Paleontological Resource Study and Inventory of Part of the White River Resource Area and Vicinity, Piceance Creek Basin, Northwestern Colorado

Written by

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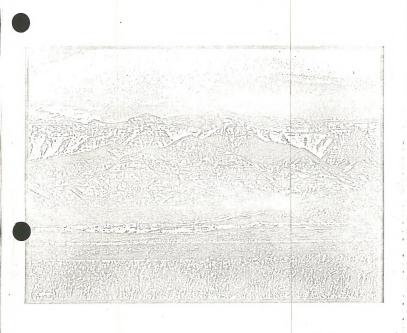
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Submitted by

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Roan Cliffs west of Grand Valley (Parachute), Colorado showing varigated red, yellow and brown strata of the Masatch Formation overlain by gray cliffs of the Parachute Creek Member of the Green River Formation.

ABSTRACT

This report identifies and evaluates the paleontological resources (remains of extinct and/or fossil vertebrates and invertebrates) in part of the White River Resource Area (Craig and Grand Junction Districts of the Bureau of Land Management, northwestern Colorado. The area studied comprises 1,200,000 acres in the Piceance Creek Basin, where strata of the Mancos Shale, Castlegate Sandstone, Sego Sandstone, Iles Formation, Williams Fork Formation, Wasatch Formation, Green River Formation and Uinta Formation are exposed. Results of a literature search of published and unpublished literature on the paleontological resources of the study area are presented in the text and bibliographies. Also, this report includes the results of a field survey that sampled 38,343 acres of the exposed bedrock in the study area, found 218 paleontological locales within the study area, and provided the basis for a qualified prediction of the nature, diversity and distribution of paleontological locales in the unsampled portion of the study area. Within the study area, exposures of the Williams Fork Formation comprise Class I-a lands where immediate detailed study is needed, exposures of the Wasatch, Green River and Uinta Formations are Class I-b lands, having high potential for producing significant paleontologic resources; Class II lands are exposures of the Iles Formation and Mancos Shale; and Class III lands are composed of exposures of the Sego and Castlegate Sandstones.

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PREFACE

On 28 September 1981, ESCA-Tech Corporation was awarded Contract YA-553-CTI129 by the Bureau of Land Management, Craig District Office, to conduct a
paleontological resource study and inventory of geologic formations present
in part of the White River Resource Area, Colorado. Co-Principal Investigators for the project were Spencer G. Lucas and Allen J. Kihm. Field work
for the project was supervised by the co-principal investigators. The
project was administered by ESCA-Tech Corporation, 2015 Yale Blvd. S.E.,
Albuquerque, New Mexico under the direction of William E. Reynolds.
This report was written by Spencer G. Lucas and Allen J. Kihm.

ACKNOWLEDGEMENTS

Numerous people have contributed to the preparation of this report. For assistance in the field, we thank: J. Eaton, J. Indeck, T. Logan, M. Maas, J. McClammer, J. Muenning, E. Oswald, M. Parrish, T. Rassmussen, P. Reser, G. Storrs, J. Wallace and S. Wallace. W. Reynolds and T. Van Huss administered the project through the Albuquerque office of ESCA-Tech Corporation. T. Logan, M. B. Lucas and T. Rassmussen helped on various aspects of report preparation. J. Westlye curated and catalogued specimens collected by the field survey. G. Bayliss drafted the line figures. M. Tart served as technical editor. D. Bert, P. Nagle, M. Schander and D. Umphres typed the manuscript.

INTRODUCTION

Fossil-bearing sedimentary rocks, mostly of the Eocene Wasatch, Green River and Uinta Formations, are exposed in the Piceance Creek Basin in northwestern Colorado. Approximately 750,000 acres in this basin are part of the White River Resource Area within the U. S. Bureau of Land Management (BLM) Craig district (figure 1, table 1). An additional 450,000 acres are part of the Grand Junction District of the BLM (figure 1, table 1). These 1,200,000 acres in and around the White River Resource Area are hereafter referred to as the study area (figure 1, table 1).

Under the mandate of the Antiquities Act of 1906, the National Environmental Policy Act of 1969 (NEPA) and the Federal Land Policy and Management Act of 1976 (FLPNA), the BLM is required to identify, evaluate and protect paleontological resources (remains of extinct and/or fossil vertabrates and invertebrates) within the study area and ensure that actions initiated or authorized by the BLM do not adversely affect these resources. Thus, the BLM requires information about the nature, diversity, distribution and scientific significance of the paleontological resources in the study area. This report provides this information.

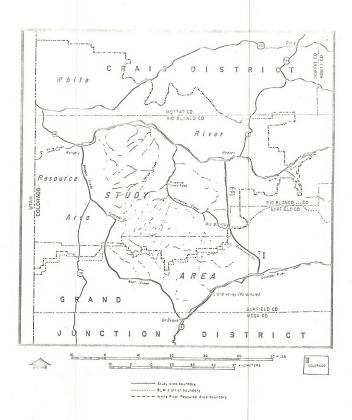


Figure 1. Index map showing location of the study area and the boundaries of the White River Resource Area, RLM Craig District and BLM Grand Junction District

