

**STATE OF OHIO (DAS)**CLASSIFICATION  
SPECIFICATION**CLASSIFICATION SERIES:**

Geologist

**SERIES NO.:**

8382

**MAJOR AGENCIES:** Natural Resources,  
Environmental Protection Agency, Transportation**EFFECTIVE DATE:****SERIES PURPOSE:**

The purpose of the geologist occupation is to conduct geologic research, investigations &/or laboratory analyses.

At the lowest level, incumbents assist higher level geologist in collection & compilation of field sample data.

At the middle levels, incumbents perform variety of geologic research, investigation & laboratory activities.

At the higher levels, incumbents lead, supervise or manage activities of lower level geologists.

**CLASS TITLE:**

Geology Technician

**CLASS NUMBER:**

83820

**EFFECTIVE DATE:**

10/04/1992

**CLASS CONCEPT:**

The entry level class works under immediate supervision & requires some knowledge of geology in order to assist higher-level geologist in collection & compilation of field data & in conducting geological, geophysical & limnological field investigations.

**CLASS TITLE:**

Geologist 1

**CLASS NUMBER:**

83821

**EFFECTIVE DATE:**

03/26/1990

**CLASS CONCEPT:**

The developmental level class works under general supervision & requires working knowledge of geology in order to gather, compile & analyze geologic data &/or to perform laboratory tests of geologic samples.

**CLASS TITLE:**

Geologist 2

**CLASS NUMBER:**

83822

**EFFECTIVE DATE:**

03/26/1990

**CLASS CONCEPT:**

The full performance level class works under direction & requires considerable knowledge of geology in order to plan & conduct geologic research & investigations & produce variety of reports, maps & other documentation.

**CLASS TITLE:**

Geologist 3

**CLASS NUMBER:**

83823

**EFFECTIVE DATE:**

03/26/1990

**CLASS CONCEPT:**

The first advanced level class works under direction & requires thorough knowledge of geology & hydrogeology or geophysics or other specialized geologic science in order to plan & conduct complex geologic mapping, research & investigations & produce variety of reports, maps & other documentation.

**CLASS TITLE:**

Geologist 4

**CLASS NUMBER:**

83824

**EFFECTIVE DATE:**

01/23/1994

**CLASS CONCEPT:**

The second advanced level class works under general direction & requires thorough knowledge of geology & hydrogeology or geophysics or other specialized geologic science in order to serve as lead worker (i.e., provides work direction & training) over lower-level geologists or perform most complex geologic research & investigation activities.

**CLASS TITLE:**

Geology Program Supervisor

**CLASS NUMBER:**

83825

**EFFECTIVE DATE:**

06/22/1990

**CLASS CONCEPT:**

The supervisory level class works under general supervision & requires extensive knowledge of geology & hydrogeology or other specialized geologic science in order to supervise lower-level geologists &/or support staff.

**CLASS TITLE:**

Geology Program Manager

**CLASS NUMBER:**

83826

**EFFECTIVE DATE:**

06/22/1990

**CLASS CONCEPT:**

The management level class works under administrative direction & requires extensive knowledge of geology & hydrogeology or other specialized geologic science in order to plan, develop & manage all geologic programs & services for assigned agency & supervise geology program supervisors, geologists & support staff.

<b>CLASS TITLE:</b> Geology Technician	<b>CLASS NUMBER:</b> 83820	<b>BARGAINING UNIT:</b> 07
---	-------------------------------	-------------------------------

**EFFECTIVE DATE:**

10/04/1992

**JOB DUTIES IN ORDER OF IMPORTANCE:** (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Assists higher-level geologists in conducting geological, geophysical & limnological field investigations (e.g., assists in measuring & describing sections of rock & sediment; assists in conducting resistivity & seismic surveys; makes current & water level measurements) & assists higher-level geologists in collection & compilation of field data (e.g., collects rocks, minerals or lake bottom sediments; assists in sampling, surveying & echo sounding; picks up drill cuttings & cores from selected wells for sample processing) & operates geological sampling equipment (e.g., hand auger, vibra corer, auger rig).

