the primary receptors at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Reduce concentrations of CHC, TPH, PAH, naphthalene in groundwater below Bavarian Tier 2 standards of 40 ug/L for CHC, 1,000 ug/L for TPH, 2 ug/L for PAH and 8 ug/L for naphthalene. 2. Achievable Remedial Action Objective- Prevent contaminants from migrating any further towards the Schaumbach Creek located 650 m south of the site. 3. Specific Regulatory Standards and Legal Drivers- Threshold values according to the LfW-Merkblatt 3.8/1 dated May 2023 and German soil protection law dated 1999. 4. Remediation Methods Planned or Being Conducted-. Basically 5 groundwater remediation systems are currently in operation. To find out whether the hydraulic measures can be optimized, these systems were

out of operation from March 2020 to March 2021 with the approval of the authorities. At the end of this shutdown test the systems were put back into operation. The evaluation of the shutdown test showed that there are three contamination centers in the shallow aquifer zone and two contamination centers in the deep aquifer zone. Based on these results the expert company proposed air sparging and in-situ thermal treatment as additional cleanup methods. This also requires an expansion of the monitoring network. As long as the German authorities have not yet commented on the proposals made by the expert company, the previously applied cleanup strategy will be continued. 5. Response Complete- Will be achieved in September 2054 when CHC concentration is low enough. 6. Site Closure- Will be achieved following the reduction of contaminants below Bavarian Tier 2 standards successful completion of 3 years of LTM, and receipt of HN closure letter. 7. Host Nation Involvement- The Weiden Water Board and County Office NEW have been involved with the site investigation strategy and have issued memos commenting on investigation reports and stipulating cleanup. PHASE SCHEDULE 1. Current Phase Objective- RA(O) underway until Sep2054. 2. Milestones- RIP (200206), RC (205409), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule for the site has been reflect the new closeout date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8.

5603A.1003_CCGF018_GE186_Class III Yard

Env Site ID: CCGF018

Cleanup Site: GE186_Class III Yard

Alias: CCGF018

Regulatory Driver: DODI

RIP Date: 7/31/1999

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	2/28/1993	2/28/1993
SI:	2/28/1993	2/28/1993
RI/FS:	10/31/1995	9/30/1997
RD:	10/31/1997	3/31/1998
IRA:	- -	- -
RA(C):	4/30/1998	7/31/1999
RA(O):	7/31/1999	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The Class III Yard is located at the northeast boundary of TOWER BARRACKS (GE186), southeast of Gate 3. The site is located within approximately 100 m the northeast post boundary. 2. Physical Layout/Site Use- The site comprises an area of approximately 10 hectares and is used as a transfer station, fuel storage facility and filling station. Two JP 8 tanks that have a capacity of 800,000 L and 400,000 L are currently in operation. The site is mostly unpaved consisting of lawn, access roads, administration, and hazardous material storage buildings. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. The contamination is associated with fuel leaks caused by unspecified technical problems at the filling stations, handling losses, and leaking pipelines and separators. 2. Media Impacted- TPH and BTEX in groundwater exceed the applicable Bavarian Tier 2 assessment criteria for TPH of 1,000 ug/L and BTEX of 100 ug/L. 3. Nature and Extent of Contamination- The volume of fuel related contaminated groundwater at the site has been estimated to be approximately 24,000 m3. The depth to groundwater at the site is 3.5 - 5.0 m bgs. The direction of groundwater flow is east-northeast, towards the Creussen River. The groundwater flow velocity is low (~ 28 m/year) and therefore migration of contamination is slow. 4. Receptors- The downgradient residential irrigation water wells located 100 m east of the site are the primary receptors at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Reduce concentrations of TPH and BTEX in groundwater below Bavarian Tier 2 standards of 1,000 ug/L and 100 ug/L, respectively. 2. Achievable Remedial Action Objective- Prevent downgradient migration of contaminated groundwater. Especially the residential irrigation wells located 100 m east of the plume must be protected. 3. Specific Regulatory Standards and Legal Drivers- The remediation target values of the water permit issued by the Landratsamt Neustadt a. d. Waldnaab on 19 September 2005 that are oriented to the Level 1 guidance values of the LfW-Merkblatt 3.8/1 from May 2023 apply. The directives of the Groundwater Regulation from 1997 apply to system discharge and re-infiltration. 4. Remediation Methods Planned or Being Conducted- A combined SVE and P &T remediation system has been in operation at the site since 1999. In 2017 an adsorption wall has been installed and the operation

of the P&T remediation system has been stopped. 5. Response Complete- Will be achieved in September 2054. 6. Site Closure- Will be achieved following the reduction of TPH and BTEX below Bavarian Tier 2 standards on-site, successful completion of 3 years of LTM, and receipt of HN closure letter. 7. Host Nation Involvement- The Weiden Water Board has been involved with site remediation since it has begun in 1999 and the County Office has issued several permits related to remediation target values and re-infiltration concentrations. PHASE SCHEDULE 1. Current Phase Objective- a combined SVE and P&T remediation system has been operated under the RA(O) phase until November 2017. In 2017 an adsorption wall has been installed and the operation of the P &T remediation system has been stopped. 2. Milestones- RIP (199907), RC (205409), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule for the site has been reflect the new closeout date. HISTORICAL SITE ACTIVITIES This site has been and is being used as a fuel transfer station for military vehicles. Several leaks caused by unspecified technical problems at the filling stations have been identified in the past. Since 1980, up to 4.5 million liters of fuel have been transferred each month through the Class III Yard. Red colored fuel (MOGAS) was used until approximately 1994. Due to the reduced demand for this type of fuel, MOGAS has not been stored in the tanks since 1991. Alternatively, it is pumped directly from a tank wagon at the track head to the dispensing pumps. In 1991, the use of an 800,000 L MOGAS tank was suspended and replaced by another 800,000 L tank for JP 8 that is still in operation. One 500,000-liter diesel tank was removed in 2002. During soil and groundwater investigations performed in 1993, subsurface fuel-related contamination was detected. Soil contamination with TPH was detected at 10,837 mg/kg with a corresponding remediation target level of 1,000 mg/kg. Groundwater was found to be impacted mainly by TPH and BTEX. TPH and BTEX in soil and groundwater exceed the applicable Bavarian Tier 2 assessment criteria for TPH of 1000 ug/l and BTEX of 100 ug.

5603A.1005_CCGF137_GE186_Bldg 219 Heating Oil Tank

Env Site ID: CCGF137

Cleanup Site: GE186_Bldg 219 Heating Oil Tank

Alias: CCGF137

Regulatory Driver: DODI

RIP Date: 4/30/2011

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	10/31/1995	12/31/1995
SI:	6/30/1996	11/30/1997
RI/FS:	4/30/2000	3/31/2010
RD:	- -	- -
IRA:	- -	- -
RA(C):	4/30/2010	4/29/2011
RA(O):	4/30/2011	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Bldg. 219 is located within the northern portion of the TOWER BARRACKS (GE186) approximately 300 m southeast of Gate 1. The site is located approximately 300 meters from the northern ARLOC boundary (= off post boundary). The site has been used by the U.S. since the post WWII years. 2. Physical Layout/Site Use- Currently, Bldg. 219 is used for housing of family members. The area adjacent to Bldg. 219 is unpaved. Prior to U.S. control, the site was likely used by German Army (Wehrmacht) as an office building. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. Leaks and incorrect use of heating oil tanks and the connecting pipelines of the heating appliances in former times are assumed as cause for the contamination. 2. Media Impacted- TPH in soil exceeds the applicable Bavarian Tier 2 assessment criteria for TPH of 1,000 mg/kg and Tier 1 groundwater assessment criteria for lead, cadmium, nickel, copper, zinc, and strontium of 25 ug/L /5 ug/L /50 ug/L /500 ug/L /300 ug/L (formerly Tier 2 groundwater assessment criteria for lead of 100 ug/L). 3. Nature and Extent of Contamination- The volume of fuel related contaminated soil has been estimated to be approximately 1,600 m3. This contamination spread very likely partly underneath Bldg.219. The depth to groundwater at the site is in a range of 7.5 - 8.6 m bgs. The direction of groundwater flow is most likely east, towards the Creussen River. 4. Receptors- The downgradient residential irrigation water wells located about 1.5 km east of the site are the primary receptors at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- According to the RI/FS there is no negative impact to the groundwater. Change from LTM to RAO because HN target contamination level for remediation has not been met. RA-O of groundwater is ongoing for at least 30 years. 2. Achievable Remedial Action Objective- Groundwater quality at the site should not deteriorate. This should be ensured by groundwater monitoring. Currently it does not look like any remedial action is required. 3. Specific Regulatory Standards and Legal Drivers- Soil and groundwater guidance values of the LfW- Merkblatt 3.8/1 from May 2023 apply. 4. Remediation Methods Planned or Being Conducted- None 5. Response Complete- Was achieved after the RI/FS determined there is no negative impact to the groundwater. 6. Site Closure- The site is expected to

remain in RA-O as contamination in place requires yearly monitoring for at least 30 years. 7. Host Nation Involvement- The Weiden Water Board has been involved with site investigations since the early CHPPM-study results were submitted in 1997. PHASE SCHEDULE 1. Current Phase Objective- RA-O is underway until2054. As the contamination is still in place HN requires a yearly groundwater monitoring at well GW#219/1 for at least 30 years. Sampling GW#219/1 is rolled up under CCGF141. Further work will be performed by government employees. 2. Milestones- RC (201003), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule has been reflect the new close out date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8.

5603A.1006_CCGF138_GE186_Bldg 532 Heating Oil Tank

Env Site ID: CCGF138

Cleanup Site: GE186_Bldg 532 Heating Oil Tank

Alias: CCGF138

Regulatory Driver: DODI

RIP Date: 3/31/2016

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	10/31/1995	12/31/1995
SI:	6/30/1996	10/31/1997
RI/FS:	4/30/2000	9/30/2012
RD:	10/31/2012	5/31/2014
IRA:	- -	- -
RA(C):	5/31/2014	3/31/2016
RA(O):	3/30/2016	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Bldg. 532 is located within the northern portion of the TOWER BARRACKS (GE186). The site is located within approximately 700 m south of the post boundary. 2. Physical Layout/Site Use- The site comprises an area of approximately 4,000 m² and is used as an administrative building with parking lots. The site is mostly paved. CONCEPTUAL SITE MODEL 1. Release Description- Heating oil ASTs previously located outside Bldg. 532 were used until the early 1980's for the building heating. The tanks were removed between 1981 and 1984 and replaced by USTs feeding a different heating system. The USTs were removed between 2002 and 2005 and were replaced by a long-distance heating system. The contamination is associated with fuel leaks caused by unspecified technical problems at the filling stations, handling losses, and leaking pipelines and separators. 2. Media Impacted- TPH, n-alkenes, and naphthalene in soil respectively exceed the applicable Bavarian Tier 2 assessment criteria for TPH of 1 ,000 mg/kg for n-alkenes of 100 mg/kg and naphthalene of 5 mg/kg. Naphthalene and BTEX in groundwater exceed the applicable Bavarian Tier 2 assessment criteria for naphthalene of 8 ug/L and BTEX of 100 ug/L. 3. Nature and Extent of Contamination- The area of fuel related contaminated soil at the site has been estimated to be approximately 1 ,900 m². The direction of groundwater flow is southeast. In the vicinity of GW#532/3, no soil contamination was detected. 4. Receptors- The downgradient Schaumbach creek located 100 m south of the site is the primary receptor at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Reduce contaminant concentrations in soil and groundwater below Bavarian Tier 1 standards. 2. Achievable Remedial Action Objective- Prevent downgradient migration of contaminated groundwater at GW#532/3. 3. Specific Regulatory Standards and Legal Drivers- Threshold values for soil and groundwater according to the LfW-Merkblatt 3.8/1 from May 2023 and German soil protection law dated 1999. 4. Remediation Methods Planned or Being Conducted- Groundwater contamination is very limited. Contaminant concentrations in groundwater are dependent on the appearance of a free-floating oil phase. Therefore, an adsorbent sock is installed in one well to adsorb free oil phase. Since July 2018, a significant decline in the inflowing oil volume has been observed. 5. Response Complete- Will be

achieved in2054, when adsorbent socks are no more effective and final report was accepted. 6. Site Closure- Will be achieved following the reduction of contaminants in groundwater below Bavarian Tier 1 standards, successful completion of 3 years of LTM, and receipt of HN closure letter. 7. Host Nation Involvement- The Weiden Water Board has been involved with the site investigation strategy and the County Office has issued memos. PHASE SCHEDULE 1. Current Phase Objective- During RA(O) the free oil phase in groundwater will be eliminated. 2. Milestones- RA(O) (205409), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule for the site has been reflect the new site close out date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8.