Table 1. Legal Description of the Study Area, Piceance Creek Basin Paleontological Survey

```
T1N: R94W:
               section 31; portions of sections 29, 30, 32
T1N: R954:
               sections 34-36; portions of sections 25-28, 31, 32
T1N; R96W:
               sections 7, 17-21, 27-35; portions of sections 5, 6, 8,
                  9, 15, 16, 22, 23, 25, 26, 36
T1N; R97W:
               sections 1-36
T1N; R98W:
               sections 1-36
T1N; R99W:
               sections 1-36
T1N; R100W:
               sections 1-36
T1N; R101W:
               sections 1-6, 8-17, 20-29, 32-36; portions of sections 7,
                 18, 19, 30, 31
T2N; R97W:
               sections 19, 29-33; portions of sections 18, 20, 21, 27,
                 28, 34-36
T2N: R98W:
               sections 6-11, 14-36; portions of sections 1-5, 12, 13
T2N; R99W:
               sections 1-36
T2N; R100W:
               sections 10-36; portions of sections 1-4, 7-9
T2N; R101W:
               sections 13, 14, 23-26, 35, 36; portions of sections 11,
                 12, 15, 22, 27, 31-34
               portions of sections 30-34
T3N; R98W:
T3N; R99W:
               sections 35, 36; portions of 25-27, 31-34
T1S: R94W:
               sections 6, 7, 18, 19, 30, 31; portions of sections 5, 8,
                 17, 20, 29,
T1S; R95W:
               sections 1-36
T1S: R96W:
               sections 1-36
T1S: R97W:
               sections 1-36
T1S; R98W:
               sections 1-36
T1S; R99W:
               sections 1-36
T1S; R100W:
               sections 1-36
T1S: R101W:
               sections 1-3, 10-15, 22-26; portions of sections 1-5, 8-17,
                 21-28, 34-36; portions of sections 6, 7, 18-20, 29, 33
T2S; R94W:
               sections 5-8, 17-20, 29-32; portions of sections 4, 9, 16,
                 21, 28, 33
T2S; R95W:
               sections 1-36
T2S; R96W:
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               sections 1-36
T2S; R101W:
               sections 19, 29-33; portions of sections 4, 9, 16, 21, 27,
                 35, 36
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               sections 5-8, 17-20, 29-32; portions of sections 4, 9, 16,
                 21, 28, 33
T3S; R95W:
               sections 1-36
T3S: R96W:
               sections 1-36
T3S; R97W:
               sections 1-36
T3S; R98W:
               sections 1-36
T3S; R99W:
               sections 1-36
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Table 1. Legal Description of the Study Area,
Piceance Creek Basin Paleontological Survey
(continued)

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T3S; R100W:
                 sections 1-5, 8-14, 24, 25, 35, 36; portions of sections 6, 7, 15-17, 22, 23, 26, 27, 34
 T3S: R101W:
                 portion of section 1
 T4S: R94W:
                 sections 5-8, 16-21, 27-35; portions of sections 4, 9, 10,
                   15, 22, 23, 25, 26, 36
 T4S: R95W:
                 sections 1-36
 T4S: R96W:
                 sections 1-36
 T4S; R97W:
                 sections 1-36
 T4S: R98W:
                 sections 1-36
 T4S: R99W:
                 sections 1-36
 T45: R100W:
                 sections 1-3, 10-16, 21-29, 32-36; portions of sections 4,
                   8, 9, 17, 19, 20, 30, 31
 T5S; R93W:
                 sections 7, 16-22, 26-35; portions of sections 5, 6, 8, 9, 14, 15, 23-25, 36
 T5S; R94W:
                 sections 1-36
 T5S; R95W:
                 sections 1-36
 T5S; R96W:
                 sections 1-36
 T5S: R97W:
                 sections 1-36
T5S; R98W:
                sections 1-36 ·
T5S; R99W:
                sections 1-36
T5S; R100W:
                sections 1-5, 8-17, 21-28, 34-36; portions of sections 6,
                  7, 18-20, 29, 32, 33
T6S; R94W:
                sections 1-12, 14-21; portions of sections 13, 22, 27-30
T6S; R95W:
                sections 1-24, 26-34; portions of sections 25, 35, 36
T6S: R96W:
                sections 1-36
T6S: R97W:
                sections 1-36
T6S: R98W:
                sections 1-29, 35, 36; portions of sections 30-34
T65; R99W:
                sections 1-19, 21-24; portions of sections 20, 25-30
T6S; R100W:
                sections 1-6, 8-16, 21-24; portions of sections 7, 17, 18,
                  20, 25-28
T6S; R101W:
                portions of sections 1, 2, 12
T7S: R95W:
                portions of sections 5-7, 18
T7S; R96W:
                sections 1-11, 14-22, 28-32; portions of sections 12, 13,
                  23, 27, 33, 34
T7S: R97W:
               sections 1-30, 32-36; portion of section 31
T7S: R98W:
               sections 1, 2, 12; portions of sections 3, 10, 11, 13,
                  14, 24, 25, 36
T8S; R96W:
               section 6; portions of sections 4-7
T8S: R97W:
               sections 1-5, 8-11, 14-16, 22; portions of sections 6, 7,
                 12, 13, 17, 18, 21, 23, 24, 27
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OBJECTIVES

By providing information on the paleontological resources in the study area, this report provides a sufficient basis to enable the BLM district geologist or archaeologist to classify lands within the study area into one of four categories (table 2). The information necessary for such classification, contained herein, is as follows:

- All existing data, published and unpublished, on the nature, diversity and distribution of previously-determined paleontological resources in the study area
- The results of a statistically valid, sample-oriented field survey that located and recorded, from surface and exposed bedrock locales, pf paleontological resources in the study area.
- 3) A predictive model, based primarily on data gathered in the sampled portion of the study area, that describes temporal, rock-stratigraphic and sedimentological contexts in which paleontological resources are likely to occur in the unsampled portion of the study area
- 4) An informed evaluation of the nature, diversity, distribution and scientific significance of the paleontological resources in the study area

Table 2 Classification Scheme for Lands Within the Study Area

Class I-a: Areas where immediate detailed study is needed. Fossils of scientific interest are exposed on the likely to be discovered by detailed field work in the area. This classification is to be used for site-specific localities having scientifically significant fossils.