Prepares geologic samples for analysis (e.g., washes, dries & packages samples; crushes & grinds samples); catalogs & stores samples in sample library; assists geologists in office operations (e.g., extracts geologic data from core & outcrop descriptions, state records, federal records & industry records; encodes extracted data for computer data base entry; assists in construction of maps & cross sections) & assists in analysis of samples & performs routine tests (e.g., saws specimens; makes thin & polished sections; x-rays samples; performs siene, hydrometer & pettling tube analysis; determines plastic & liquid limits of unconsolidated materials; operates chittick instruments).

Performs work related miscellaneous functions (e.g., performs minor maintenance work on field &/or laboratory equipment; transports samples; enters data into computer data bases).

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of geology & geologic field techniques. Skill in minor maintenance & repair of equipment\*. Skill in use of sample preparation &/or laboratory equipment (e.g., rock splitter, drying oven, microscope)\*. Ability to carry out detailed but basic written or oral instructions; understand manuals, verbal instructions or materials, technical in nature; gather, collate & classify geological samples; cooperate with co-workers on group projects.

(\*)Developed after employment.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

6 courses or 18 mos. exp. in geology or geologic field techniques to include collecting & identifying &/or analyzing rock & mineral samples.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

Not applicable.

**UNUSUAL WORKING CONDITIONS:**

May be required to travel overnight; exposed to weather; exposed to dangerous equipment.

<b><u>CLASS TITLE:</u></b> Geologist 1	<b><u>CLASS NUMBER:</u></b> 83821	<b><u>BARGAINING UNIT:</u></b> 13
---	--------------------------------------	--------------------------------------

**EFFECTIVE DATE:**

03/26/1990

**JOB DUTIES IN ORDER OF IMPORTANCE:** (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Gathers, compiles & analyzes geologic data (e.g., rocks, soils, minerals, topographic &/or subsurface information), develops geologic maps &/or performs laboratory tests of geologic samples, verifies data analysis & writes reports of results.

Develops geologic maps (e.g., transfers data to base maps & contours bedrock surfaces); verifies accuracy of data in field; searches property records; researches & analyzes government & private industry core, stratigraphic & engineering files; measures stratigraphic sections in glacial & bedrock materials; evaluates & analyzes rocks & soils (e.g., performs X-ray, hydrometer & carbonate analyses, atterberg limits & other laboratory tests); calculates diffraction intensity ratios & other test data; assists in preparation of fossil molds & casts; crushes, grinds, cuts & weighs rocks, minerals & soil samples, enters data in computer; operates laboratory test equipment such as analytical balance, X-ray diffractometer & planimeter; confers with geologists, engineers & other governmental or private sector representatives regarding geologic activities or test results.

Cleans & maintains laboratory equipment & facilities; orders laboratory supplies; photographs areas; operates motor vehicle; attends meetings & conferences; oversees vehicle repair & maintenance.

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of geology & geologic field techniques; geologic laboratory techniques. Skill in operation of laboratory equipment (e.g., analytical balance, X-ray diffractometer, planimeter)\*. Ability to define problems, collect data, establish facts & draw valid conclusions; understand technical manuals &/or geologic map data; gather, collate & classify geologic information.

(\*)Developed after employment.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

Completion of undergraduate core program in geology.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

Not applicable.

**UNUSUAL WORKING CONDITIONS:**

May require travel or overnight travel; may be exposed to unpleasant weather conditions &/or dangerous machinery.

<b>CLASS TITLE:</b> Geologist 2	<b>CLASS NUMBER:</b> 83822	<b>BARGAINING UNIT:</b> 13
------------------------------------	-------------------------------	-------------------------------

**EFFECTIVE DATE:**

03/26/1990

**JOB DUTIES IN ORDER OF IMPORTANCE:** (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Conducts geologic research & investigations in order to produce unit/section work product (e.g., conducts field & laboratory work to produce geologic maps & reports; reviews, evaluates & approves oil & gas permits; reviews groundwater maps & development reports).

Researches geologic literature & publications; collects data in field (e.g., measures & describes stratigraphic sections; collects rock, mineral & fossil specimens &/or water samples; operates field equipment); evaluates & analyzes collected samples (e.g., reviews laboratory reports); performs necessary laboratory tests; enters data into computer & interprets data output; drafts structure & isopach maps; constructs & drafts geologic cross-sections; writes technical geologic reports, guides, leaflets &/or descriptions of cores & sections; reviews & evaluates plans for storage & disposal of brine & other waste substances; reviews work of environmental technicians; designs wells & determines specifications for drilling; observes water well pumping tests & collects & analyzes hydrogeologic data.