5603A.1007_CCGF139_GE186_Bldg 540 Heating Oil Tank

Env Site ID: CCGF139

Cleanup Site: GE186_Bldg 540 Heating Oil Tank

Alias: CCGF139

Regulatory Driver: DODI

RIP Date: 12/31/2011

RC Date: 12/31/2011

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	10/31/1995	12/31/1995
SI:	6/30/1996	10/31/1997
RI/FS:	4/30/2000	12/31/2008
RD:	3/31/2009	12/31/2009
IRA:	- -	- -
RA(C):	3/31/2009	12/31/2011
RA(O):	- -	- -
LTM:	1/1/2012	9/30/2054

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Bldg. 540 is located in the northern portion of TOWER BARRACKS (GE186). The site is located within approximately 500 m from the northern post boundary. 2. Physical Layout/Site Use- Currently, Bldg. 540 is used as an administrative building and is serviced by long distance heating. The area adjacent to Bldg. 540 is mostly unpaved. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of heating oil release is unknown. Heating oil ASTs previously located outside Bldg. 540 were used until the early 1980's for the building heating. The tanks were removed between 1981 and 1984 and replaced by USTs feeding a different heating system. The USTs were removed between 2002 and 2005 and were replaced by a long-distance heating system. The contamination is associated with fuel leaks caused by unspecified technical problems at the filling stations, handling losses, and leaking pipelines and separators. 2. Media Impacted- TPH in soil exceeded the applicable Bavarian Tier 2 assessment criteria for TPH of 1,000 mg/kg. PAH and naphthalene in groundwater exceed the applicable Bavarian Tier 2 assessment criteria for PAH of 2 ug/L and naphthalene of 8 ug/L. Benzene exceed the applicable Bavarian Tier assessment criteria of 1 ug/L. 3. Nature and Extent of Contamination- After soil removal outside Bldg. 540 residual contamination with Tier 1 exceedances remained in the soil. The depth to groundwater at the site is about 4-5 m bgs. A minimal portion of contamination is in saturated zone. From the ground surface to 3.5 m bgs is unconfined/weathered sandstone. Below 3.5 m confined sandstone begins. Groundwater flow direction is to SE. 4. Receptors- The Schaumbach creek is located 500 m south of the site and must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Reduce concentrations of PAH, naphthalene and BTEX in groundwater below Bavarian Tier 1 standards for PAH of 0.2 ug/L, and for BTEX of 20 ug/L. 2. Remedial Action Objective- Accessible contamination (600 m^3) was excavated to a depth of 4.4 m bgs in 2011 already and disposed off properly. Only very little was encountered at the base of the pit. The site is expected to remain in LTM as contamination in place requires annual monitoring for at least 30 years.3. Specific Regulatory Standards and Legal Drivers- Threshold values according to the LfW-Merkblatt 3.8/1 from May 2023 and German soil protection law dated 1999. 4. Remediation Methods

Planned or being Conducted- None 5. Response Complete- Was achieved in December 2011, following the excavation of 600 m^3 contaminated soil. 6. Site Closure- The site is expected to remain in LTM as contamination in place requires yearly monitoring for at least 30 years. 7. Host Nation Involvement- The Weiden Water Board and County Office NEW have been involved with the site investigation strategy and have issued memos commenting on investigation reports. PHASE SCHEDULE 1. Current Phase Objective- Cap inspection for 30 years. 2. Milestones- RIP (201112), RC (201112), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule has been reflect the new close out date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8. A Decision Document was approved by Commander COL, FA Brian T. Boyle. The Environmental Executive Agent was consulted, and concurrence was granted in the Decision Document to conduct appropriate remedial actions.

5603A.1010_CCGF132_GE186_Bldg 636 Heating Oil Tank

Env Site ID: CCGF132

Cleanup Site: GE186_Bldg 636 Heating Oil Tank

Alias: CCGF132

Regulatory Driver: DODI

RIP Date: 9/15/2018

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	10/31/1995	12/31/1995
SI:	6/30/1996	4/30/1997
RI/FS:	4/30/2000	10/15/2016
RD:	- -	- -
IRA:	- -	- -
RA(C):	10/15/2016	9/15/2018
RA(O):	9/15/2018	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Bldg. 636 is located within the northwestern portion of the TOWER BARRACKS (GE186). The site is located within approximately 300 m south of the northern post boundary. 2. Physical Layout/Site Use- Currently, Bldg. 636 is used as an administrative building and an off-site heating fuel source is used. The area adjacent to Bldg. 636 is mostly paved. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of heating oil release is unknown. ASTs used for oil storage were previously located on the exterior of Bldg. 636. The tanks were removed between 1981 and 1984 and replaced by USTs connected to a separate heating system. The USTs were removed between 2002 and 2005. The contamination is associated with fuel leaks caused by unspecified technical problems at the filling stations, handling losses, and leaking pipelines and separators. 2. Media Impacted- TPH, naphthalene, BTEX and n-alkenes in soil exceed the applicable Bavarian Tier 2 assessment criteria for TPH of 1,000 mg/kg, for naphthalene of 5 mg/kg, for BTEX of 100 mg/kg and n-alkenes of 100 mg/kg. PAH, naphthalene and benzene in groundwater exceed the applicable Bavarian Tier 2 assessment criteria for PAH of 2 ug/L, naphthalene of 8 ug/L and benzene of 10 ug/L. 3. Nature and Extent of Contamination- The volume of heating oil related contaminated soil at the site has been estimated to be approximately 1,100 m^3. The deepest soil contamination was detected at 4 m bgs. The depth to groundwater at the site is about 3.1 m bgs and flows towards the SE. The majority of contamination is in saturated zone. 4. Receptors- The downgradient Schaumbach creek 450 m southeast of the site is the primary receptor at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Reduce concentrations of PAH, naphthalene, n-alkanes and BTEX in soil and groundwater below Bavarian Tier 1 standards. 2. Achievable Remedial Action Objective- Prevent downgradient migration of contaminated groundwater. 3. Specific Regulatory Standards and Legal Drivers- Threshold values according to the LfW-Merkblatt 3.8/1 from May 2023 and German soil protection law dated 1999. 4. Remediation Methods Planned or Being Conducted- Due to a HN requirement in spring 2018 a new remediation plant has been installed and connected with groundwater monitoring well #636/01 north of Bldg. #636. The site's future liability is rolled up under site

5603A.1002. 5. Response Complete- Will be achieved if no more contaminant exceedances will be encountered in groundwater and the existing cover is a sufficient remedy for the current site use. 6. Site Closure- The site is expected to be closed in FY53 7. Host Nation Involvement- The Weiden Water Board and County Office NEW have been involved with site investigation and have issued memos commenting on investigation reports and stipulating cleanup. PHASE SCHEDULE 1. Current Phase Objective- Currently RA-O is underway. 2. Milestones- RC (205409), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule for the site has been reflect the new closeout date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8. 9. A Decision Document dated 10 May 2005 was approved by the Deputy Chief of Staff. The Environmental Executive Agent was consulted and concurrence was granted in the Decision Document to conduct appropriate remedial actions.

5603A.1011_CCGF133_GE186_Bldg 3364 Heating Oil Tank

Env Site ID: CCGF133

Cleanup Site: GE186_Bldg 3364 Heating Oil Tank

Alias: CCGF133

Regulatory Driver: DODI

RIP Date: 12/31/2011

RC Date: 12/31/2011

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	10/31/1995	12/31/1995
SI:	6/30/1996	10/31/1997
RI/FS:	4/30/2000	1/31/2009
RD:	3/31/2008	3/31/2010
IRA:	- -	- -
RA(C):	3/31/2009	12/31/2011
RA(O):	- -	- -
LTM:	12/31/2011	9/30/2054

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Bldg. 3364 is located within the field Camp Normandy which belongs to TOWER BARRACKS (GE186). The site is located within approximately 2.8 km away of eastern post boundary. 2. Physical Layout/Site Use- Currently, Bldg. 3364 is used as an administrative building and long-distance heating is used. The area adjacent to Bldg. 3364 is mostly unpaved. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of heating oil release is unknown. ASTS used for heating oil storage were previously located on the exterior of Bldg. 3364. The tanks were removed between 1981 and 1984 and replaced by USTs connected to a separate heating system. The USTs were removed between 2002 and 2005. The contamination is associated with fuel leaks caused by unspecified technical problems at the filling stations, handling losses, and leaking pipelines and separators. 2. Media Impacted- TPH in soil exceed the applicable Bavarian Tier 2 assessment criteria for TPH of 1,000 mg/kg. Contaminant concentrations in groundwater don't exceed any assessment criteria anymore. 3. Nature and Extent of Contamination- After soil removal between Bldg. 3364 and Bldg. 3384, the highest concentrations in soil were detected for TPH at 5,100 mg/kg underneath Bldg. 3364. The remaining volume of contaminated soil underneath Bldg. 3364 & 3384 has not been estimated. The deepest soil contamination was detected at 2.6 m bgs. The depth to groundwater at the site is about 1 m bgs. The majority of contamination is in saturated zone. From the ground surface to 2.5 m bgs is unconfined/weathered sandstone. Below 2.5 m confined sandstone begins. Groundwater flow direction is to NE. 4. Receptors- The down gradient swampy area located 150 m north of the site is the primary receptor at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Demonstrate that groundwater is no longer contaminated as only long chained TPH residues are present in soil. Additionally, the building cap provides protection for receptors. 2. Achievable Remedial Action Objective- Accessible soil contamination was excavated already. Remaining soil contamination does not pose any threat to groundwater. Additionally, the building cap provides protection for groundwater. 3. Specific Regulatory Standards and Legal Drivers- Threshold values according to the LfW-Merkblatt 3.8/1 from May 2023 and German soil protection law dated 1999.

4. Remediation Methods Planned or Being Conducted- Excavation of 1,900 t TPH contaminated soil was excavated from April to October 2010. Max excavation depth was 3.6 m bgs. Groundwater management was operated as contamination was in saturated zone. The existing cover meets the Remedial Action Objective. Although there is remaining contamination under Bldg. # 3364 no remedial action is needed at the moment. From time-to-time cap inspection is needed that will be performed by government employees. This work will not be documented explicitly. 5. Response Complete- Has been achieved in 2011. 6. Site Closure- The site is expected to remain in LTM (cap inspections for at least 30 years). 7. Host Nation Involvement- The Weiden Water Board and County Office NEW have been involved with site investigation and have issued memos commenting investigation reports. PHASE SCHEDULE 1. Current Phase Objective- Currently LTM underway. Groundwater sampling (3 years) did not show any critical contaminant concentrations. Subsequently annual inspections of the cap until 2054. 2. Milestones- RIP (NA), RC (201112), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule has been reflect the new closeout date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8. The Environmental Executive Agent was consulted, and concurrence was granted in the Decision Document to conduct appropriate remedial actions.

5603A.1012_CCGF134_GE186_Bldg 3120 EBE

Env Site ID: CCGF134

Cleanup Site: GE186_Bldg 3120 EBE

Alias: CCGF134

Regulatory Driver: DODI

RIP Date: 10/15/2011

RC Date: 10/15/2011

RC Reason: Study Completed, No Cleanup Required

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	4/30/2004	4/30/2004
SI:	4/30/2004	8/31/2004
RI/FS:	8/31/2004	10/15/2011
RD:	10/15/2011	10/15/2011
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	10/15/2011	9/30/2054

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Bldg.3120 is located within Camp Normandy which is in the south part of TOWER BARRACKS (GE186). The site is located approximately 2.5 kilometers from the eastern ARLOC boundary (= off post boundary). The site has been used by the U.S. since the post WWII years. 2. Physical Layout/Site Use- Bldg. 3120 is one of several newly renovated academy buildings at this location. Lawns and a central access sidewalk exist between the buildings. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. Leaks and incorrect use of heating oil tanks and the connecting pipelines of the heating appliances in former times are assumed as the cause for the contamination to be investigated. 2. Media Impacted- TPH in soil exceeds the applicable Bavarian Tier 2 assessment criteria for TPH of 1,000 mg/kg and Tier 1 groundwater assessment criteria for TPH and PAH/Naphthalene of 200/0.2/2 ug/L. 3. Nature and Extent of Contamination- The vast amount of contaminated soil (approximately 300 m3) requiring remedial actions has already been excavated to an extent that the neighboring building did not collapse. Soil contamination still exists underneath Bldg.3120 and likely neighboring buildings 3121, 3140 & 3141 that are only a few meters away. Estimated quantities of polluted soil are about 100 m3. Maximum TPH concentration in soil was found in a depth of 1.6 - 2.3 m at 3,600 mg/kg in 2007. The depth to groundwater downstream to the site is 1.5 - 3.0 m bgs. The direction of groundwater flow is north-northeast towards the Schaumbach creek. 4. Receptors- The Schaumbach creek located about 1.5 km north of the site is the primary receptor at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- According to the RI/FS there is no negative impact to the groundwater. Only LTM will be necessary as further action. 2. Achievable Remedial Action Objective- Groundwater quality at the site should not deteriorate. This should be ensured by monitoring. Currently, it does not look like any remedial action is required. 3. Specific Regulatory Standards and Legal Drivers- Soil and groundwater guidance values of the LfW- Merkblatt 3.8/1 from May 2023 apply. 4. Remediation Methods Planned or Being Conducted- Contaminated soil excavation were already done in the footprint of the construction project. As of now there is no further remediation planned for the remaining

pollution that still exists underneath the building. 5. Response Complete- Was achieved after the findings of the RI/FS determined that there is no negative impact to the groundwater from the remnant contaminated soil that is present. 6. Site Closure- The site is expected to remain in LTM as contamination in place requires yearly monitoring for at least 30 years. 7. Host Nation Involvement- The Weiden Water Board has been involved with site investigations since contamination was encountered during EBE construction measures in 2003. PHASE SCHEDULE 1. Current Phase Objective- LTM is underway. As the contamination is still in place a yearly cap inspection and groundwater monitoring is required. 2. Milestones- RC (201110), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule has been reflect the new closeout date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8.

5603A.1013_CCGF135_GE186_Fmr Motor Park near MP9

Env Site ID: CCGF135

Cleanup Site: GE186_Fmr Motor Park near MP9

Alias: 5603A.1013

Regulatory Driver: DODI

RIP Date: 12/15/2014

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	12/31/2003	12/31/2003
SI:	2/29/2004	3/31/2004
RI/FS:	3/31/2005	2/28/2013
RD:	- -	- -
IRA:	- -	- -
RA(C):	3/31/2013	12/15/2014
RA(O):	12/15/2014	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Site called former MP9 is located within the central portion of the TOWER BARRACKS (GE186). Cleanup of this site is rolled up under CCGF007. The average distance to the northern post boundary is 450 m. 2. Physical Layout/Site Use- This motor park has been completely removed. Currently former MP9 is unpaved and used as parking lot. In Spring 2013, construction for MILCON PN 69614 started at this site. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of contaminant release is unknown. The source is probably a former 30,000 L diesel fuel tank, used for vehicle refueling of tenant units in the 1970s. RI/FS and a small-scale excavation revealed contaminants such as TPH, PAH, BTEX, VHHC. 2. Media Impacted- TPH in soil exceed the applicable Bavarian Tier 2 assessment criteria for TPH of 1,000 mg/kg for PAH of 20 mg/kg, for naphthalene of 8 mg/kg, and for CHC of 10 mg/kg. 3. Nature and Extent of Contamination- The volume of contaminated soil is estimated at 16,500 m^3. The deepest soil contamination was detected at 5.8 m bgs. The depth to groundwater at the site is about 2.5 m bgs. The majority of contamination is in saturated zone. From the ground surface to 2.5 m bgs is unconfined/weathered sandstone. Below 2.5 m confined sandstone begins. Groundwater flow direction is towards the E/NE. 4. Receptors- The downgradient residential irrigation water wells located 450 m northeast and the Schaumbach creek located 550 m southeast of the site are the primary receptors at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Reduce concentrations of TPH, PAH, CHC and naphthalene below Bavarian Threshold 1 values. 2. Achievable Remedial Action Objective- Prevent contaminant migration to groundwater to the maximum extent possible. Complete the excavation of contaminated soil during the MILCON construction project as far as possible. 3. Specific Regulatory Standards and Legal Drivers- Target value is equal to threshold value 1 according to the LfW-Merkblatt 3.8/1 from May 2023 and German soil protection law dated 1999. 4. Remediation Methods Planned or Being Conducted- During construction of MILCON 69614 as much contaminated soil as possible was excavated and disposed of. Groundwater contaminations at sites CCGF007 & CCGF135 have combined to one large plume. 5. Response Complete- Will be achieved with end of RA(O). 6. Site

Closure- Will be achieved following the reduction of TPH, PAH, CHC and naphthalene below Bavarian Threshold 1 values, successful completion of 3 years of LTM, and receipt of HN closure letter. 7. Host Nation Involvement- The Weiden Water Board and County Office NEW have been involved with the site investigation strategy since it began and has issued memos commenting on investigation reports and stipulating cleanup. PHASE SCHEDULE 1. Current Phase Objective- Excavation of contaminated soil to the maximum extent possible during the MILCON project was done in 2014 under RA(C) phase. Because of remnant contamination in the ground further action is needed, but meanwhile the site's liability is done under site CCGF007. Site remains in RA(O) for a rolling period of 30 years. 2. Milestones- RAC (201412), RA(O) (205409) MATERIAL CHANGES 1. Schedule- The phase schedule for the site has been reflect the new close out date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8.