Class I-b: Other areas with high potential for producing scientifically significant fossils. In these areas, a paleontological evaluation will be done by the geologist, on a case-hy-case basis, prior to any surface-disturbing activities. These evaluations will change the classification for these areas to class I-a, II or III, as appropriate.

Class II: Areas with evidence of fossils but in which the presence of fossils of scientific significance has not been established and is not anticipated. Detailed study may be desireable in the future for the evaluation of all types of fossil collecting. This classification may be used to identify recreational values of fossils.

Areas where there is little likelihood of finding fossils of scientific significance. No further consideration of fossils is necessary unless future discoveries require a change of classification.

Class III:

ME THODS

This study consisted of two phases: a Class I survey (literature search) covering the entire study area, and a Class II survey (field survey) covering a limited part of the study area.

The Class I survey assembled all existing information on the paleontological resources of the study area into a coherent, comprehensive summary. It included a review of information from the following sources:

- Literature <u>published</u> by the U. S. Geological Survey, state agencies, universities (including masters and doctoral theses), professional societies and scientific journals
- Correspondence, telephone or face-to-face contact with researchers who have worked in the study area and with local amateur collectors
- Written and verbal inquiries to scientific institutions, individual paleontologists, amateur collecting clubs and commercial collectors

The results of the Class I survey are included in the Mesozoic Era and Cenozoic Era sections (pp. 18-62), annotated bibliography (p. 79) and Appendix D of this report.

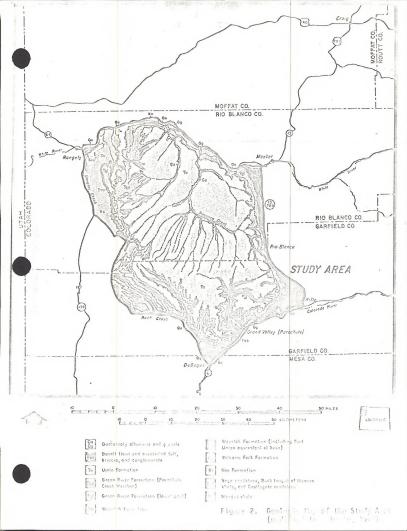
The purpose of the Class II survey was four-fold:

 To relocate and verify the existence and significance of all previously known locales of paleontological resources in the study area, if possible.

- To augment existing paleontological and geologic information about these locales, if needed.
- To locate, describe and sample, as needed, undiscovered locales yielding paleontological resources according to a prescribed sampling scheme (see below).
- 4) To assess the scientific significance of each locale's paleontological resources (table 8 and Appendix C).

The prescribed sampling scheme was derived from the following considerations:

- The entire study area, (figure 1) comprises 1,200,000 acres, of which 750,000 acres are public land. A minimum of five per cent (37,500 acres) of the public land, was sampled.
- 2) Five rock-stratigraphic units were initially recognized to be present within the study area: Mancos Shale, Mesaverde Group (Sego Sandstone, Iles Formation and Williams Fork Formation), Wasatch Formation (including Ohio Creek Conglomerate and "Fort Union equivalents" at its base), Green River Formation, and Uinta Formation (figures 2, 3).
- 3) Examination of relevant geologic maps (Barnum and Garrigues 1980; Cary 1960; Cashion 1969, 1973; Cullins 1971; Donnell and Yeend 1968a, b; Duncan 1976a, b, c, d, e, f; Hail 1972, 1974a, b, c, 1975, 1977, 1978; Johnson 1975, 1977a, b, 1980, 1981; O'Sullivan 1974; O'Sullivan et al. 1981; Pipiringos and Johnson 1975, 1976; Roehler 1972a, b, 1973a, b; Rowley et al. 1979; Tweto 1976; Tweto et al. 1978; Yeend and Donnell



FORMATION	~	PERIOD	ERA (ma)
	Qa, Og	QUATERNARY	
			1.8 ma
		TERTIARY	CENOZOIC
UINTA FORMATION — GREEN RIVER FORMATION —	Tu Tg		
WASATCH FORMATION — BASAL WASATCH FORMATION — (FORT UNION EQUIVALENT AND OHIO CREEK CGL)	Two		
WILLIAMS FORK FORMATION -	Kw		– 65 ma ————
ILES FORMATION — SEGO SANDSTONE, BUCK — TONGUE OF MANCOS SHALE AND CASTLEGATE SANDSTONE	Ki Ksc		
MANCOS SHALE —	Km	CRETACEOUS	MESOZOIC

Unconformity

Figure 3. Generalized geologic column of rock-stratigraphic units exposed in the star area.

- 1968), topographic maps (figure 4), and aerial photographs enabled the total acreage of bedrock on public land to be determined planimetrically (table 3).
- 4) The scientific significance of paleontological resources present in each formation within the study area were assessed in a preliminary way, based on the literature search. *
- 5) Each formation was ranked according to the amount of bedrock present and the preliminarily assessed paleontological significance (table 3). A revised assessment of the amount of bedrock and paleontological significance of each formation was made during the survey to produce a final ranking (table 4). *
- 6) Intensive survey effort was undertaken in 26 "survey areas" within the study area (figure 5) according to the final ranking. The 26 survey areas thus were chosen according to formations exposed within each survey area, accessibility, and land ownership status (i.e., with minor exceptions, all the land in each survey area is public land administered by the BLM).

^{*} Initial ranking was: Green River (most significant), Wasatch Formation, Unita Formation, Mesaverde Group (Sego Sandstone, Iles Formation and Williams Fork Formation) and Mancos Shale (includes Castlegate Sandstone) (least significant). The revised ranking was: Wasatch Formation (most significant), Williams Fork Formation, Unita Formation, Green River Formation, Mancos Shale, Iles Formation, Castlegate Sandstone and Sego Sandstone (least significant).

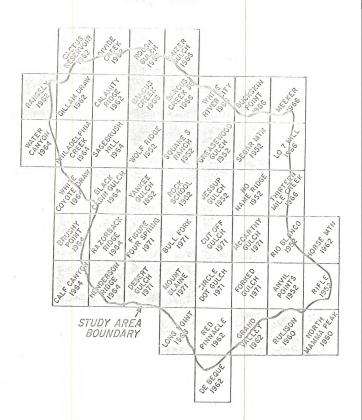


Figure 4. Topographic (7.5 minute) and geologic (shaded) map coverage of the study area.

Table 3. Initial Determinations of the Total Acreage of Bedrock on Public Land in the Study Area.

Formation	Acreage	Percentage
Uinta	300,000	40%
Green River	300,000	40%
Wasatch	112,500	15%
Mesaverdel	30,000	4%
Mancos2	7,500	1%
Totals	750,000	100%

lincludes Sego Sandstone, Iles Formation and Williams Fork Formation 2 Includes Castlegate Sandstone

Table 4. Revised Assessment and Actual Area of Bedrock Surveyed on Public Land in the Study Area.

Assess	ment	Surveyed		
Acreage	Percent	Acreage	Percent	
429,750	56.6%	20,175	52.6%	
205,500	27.0%	5,781	15.1%	
66,000	8.7%	5,101	13.3%	
46,500	6.1%	5,2243	13.6%	
11,875	1.6%	2,052	5.4%	