Provides technical assistance &/or information to governmental officials, educational institution representatives &/or general public; prepares presentations & speaks before variety of groups; contacts &/or meets with land owners, mining representatives & others; represents division/agency at meetings.

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of geology; geologic field techniques & laboratory techniques; geologic map drafting & design techniques\*; laws & rules governing geologic-related regulated activities\*; technical writing; public relations. Skill in operation of geologic field & laboratory equipment. Ability to define problems, collect data, establish facts & draw valid conclusions; write &/or edit technical, scientific or advanced literary publications; gather, collate & classify geologic information; handle complaints from angry citizens on sensitive/controversial matters; engage in physical activities requiring agility or dexterity.

(\*)Developed after employment.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

Completion of undergraduate core program in geology; 12 mos. exp. in geologic field, laboratory &/or drafting methods.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

Not applicable.

**UNUSUAL WORKING CONDITIONS:**

May require travel or overnight travel; may be exposed to unpleasant weather conditions &/or dangerous machinery.

<b>CLASS TITLE:</b> Geologist 3	<b>CLASS NUMBER:</b> 83823	<b>BARGAINING UNIT:</b> 13
------------------------------------	-------------------------------	-------------------------------

**EFFECTIVE DATE:**

03/26/1990

**JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)**

Plans & conducts complex geologic mapping, research & investigations (e.g., conducts detailed bedrock, glacial, surficial & subsurface geologic & hydrogeologic mapping) & prepares & reviews entire hydrogeologic reports, reviews design plans & monitoring data for proposed waste & wastewater treatment storage & disposal facilities; plans, conducts & writes comprehensive ground water monitoring evaluations of federally regulated hazardous waste facilities; conducts most difficult ground water contamination investigations involving hydrogeologic methods & analysis, reviews & designs construction, operation & plugging specifications for oil & gas wells for protection of groundwater resources & public health & safety; compiles & analyzes fuel & mineral production statistics; conducts research on unconsolidated earth materials & subsurface geologic structure for highway construction) & conducts &/or coordinates field investigations, sample collection, literature review & laboratory analyses.

Prepares variety of geologic & hydrogeologic reports, maps & other documentation for public & departmental use (e.g., bedrock & surficial geologic maps, detailed aquifer maps, mineral resource maps, subsurface investigations; technical reports related to groundwater quantity investigations; technical reports on environmental impact of proposed waste disposal & storage facilities with recommendations for protection & surveillance of ground water resources; presentations of findings, conclusions & recommendations from studies on maps, cross sections & reports, descriptions of lithology & physical properties of core or auger samples penetrated during drilling operation; reports, maps & diagrams regarding underground injection); designs & oversees location & construction of water wells for public, domestic or monitoring uses; inspects hazardous waste or wastewater treatment facilities.

Provides technical assistance & advice to public, industry, consultants &/or governmental agencies on work-related concerns & performs other public relations activities as assigned (e.g., represents division at meetings; delivers speeches before public or professional organizations; provides expert testimony); trains staff in various geology-related activities & serves as project team leader as assigned (i.e., provides guidance on work-related matters & coordinates team services for field activities).

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of geology, hydrogeology or geophysics or other specialized geologic science; geologic field & laboratory techniques; geologic map drafting & design techniques; laws & rules governing geologic-related regulated activities; technical writing; public relations. Skill in operation of geologic field & laboratory equipment. Ability to define problems, collect data, establish facts & draw valid conclusions; read, write, interpret & edit technical or scientific publications; gather, collate & classify geologic information; handle complaints from angry citizens, industry representatives & government officials on sensitive/controversial matters; engage in physical activities requiring agility or dexterity.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

Completion of graduate core program in geology, hydrogeology or other specialized geologic science; 12 mos. exp. in geologic field, laboratory &/or drafting methods.

-Or completion of undergraduate core program in geology, hydrogeology or other specialized geologic science; 36 mos. exp. in geologic field, laboratory &/or drafting methods & techniques.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

Not applicable.

**UNUSUAL WORKING CONDITIONS:**

May require travel or overnight travel; may be exposed to unpleasant weather conditions &/or dangerous machinery.