5603A.1014_CCGF136_GE186_Gate 6 EBE

Env Site ID: CCGF136

Cleanup Site: GE186_Gate 6 EBE

Alias: CCGF136

Regulatory Driver: DODI

RIP Date: 4/30/2012

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	11/30/2003	11/30/2003
SI:	11/30/2003	3/31/2004
RI/FS:	10/31/2005	3/31/2008
RD:	3/31/2008	6/30/2009
IRA:	- -	- -
RA(C):	3/31/2008	3/31/2012
RA(O):	4/30/2012	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Description- Gate 6 is located in the northeastern portion of TOWER BARRACKS (GE186), adjacent to the Schaumbach creek, southeast of Gate 3. The site is adjacent to the post boundary. 2. Physical Layout/Site Use- The site comprises an area of approximately 7,800 m² and consist of a biotope very next to the access Gate 6. The site is unpaved consisting of a creek and wetlands. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. The contamination is associated with a former dump site consisting of metal and construction debris. 2. Media Impacted- After cleanup, the remaining lead and TPH in soil exceed the applicable Bavarian Tier 2 assessment criteria for TPH of 1 ,000 mg/kg and lead of 500 mg/kg. 3. Nature and Extent of Contamination- After clean up the remaining volume of contaminated soil at the site has been estimated to be approximately 100 - 200 m³. These areas were not accessible for cleanup. The direction of groundwater flow is northeast, towards the creek. In soil samples no contaminant concentration was detected in eluate. 4. Receptors- The downgradient creek is the primary receptor at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Protect receptors from exposure to contaminants in soil. The existing cap provides protection for receptors. 2. Achievable Remedial Action Objective- Accessible contamination was cleaned up already. Remaining contamination does not pose any threat to groundwater. Additionally, the existing cap provides protection for groundwater. 3. Specific Regulatory Standards and Legal Drivers- Threshold values according to the LfW-Merkblatt 3.8/1 from May 2023 and German soil protection law dated 1999. 4. Remediation Methods Planned or Being Conducted- According to final report no more cleanup is required as long as no construction will be conducted. The existing cover meets the Remedial Action Objective. If the cover is removed in future (i.e. when the Bldg is removed) the remedy may have to be reassessed. 5. Response Complete- Was achieved in March 2012, when the final report concluded that no further action was required and the existing cover is a sufficient remedy for the current site use. 6. Site Closure- The site is expected to remain in RA-O (cap inspections by government employees for at least 30 years). 7. Host Nation Involvement- The Weiden Water Board and County Office NEW were involved with site

investigation since it began and issued memos commenting investigation reports. PHASE SCHEDULE 1. Current Phase Objective- Annual inspections of the cap until 2054. 2. Milestones- RIP (201204), RC (205409), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule has been reflect a 30-yr rolling RA-O requirement and the new close out date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8. A Decision Document was approved by Commander COL, FA Brian T. Boyle. The Environmental Executive Agent was consulted and concurrence was granted in the Decision Document to conduct appropriate remedial actions.

5603A.1015_CCGF129_GE186_Bldg 334

Env Site ID: CCGF129

Cleanup Site: GE186_Bldg 334

Alias: CCGF129

Regulatory Driver: DODI

RIP Date: 10/31/2010

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	6/30/1996	6/30/1996
SI:	4/30/1997	6/30/1999
RI/FS:	10/31/2004	7/31/2006
RD:	7/31/2006	7/31/2006
IRA:	- -	- -
RA(C):	8/31/2006	10/31/2010
RA(O):	9/30/2006	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The former Bldg. 334 was located in the northeastern portion of TOWER BARRACKS (GE186), in close proximity to Gate 3. The site is located approximately 60 meters from the northeastern ARLOC boundary (= off post boundary). The site has been used by the U.S. since the post WWII years. 2. Physical Layout/Site Use- The former Bldg. 334 was about 6 m x 10 m large and is located in a fenced area currently used as transportation motor pool which is mostly paved. It was formerly used as paint shop and fueling station. The only remainder of Bldg. 334 is a concrete platform. Adjacent to the concrete platform are several meters of unpaved land. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. The contamination is associated with uncontrolled spills and careless use of fuel and paint products in the 1960s - 1980s. 2. Media Impacted- BETX and mainly Benzene in groundwater exceed the applicable Bavarian Tier 2 assessment criteria for BTEX of 100 ug/L and Benzene of 10 ug/L. 3. Nature and Extent of Contamination- The center of the contaminated groundwater is most likely characterized with groundwater monitoring well GW#334/1. The plume is not very large but the approximately 30 m downgradient monitoring well GW#334/5 is still slightly impacted. The depth to groundwater downstream to the site is 5.0 - 7.0 m bgs. The direction of groundwater flow is east-northeast, towards the Creussen River. 4. Receptors- The downgradient residential irrigation water wells located about 300 m east of the site are the primary receptors at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Reduce concentrations of BTEX/Benzene in groundwater as far as possible towards Bavarian Tier 1 standards of 20 ug/L /1 ug/L. 2. Achievable Remedial Action Objective- Cleanup of contaminated groundwater in well GW334/5 below level 1. 3. Specific Regulatory Standards and Legal Drivers- The surface water discharge target values after the treatment of the water permit issued by the Landratsamt Neustadt a. d. Waldnaab on 05 July 2007 (meanwhile extended) that are oriented to the Level 2 guidance values of the LfW-Merkblatt 3.8/1 from May 2023 apply. 4. Remediation Methods Planned or Being Conducted- A P&T remediation system has been in operation at the site from 2007 until the end of 2013, but has been discontinued due to ineffectiveness. Occasional SVE has been added

since 2012. The remediation system has removed approximately 6 kg of mainly BTEX-contaminants including almost 2 kg of Benzene. 5. Response Complete- Will be achieved with end of RA(O). 6. Site Closure- Will be achieved following the reduction of BTEX/Benzene towards Bavarian Tier 1 standards and receipt of HN closure letter. 7. Host Nation Involvement- The Weiden Water Board has been involved with site remediation since it began in 2007. The County Office has issued a water permit (meanwhile extended) related to surface water discharge target values after treatment. PHASE SCHEDULE 1. Current Phase Objective- Groundwater monitoring will be performed under RA-O until 2054. If contamination levels are permanently low site will be closed out. 2. Milestones- RIP (201010), RC (205409), Site Closeout (205409) MATERIAL CHANGES Schedule- The phase schedule for the site has been reflect the new site close out date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8. A Decision Document has been approved by EEA.

5603A.1017_CCGF142_GE186_Tank Park 26

Env Site ID: CCGF142

Cleanup Site: GE186_Tank Park 26

Alias: CCGF142

Regulatory Driver: DODI

RIP Date: 10/31/2027

RC Date: 10/31/2027

RC Reason: Not assigned

SC Date: 10/31/2027

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	8/31/1993	8/31/1993
SI:	8/31/1993	8/31/1993
RI/FS:	5/31/2005	10/31/2027
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Tank Park TP26 belongs to CAMP ALGIER, located within the southern portion of TOWER BARRACKS (GE186). The site is located approximately 1.5 kilometers from the eastern ARLOC boundary (= off post boundary). The site has been used by the U.S. since the post WWII years. 2. Physical Layout/Site Use- The site comprises an area of approximately 3.1 hectares and is used for military vehicle parking and maintenance. The fenced TP26 is unpaved and covered with gravel. A maintenance building and two used oil tank sheds are located there. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of contaminant release is unknown. The contamination is associated with uncontrolled spills and careless use of fuel products during vehicle maintenance within the last decades. 2. Media Impacted- TPH in soil exceeds the applicable Bavarian Tier 2 assessment criteria for TPH of 1,000 mg/kg, for PAH of 25 mg/kg and Tier 1 for naphthalene of 1 mg/kg and for BTEX of 10 mg/kg. TPH/BTEX/benzene/PAH/naphthalene/benzo(a)pyrene in groundwater exceed the respective applicable Bavarian Tier 2 assessment criteria of 1,000 ug/L /100 ug/L /10 ug/L /2 ug/L /8 ug/L /0.1 ug/L. 3. Nature and Extent of Contamination- The pollution in soil is very scattered, selective, and diffuse therefore it cannot be delineated and the quantity cannot be estimated. The soil contaminations were detected in a range of 0.5 - 1.2 m bgs. The contamination in groundwater is at times very irregular and decreased to below Tier 2 in downgradient monitoring well GWTP26/1 since 2007. Newly installed shallow well GWTP26/4f and deeper well GWTP26/4t show BTEX/Benzene Tier 1 and Tier 2 exceedings respectively. Tier 2 of naphthalene is significantly exceeded in GWTP26/4t and Tier 1 for PAH/Naphthalene in both wells respectively. The depth to groundwater at the site is from 0.7 - 3.0 m bgs downstream. The direction of groundwater flow is north-east, towards the Feldweiherholz creek. 4. Receptors- The Feldweiherholz creek located 100 m east-northeast of the site is the primary receptor at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- According to the RI/FS no receptor is threatened. Currently Host Nation requires only groundwater monitoring to show that concentrations in groundwater are stable and groundwater quality is not going worse. 2. Achievable

Remedial Action Objective- Groundwater quality at the site should not deteriorate. This should currently be ensured by monitoring. 3. Specific Regulatory Standards and Legal Drivers- Soil and groundwater guidance values of the LfW- Merkblatt 3.8/1 from May 2023 apply. 4. Remediation Methods Planned- None. 5. Response Complete- Will be achieved after the RI/FS determined that groundwater quality is not going to be worse. 6. Site Closure- As contamination is still in place the site is expected to remain open for at least 30 years. 7. Host Nation Involvement- The Weiden Water Board has been involved with site investigations since they began in 1993. PHASE SCHEDULE 1. Current Phase Objective- RI/FS is underway until 202710 2. Milestones- RC (202710), Site Closeout (202710) MATERIAL CHANGES Schedule- The phase schedule for the site has been reflect the new end dates for RI/FS and site closeout. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8.

5603A.1018_CCGF143_GE186_Motor/Tank Park 4

Env Site ID: CCGF143

Cleanup Site: GE186_Motor/Tank Park 4

Alias: CCGF143

Regulatory Driver: DODI

RIP Date: 10/31/2012

RC Date: 10/31/2012

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	8/31/1993	8/31/1993
SI:	4/30/1999	9/30/2004
RI/FS:	10/31/2004	12/31/2009
RD:	3/31/2009	1/31/2011
IRA:	- -	- -
RA(C):	3/31/2010	10/31/2012
RA(O):	- -	- -
LTM:	10/31/2012	9/30/2054

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Motor and Tank Park 4 belongs to CAMP ALGIER, located within the southern portion of TOWER BARRACKS (GE186). The site is located approximately 1.7 kilometers from the eastern ARLOC boundary (= off post boundary). The site has been used by the U.S. since the post WWII years. 2. Physical Layout/Site Use- The total MT4 site comprises an area of approximately 2.5 hectares and is used for military vehicle parking and maintenance. The fenced MT4 is mostly paved. Maintenance and storage buildings are located there. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of contaminant release is unknown. The contamination is associated with uncontrolled spills and vehicle oil change as well as careless use of fuel products during vehicle maintenance within the last decades. 2. Media Impacted- TPH in soil exceeded the applicable Bavarian Tier 1 assessment criteria of 100 mg/kg. PAH in groundwater exceeded the applicable Bavarian Tier 1 assessment criteria of 0.2 ug/L. 3. Nature and Extent of Contamination- During the RA(C) phase, 1,122 m3 of TPH, PAH and BTEX contaminated soil was excavated and disposed off until FY12. The depth to groundwater at the site is from 2.0 - 3.4 m bgs. The direction of groundwater flow is northeast, towards the Schaumbach creek. 4. Receptors- The Schaumbach creek located approximately 1 km northeast of the site is the primary receptor at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- LTM is currently ongoing. No further contamination expected. 2. Achievable Remedial Action Objective- Contamination has been cleaned up. Remainders are secured underneath a tight concrete pavement above groundwater fluctuation zone and can stay upon agreement by the Water Board Weiden. No further cleanup is necessary. 3. Specific Regulatory Standards and Legal Drivers- Soil and groundwater guidance values of the LfW- Merkblatt 3.8/1 from May 2023 apply. 4. Remediation Methods Planned- None. 5. Response Complete- Was achieved in October 2012. 6. Site Closure- Might be achieved following successful completion of LTM. Receipt of HN closure letter will be pursued then. 7. Host Nation Involvement- The Weiden Water Board has been involved with site investigations since they began in 1993. PHASE SCHEDULE 1. Current Phase Objective- LTM is underway. As the remainders of the contamination is still in place a yearly cap inspection is

required. 2. Milestones- RC (201210), Site Closeout (205409) MATERIAL CHANGES Schedule- The phase schedule for the site has been reflect the new close out date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8. A Decision Document was signed by the EEA.