759,625	100%	38,343	100%	
	Acreage 429,750 205,500 66,000 46,500 11,875	429,750 56.6% 205,500 27.0% 66,000 8.7% 46,500 6.1% 11,875 1.6%	Acreage Percent Acreage 429,750 56.6% 20,175 205,500 27.0% 5,781 66,000 8.7% 5,101 46,500 6.1% 5,2243 11,875 1.6% 2,062	

lincludes Sego Sandstone, Iles Formation and Williams Fork Formation 2Includes Castlegate Sandstone

3Includes 4,957 acres of Williams Fork Formation, 176 acres of Iles Formation and 91 acres of Sego Sandstone

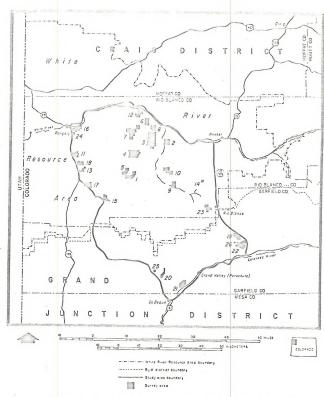


Figure 5. Location of survey areas within the study area.

FIELD PERSONNEL

Fifteen people participated in the field survey: J. Eaton, J. Indeck, A. Kihm (co-principal investigator), T. Logan, S. Lucas (co-principal investigator), M. Maas, J. McClammer (field supervisor), J. Muennig, E. Oswald, M. Parrish, T. Rassmussen, P. Reser, G. Storrs, J. Wallace and S. Wallace (field supervisor). The co-principal investigators, Lucas and Kihm, undertook the literature search with the help of F. Martin Brown, consultant on fossil insects.

STRATIGRAPHY AND PALEONTOLOGY - MESOZOIC ERA

CRETACEOUS PERIOD

The oldest bedrock exposed in the study area is of Late Cretaceous age. Five formations are represented: Mancos Shale (oldest), Castlegate Sandstone, Sego Sandstone, Iles Formation and Williams Fork Formation (youngest). The Sego, Iles and Williams Fork Formations are usually grouped together as formations in the Mesaverde Group (e.g., McGookey et al. 1972).

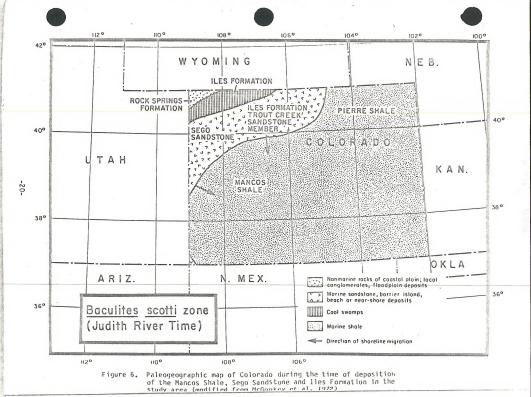
The Cretaceous rocks in the study area represent open marine (Mancos Shale), nearshore marine (Castlegate and Sego Sandstones) and fluvio-deltaic (Iles and Williams Fork Formations) deposition that took place near and along part of the western shore of the epicontinental seaway that covered much of central North America during the Late Cretaceous (figures 6, 7).

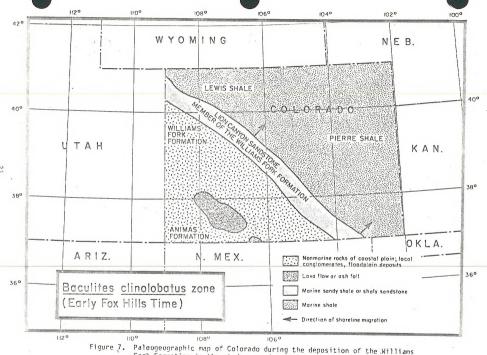
The following is a brief review of the stratigraphy, paleontology and depositional environments of these Cretaceous formations.

Mancos Shale

The Mancos Shale is only exposed in the extreme northwestern part of the study area (figure 2). Here, over 600 feet of the Mancos is exposed on a small outcrop belt bordered by State Highway 64 to the north and State Highway 139 to the west.

Within the study area, the Mancos Shale has been subdivided into two rockstratigraphic units. The lower unit, informally termed the "main body" of





Fork Formation in the study area (modified from McGookey et al. 1972)

the Mancos Shale (e.g., Cullins 1971), consists of over 200 feet of brownish- to dark gray shale interbedded with siltstone, fine-grained sandstone and thin beds of bentonite. * The main body of the Mancos within the study area crops out as low and rolling hills and steep, soft slopes (where overlain by the Castlegate Sandstone) (plate 1). The main body of the Mancos often supports shallow, poorly vegetated soil. Deposition of the main body of the Mancos Shale generally took place in relatively deep, marine water below wave base (figure 6). However, thin beds of sandstone and siltstone represent nearshore shoals and bars.

The upper unit of the Mancos Shale in the study area is termed the Buck Tongue and is separated from the main body of the Mancos Shale by the Castlegate Sandstone (described below) (plate 1). The Buck Tongue consists of 250 to 30J feet of gray to brownish-gray shale that contains orange-weathering dolomite concretions and locally abundant gypsum crystals. The Buck Tongue represents an open marine environment similar to that under which the main body of the Mancos Shale was deposited.

Fisher et al. (1959) reported the results of field work on the Mancos Shale in northwestern Colorado, but, as far as we know, neither they nor subsequent workers studied the limited Mancos exposures in the study area. Cullins (1971) noted that <u>Baculites perplexus</u> occurs in dolomite concretions in the Buck Tongue of the Mancos Shale. This is the only previous report of fossils in the Mancos Shale within the study area. Our survey added to the knowledge of paleontological resources in the Mancos Shale in this

^{*} The total thickness of the main body of the Mancos Shale is about 4,500 feet, but only a little over 200 feet of the uppermost part of this unit are exposed within the study area.

area by discovering oysters, gastropods, inoceramids and Ophiomorpha, as well as Baculites (plate 2, figure 1), in the Buck Tongue and oysters, inoceramids, (plate 2, figure 2), fish scales and spines, Baculites and plant material in the main body of the Mancos Shale (survey area 16).

Castlegate Sandstone

The Castlegate Sandstone is only exposed in the extreme northwestern corner of the study area (figure 2). It consists of 35 to 50 feet of light gray fine- to medium-grained sandstone and forms prominent ledges and ridges between the softer slopes formed by the main body and Buck Tongue of the Mancos Shale (plate 1).

The Castlegate Sandstone represents a marine beach deposit. Because of the relatively high energy of such an environment, few, if any, fossils normally are preserved in beach deposits. Indeed, no fossils have been reported from the Castlegate Sandstone in the study area. Our survey only determined one fossil locality in this formation (ET 16-3) where in-filled vertical burrows were present.

Sego Sandstone

Like the Mancos Shale and Castlegate Sandstone, the Sego Sandstone is only exposed in the extreme northwestern part of the study area just south of State Highway 64 and just east of State Highway 139 (figure 2). Here, the Sego Sandstone consists of about 200 feet of very light gray fine-grained massive sandstone (top), brownish-gray sandy shale (middle) and yellowish-gray to grayish-orange fine-grained sandstone (base).

PLATE 1

Mancos Shale at ET 16-7 (next page)

Locality ET 16-7 (circled) in main body of Mancos Shale (KmM) below sandstone ledge of Castlegate Sandstone (Kc) which is overlain by shale of the Buck Tongue of the Mancos Shale (KbM).

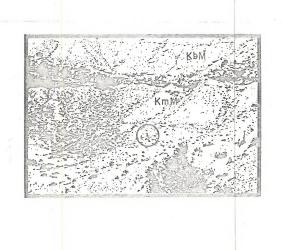


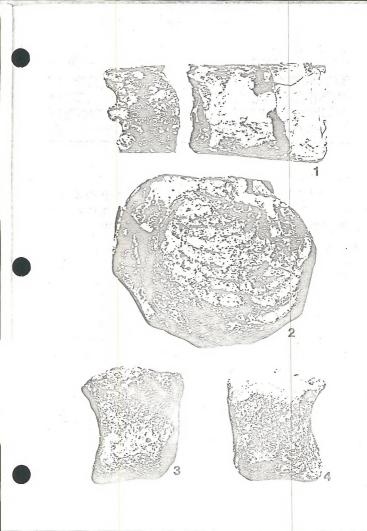
PLATE 2

Cretaceous Fossils from the Study Area (next page)

figure 1 $\underline{\text{Baculites}}$ sp. from the Buck Tongue of the Mancos Shale, locality ET 16-4, x l