<b>CLASS TITLE:</b> Geologist 4	<b>CLASS NUMBER:</b> 83824	<b>BARGAINING UNIT:</b> 13
------------------------------------	-------------------------------	-------------------------------

**EFFECTIVE DATE:**

01/23/1994

**JOB DUTIES IN ORDER OF IMPORTANCE:** (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)

Serves as lead worker (i.e., provides work direction & training) over lower-level geologists or plans, implements & coordinates highly complex geologic research, investigations & mapping projects (e.g., statewide development of coal characterization program; development of statewide geographic information system; statewide seismic network; statewide stratigraphic correlation framework; statewide ground water resources & ground water pollution potential mapping program; ground water conflict investigation program; designs, conducts & analyzes aquifer pumping test investigations; hazardous waste & corrective actions program; solid waste & wastewater design plans & permit applications review program to ensure ground water protection; wellhead protection program; injection well control program), or serves as senior researcher with specialization in field of geology, coordinates investigation & program development activities with federal agencies, legislators, other states & academic institutions, provides information to assist in budget preparation & assists in developing & implementing program policy & procedures.

Guides, reviews & prepares variety of reports, maps, investigations &/or other documentation (e.g., prepares geologic & hydrogeologic reports, maps & cross sections; reviews research reports & data submitted by staff & other division personnel; reviews project proposals & environmental impact statements; reports findings & conclusions in publications & reports; prepares reports on hydrogeology of waste disposal sites & adequacy of site design features to prevent ground water contamination); prepares reports on ground water quantity investigations, aquifer management & characterization studies, aquifer pumping test, borehole & surface geophysical investigations; writes research &/or grant proposals; statistically analyzes data; develops geologic databases & models with interstate/international impact; develops & conducts three dimensional ground water flow models; operates variety of field & laboratory equipment.

Performs various public relations tasks (e.g., prepares & delivers public presentations & provides assistance on geology, fossil fuel & mineral resources, ground water resources or pollution; attends conferences & meetings; provides assistance to private citizens, industry representatives & governmental agencies relative to geologic findings & analyses); develops educational materials, reports, newsletters & programs on geology of state or interstate regions; testifies in court or administrative hearings.

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of geology; hydrogeology or geophysics or other specialized geologic science; geologic field & laboratory techniques; geologic map compilation & design techniques; laws & rules governing geologic-related regulated activities; scientific computer programs; two & three dimensional ground water flow models & pumping test analysis programs; public relations, employee training & development\*; budgeting\*, technical writing. Skill in operation of geologic field & laboratory equipment. Ability to define problems, collect data, establish facts & draw valid conclusions; read, write & interpret technical materials &/or geologic map or groundwater data; write & edit technical or scientific publications; gather, collate & classify information; communicate verbally or in writing regarding technical & non-technical matters; handle complaints from angry citizens, industry representatives & government officials on sensitive/controversial matters; engage in physical activities requiring agility or dexterity.

(\*)Developed after employment.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

Completion of graduate core program in geology, hydrogeology or other specialized geologic science; 24 mos. exp. in geologic field, laboratory &/or research methods.

-Or completion of undergraduate core program in geology, hydrogeology or other specialized geologic science; 48 mos. exp. in geologic field, laboratory &/or drafting research methods.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

Not applicable.

**UNUSUAL WORKING CONDITIONS:**

May require travel or overnight travel; may be exposed to unpleasant weather conditions &/or dangerous machinery.

<b>CLASS TITLE:</b> Geology Program Supervisor	<b>CLASS NUMBER:</b> 83825	<b>BARGAINING UNIT:</b> EX
---	-------------------------------	-------------------------------

**EFFECTIVE DATE:**

06/22/1990

**JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)**

Supervises unit of lower-level geologists in conducting geologic or hydrogeologic research or investigation projects or in performing geologic laboratory functions, plans & directs unit activities, assigns & reviews work, trains staff, establishes work priorities & work schedules, prepares or assists in preparation of budget, approves minor purchases/expenditures & develops unit policies & procedures.

Reviews project proposals submitted by staff; conducts & directs detailed & complex geological investigations; collects, describes & analyzes samples; performs laboratory tests; produces geologic maps; evaluates sites proposed for waste disposal; reviews engineering plans & permits; oversees program & policy development for implementing section activities.

Prepares, reviews & supervises preparation of variety of maps, reports & other documentation (e.g., prepares scientific reports, geologic cross sections, maps & statistical data; grant applications; work plans; service contracts; conducts final review of oil & gas applications; oversees inventory of fluid injection facilities) ensuring accurate analysis & reporting of findings.