5603A.1019_CCGF144_GE186_Fmr Landfills near WRBDL

Env Site ID: CCGF144

Cleanup Site: GE186_Fmr Landfills near WRBDL

Alias: CCGF144

Regulatory Driver: DODI

RIP Date: 9/30/1973

RC Date: 9/30/1973

RC Reason: Study Completed, No Cleanup Required

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	1/31/1969	2/28/1969
SI:	- -	- -
RI/FS:	- -	- -
RD:	10/31/1970	9/30/1971
IRA:	- -	- -
RA(C):	10/31/1971	9/30/1973
RA(O):	- -	- -
LTM:	10/31/2004	9/30/2054

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The two old landfill sites are close to each other (near Washrack B and Dickhaeuter Lake) and are located within the western portion of TOWER BARRACKS (GE186). The site is located approximately 2 kilometers from the eastern ARLOC boundary (= off post boundary). The site has been used by the U.S. since the post WWII years. 2. Physical Layout/Site Use- The total site of the two old landfills comprises an area of approximately 5.7 hectares (Washrack B landfill 3.8 ha and Dickhaeuter landfill 1.9 ha). The waste layers of the landfills are estimated to be 1.5 - 4.0 m thick, the volumes are approximately 113 ,700 m3 (washrack B landfill) respectively 56,850 m3 (Dickhaeuter landfill). The washrack B landfill is framed by a tank road in the north and the Schaumbach creek in the south, covered with a 30 cm thick sand layer, partly paved and used for interim storage of excavated soil and construction debris coming from EB-G and other construction projects. The Dickhaeuter landfill is framed by woods respectively the Dickhaeuter lake in the north, also covered with sand but mostly unpaved and overgrown with grass and it is used as a recreational area. CONCEPTUAL SITE MODEL 1. Release Description- Washrack B dump site was created in a former sand pit in 1958 and operated until 1972/73. It is not secured with a base sealing. The dumped waste consists of solid waste, residues of vehicle maintenance and military waste (ammunition and explosive residues) of US troops, slag from heat plants, wood and yard waste. The situation at the Dickhaeuter dump site is similar. 2. Media Impacted- Arsenic/Barium/Strontium in groundwater exceed the applicable Bavarian Tier 1 assessment criteria of 10 ug/L /300 ug/L /300 ug/L. 3. Nature and Extent of Contamination- The pollution in groundwater stays in the vicinity downstream and might not be very large. Only the upper aquifer is imp acted. In the deeper groundwater regime, no landfill related contaminants were detected in the past and therefore monitoring ceased in the mid-2000s. The groundwater situation is complicated due to the artesian main groundwater zone in the deeper aquifer and the Schaumbach creek which is flowing between the two landfills. The depth to the upper groundwater aquifer at the site ranges from 1.4 - 4.7 m bgs downgradient. The basis of the landfill is very likely dipping into the groundwater. The direction of groundwater flow is northeast in the south and southeast in the north of the Schaumbach

creek, towards the Schaumbach creek. 4. Receptors- The Schaumbach creek located in the immediate vicinity south of the washrack B landfill and the Dickhaeuter lake (which is passed by the Schaumbach creek) about 100 m north of the Dickhaeuter landfill are the primary receptors that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Control groundwater migration around the landfill sites as required by Host Nation authorities. 2. Achievable Remedial Action Objective- Groundwater quality at the site should not deteriorate. This will be ensured by monitoring. Currently, it does not look like any remedial action is required. 3. Specific Regulatory Standards and Legal Drivers- Soil and groundwater guidance values of the LfW-Merkblatt 3.8/1 from May 2023 apply. 4. Remediation Methods Planned- None. 5. Response Complete- Was achieved in September 1973. 6. Site Closure- Will be achieved when the Host Nation authorities allow termination of groundwater monitoring and receipt of HN closure letter. 7. Host Nation Involvement- The Weiden Water Board has been involved with site investigations since they began in 1989. Continuation of Site Narrative can be found at Historic Use Narrative Current Use- Industrial Historic Use Narrative- Continuation of Site Narrative PHASE SCHEDULE 1. Current Phase Objective- LTM is underway and is expected to continue. 2. Milestones- RC (197309), Site Closeout (205409) MATERIAL CHANGES Schedule- The phase schedule for the site has been reflect a LTM duration of 30 years and the new close out date.

5603A.1022_CCGF148_GE186_Bldg 346

Env Site ID: CCGF148

Cleanup Site: GE186_Bldg 346

Alias: CCGF148

Regulatory Driver: DODI

RIP Date: 10/31/2013

RC Date: 10/31/2013

RC Reason: Study Completed, No Cleanup Required

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	1/31/1997	1/31/1997
SI:	1/31/1997	4/30/2006
RI/FS:	5/31/2006	10/31/2013
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	10/31/2013	9/30/2054

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- Bldg.346 is located in the northeastern portion of TOWER BARRACKS (GE186), 300 m southeast of Gate 3. The site is located within approximately 150 m the northeast post boundary. The site has been used by the U.S. since the post WWII years. Prior to this the site was not used. 2. Physical Layout/Site Use- Bldg. 346 is about 3 m x 10 m large, is located in a fenced area belonging to the DPW shops and currently used for parking of lawn mowers, storage of tools and material. The area around the building is mostly paved and expands to approximately 0.5 hectares. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. The contamination is associated with uncontrolled spills and careless use of solvents and chemicals in the 1960s - 1980s. 2. Media Impacted- CHC/CHC carcinogenic/Cadmium/Copper/Zinc/Strontium in groundwater exceed in general the applicable Bavarian Tier 1 assessment criteria of 10 ug/L /3 ug/L /5 ug/L /50 ug/L /500 ug/L /300 ug/L (Tier 2 only once per parameter in some occasions). 3. Nature and Extent of Contamination- The center of the contaminated groundwater is most likely characterized from Bldg.346 to about 50 m downstream groundwater monitoring well GW#346/3 which is not a very large area of approximately 400 m2. CHC/CHC carcinogenic (Tetrachloromethane) has been detected at maximum concentrations of 11 ug/L /11 ug/L in 2005 but decrease to 3.3 ug/L /3.3 ug/L in 2010. CHC/CHC carcinogenic did not exceed the Tier 1 value in recent sampling campaigns. Cadmium/Copper/Zinc/Strontium has been detected at maximum concentrations of 20 ug/L /110 ug/L /2,600 ug/L /300 ug/L. The depth to groundwater at the site is 6.0 - 7.0 m bgs. The direction of groundwater flow is northeast, towards the Creussen River. 4. Receptors- The downgradient residential irrigation water wells located about 300 m northeast and the Creussen River about 700 m northeast of the site are the primary receptors that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- 3 years of monitoring have been completed successfully within the RI/FS phase. No further action required except monitoring of GW#346/3. Additionally, the asphalt / building cap provides protection for receptors. 2. Achievable Remedial Action Objective- No remedial action required. Building cap provides protection for groundwater. 3. Specific

Regulatory Standards and Legal Drivers- Soil and groundwater guidance values of the LfW- Merkblatt 3.8/1 from May 2023 apply. 4. Remediation Methods Planned or Being Conducted- The existing cover meets the Remedial Action Objective. If the cover is removed in future (i.e. when the Bldg.is removed) the remedy may have to be reassessed. 5. Response Complete- Was achieved after RI/FS completion (successful 3-year-monitoring) and as the existing cover is sufficient for the current site use. 6. Site Closure- The site is expected to remain in LTM (cap inspections for at least 30 years). 7. Host Nation Involvement- The Weiden Water Board has been involved continuously since previous studies began in 1997. PHASE SCHEDULE 1. Annual inspections of the cap until 205409. 2. Milestones- RIP (201310), RC (201310), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule has been reflect a 30-yr rolling LTM requirement for cap inspections and the new close out date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8.

5603A.1023_CCGF149_GE186_MP7

Env Site ID: CCGF149

Cleanup Site: GE186_MP7

Alias: CCGF148

Regulatory Driver: DODI

RIP Date: 2/1/2016

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	1/31/2007	5/31/2007
SI:	1/31/2007	9/30/2008
RI/FS:	10/31/2008	12/31/2014
RD:	- -	- -
IRA:	- -	- -
RA(C):	1/31/2015	1/31/2016
RA(O):	2/1/2016	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- MP7 is located in the center of the TOWER BARRACKS (GE186). The site is located within approximately 500 m away of northern post boundary. 2. Physical Layout/Site Use- Currently, MP7 is used as a motor pool including an administrative building. The area adjacent to MP7 is partially unpaved and covered with gravel. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of TPH release is unknown. Most likely, the contamination is associated with former vehicle maintenance work at the MP for several years. 2. Media Impacted- TPH, PAH and naphthalene in soil exceed the applicable Bavarian Tier 2 assessment criteria for TPH of 1,000 mg/kg, for PAH of 25 mg/kg and naphthalene of 5 mg/kg. Contaminant concentrations in groundwater exceed the applicable Bavarian Tier 2 assessment criteria for VHHC carcinogenic of 10 ug/L. 3. Nature and Extent of Contamination- The volume of fuel related contaminated soil at the site has been estimated to be approximately 350 m^3. The depth to groundwater at the site is 1.8 - 2.2 m bgs. The base of contamination is in the saturated zone. The direction of groundwater flow is SE, towards the Schaumbach Creek. Recently the concentrations of the pollutants fluctuate above and below remediation goals. 4. Receptors- The Schaumbach creek is located 50 m south of the site and must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Reduce concentrations of TPH, PAH, and naphthalene in soil below the respective Bavarian Tier 1 standards of 100 mg/kg, 20 mg/kg, 5 mg/kg. 2. Remedial Action Objective- Excavation of contaminated soil was already performed. 3. Specific Regulatory Standards and Legal Drivers- Threshold values according to the LfW-Merkblatt 3.8/1 from May 2023 and German soil protection law dated 1999. 4. Remediation Methods Planned or Being Conducted- Excavation of 11,800 m^3 contaminated soil was performed. 5. Response Complete- Was achieved in Dec 2014, following the completion of soil excavation. 6. Site Closure- Will be achieved after receipt of HN closure letter. 7. Host Nation Involvement- The Weiden Water Board and County Office NEW have been involved with the site investigation strategy and have issued memos commenting on investigation reports. PHASE SCHEDULE 1. Current Phase Objective- Change from LTM to RAO because HN target contamination level for remediation has not been met. 2. Milestones- RIP (201602), RC

(205409), Site Closeout (205409) MATERIAL CHANGES Schedule- The phase schedule for the site has been reflect a LTM duration of 30 years and the new close out date. PROJECT APPROVAL HQ legal counsel has determined that this project is required IAW Section 5.1.3 of DoDI 4715.8.

5603A.1033_CCGF161_GE186_PFAS_Airfield FT Pad

Env Site ID: CCGF161

Cleanup Site: GE186_PFAS_Airfield FT Pad

Alias: CCGF161

Regulatory Driver: DODI

RIP Date: 10/1/2027

RC Date: 9/30/2057

RC Reason: Not assigned

SC Date: 9/30/2057

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	5/31/2015	12/31/2015
SI:	1/31/2016	10/31/2018
RI/FS:	10/31/2018	9/30/2025
RD:	10/1/2025	9/30/2026
IRA:	- -	- -
RA(C):	10/1/2026	9/30/2027
RA(O):	10/1/2027	9/30/2057
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The fire pad is located at the airfield within the eastern portion of the TOWER BARRACKS (GE186) approximately 300 m southeast of Gate 6. The site is located approximately 150 meters from the eastern ARLOC boundary (= off post boundary). The site has been used by the U.S. since the post WWII years. 2. Physical Layout/Site Use- The airfield is still in use. The fire pad was used until 2012. The pad is paved, the area adjacent to the pad is unpaved. Prior to U.S. control, the site was used by German Army (Wehrmacht) as an airfield. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. Firefighting training in conjunction with the use of AFFF firefighting foam are assumed as cause for the contamination. 2. Media Impacted- PFOS, PFHpA, PFNA and the sum parameter PFOS/PFOA/PFHxS in eluate exceed the provisional applicable Bavarian Tier 2 assessment criteria for each parameter of 1 ug/L. 3. Nature and Extent of Contamination- The volume of PFAS related contaminated soil has not been finally delineated. The depth to groundwater at the site is in a range of 3 to 4 m bgs. The direction of groundwater flow is northeast towards the Creussen River. 4. Receptors- The downgradient residential irrigation water wells located about 1.5 km east of the site and the river Creussen are the primary receptors at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- to reduce PFAS in soil and groundwater below the Bavarian Tier 1 values. 2. Achievable Remedial Action Objective- During RI/FS phase new groundwater monitoring wells will be drilled to obtain more detailed information on the spread of the contaminants. 3. Specific Regulatory Standards and Legal Drivers - Vorläufige Leitlinien zur Bewertung von PFAS-Verunreinigungen in Wasser und Boden (Preliminary guidance on the assessment of PFAS contamination in water and soil, Status July 2022) issued by the Bavarian State Environmental Office (Landesamt fuer Umwelt) apply. 4. Remediation Methods Planned or Being Conducted- The spread and concentration of contaminants make it necessary to clean up the area after the RI / FS phase. In addition to P&T clean up systems, the construction of a surface sealing system will probably also be necessary to prevent further relocation of contaminants. 5. Response Complete- has been achieved if contaminants in soil and groundwater have been reduced below the Bavarian Tier 1 and threshold

values 6. Site Closure- The site is expected to remain in RA(O) until 2057. 7. Host Nation Involvement- Host Nation Authorities Joint Site Inspection Report of 2015 requires soil and groundwater investigations for PFAS at this site. PHASE SCHEDULE 1. Current Phase Objective- RI/FS is currently ongoing until FY25 2. Milestones- RC (205709), Site Closeout (205709) MATERIAL CHANGES 1. Schedule- RI/FS ongoing