figure 2 Inoceramid from the main body of the Mancos Shale, locality ET 16-7, x l

figures 3 and 4 Hadrosaur phalanx from the Williams Fork Formation, locality ET 17-12, dorsal (figure 3) and ventral (figure 4) aspects, x 112



Sediments of the Sego Sandstone are of marine and freshwater origin and represent a shallow marine (strandline) environment. Freshwater and marine fossils of either invertebrates or vertebrates (no more specific information is available) have been found in the Sego Sandstone in northwestern Colorado (Fisher et al. 1959), but none of these were from the study area. Our survey found no fossils in the Sego Sandstone.

Iles Formation

The lles Formation, like the Mancos Shale, Castlegate Sandstone and Sego Sandstone, is only exposed in the extreme northwestern part of the study area (figure 2). Here, about 600 feet of the Iles Formation is exposed.

Within the study area, the lles Formation has been subdivided into two rockstratigraphic units, the lower "main body" (informal term) and the upper Trout Creek Sandstone Member (Cullins 1971). The main body of the lles consists of about 500 feet of interbedded light-brown and yellowish-gray fine- to very fine-grained sandstone, gray shale, brown carbonaceous shale and thin beds of coal. The overlying Trout Creek Sandstone Member is about 60 feet of light- to brownish-gray, fine-grained, massive and porous sandstone.

The coal-bearing main body of the Iles Formation represents fluvio-deltaic deposits that are characteristic of a swampy, reducing environment suitable \hat{t}^{δ} the conversion of organic detritus into coal. The Trout Creek Sandstone Member of the Iles Formation is a marine beach deposit. No fossils have been previously reported from the Iles Formation in the study area, and our survey only determined two localities with poor y preserved bone and wood fragments and a gar scale (survey area 24).

Williams Fork Formation

There is a broad belt of outcrops of the Williams Fork Formation along the northwestern edge of the study area just east of State Highway 139 and along the north bank of East Douglas Creek (figure 2). A very small outcrop of the Williams Fork Formation is also present within the study area just south of State Highway 64 near where Yellow Creek meets the White River (figure 2).

Within the study area, the Williams Fork Formation is nearly 1,900 feet thick and conformably overlies the Trout Creek Sandstone Member of the Iles Formation. The Wasatch Formation unconformably overlies the Williams Fork Formation, but this unconformity is not well exposed within the study area.

The Williams Fork Formation in the study area consists of interbedded grayish-orange to yellowish-gray fine-grained lenticular sandstone, gray shale, brown carbonaceous shale and coal beds up to eight feet thick (plate 3). Numerous occurrences of strata baked by the in situ beds ("klinker") lend a bright red hue to many Williams Fork exposures.

Delta-plain, riverine floodplain and coal swamp environments are represented by the Williams Fork Formation. Like the Iles Formation, no vertebrate or invertebrate fossils had been reported from the Williams Fork Formation in the study area prior to our survey. However, unlike the Iles Formation, our survey uncovered numerous fossil vertebrate and invertebrate localities in the Williams Fork formation in the study area (survey areas 11, 13, 15, 17, 18). Virtually all these localities are at or near the bases of large, channel sandstones (figures 8, 9; plate 3). Particularly significant

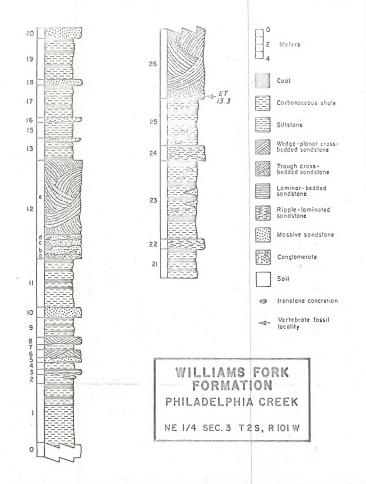
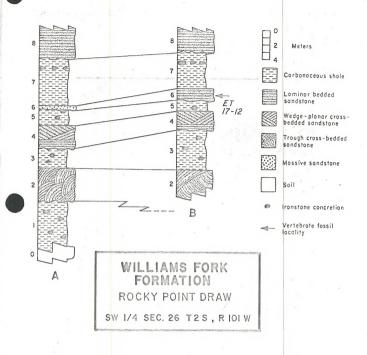


Figure 8. Measured section of part of the Williams Fork Formation in Philadelphia Creei showing the stratigraphic location of locality ET 13-3 where a large concentration of microvertebrate remains was discovered

-30-



gure 9. Measured stratigraphic section of part of the Williams Fork Formation in ky Point Draw showing the stratigraphic location of locality ET 17-12 where a paral skeleton of a hadrosaurian dinosaur was discovered

- -

Exposures of Williams Fork Formation in the Study Area (next page)

figure 1 Williams Fork Formation (KW) on north bank of State Bridge Draw (section 27, T2S, R101W) with bluffs of Green River Formation (TGR) in distance. Vertebrate fossils in the Williams Fork typically occur at bases of sandstones like that capping ridge in foreground.

figure 2 Williams Fork Formation on north bank of Philadelphia Creek (section 4, T2S, R101W) showing typical multistoried sandstone bodies.

1 TGR



localities are ET 13-3, where a large accumulation of small vertebrate and invertebrate remains was identified (figure 8), and ET 17-12, where a partial skeleton of a duckbill dinosaur was discovered (figure 8; plate 2, figures 3 and 4).

TERTIARY PERION

Three formations - Wasatch, Green River and Uinta - comprise the Tertiary rocks in the study area (figure 10). These rocks, deposited during the Paleocene and Eocene, represent very different environments than do the Cretaceous rocks just discussed. Thus, with the commencement of Cenozoic time, the Wasatch Formation was deposited by rivers in a wholly continental basin. As deposition of the Wasatch Formation ended, this basin subsided further and the extension of Lake Uinta into the Piceance Creek Basin began. The sediments deposited in Lake Uinta (figure 11) are now known as the Green River Formation. During the late Eocene, subsidence in the Piceance Creek Basin ended, and uplift adjacent to the basin resulted in the Uinta Formation (figure 12).

The following pages briefly review the stratigraphy, paleontology and depositional environments of the Tertiary formations in the study area.

Wasatch Formation

The Wasatch Formation is exposed over about 9% of the study area, primarily as a narrow belt along the southwestern, southern and south eastern margins of the study area (figure 2). Exposures of the Wasatch Formation along the northwestern, northern and northeastern margins of the study area are very limited, due to extensive cover by vegetation and soil. However, some limited, well-exposed outcrops of the Wasatch Formation are present south of State Highway 64 near White River City and near where Yellow Creek meets the White River.

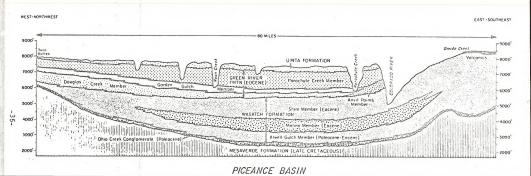
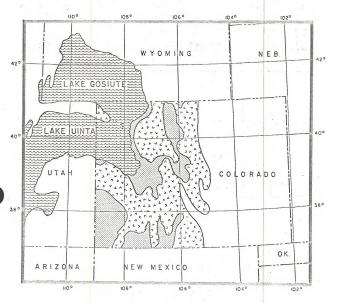