Answers inquiries from public, industries & governmental agencies &/or provides geologic expertise to other departmental offices & divisions, universities, industry, public & other governmental agencies; attends meetings, conferences & seminars; testifies in court or administrative hearings.

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of geology, hydrogeology or geophysics; geologic field & laboratory techniques; geologic map drafting & design techniques; laws & rules governing geologic-related regulated activities; supervisory principles/techniques\*; employee training & development; budgeting. Skill in operation of geologic field, drafting &/or laboratory equipment. Ability to define problems, collect data, establish facts & draw valid conclusions; read, write, edit & interpret technical publications, materials &/or geologic map or groundwater data; gather, collate & classify information; communicate verbally or in writing regarding technical & non-technical matters; engage in physical activities requiring agility or dexterity.

(\*)Developed after employment.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

Completion of graduate core program in geology, hydrogeology or other specialized geologic science; 36 mos. exp. in geologic field, laboratory &/or drafting methods; 12 mos. trg. or 12 mos. exp. in employee training & development; 1 course or 3 mos. exp. in budgeting.

-Or completion of undergraduate core program in geology, hydrogeology or other specialized geologic science; 60 mos. exp. in geologic field, laboratory &/or drafting methods; 12 mos. trg. or 12 mos. exp. in employee training & development; 1 course or 3 mos. exp. in budgeting.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

Not applicable.

**UNUSUAL WORKING CONDITIONS:**

May require travel or overnight travel; may be exposed to unpleasant weather conditions &/or dangerous machinery.

<b>CLASS TITLE:</b> Geology Program Manager	<b>CLASS NUMBER:</b> 83826	<b>BARGAINING UNIT:</b> EX
--	-------------------------------	-------------------------------

**EFFECTIVE DATE:**

06/22/1990

**JOB DUTIES IN ORDER OF IMPORTANCE: (These duties are illustrative only. Incumbents may perform some or all of these duties or other job-related duties as assigned.)**

Plans, develops & manages all geologic programs & services for assigned agency, supervises geology program supervisors, geologists & support staff, develops section policies, procedures & guidelines, provides technical assistance to staff, coordinates district &/or central office field activities, establishes work priorities, prepares budget, approves & monitors expenditures, formulates & directs special projects & advises agency director & program supervisors regarding all matters related to groundwater program or agency's geologic programs & services.

Prepares various technical & non-technical work related documentation (e.g., monthly & annual program activity reports; budgets; federal grant proposals to support program funding); oversees statewide groundwater mapping.

Conducts staff meetings & agency training courses & seminars; performs variety of public relations activities in order to further agency goals & objectives (e.g., represents director at meetings with public & private officials; conducts training courses & seminars for parties outside of agency).

**MAJOR WORKER CHARACTERISTICS:**

Knowledge of geology; hydrogeology or geophysics; geologic field & laboratory techniques; geologic map drafting & design techniques; laws & rules governing geologic-related regulated activities; management\*; supervisory principles/techniques; employee training & development; budgeting. Skill in operation of geologic field, drafting &/or laboratory equipment. Ability to define problems, collect data, establish facts & draw valid conclusions; read, write, edit & interpret technical publications, materials &/or geologic map or groundwater data; communicate verbally or in writing regarding technical & non-technical matters; engage in physical activities requiring agility or dexterity.

(\*)Developed after employment.

**MINIMUM CLASS QUALIFICATIONS FOR EMPLOYMENT:**

Completion of graduate core program in geology, hydrogeology or other specialized geologic science; 36 mos. exp. in geologic field, laboratory &/or drafting methods; 12 mos. trg. or 12 mos. exp. in supervisory principles/techniques.

-Or completion of undergraduate core program in geology, hydrogeology or other specialized geologic science; 60 mos. exp. in geologic field, laboratory &/or drafting methods; 12 mos. trg. or 12 mos. exp. in supervisory principles/techniques.

-Or equivalent of Minimum Class Qualifications For Employment noted above.

**TRAINING AND DEVELOPMENT REQUIRED TO REMAIN IN THE CLASSIFICATION AFTER EMPLOYMENT:**

Not applicable.

**UNUSUAL WORKING CONDITIONS:**

May require travel or overnight travel; may be exposed to unpleasant weather conditions &/or dangerous machinery.