5603A.1035_CCGF163_GE186_PFAS_Fire Department

Env Site ID: CCGF163

Cleanup Site: GE186_PFAS_Fire Department

Alias: CCGF163

Regulatory Driver: DODI

RIP Date: 10/1/2026

RC Date: 9/30/2056

RC Reason: Not assigned

SC Date: 9/30/2056

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	1/1/2017	8/31/2017
SI:	9/30/2017	10/31/2018
RI/FS:	10/31/2018	8/31/2024
RD:	9/1/2023	8/31/2025
IRA:	- -	- -
RA(C):	9/1/2025	9/30/2026
RA(O):	10/1/2026	9/30/2056
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The Fire Department is located in the northern portion of the TOWER BARRACKS about 250 m north of Gate 9. 2. Physical Layout/Site Use- The complex spans an area of about 1,5 hectare with several buildings, around one third of the whole area is paved. CONCEPTUAL SITE MODEL 1. Release Description- The use of the area as a fire training area for decades has resulted in elevated PFAS eluate soil results. The exact date and quantity of release is unknown. 2. Media Impacted- Soil eluate contain PFAS at concentrations that exceed the HN threshold values. A substantial threat to groundwater is likely based upon the results. 3. Nature and Extent of Contamination- In the framework of an orientational soil investigation in autumn 2017 fourteen percussion drillings were performed. In thirteen of these drillings the tier-2 value for PFOS of 0.4 ug/L was exceeded whereby one of the samples showed a concentration of 37.0 ug/L and thus an over 90-fold exceeding of tier-2 value. In some samples, the tier-2 value for further PFAS compounds (PFOA, PFHxS, PFOSA) also had been exceeded. The depth of PFAS impacts so far encountered range from 0- 3.0 m. The exact area and volume of PFAS contaminated soil and groundwater is currently still unknown but will be refined during the ongoing RI/FS. Groundwater is expected to flow from NW towards SE in the Schaumbach Creek. To enable a comparison with the determined PFAS concentrations in the soil eluates in 2017 two water samples from the Schaumbach Creek were analyzed. In these samples only minor concentrations of PFOS and H4-PFOS below the threshold value for groundwater. 4. Receptors- In Germany the groundwater itself is a protected receptor. In addition, the PFAS surface soil detections pose a potential health risk to future on site workers. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- delineate PFAS contaminated soil and groundwater and prevent exposure to receptors. 2. Achievable Remedial Action Objective- Prevent discharge of PFAS into the Schaumbach Creek. 3. Specific Regulatory Standards and Legal Drivers- For evaluating PFAS contamination in particular, the Code of Practice No. 3.8/1, is used by the regulators in Bavaria in combination with Vorläufige Leitlinien zur Bewertung von PFAS-Verunreinigungen in Wasser und Boden (Preliminary guidance on the assessment of PFAS contamination in water and soil, Status July 2022) published by the Bavarian Environmental state

authority. 4. Remediation Methods Planned or Being Conducted-The spread and concentration of contaminants make it necessary to clean up the area after the RI / FS phase.As a cleanup method an active hydraulic measure is planned, in which the pumped water is cleaned via activated carbon and the outflow is additionally secured with a guiding wall. This cleanup method was presented to the HN authorities in January 2023 and approved by them. 5. Response Complete- Will be achieved in September2056. 6. Site Closure- Will be achieved following the reduction of PFAS concentrations below Bavarian Tier 2 standards and receipt of HN closure letter. 7. Host Nation Involvement- The HN environmental authorities for the site are the Regional council (Landratsamt) Neustadt a.d.W. and the Water Board (Wasserwirtschaftsamt) Weiden, who are aware of the site. PHASE SCHEDULE 1. Current Phase Objective- RI/FS is underway to get more information about the horizontal and vertical extent of PFAS contamination in soil and groundwater. 2. Milestones- RIP (202610), RC (205609), Site Closeout (205609)

GE31P - Grafenwoehr Training Area

Installation Name: GE31P - Grafenwoehr Training Area

Installation City: GRAFENWOEHR

5626A.1001_CCGF123_GE31P_SSA FARP Site

Env Site ID: CCGF123

Cleanup Site: GE31P_SSA FARP Site

Alias: CCGF123

Regulatory Driver: DODI

RIP Date: 1/1/2015

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	9/30/1994	9/30/1994
SI:	7/31/1999	10/31/2001
RI/FS:	4/30/2002	12/31/2013
RD:	- -	- -
IRA:	- -	- -
RA(C):	12/31/2013	12/31/2014
RA(O):	1/1/2015	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The FARP Site is located in the northeastern portion of the GRAFENWOEHR TRAINING AREA about 2.5 km south of Gate 3. The site has been used by the U.S. since the post WWII years. The site is located approximately 1.5 kilometers from the eastern ARLOC boundary (= off post boundary). 2. Physical Layout/Site Use- The total FARP Site comprises an area of about 4 hectares, mostly covered with grass with the exception of 12 concrete helipads and is surrounded by woods. The site is currently used for maintenance, refueling and helicopter flight combat training within the operational training area. In addition, the site includes an observation tower as well as a temporary fuel and ammunition storage area used during training activities. The site is mostly unpaved. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. The contamination is associated with uncontrolled spills and careless use of solvents and chemicals during maintenance work in the 1970s and 1980s. 2. Media Impacted- CHC in groundwater exceed the applicable Bavarian Tier 2 assessment criteria of 40 ug/L. 3. Nature and Extent of Contamination- The center of the contaminated groundwater is very precisely characterized by groundwater monitoring well GWFS2. The volume of the surrounding groundwater that is affected is approximately 2,000 m3. CHC (mainly Tetrachloroethene and Trichloroethane) have been detected at maximum concentrations of 112.6 ug/L in 2003 and fluctuated in a range of 30 to 80 ug/L in the following years until 2012. The depth to groundwater at the site is approximately 2.2 to 1.7 m bgs. The direction of groundwater flow is northeast, towards the Feldweiherholz creek. 4. Receptors- The downgradient Feldweiherholz creek located about 100 m northeast is the primary receptor that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- No further cleanup action required. As contamination is still in place every 5 years monitoring is required until standards are reached. 2. Achievable Remedial Action Objective- No remedial action required since the very small extension of the groundwater pollution. Awaiting Host Nation comments to final expert report. 3. Specific Regulatory Standards and Legal Drivers- Groundwater guidance values of the LfW-Merkblatt 3.8/1 from May 2023 apply. 4. Remediation Methods Planned or Being Conducted- None. 5. Response Complete- Was not achieved after RI/FS completion requires successful 5-year-monitoring. 6. Site Closure- The site is

expected to remain in RA-O as contamination is still in place. 7. Host Nation Involvement- The Weiden Water Board has been involved continuously since previous investigations began in 1999. PHASE SCHEDULE 1. Current Phase Objective- Phase has been changed from LTM to RAO because HN target contamination level for remediation has not been met. 2. Milestones- RC (205409), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule has been reflect a 30-yr rolling RA-O requirement. 2. HISTORICAL SITE ACTIVITIES CHC groundwater contamination was detected in 1999. Helicopter maintenance occurs at the FARP Site helipads, which is the assumed cause of significant CHC groundwater contamination. Two groundwater monitoring wells were drilled by WCI in 1999. CHC concentrations in groundwater samples collected from well GWFS2 were at a concentration of 57.6 ug/l in 2000, a concentration of 71.2 ug/l in 2001, 72.1 ug/l (pump test) in 2002 and 112,6 ug/l (highest value) in 2003. In the following years, the CHC values range between 32.6 ug/l and 96.7 ug/l and the most recent concentration was 62.5 ug/l in April 2012. These concentrations exceed the applicable Bavarian tier-2 assessment criterion (40 ug/l) for CHCs. This site was previously included in EPR under DUCS number TGGF123. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8.

5626A.1002_CCGF124_GE31P_Fmr Radar Site 18

Env Site ID: CCGF124

Cleanup Site: GE31P_Fmr Radar Site 18

Alias: CCGF124

Regulatory Driver: DODI

RIP Date: 8/31/2009

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	1/31/1996	1/31/1996
SI:	1/31/1996	12/31/1997
RI/FS:	6/30/2001	5/31/2007
RD:	6/30/2006	7/31/2009
IRA:	- -	- -
RA(C):	9/30/2007	7/31/2009
RA(O):	8/31/2009	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The former Radar Site 18 is located right in the northwestern corner of the GRAFENWOEHR TRAINING AREA. The site is located approximately 300 meters from the northern ARLOC boundary (= off post boundary). 2. Physical Layout/Site Use- The former Radar Site 18 comprises an area of approximately 2.5 hectares, is fenced and includes several buildings and sheds, roads and mostly unpaved grassy areas. The use as Radar Site ceased in the mid-1990s. Since the mid-2000s and after reconstruction of parts of the site, it is used as an Urban Assault Course by training units. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. The contamination is associated with uncontrolled spills and careless use of solvents and chemicals during maintenance work of technical equipment in the 1960s - 1980s. 2. Media Impacted- CHC/BTEX/Benzene in groundwater exceed the applicable Bavarian Tier 2 assessment criteria of 40 ug/L /100 ug/L /10 ug/L. 3. Nature and Extent of Contamination- About 20 groundwater wells are spread over the site and show that the groundwater is more or less contaminated. CHC (mainly 1,1,1 Trichloroethane and 1,1 Dichloroethene) have been detected at maximum concentrations of 421,000 ug/L in 2008 but decreased below 7,000 ug/L in the following years until March 2015. BTEX/Benzene have been detected at maximum concentrations of 4,600 ug/L /1,300 ug/L in 2008 but decreased under 40 ug/L in in March 2015. Since groundwater remediation commenced, approximately 9.2 kg CHC was removed from the groundwater. The depth to shallowest groundwater at the site is approximately 0.7 m bgs. The connection to the deeper aquifer has been stopped through well reconstructions in 2006 and 2009. As the geology/hydrogeology is very complicated the direction of groundwater flow may vary between west and southeast. 4. Receptors- The drinking water resources of the City of Kirchenthumbach 2.5 km northeast and irrigation wells of the close villages Altzirkendorf/Neuzirkendorf (0.5 - 1.5 km) are the primary receptors that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Reduce concentrations of CHC and BTEX/Benzene in groundwater below Bavarian Tier 1 standards of 10 ug/L and 20 ug/L /1 ug/L, respectively. 2. Achievable Remedial Action Objective- Site cleanup and prevention of downgradient migration of contaminated groundwater towards receptors. 3. Specific

Regulatory Standards and Legal Drivers- The remediation and discharge/re-infiltration target values of the water permit issued by the Landratsamt Neustadt a. d. Waldnaab on 22 December 2010 that are oriented to the Level 1 guidance values of the LfW-Merkblatt 3.8/1 from May 2023 apply. 4. Remediation Methods Planned or Being Conducted- A combined SVE and P &T remediation system has been in operation at the site since 2010. In 2020 ISCO (In-situ chemical Oxidation) had been performed. The aim of ISCO was to examine whether the remediation period can be shortened. To this end, it was initially possible to demonstrate in a laboratory test that the addition of sodium persulfate accelerates the breakdown of the chlorinated hydrocarbons. Whether ISCO actually leads to success on-site can only be assessed after a long period of time. 5. Response Complete- Will be achieved when CHC and BTEX/Benzene have been reduced below Bavarian Tier 1 standards of 10 ug/L and 20 ug/L /1 ug/L, respectively. 6. Site Closure- Will be achieved following the reduction of CHC and BTEX/Benzene below Bavarian Tier 1 standards, successful completion of 3 years of LTM, and receipt of HN closure letter. 7. Host Nation Involvement- The Weiden Water Board has been involved with site remediation since it began in 2010 and the County Office has issued several permits related to installation/reconstruction of wells, remediation target values and reinfiltration concentrations. PHASE SCHEDULE 1. Current Phase Objective- A combined SVE and P&T remediation system is being operated under the RA(O) phase and is expected to continue operating for thirty years. 2. Milestones- RIP (200908), RC (205409), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule for the site has been reflect the new site close out date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8. A Decision Document was approved by EEA.

5626A.1003_CCGF127_GE31P_RDX_Rock Quarry Nunkas

Env Site ID: CCGF127

Cleanup Site: GE31P_RDX_Rock Quarry Nunkas

Alias: CCGF127

Regulatory Driver: DODI

RIP Date: 10/1/2030

RC Date: 9/30/2060

RC Reason: Not assigned

SC Date: 9/30/2060

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	8/31/2002	12/31/2002
SI:	5/31/2003	11/30/2003
RI/FS:	10/31/2005	5/31/2024
RD:	6/1/2024	9/30/2025
IRA:	- -	- -
RA(C):	10/1/2025	9/30/2030
RA(O):	10/1/2030	9/30/2060
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The rock quarry Nunkas is located in the western portion of the GRAFENWOEHR TRAINING AREA about 4.5 km from the western boundary of the GTA. The site has been used by U.S. since 1962. 2. Physical Layout/Site Use- The total rock quarry Nunkas comprises an area of approximately 19.3 hectares, including the 7.3 hectare wide extension of 2010. The site is unpaved and currently used for rock blasting. Crushing was done in prior years approximately until 2003. The crushed rocks as well as the fines have been using within the operational GRAFENWOEHR TRAINING AREA for various purposes like tank road construction. Fines from rock crushing and baring material are piled on site in unpaved areas. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. The contamination is associated with RDX containing explosives used for blasting for several decades until fall 2002. 2. Media Impacted- RDX in soil (eluate) and groundwater exceed the applicable Bavarian Tier 2 assessment criteria of 10 ug/L. 3. Nature and Extent of Contamination- Almost a total of 40 groundwater wells, springs and surface water sampling points are spread over and close to the site and show that they are contaminated. RDX has been detected at maximum concentrations of 210 ug/L in 2011 and 2012. The depth to groundwater at the bottom of the quarry is approximately 5.0 m bgs at GWSD6f (= to the upper Malm aquifer). Since the site lies in a karst area it's very difficult to determine the exact flow direction of the groundwater but it can be assumed that the main flow is southeast. 4. Receptors- The drinking water resources of the City of Vilseck approximately 9.5 km southeast and the Frankenohe Creek 1.5 km east, in which a side creek that is immediately connected to the site contamination is discharging, are the primary receptors that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Ensure that the groundwater contamination is contained at the site respectively that the negative impact on surrounding areas is kept as low as possible. 2. Achievable Remedial Action Objective- Prevent downgradient migration of contaminated groundwater. Especially the drinking water resources of the City of Vilseck located approximately 9.5 km southeast of the plume must be protected. 3. Specific Regulatory Standards and Legal Drivers- The Tier assessment criteria identified in the Bavarian State Environmental Office -

Working Guidance for Investigations at Demolition Areas, Practical Section from September 2009 (Landesamt fuer Umwelt (LfU) - Arbeitshilfe fuer die Untersuchung von Sprengplaetzen, Praxisteil vom September 2009). 4. Remediation Methods Planned or Being Conducted- A funnel & gate system immediately downstream of the site might be the most likely method to secure the polluted groundwater. Eventually, measures to reduce leaching of RDX contaminated soil piles into the groundwater might be possible. 5. Response Complete- Will be achieved when RDX has been reduced below Tier 2 standards of 10 ug/L. 6. Site Closure- Will be achieved following the reduction of RDX below Bavarian Tier 2 standards and receipt of HN closure letter. 7. Host Nation Involvement- The Weiden Water Board has been involved with site investigations since the beginning in 2002. PHASE SCHEDULE 1. Current Phase Objective- RI/FS is underway until 202405 2. Milestones- Site Closeout (206009) MATERIAL CHANGES Schedule- The phase schedule for the site has been reflect the new end dates for RI/FS and site closeout. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8. A Decision Document will be submitted for EEA approval after completion of RIFS.