Figure 10. Generalized cross-section of Tertiary rocks in the Piceance Creek Basin (modified from McDonald 1972)



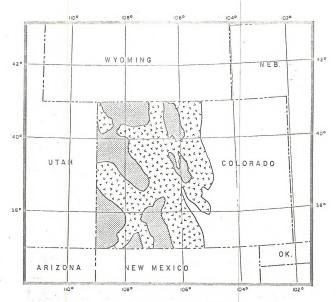
PALEOGEOGRAPHY IN LATE EARLY TO MIDDLE EOGENE TIME

Uplift and piedmont

Basinal river and floodplain

Enay Lake

Figure 11. Paleogeography of Colorado during the time of deposition of the Wasatch Forman (upper part) and Green River Formation in the study area (modified from McNonald 1972)



PALEOGEOGRAPHY IN LATE EOCENE TIME

Uplift and piedmant
Basinal river and floodplain

Figure 12. Paleogeography of Colorado during the time of deposition of the Uinta Format in the study area (modified from McDonald 1972)

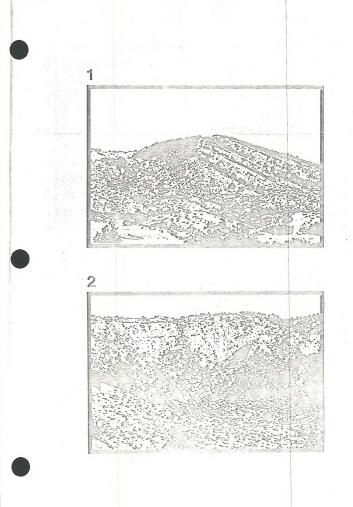
In general, the Wasatch Formation in the Piceance Creek Basin is a thick sequence of variegated shales and fluvial sandstones that represent a mixture of fluvial, alluvial and piedmont deposits of overall low energy. Put differently, the Wasatch Formation in the Piceance Creek Basin represents extensive drainage systems that meandered across the subsiding basin during the late Paleocene and the early Eocene and built extensive floodplains and channel complexes. Deposits of the Wasatch Formation range in thickness from about 200 feet along the Douglas Creek Arch to nearly 6,000 feet on the eastern side of the basin (McDonald 1972). Typical exposures of the Wasatch consist of steep, denuded slopes of brightly colored (mostly red) clay and shale interbedded with lesser amounts of lenticular channel, bar and point bar sandstone deposits (frontispiece; plate 4).

The Wasatch Formation in the Piceance Creek Basin has had a long and unstable nomenclatural history (Donnell 1969, table 1). In this report we follow Donnell's (1969, table 1) three-fold subdivision of the Wasatch into three members (Atwell Gulch, Molina and Shire) except that we also include the basal Ohio Creek Conglomerate ("Formation") and so-called "Fort Union equivalents" in the Wasatch Formation (figure 10). We note, however, that Donnell's (1969) three members of the Wasatch Formation, characterized and mapped in the southern part of the Piceance Creek Basin, are not recognizable to the north.

Fossil vertebrates are common in the Wasatch Formation, as already existing collections in the Field Museum of Natural History (Chicago), University of Colorado Museum (Boulder), Museum of Western Colorado (Grand Junction), and Carnegie Museum of Natural History (Pittsburgh) indicate. Approximately 3,000 specimens have been collected.

Exposures of the Wasatch Formation in the Study Area (next page)

- figure 1 Steeply dipping strata of the Wasatch Formation (upper part), NE 1/4, section 9, T2N, R98W in survey area 12.
- figure 2 Flat-lying strata of the Wasatch Formation on the south flank of Hubbard Mesa showing the location of locality ET 22-5 (arrow) in the SW 1/4, SE 1/4, section 34, T5S, R93W.



Most specimens from the Wasatch Formation in the Pichance Creek Basin have come from south of the study area, but there are fossil vertebrate and invertebrate localities (Appendix C) in the Wasatch within the study area, as the work of previous collectors and our survey (figure 13; plate 5) indicate.

During the late 1930's and the 1940's Bryan Patterson of the Field Museum of Natural History collected extensively in the Wasatch Formation in the Piceance Creek Basin. Earl Douglass in 1903 and J. Leroy Kay in the 1950's collected in these rocks for the Carnegie Museum. Collections at the Museum of Western Colorado were made in the 1960's. The University of Colorado Museum collections were made in the late 1970's and are still being augmented by one of the co-principal investigators (A. J. Kihm) of this report.

Although no comprehensive review of the fossils from the Wasatch Formation in the Piceance Creek Basin has been published, numerous papers on parts of the fossil fauna have appeared and the list of fossil vertebrates from the formation is lengthy (table 5). This extensive fossil fauna renders the Wasatch Formation the most scientifically significant formation in the study area.

Green River Formation

The Green River Formation makes up a significant part of the bedrock in the study area, approximately 27%. Exposures of the Green River Formation essentially encircle the entire area and also are present within the north-central part of the study area along Piceance and Yellow Creeks and their tributaries (figure 2).

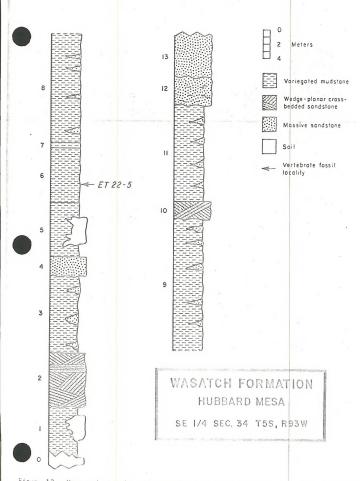


Figure 13. Measured stratigraphic section of part of the Wasatch Formation along the south flack of Hubbard Mesa Showing the stratigraphic position of ET 22-5 where numerous vertex brate fassils were collected -4.3-

Fossils from Wasatch Formation in Study Area (next page)

- figures 1, 2 Jaw fragment (Colorado University 257) of Coryphodon sp. with left P_2 -M $_3$ from the Wasatch Formation north of DeBeque, left lateral (figure 1, x 11_2) and occlusal (figure 2, x 3/4 views.
- figures 3, 4 Jaw fragment (Colorado University 40960) of $\underline{\text{Hyracotherium}}$ sp. with right P_4 -M $_3$ from the Wasatch Formation at Colorado University locality 78006, right lateral (figure 3) and occlusal (figure 4) views, x 2.
- figure 5 Bird limb bones from the Wasatch Formation at locality ET 25-1, \times 1.

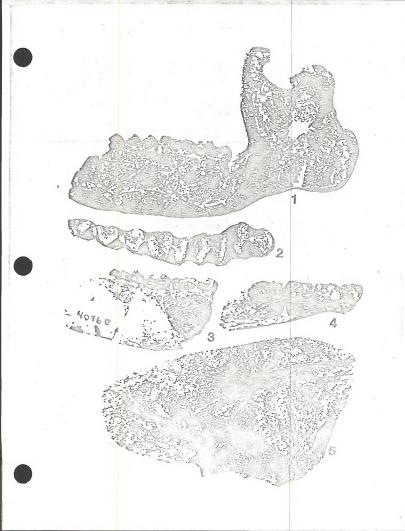


Table 5. Vertebrate Fauna from the Wasatch Formation in the Piceance Creek Basin (From Gazin 1953, 1965, 1968; Gingerich 1976, 1977, 1978; Kitts 1956; Novacek 1977; Patterson 1934, 1937, 1939, 1949; Patterson and Simons 1958; Patterson and West, 1973; Radinsky 1963; Schmidt 1938, 1945; Simons 1960; Sloan et al. 1980; Van Valen 1966; West 1976; Wood 1962; and ongoing research by A. J. Kihm.)

Class: Osteichthyes Order: Semionotiformes Family: Lepisosteidae

Lepisosteus sp.

Order: Siluriformes Family: Ictaluridae

Genus indeterminate

Class: Reptilia Order: Squamata Family: Anguidae

· Genus indeterminate

Order: Crocodilia Family: Crocodylidae

Allognathosuchus sp. Leidyosuchus rigesi Ceratosuchus burdoshi Genus indeterminate

Class: Aves

Genus indeterminate

Class: Mammalia Order: Multituberculata

Neoliotomus sp. Ptilodus sp.

Order: Marsupialia Family: Didelphidae

Mimoperadectes sp.

Order: Deltatheridia Family: "Palaeoryctidae"

D. altidens absarokae

Table 5 (continued)

Order: Insectivora Family: Leptictidae

Palaeictops matthewi ? Prodiacodon sp.

Family: Adapisoricidae

Scenopagus sp.

Order: Primates Family: Plesiadapidae

Plesiadapis dubius

Family: Microsyopidae

Microsyops sp.

Family: Adapidae

Pelycodus cf. P. trigonodus ? Copelemur sp.

Family: Paromomyidae

Phenacolemur sp.

Order: Tillodontia Family: Esthonychidae

Esthonyx bisulcatus E. acutidens

Order: Rodentia Family: Ischyromyidae

Microparamys sp.
Paramys copei
P. excavatus
P. francesi
Reithroparamys debequensis
R. pattersoni
Thisbemys perditus
Lophiparamys debequensis
Pseudotomus coloradensis

Family: Sciuravide

Genus indeterminate

Order: Carnivora Family: Miacidae Table 5 (continued) Didymictis protenus
cf. Miacis exigus
Vulpavus sp.
Viverravus sp.

Order: Creodonta Family: Oxyaenidae

Oxyaena sp.

Order: Condylarthra Family: Phenacodontidae

Phenacodus primaevus
P. vortmani
P. brachypternus
Ectocion osbornianus
P. parvus
Prosthecion major

Family: Hyopsodontidae

Apheliscus sp.
Haplomylus speirianus
Hyopsodus walcottianus
Hyopsodus Toonisi
H. cf. H. miticulus
Hyopsodus sp.
Aletodon gunnelli

Family: Mesonychidae

Pachyaena ossifraga

Family: Arctocyonidae

Lambertocyon ischyrus

Family: Meniscotheriidae

Meniscotherium chamerse M. tapiacitum

Order: Pantodonta Family: Barylambdidae

Barylambda faberi Leptolambda schmidti Haplolambda quinni

Family: Coryphodontidae

Coryphodon sp.

Table 5 (continued)

Family: Titanoideidae Titanoides primaevus T. zeuxis

Order: Dinocerata Family: Prodinocerotidae

Bathyopsoides harrisorum Probathyopsis newbilli

Order: Taeniodontia Family: Stylinodontidae

Lampadophorus expectatus Ectoganus sp.

Order: Perissodactyla Family: Equidae

Hyracotherium angustidens
H. vasacciense
H. craspedotum
New genus and species

Family: Isectolophidae

Homogalax protapirinus

Family: Helaletidae

Heptodon posticus H. calciculus

Family: Palaeotheriidae

Lambdotherium sp.

Family: Brontotheriidae

Genus indeterminate

Order: Artiodactyla Family: Dichobunidae

Wasatchia sp. Bunophorus sp. The stratigraphy of the Green River Formation in the piceance Creek Basin is complex, especially because the formation interton use extensively with the underlying Wasatch Formation and with the overlying Uinta Formation. Put simply, four members of the Green River Formation are present within the study area: Anvil Points Member, Douglas Creek Member, Garden Gulch Member and Parachute Creek Member (figure 10).

The Anvil Points Member (plate 6, figure 1) is a clastic facies that invades the Piceance Creek Rasin from the east. It is stratigraphically equivalent to the Douglas Creek, Garden Gulch and lowermost Parachute Creek Members. Lithologically, the Anvil Points is a very heterogenous unit that represents a moderate to high energy fluvial to lacustrine transition zone (lakeshore facies). Its thickness ranges from 1500 to 1900 feet, and it intertongues with the Douglas Creek, Garden Gulch and Parachute Creek Members of the Green River Formation and with the Wasatch Formation (figure 10).

The Douglas Creek Member is approximately 400-feet-thick on the east side of the basin where it intertongues with the Anvil Points Member. On the west side of the basin, however, the Douglas Creek Member is as much as 800 feet thick. The Douglas Creek Member is composed of cross-bedded, fine-grained, ripple-marked sandstone with algal and ostracodal limestone and lesser amounts of interbedded gray shale. It represents low to moderate energy lacustrine environments, some of which are transitional to fluvial environments.

The Garden Gulch Member is composed of gray, fissile shale with lesser amounts of interhedded narlstone, thin fine-grained sandstone and ostracodal, oblitic and algal limestone. It averages 600 to 700 feet thick in the southern and western parts of the basin and is thickest (up to 1000 feet)

in the north-central basin. The Garden Gulch Member represents depositional environments similar to those represented by the Douglas Creek Member.

The Parachute Creek Member is the primary member of the Green River Formation in the Piceance Creek Basin. It forms the sheer, white-weathering cliffs that are such a prominent feature of the present-day topography of the basin (frontispiece; plates 6, 7). At the northeastern synclinal axis of the Piceance Creek Basin, the Parachute Creek Member is over 3000 feet thick, but its thickness in other parts of the basin is much less and very variable due to erosion. Sediments of the Parachute Creek Member are largely oil shale, platy marlstones and limestones with lesser amounts of siltstone, silty shale and odlitic or pisolitic deposits. Recent analysis by Lundell and Surdam (1975) suggests that the Parachute Creek Member was deposited in a shallow water lake.

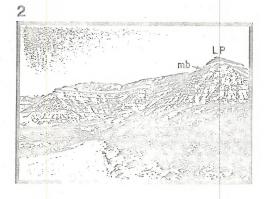
The Green River Formation in Utah and Myoming has yielded an extensive fossil fauna that includes fishes, turtles, crocodilians, birds, bats and insects (Grande 1980). The most common fossils in the Green River Formation in the Piceance Creek Basin are plants (plate 8, figure 6) and insects (plate 8, figures 3, 4, 5). These fossils have been extensively studied because of their excellent preservation (see Annotated Bibliography). Although a juvenile crocodilian recently was reported from the Douglas Creek Member of the Green River Formation just southwest of the study area (Langston and Rose 1978), other than a few insects and gastropods no fossil fauna was reported from the Green River Formation in the study area prior to our survey. Our survey augmented the insect and gastropod faunas (plate 8) but only found minor amounts of vertebrate fossil material in the Green River Formation within the study area.

Exposures of Wasatch and Green River Formations in the Study Area (next page)

figure 1 Wasatch Formation (middle part of Shire Member: TWsm; upper part of Shire Member: TWsu) overlain by Green River Formation (sandstone bed at Long Point: 1p; Anv 1 Points Member: TGa; Parachute Creek Member: TGp; Mahogany oil-shale bed: mb) at Long Point (LP) looking northwest (NE 1/4, section 18, T75, R97W).

figure 2 Wasatch Formation (TW) overlain by Green River Formation (Parachute Creek Member: TGp; Mahogany oil-shale bed: mb) northeast of Roan Creek on the west flank of Long Point (LP).

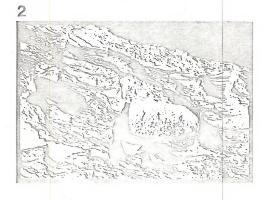