5626A.1005_CCGF141_GE31P_GW Monitoring GTA

Env Site ID: CCGF141

Cleanup Site: GE31P_GW Monitoring GTA

Alias: CCGF141

Regulatory Driver: DODI

RIP Date: 3/31/1998

RC Date: 3/31/1998

RC Reason: Study Completed, No Cleanup Required

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	3/31/1998	3/31/1998
SI:	- -	- -
RI/FS:	- -	- -
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	1/31/2005	9/30/2054

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The GRAFENWOEHR TRAINING AREA is located in northern Bavaria about 50 km west from the boundary of the Czech Republic. The site has been used by the U.S. since the post WWII years. 2. Physical Layout/Site Use- The GRAFENWOEHR TRAINING AREA is the USAREUR operational main live fire training area and comprises approximately 23,400 hectares. The GRAFENWOEHR TRAINING AREA is composed of approximately 40 ranges for various weapons. Prior to U.S. control, the sites were used for diverse training purposes by the German Army. The training area is largely covered with forests, shrub,s and meadows. CONCEPTUAL SITE MODEL 1. Release Description- Exact dates and quantities of releases are unknown. Contamination is mainly associated with uncontrolled spills, careless use of POL products, solvents and chemicals during maintenance activities in the 1950s to 1990s and impacts through continuous shooting. 2. Media Impacted- Explosives (mainly RDX), CHC, BTEX, PAH, TPH and basic parameters in groundwater exceed the applicable Bavarian Tier 1 and sporadically Tier 2 assessment criteria as well as orientation values. 3. Nature and Extent of Contamination- Examples for high groundwater contamination throughout the training area are the Impact Area A (groundwater monitoring well GWIAA1, continuously exceeding the RDX Tier 2 assessment criteria of 10 ug/L with maximum concentrations of 22 ug/L in 2010 and 2011) or groundwater monitoring well GW#346/3 continuously exceeding the cadmium, zinc and CHC carcinogenic Tier 1 (5/500/3 ug/L) and partly Tier 2 assessment criteria (20/2,000/10 ug/L) with maximum concentrations of 20 ug/L (2003)/2,600 ug/L (2009) and 11 ug/L (2005). The groundwater distance inside the GRAFENWOEHR TRAINING AREA varies from 0 m - 150 m bgs. 4. Receptors- The GRAFENWOEHR TRAINING AREA is surrounded by many drinking water protection zones that are all essential for the adjacent German communities and private owners. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Control and identify groundwater contaminants, changes, tendencies, and migration throughout the training area as required by Host Nation authorities. 2. Achievable Remedial Action Objective- Groundwater quality should not deteriorate in general. This will be ensured by monitoring. Remedial actions might locally be necessary if it is indicated through this monitoring program. 3. Specific

Regulatory Standards and Legal Drivers- Federal Water and Soil Protection Law, Soil and groundwater guidance values of the LfW-Merkblatt 3.8/1 from May 2023 apply. 4. Remediation Methods Planned- None. 5. Response Complete- Was achieved in March 1998. 6. Site Closure- Will be achieved when the Host Nation authorities allow termination of groundwater monitoring and receipt of HN closure letter. 7. Host Nation Involvement- The Weiden Water Board has been involved with the development of this monitoring program since 1999. PHASE SCHEDULE 1. Current Phase Objective- LTM is underway and is expected to continue for thirty years 2. Milestones- RC (199803), Site Closeout (205409) MATERIAL CHANGES Schedule- The phase schedule for the site has been reflect the new closeout date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.8. A Decision Document ap proved by EEA is not required as only LTM is performed.

5626A.1006_CCGF147_GE31P_Quarry Zogenreuth/Hopfenohe

Env Site ID: CCGF147

Cleanup Site: GE31P_Quarry Zogenreuth/Hopfenohe

Alias: CCGF147

Regulatory Driver: DODI

RIP Date: 2/15/2015

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	8/31/2002	12/31/2002
SI:	5/31/2003	11/30/2003
RI/FS:	3/31/2006	6/30/2012
RD:	3/31/2008	5/31/2013
IRA:	9/30/2008	10/31/2012
RA(C):	3/31/2013	2/15/2015
RA(O):	2/15/2015	9/30/2054
LTM:	- -	- -

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The rock quarry Zogenreuth/Hopfenohe is located in the western portion of the GRAFENWOEHR TRAINING AREA. The site is located approximately 100 meters from the western ARLOC boundary (= off post boundary). 2. Physical Layout/Site Use- The total rock quarry Zogenreuth/Hopfenohe comprises an area of approximately 36.6 hectares (Zogenreuth 25 hectares, Hopfenohe 11.6 hectares) and is completely unpaved. The site has been used by U.S. as quarry since 1962. Previously, it was a privately owned rock quarry. The Hopfenohe part of the rock quarry has been used by the U.S. since 1977 and was not used previously. The Zogenreuth portion of the quarry is currently used for crushing while the Hopfenohe portion is not used anymore, partly refilled and mostly reseeded. The crushed rocks as well as the fines have been using for various purposes like tank road and berm construction. Fines from rock crushing and baring material are piled on site. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. The contamination is associated with RDX containing explosives used for blasting for several decades until fall 2002. 2. Media Impacted- RDX in soil (eluate) and groundwater exceed the applicable Bavarian Tier 2 assessment criteria of 10 ug/L. 3. Nature and Extent of Contamination- A total of about 20 groundwater wells, springs, surface water and leachate water sampling points are spread over and close to the site and show that some wells are more, some are less contaminated. RDX has been detected in groundwater at a maximum concentration of 170 ug/L and in the leachate water of a sampling pit at 400 ug/L, both in 2009. The depth to groundwater varies from 3 m to more than 10 m at the Malm aquifer. Both the Malm and the Dogger aquifers are contaminated. The geological and hydrogeological situation is very complicated due to a geological disruption and the slope location of the quarry. The direction of groundwater flow varies from west-northwest, west to south-southwest. 4. Receptors- The drinking water resources at Ranna (distance about 2.8 km) which provide the drinking water to the City of Nuremberg as well as springs and fish ponds in the immediate vicinity that belong to the City of Auerbach are the primary receptors that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Ensure that the groundwater contamination is contained at the site and reduce

leaching of RDX containing soil piles into groundwater to a reasonable minimum. 2. Achievable Remedial Action Objective- Prevent downgradient migration of contaminated groundwater. Especially the drinking water resources at Ranna (distance about 2.8 km) which provide the drinking water to the City of Nuremberg as well as springs and fish ponds in the immediate vicinity that belong to the City of Auerbach must be protected. 3. Specific Regulatory Standards and Legal Drivers- The Tier assessment criteria identified in the Bavarian State Environmental Office - Working Guidance for Investigations at Demolition Areas, Practical Section from September 2009 (Landesamt fuer Umwelt (LfU) - Arbeitshilfe fuer die Untersuchung von Sprengplaetzen, Praxisteil vom September 2009). 4. Remediation Methods Planned or Being Conducted- Contaminated groundwater was found in springs off post. Any treatment of these springs, most likely through activated carbon, will be payed through Claims process. Recently completed was the profiling of RDX containing soil piles to reduce trespassing of rainwater and leaching into the groundwater as well as treatment of RDX polluted storm water run-off through constructed wetlands. 5. Response Complete- Will be achieved when RDX has been reduced below Tier 2 standards of 10 ug/L. 6. Site Closure- Will be achieved after securing the site. 7. Host Nation Involvement- The Weiden Water Board has been involved with site investigations since the beginning in 2002. PHASE SCHEDULE 1. Current Phase Objective- RA(O) is underway and is expected to continue for thirty years 2. Milestones- RIP (201502), RC (205409), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule for the site has been reflect the new end dates for RA(O) and site closeout. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI4715.08. A Decision Document was approved by LEC.

GE36L - Hohenfels Training Area

Installation Name: GE36L- Hohenfels Training Area

Installation City: HOHENFELS

5638A.1004_CCHO046A_GE36L_RDX_Rock Quarry

Env Site ID: CCHO046A

Cleanup Site: GE36L_RDX_Rock Quarry

Alias: CCHO046

Regulatory Driver: DODI

RIP Date: 10/1/2007

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	11/30/2001	11/30/2001
SI:	2/28/2002	6/30/2004
RI/FS:	8/31/2004	10/31/2005
RD:	5/31/2005	8/31/2006
IRA:	- -	- -
RA(C):	9/30/2006	9/30/2007
RA(O):	10/1/2007	9/30/2054
LTM:	- -	- -

Site Narrative: The quarry is located south of Camp Albertshof and encroaches into the northern face of the Heindelberg (534 m ASL). The entire quarry area comprises approximately 110,000 m2. Limestone and dolomite rock were quarried on an area of 50,000 m2. The area subject to quarrying operations extended on seven levels; the quarry floor is situated at 455 m ASL. Routine water analysis performed at Hohenfels TA in 2001 determined increased concentrations of the explosive compound hexogen (RDX) in the drinking water wells. An active carbon filter system for treating the drinking water has been installed in 2002. Investigations revealed that next to the hexogen-contaminated landfills Neuhaus and Albertshof, the quarry was the main source of the hexogen in the drinking water supply of the USAG Bavaria (Hohenfels). There the contamination hotspot (RDX) comprised a tailings pile (“dune”), which consisted of the pre-screened material of the quarried rock. With a footprint of approximately 10,000 m2, the dune, which was located along the northern/northeastern perimeter of the quarry area, comprised a volume of approximately 47,000 m3. This site is considered a Contaminated Ground Water Site and its operation was abandoned at the end of 2018. The RA(C) phase ended in October 2007, and included consolidating and capping the RDX- contaminated fines. The cap will prevent percolating water from leaching further explosives into the groundwater. The Rock Quarry is still the main cause for the increased RDX concentration in the groundwater in the eastern/central part of the TA (incl. drinking water wells) which a tracer test between 2011 and 2013 supported. Because of the only slow decreasing concentration levels of RDX it is assumed that positive effects on the groundwater in the area of the drinking water wells in response to the remediation measures performed at the quarry can only be determined substantially delayed. Further investigation at the Rock Quarry in 2020 and 2021 revealed RDX contamination on the upper Level 4 and driveway to the higher levels. Values range between 0.78ug/l and 353ug/l exceeding Level 2 threshold (>10ug/l) by far. The confirmed flow path connections between the area of the TA and the receiving watercourses outside the TA are evidence of the fact that substances currently are transported with the water beyond the TA’s boundaries to areas adjoining the TA. Subsequent annual water analysis outside the TA (Forellenbach) of the German Technical Water Resources Inspectorate in 2021 determined RDX concentrations exceeding the Level 1 Value (>1ug/L).

The Water board requests additional research for other potential source of RDX contamination within the TA Hohenfels. Cleanup Strategy- Maintenance of the cap requires frequently mowing and removal of deep rooting plants. To assess the remedial success, groundwater monitoring required by the Water Protection Board Regensburg will continue indefinitely until further notification.

Since it is desired by the USAG and HN authorities, that more comprehensive rehabilitation be designed to reduce contamination faster, a concept remedial study was prepared within the landfill bundle contract in 2022.

The study incorporated all historical and current data on the contamination situation and a compromise was agreed with the authorities whereby the so-called seepage hole is backfilled with clean suitable material and then sealed, to construct a rainwater retention basin on the backfill. Further, waterproofing the contaminated excavation level 4 and roadway with asphalt, additionally preventing further seepage through the contaminated rock. A sufficiently dimensioned drainage and infiltration system for excess water must be created in the vicinity, where the water is drained off via a gravity drain.

A follow up Decision Document was initiated within the current landfill bundle contract. The Final Remediation Design is an Option Task within the current contract, which will be executed after the Decision Document has been approved by the USAG.

5638A.1007_CCHO114A_GE36L_RDX Landfill Albertshof

Env Site ID: CCHO114A

Cleanup Site: GE36L_RDX Landfill Albertshof

Alias: CCHO114A

Regulatory Driver: DODI

RIP Date: 10/31/2005

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	5/31/2002	5/31/2002
SI:	5/31/2002	6/30/2003
RI/FS:	7/31/2003	8/31/2004
RD:	9/30/2004	3/31/2005
IRA:	- -	- -
RA(C):	3/31/2005	9/30/2005
RA(O):	10/31/2005	9/30/2054
LTM:	- -	- -

Site Narrative: Albertshof Landfill (SAN02) is located 500m northwest of Camp Albertshof within the southern central portion of Hohenfels Training Area (ARLOC GE36L). The site is not located adjacent to the post boundary. The landfill covers an area of approx. 20,000 m2 containing ca. 132,000 m3 of waste. The Landfill Albertshof, also referred to as the Old Landfill was predominantly used for disposal of construction debris between 1950 and 1970. The Landfill Albertshof was closed according to Host Nation requirements in 1997. In 1998 the landfill was finally closed and capped using fines from the installation's rock quarry for construction of the landfill cap recultivation layer. RDX was found in USAG Hohenfels potable water in 2001. An investigation determined that fines from the rock quarry on the installation are the ultimate source of the RDX contamination (see project CCHO046 for details). These fines were used in various construction projects throughout the training area (such as the landfill cap). In 2003 the landfill recultivation layer was identified as one of the main sources of RDX in groundwater. Adjacent groundwater wells contained RDX up to 490 ug/l, exceeding Host Nation threshold level 2 (10 ug/l). Runoff water from the cap contained max RDX concentrations of up to 660 ug/l. The contamination released from the landfill flows towards the east/northeast and attributes to the RDX-plume generated by site CCHO046A (Quarry). Therefore, in 2005 a ring drainage was built around the Landfill, to catch leachate water of the recultivation layer. Water is collected in an activated-carbon container for treatment and is released afterwards into the natural water system. In 2022 the mean EC concentration at the inlet to the activated-carbon filter was 18 ug/L. However, the sealing element of Albertshof Landfill only consist of a mineral sealing which does not completely prevent the input of EC contaminated water into the landfill body, allowing for the potential formation of residual leachate of up to 15 % of precipitation volumes. The confirmed flow path connections between the area of the TA and the receiving watercourses outside the TA are evidence of the fact that substances currently are transported with the water beyond the TA's boundaries to areas adjoining the TA. Subsequent water analysis outside the TA (Forellenbach) of the German Water Board in 2021 determined RDX concentrations exceeding the Level 1 Value (>1ug/L). Long-term cleanup strategy is to eliminate RDX-

contamination of the recultivation layer by leaching through rainwater. Achievable remedial action objectives include collecting infiltrated water from recultivation layer and removing RDX by an activated carbon filter. Host Nation will decide the Response Complete based on RDX concentration in the runoff water. As the Water board requests further investigation for optimizing the remediation process at Landfill Albertshof, a separate study was initiated within the current contract. The study will evaluate the feasibility of different approaches, for example additional cover in form of a waterproof synthetic cap or compost treatment of the RDX contaminated recultivation layer. Results are expected by the end of 2024. So far, no closure date is scheduled.

5638A.1008_CCHO115A_GE36L_RDX Landfill Neuhaus

Env Site ID: CCHO115A

Cleanup Site: GE36L_RDX Landfill Neuhaus

Alias: CCHO115A

Regulatory Driver: DODI

RIP Date: 10/31/2004

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2053

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	5/31/2002	5/31/2002
SI:	5/31/2002	9/1/2002
RI/FS:	9/28/2002	3/31/2003
RD:	4/10/2003	6/30/2003
IRA:	- -	- -
RA(C):	7/31/2003	10/31/2003
RA(O):	10/31/2003	9/30/2054
LTM:	- -	- -

Site Narrative: Neuhaus Landfill (SAN01) is located at “Hirschtal”, 700 m southwest of Camp Albertshof within the southern central portion of Hohenfels Training Area (ARLOC GE36L). The site is located 800 m north of the post boundary. SAN01 covers an area of ca. 60,000 m2, containing ca. 300,000 m3 of debris and waste. The site is unpaved and fenced. It is closed to training mission and other operations. Bldgs 1275A, B, C contain equipment and plants for degassing and Bldg. 1275D for leachate collection. The Landfill Neuhaus, formerly known as the New Landfill was used by the U.S. predominantly for disposal of construction/demolition debris, domestic waste, and operational waste from 1965 through 1995, when it was closed according to Host Nation requirements. To prevent contamination of groundwater by leachate water the landfill was capped in 1998 using a combined sealing system of synthetic foil and mineral layer. Fines from the installation's rock quarry were used for construction of the landfill cap recultivation layer. In 2001, RDX was found in Hohenfels potable water wells within the installation. German authorities were informed and induced a surveyed off the post-potable water wells. An investigation determined that fines from the rock quarry on the installation are the ultimate source of the RDX contamination (see project CCHO046 for details). These fines were used in various construction projects throughout the training area (such as the landfill cap). In a further investigation, samples of runoff water in the drainage ditch of the Landfill Neuhaus showed RDX concentrations of up to 500 ug/l. The contamination released from the landfill reached the unsaturated rock and groundwater, which flows towards the east/northeast and attributes to the RDX-plume generated by site CCHO046A (Quarry). Therefore, after the remedial design by June 2003, the ditch was sealed along the foot of the New Landfill to capture the surface runoff. The remediation was finalized by November 2003. Runoff is treated with activated carbon prior to release. Untreated runoff water analyzed in 2011 showed maximum values of RDX at 520 ug/l. Treated water showed no detectable amounts of RDX. In 2022 the mean EC concentration at the inlet to the activated-carbon filter was 109,9 ug/L. However confirmed flow path connections between the area of the TA and the receiving watercourses outside the TA are evidence of the fact that substances currently are transported with the water beyond the TA’s

boundaries to areas adjoining the TA. Subsequent water analysis outside the TA (Forellenbach) of the German Water Board in 2021 determined RDX concentrations exceeding the Level 1 Value (>1ug/L). Long-term cleanup strategy is to eliminate RDX-contamination of the recultivation layer by leaching through rainwater. Achievable remedial action objectives include collecting infiltrated water from recultivation layer and removing RDX by an activated carbon filter.

To verify the pollution situation in the area of the dry groundwater measuring point ND13, the water authority office requests that the analytical and hydrogeological findings obtained to date be specifically re-evaluated and the possibility of an immission pumping test in the neighboring measuring point B3 be examined. For the other temporarily dry measuring points at the Neuhaus landfill, an upgrade by lowering the pump installation depth and the measuring technology should be examined. Host Nation will decide the Response Complete based on RDX concentrations in runoff water. Site Closure will be decided by Host Nation Authorities. No closure date is scheduled.

5638A.1010_CCHO048_GE36L_PFAS_FFTP HS096 Albertshof

Env Site ID: CCHO048

Cleanup Site: GE36L_PFAS_FFTP HS096 Albertshof

Alias: CCHO048

Regulatory Driver: DODI

RIP Date: 8/1/2022

RC Date: 9/30/2054

RC Reason: Not assigned

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	8/31/2013	11/30/2013
SI:	10/31/2014	9/30/2017
RI/FS:	10/1/2017	1/30/2020
RD:	4/13/2020	8/5/2021
IRA:	- -	- -
RA(C):	7/14/2021	7/31/2022
RA(O):	8/1/2022	9/30/2054
LTM:	- -	- -

Site Narrative: Hardstand (HS) 096 is located at the southeastern end of Camp Albertshof, Hohenfels Training Area (GE36L) between HS094 in the West, the Schwendner Valley in the Northeast, and the main tank road in the South. HS096 is the garrison fire training pit and covers about 5,400 m2, sloping in northern direction. The HS itself is a circular concrete pad (2000 m2) with a central burning pit (110 m2). The surface flow direction runs north into the Schwendner Valley. Between 1999 and 2006 the garrison fire fighter brigade was conducting training with extinguisher foam at HS096. The used extinguishing foam contained per- and polyfluoroalkyl substances (PFAS), mainly on the base of perfluorooctanesulfonic acid (PFOS). Only 5% of the training pad area was connected to a concrete tank to collect extinguisher water and foam during the exercise. The remaining area discharged on open ground. Though the product was replaced in 2006 (in accord to the PFOS ban of the European Union) PFOS and other PFAS parameters were still found in the collected waste water (170 ug/l PFOS, 220 ug/l sum 14 parameters) in 2012. Additional contaminants derive from burning agents including TPH, BTEX, PAH and nitrogenous compounds. During a preliminary assessment in 2013, soil samples at the discharge points showed PFOS at levels between 11-400 ug/kg in solid resp. between 0.16-20.0 ug/l in eluate. PFOS can be observed in groundwater 3 km downstream in the HTA drinking water wells (PFOS 0.02 - 0.15 ug/l), though below recommended level 1 threshold. The active carbon filter system installed in 2002 for treating the drinking water against RDX is effective for PFAS also. During further investigations at the site in 2014/2015 comprising 31 small percussion drillings and five trial pits, PFAS were found in 95 out of 100 collected soil samples. The highest PFAS concentrations up to 31 ug/I were generally found north/north-east of the concrete area towards the main drainage direction. A lysimeter test conducted in 2016 confirmed the validity of the load considerations performed. To further delineate the lateral extent of the PFAS contamination at HS 096 three additional test fields were investigated in April 2020. Considerable PFOS concentrations (about 5 ug/I PFOS in the eluate) above the provisional Tier 2 value (0,4 ug/I) were still found in the test fields B and C which represent the northern outer boundary of the investigation area. Considerable contaminations were also found west of the concrete area on the site of

the fire training pit with drill holes conducted in 2014 and the latest investigations in test field A. The investigations conducted south of the paved area revealed only minor or insignificant PFAS contamination of the soil compared to the areas to the north and west of the concrete area. Based on the latest laboratory results and the re-evaluation of all data available, the expert concluded, that at a calculated average PFOS concentration of 3.95 ug/I, using a linear model, about 144 thousand liters of water per year are permanently contaminated with PFOS up to the significance threshold (0.1 ug/I) via the pollutant input area (about 10,000 m2) at HS 096. As this is a significant groundwater contamination as per the German Water Resources Act (WHG) (detrimental change to groundwater properties), measures must be taken to prevent a hazard and eliminate the harmful soil alteration. A feasibility study in 2019 showed, that securing the contaminated loose rock by means of surface sealing and a sealing wall is a suitable and sustainable approach and the most cost-effective risk mitigation measure to prevent PFAS leaching from contaminated soil horizons into the groundwater. In addition to this, proper drainage of the concreted training area and restoration of damaged spots (joints, cracks, spalling, etc.) is necessary. Based on Host Nation requirements and an approved Decision Document, the detailed planning and design of the recommended remediation measures was developed. The remedial action started in July 2021 and was completed end of July 2022. An official letter by HN approves the usage of the Fire Training Area by the US Fire Department and the discharge of collected and treated extinguishing water in the open. Following years monitoring the fire training pit will be an action within the RA(O) phase.

To verify the remediation success, annual groundwater monitoring needs to be done on a regular basis. Because there is no well nearby, the construction of a groundwater well is considered. However, US and Host Nation agreed to wait a few years and continue monitoring on the Drinking Water wells further south. If no change in groundwater quality occurs, the construction of a well near the fire pit will be required by Host nation in FY25.

5638A.1011_CCHO049_GE36L_PFAS_Fmr FFTP Linderberg

Env Site ID: CCHO049

Cleanup Site: GE36L_PFAS_Fmr FFTP Linderberg

Alias: CCHO049

Regulatory Driver: DODI

RIP Date: 5/16/2023

RC Date: 5/16/2023

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: Not assigned

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	7/22/2015	11/25/2015
SI:	8/29/2016	7/11/2017
RI/FS:	5/31/2016	10/1/2020
RD:	4/15/2020	8/5/2021
IRA:	- -	- -
RA(C):	8/17/2021	5/16/2023
RA(O):	- -	- -
LTM:	5/18/2023	9/30/2054

Site Narrative: The former fire-training pit at Camp Linderberg at the Hohenfels Training Area (HTA) is located at the southeast of the JMRC Cantonment Area. To the north and east Linderberg is bounded by valley flanks of the Schwendner Tal and Klein Tal in the southwest. The training area's drinking water supply lies in the Schwendner Tal around 200-450 m further southeast and south. A preliminary assessment (PA) to locate and investigate the site for suspected contaminants was conducted in summer 2014. The SI verified the location of the former fire pit and found high PFAS concentrations around the assumed center of the fire pit, presumably related to exercises with fire extinguisher foams (AFFF) by the installation fire fighter unit. A site investigation (SI) including a historical research was required by host nation authorities. The SI was conducted 2016/2017 and verified that the site was operated between about 1980 and 1993. The area was not used for fire fighter training afterwards. In 2000, the complete area was remodeled for the construction of the Keltenwall Housing Area; this included moving soils and changing the surface elevations. The contamination center was determined to be in an area of about 1,400 m^2 in close vicinity to the former fire training pit. Individual locations with elevated PFAS-concentrations above the provisional Stufe-2 value for PFOS and the total-PFAS were found in the middle and outside of the contamination center. Maximum PFOS concentrations of 310 ug/l (leachate) were detected. For a conclusive lateral delineation of the PFAS contamination, 37 additional small percussion drillings with maximum depths of 4 m were sunk in May / June 2019 and a total of 63 soil samples were analyzed for PFAS in the eluate. Evaluating all available data and lab results according to the currently relevant LfU Bayern PFAS Guideline (dated April 2017), extensive PFAS contaminations of the subsurface mainly attributable to the PFOS single substance, were verified. The main contaminated area is located inside the former turning loop, which represents the old fire training pit. In the final risk assessment, it was concluded that the harmful change to the soil caused a significant groundwater contamination (detrimental change to groundwater properties) at the site leading to the contamination of about 220,000 m3 of water per year up to the significance threshold of 0.1 ug/l PFOS. Therefore, hazard prevention actions must be taken. Regarding the urgency of a remediation, it must be considered that

the groundwater is also used for the garrison drinking water production nearby. Possible remediation and securing measures for the soil were considered in a Feasibility Study (dated 12 Nov 2019). The expert recommends a source remediation by means of excavation with subsequent treatment of the soil material in a soil washing plant as the suitable and sustainable remediation method to prevent a further negative impact on the groundwater. As part of the PFAS contamination has already penetrated into the deeper soil horizons, sealing the excavated pit using bentonite mats before backfilling with clean soil material is necessary. The Decision Document was approved in September 2020 and the final Design prepared in 2021. Due to funding, the final remediation project was split into three Phases. Phase one included the soil replacement at the housing yards and playground. Further, provisioning backfill material for the main excavation at a central point close to the construction site prepare for excavation of the hot spot. The phase was awarded in August 2021 and completed on 7 November 2022. Phase two covered the excavation of the contaminated area down to the bedrock, transport to an interim storage area and sealing the rock surface with bentonite mats. The sealed pit was be restored by backfilling with uncontaminated soil material and ground level and utility lines restored. Phase two was approved in January 2022 and will be completed in spring 2023. Phase three consists of two contracts for the disposal of the stored contaminated material and restoring of the basketball field. The contracts were awarded in September 2022. Soil disposal was completed in September 2023. Recreation of the Basketball field is currently ongoing. To assess the remedial success, groundwater monitoring at the drinking water wells is required after completion. The action is rolled under 5638A.1010.

5638A.1012_CCHO050_GE36_Temp Demolition Areas

Env Site ID: CCHO050

Cleanup Site: GE36_Temp Demolition Areas

Alias: CCHO050

Regulatory Driver: DODI

RIP Date: 5/1/2027

RC Date: 5/1/2027

RC Reason: Not assigned

SC Date: 9/30/2056

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: Not assigned

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	3/1/2020	9/24/2020
SI:	10/1/2020	4/30/2022
RI/FS:	5/1/2023	5/1/2026
RD:	5/2/2026	10/31/2026
IRA:	- -	- -
RA(C):	11/1/2026	5/1/2027
RA(O):	- -	- -
LTM:	5/2/2027	9/30/2056

Site Narrative: The Hohenfels training area covers approx. 16,200 ha and has an altitude between 350 and 620 m above sea level. The terrain is characterized by forests, low lying hills, broad valleys, and limestone bluffs. The impact area is underlain by limestone. The limestone has partially dissolved, resulting in a landscape known as Karst terrain. At the military training area, explosive ordnance is generally cleared in advance of construction/maintenance work in the maneuver area. Residues originate from live fire use of HTA from 1951-1989. A contracted specialist company usually destroys the recovered munitions on site at temporary blasting sites by means of mass detonation. Current investigations at various locations in Germany indicate that despite proper procedures, residues of the explosive fillings remain in the ground. Depending on the quantity and subsurface conditions, they pose a risk to the groundwater (especially TNT and RDX). RDX concentrations were determined in the groundwater of the Hohenfels training area since 2001. Subsequent annual water analysis outside the TA (Forellenbach) of the German Technical Water Resources Inspectorate determined RDX concentrations exceeding the Level 1 Value (>1ug/L). Based on historical project archives, there are 16 known temporary demolition sites distributed around the training area. Eight sites were investigated closer in 2020 and 2021 to determine their possible impact on the known RDX ground water contamination at HTA and off post. Investigations revealed that more recently used demolition sites from 2019 show higher contamination residues (up to 1,030 ug/L RDX) within the core area than older sites from around 2015 (around 1.82 ug/L RDX), which demonstrates the high mobility of the blasting substance. It is still to be discussed whether further investigations at other old blasting sites are reasonable since contaminations if present, have already seeped into deeper layers. Historical research on past demolition activities at Hohenfels Training area and remedial investigation on at least six temporary blasting sites shall determine the extent of residues in the soil. A follow up feasibility study will assess if encountered contaminated material can be treated on site in a cost effective way by MNA using compost beds.

GE79L - South Camp Vilseck

Installation Name: GE79L - South Camp Vilseck

Installation City: VILSECK

6541A.1002_CCVK001A_GE79L_Vilseck Landfill

Env Site ID: CCVK001A

Cleanup Site: GE79L_Vilseck Landfill

Alias: VK-LAB

Regulatory Driver: DODI

RIP Date: 11/30/1999

RC Date: 11/30/1999

RC Reason: All Required Cleanup(s) Completed

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	1/31/1990	1/31/1990
SI:	1/31/1990	5/31/1993
RI/FS:	6/30/1993	11/30/1994
RD:	7/31/1995	2/29/1996
IRA:	- -	- -
RA(C):	10/31/1997	11/30/1999
RA(O):	- -	- -
LTM:	11/30/1999	9/30/2054

Site Narrative: SITE LOCATION AND DESCRIPTION 1. Location- The ROSE BARRACKS are located at the southern boundary of the GRAFENWOEHR TRAINING AREA (GE79L). The site is located directly next to the south post boundary. 2. Physical Layout/Site Use- This site was the former sanitary landfill used by the U.S. from post WWII until it was closed in the 1970s. The site is currently not used. CONCEPTUAL SITE MODEL 1. Release Description- The exact date and quantity of release is unknown. The contamination is associated with unauthorized and uncontrolled waste disposal of all kinds at the site until the 1970s. 2. Media Impacted- Contaminant concentrations in groundwater exceed repeatedly the applicable Bavarian Tier 1 assessment criteria for CHC of 10 ug/L. 3. Nature and Extent of Contamination- The depth to groundwater downstream of the site is 0.1 - 3.3 m bgs. The direction of groundwater flow is south-southeast, towards the river Vils. 4. Receptors- The downgradient river Vils is the primary receptor at the site that must be protected. REMEDIAL OBJECTIVE 1. Long-Term Closeout Strategy- Control groundwater migration around the landfill site as required according to landfill permit by monitoring. 2. Achievable Remedial Action Objective- Prevent downgradient migration of contaminated groundwater to the river Vils located approximately 250 m southeast of the landfill. 3. Specific Regulatory Standards and Legal Drivers- The requirements of the landfill permit issued by the District Government of the Upper Palatinate on 17 September 1996, addendums dated 11 Nov 1997, 14 Jun 2010 and 09 Nov 2011 and the Water Board Amberg letter dated 19 Sep 2000 apply. Threshold values according to the LfW-Merkblatt 3.8/1 from May 2023 . 4. Remediation Methods Planned or Being Conducted- A landfill cap meeting Host Nation standards has been constructed in 1997/1998. LTM of groundwater (at 5 GWMs), surface water and leachate water as well as the degassing system needs to be performed for the next 30 years. 5. Response Complete- Will be achieved when the Host Nation authorities allow termination of landfill monitoring and after receipt of HN closure letter. 6. Site Closure- Will be achieved when the Host Nation authorities allow termination of landfill monitoring and after receipt of HN closure letter. 7. Host Nation Involvement- The District Government of the Upper Palatinate, the Amberg Water Board, and the Bayerisches Landesamt für Umwelt (LfU) have been involved with the investigation program as part of the post-closure maintenance since the remediation

of the landfill in 1996 and have issued memos commenting on investigation reports. PHASE SCHEDULE 1. Current Phase Objective- LTM has been performed since 1998 and needs to be performed for thirty years in accordance with HN requirements. The LTM includes sampling and analyses of the monitoring wells, annual metering of degassing system, and annual reporting. 2. Milestones- RIP (199911), RC (199911), Site Closeout (205409) MATERIAL CHANGES 1. Schedule- The phase schedule for the site has been reflect new closeout date. PROJECT APPROVAL HQ legal counsel has determined that this project is required in accordance with Section 5.1.3 of DoDI 4715.8. The HN closure/reclamation permit for the former landfill requires LTM of the leachate and gas production. This action predates the requirement for a Record of Decision. This action pre-dates the requirement for EA consultation.

6541A.1003_CCVK003A_GE79L_Big Mike Lake

Env Site ID: CCVK003A

Cleanup Site: GE79L_Big Mike Lake

Alias: #

Regulatory Driver: DODI

RIP Date: 3/31/2014

RC Date: 3/31/2014

RC Reason: Study Completed, No Cleanup Required

SC Date: 9/30/2054

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	4/30/1990	9/30/2003
SI:	4/30/1990	9/30/2003
RI/FS:	3/31/2008	3/31/2014
RD:	- -	- -
IRA:	9/30/2008	11/30/2012
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	3/31/2014	9/30/2054

Site Narrative: CCVK003 was initially entered in AEDB-CC under the incorrect ARLOC GE904 (South Camp Vilseck), Level 5. CCVK003 was discontinued in June 2008 and reopened as CCVK003A under the correct ARLOC GE79L (South Camp Vilseck), Level 6. General Description- Big Mike Lake is a lake located in the southwest of South Camp Vilseck. It is currently used by Army military personnel for fishing and boating. The shore is covered with abundant grass and other vegetation. The site has been used by the U.S. since WWII. Prior to U.S. control, the site was used by industry for iron production. The site did not receive significant damages during WWII. Current Site Activities- This site is considered an Other Site and its current use is Recreational. An IRA and RI/FS in 2009-2011 addressed the disposed drums and further assessed the nature and extent of contamination with TPH, PAH and Zinc caused by the former wash rack. Thirteen land based anomalies were successfully remediated as well as a total of 50 water based anomalies (drums) were identified, removed from the lake and properly disposed. Contamination along the shoreline and within the sediment resulting from the former wash rack was identified. Due to the circumstances that the contaminated sediment lies encapsulated under the lake bottom sediment and the possibility of disturbing the lakebed is minimal, the sediment is left in place. Fishing is the prime activity at Big Mike Lake and various fish species are bottom dwellers and might come in contact with contaminated sediment. Fish biopsies and cap monitoring are performed. The LTM is done under site CCGF141. Cleanup Strategy- An IRA to remove the drums was completed. The closeout date reflects the end of assumed LTM. Project Approval- HQ legal counsel has determined that this project is required IAW Section 5.1.3 of DoDI 4715.8.

6541A.1006_CCVK114_GE79L_PFAS_Bldg 201 Fire Dept

Env Site ID: CCVK114

Cleanup Site: GE79L_PFAS_Bldg 201 Fire Dept

Alias: #

Regulatory Driver: DODI

RIP Date: 6/30/2026

RC Date: 6/30/2026

RC Reason: Not assigned

SC Date: 7/1/2026

Program: Compliance-related Cleanup

Subprogram: CC

NPL Status: No

Hazardous Ranking Score: 0

RRSE: N/A

MRSPP: N/A

Phase	Start	End
PA:	1/1/2018	9/30/2020
SI:	10/1/2020	10/31/2023
RI/FS:	11/1/2023	6/30/2026
RD:	- -	- -
IRA:	- -	- -
RA(C):	- -	- -
RA(O):	- -	- -
LTM:	- -	- -

Site Narrative: The ROSE BARRACKS are located at the southern boundary of the GRAFENWOEHR TRAINING AREA (GE79L). The Vilseck Fire Department (Bldg. 201) is located in the center of ROSE BARRACKS about 1300 m northeast of Gate 1. The complex spans an area of about 1.5 hectare, half of the whole area is paved. The use and dealing with aqueous film forming foam around the area for decades has resulted in elevated PFAS eluate soil results. The exact date and quantity of release is unknown. Soil eluate contain PFAS at concentrations that exceed the HN threshold values. A substantial threat to groundwater is likely based upon the results. In the course of construction work on Building 201 in spring 2018, considerable PFAS contamination was found in the excavated material. For several substances (PFOS, PFHxS, PFOSA) the applicable Bavarian Tier 2 assessment criteria was greatly exceeded, e.g. for PFOS by a factor of 25. The relevant total value was also exceeded. The exact area and volume of PFAS contaminated soil and groundwater is currently still unknown but shall be verified in the underway SI. Groundwater was not encountered down to a depth of 4.0 m so far. Groundwater is expected to flow from NNW to SSE towards the river Vils. In Germany, the groundwater itself is a protected receptor. A Host Nation drinking water zone is located in the immediate vicinity off-post. In addition, the PFAS surface soil detections pose a potential health risk to future on site workers. Identify and delineate PFAS contaminated soil and groundwater and prevent exposure to receptors. Prevent PFAS-discharge into the Host Nation off-post drinking water zone and the river Vils. For evaluating PFAS contamination in particular the Code of Practice No. 3.8/1, is used by the regulators in Bavaria in combination with Vorläufige Leitlinien zur Bewertung von PFAS-Verunreinigungen in Wasser und Boden (Preliminary guidance on the assessment of PFAS contamination in water and soil, Status July 2022) published by the Bavarian Environmental state authority. . Remediation measurements will be determined after the RI/FS-Phase. Response Complete has to be determined. Site closure will be achieved after either the RI/FS demonstrates no further action or the HN concurs no further action is appropriate following site remediation. The HN environmental authorities for the site are the County Office (Landratsamt) Amberg-Sulzbach and the Water Board (Wasserwirtschaftsamt) Weiden, who are

aware of the site. RI/FS is being performed to verify the PFAS-contamination and to get more information about potential hot spots and the horizontal and vertical spread of PFAS contamination in soil and groundwater. Milestones to be determined.

SITE SUMMARY

SITE CLOSEOUT SUMMARY

CRL ID	Site Name	Site Closeout Date
5603A.1004	CCGF122_GE186 - Bldg 325, Railroad Tie S	2/28/2009
5603A.1008	CCGF130_GE186 - Bldg 624, Heating Oil Ta	4/16/2021
5603A.1009	CCGF131_GE186 - Bldg 633, Heating Oil Ta	6/30/2010
5603A.1016	CCGF140_GE186 - Race Track Netzaberg	12/31/2011
5603A.1020	CCGF145_GE186 - Motor Park 33, EBE	12/15/2011
5603A.1021	CCGF146_GE186 - Army lodge area	12/31/2009
5603A.1024	CCGF150_GE186 - Vicinity of Bldg. 930	1/31/2008
5603A.1025	CCGF151_GE186 - Tank Park 20	2/29/2008
5603A.1026	CCGF152_GE186 - Gas Station	9/30/2009
5603A.1027	CCGF153_GE186 - Schaumbach 9L	2/15/2016
5603A.1028	CCGF154_GE186 Brigade Complex Community	12/31/2015
5603A.1029	CCGF155_GE186 MILCON Tails East Camp	12/31/2014
5603A.1030	CCGF157_GE186-TP17	12/31/2015
5603A.1031	CCGF158_GE186-WEST OF BLDG. 327	4/30/2014
5603A.1032	CCGF160_GE186 - UST BLDG. 456	2/18/2020
5603A.1034	CCGF162_GE186 - Skeet Range	7/10/2019
5626A.1004	CCGF128_GE31P - Demo Area PA 159	9/30/2016
5626A.1007	CCGF156_GE31P MILCON Tails Training Area	3/15/2012
5638A.1001	CCHO200_GE36L - Groundwater Monitoring J	12/31/2008
5638A.1002	CCHO047_GE36L-Illegal Dumps Hohenfels TR	7/31/2008
5638A.1003	CCHO001A_GE36L-Monitor Closed Landfill A	5/15/2018
5638A.1005	CCHO025A_GE36L - Range OP19, Tank Gunner	9/30/2005
5638A.1006	CCHO002A_GE36L - Monitor Closed Landfill	5/15/2018
5638A.1009	CCHO034_GE36L-HS073 CAMP ALBERTSHOF	4/5/2019
6541A.1001	CCVK109A_GE79L - Bldg 226 Fuel Tanks	3/31/2014

CRL ID	Site Name	Site Closeout Date
6541A.1004	CCVK111_MILCON Tails Vilseck	9/30/2012
6541A.1005	CCVK113_GE79L - O/W SEPARATOR RRB3	5/2/2019