mb 15b



Fossiliferous strata of the Green River Formation in Study Area (next page)

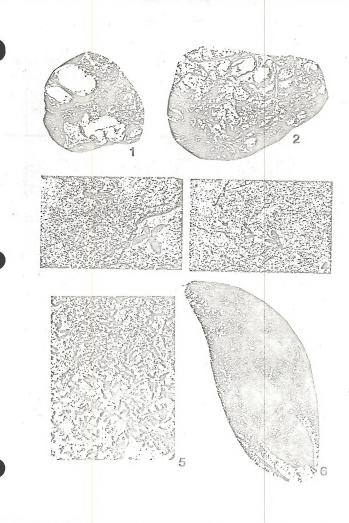
figure 1 Thinly-laminated shale of the Parachute Creek Member ("Black Sulpher Gulch Tongue") of the Green River Formation at locality ET 1-1 (SE 1/4, SW 1/4, T2S, R98W).

figure 2 Shell fragments of a trionychid turtle (t) in thinly-laminated silty shale of the Green River Formation at locality ET 10-2 (SE 1/4, NE 1/4, section 2, T2S, R97W).



Fossils from the Green River Formation in Study Area (next page)

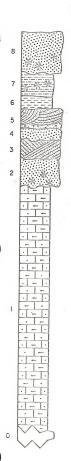
- figures 1, 2 Gastropods from the sandstone bed at Long Point (basal Green River Formation) in section 8, T7S, R97W, x 1.
- figures 3, 4 Insects from the Parachute Creek Member of the Green River Formation at locality ET 23-5, \times 2.
- figure 5 Insect larvae from the Parachute Creek Member of the Green River Formation at locality ET 12-20, \times 2.
- figure 6 Leaf impressions from the Parachute Creek Member of the Green River Formation, x 1.

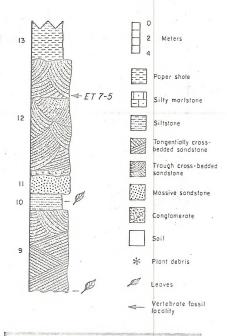


Uinta Formation

Outcrops of the Uinta Formation (formerly termed "Evacuation Craek Member of the Green River Formation") represent the majority (57%) of exposed bedrock in the study area. Deposits of the Uinta Formation are thick and massive sandstone (plate 9), siltstone, drab shale and barren mudstone. The formation becomes sandier towards the top. The Uinta Formation was deposited during and just after the final stages of Lake Uinta (figures 11, 12) and represents a return to a fluvial environment.

Very few fossil vertebrates or invertebrates were known from the Uinta Formation in the study area previous to our survey. Our study found numerous fossil localities in the Uinta in the study area although only a few of these yielded scientifically important specimens. The most important locality we discovered in the Uinta Formation yielded a partial skull of Uintatherium (figure 14; plates 9,10), without question the single best fossil vertebrate ever found in the Uinta Formation in the study area.





UINTA AND GREEN RIVER FORMATIONS

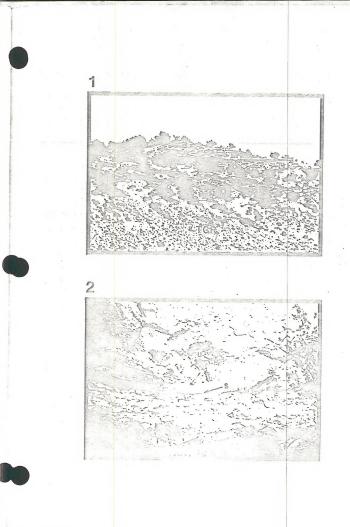
NORTH BARCUS CREEK

NW 1/4 SEC. 7 TIN, R98W

Toure 14. Measured stratigraphic section of part of the Uinta (units 2-12) and Green River (units 1, 13) Formations along North Barcus Creek showing the stratigraphic position of ET 7-5 where a partial skull of Uintatherium was discovered

Uinta and Green River Formations at locality ET 7-5 (next page)

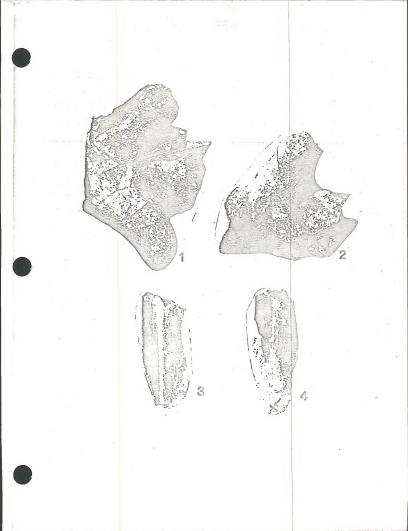
- figure 1 Uinta Formation (TU) sandstones above marlstones of the Green River Formation (TGR) just east of locality ET 7-5 (NW 1/4, NE 1/4, section 7, T1N, R98W).
- figure 2 Close-up of ET 7-5 showing location in sandstone where <u>Uinta-therium</u> skull was preserved (u) just above scour base of sandstone channel (s).



Partial skull of <u>Uintatherium</u> sp. from locality ET 7-5 (next page)

figures 1, 2 Skull fragment of <u>Uintatherium</u> sp. from the Uinta Formation at locality ET 7-5 showing nasal horns, dorsal aspect (figure 1) and right lateral aspect (figure 2), x 1/3.

figures 3, 4 Upper canines of the same specimen as in figures 1 and 2, x 1/2.



PREDICTIVE MODEL

Rationale

One of the purposes of this study was to develop a model to enable the prediction of localities most likely to contain paleontological resources outside the surveyed portion of the study area. Two main sources of information were used to develop this model:

- The distribution and nature of fossil accumulations in the surveyed area; more specifically, the temporal periods, types of accumulations, scientific significance, stratigraphic positions and sedimentologic contexts of all fossil locales in the surveyed area
- 2) The distribution and lithologies of strata in the study area not surveyed.

nespite the information available from these two sources, the predictive model developed has many problems. The main source of these problems is the fact that all fossil assemblages are largely the result of accidents (Efremov 1940; Behrensmeyer 1975); accidents that resulted in the death and/or burial after death of once-living animals (figure 15). The accidental component that influences the distribution of fossil localities renders extremely difficult the prediction of the location of fossil localities with any certainty. In other words, despite the fact that certain conditions are favorable to fossil preservation and discovery (e.g., particular sedimentary environments, presence of well exposed and accessible outcrop), and the discernment of the distribution of these conditions can aid in determining fossil localities, the accidental component in the processes of death, burial and fossilization introduces an element of randomness into the distribution of fossil localities in any area.

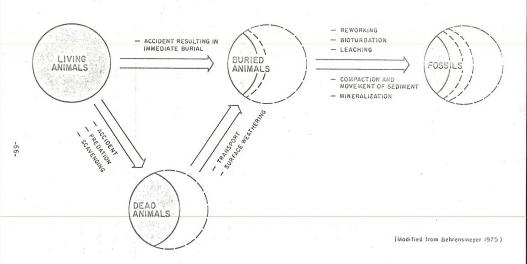


Figure 15. Processes that result in the formation of fossil vertebrate and invertebrate localities ${\sf vert}$

Bearing the qualifications imposed on any predictive model of fossil distribution by this randomness, we present a simple predictive model of fossil locality distribution in the unsampled portion of the study area. We base this model on the assumption that the quantity, distribution and scientific significance of fossil locales determined in the sampled portion of the study area is a good model of the quantity, distribution significance of fossil locales in the unsampled portion of the study area.

Results

The quantity, stratigraphic distribution and scientific significance of all fossil locales determined in the sampled portion of the study area has been tabulated (table 6). These figures have then been magnified to give predictive figures of the quantity, distribution and scientific significance of fossil locales that should be present in the unsampled bedrock (not necessarily exposed) in the remainder of the study area (table 7). These predictive figures must be interpreted with the following qualifying statements in mind:

- 1) These figures only apply to bedrock, whether exposed or not exposed, in the study area. Since it is likely that over 50% of the study area is covered by alluvium, soil and/or vegetation, from the practical viewpoint of what can be discovered by surface prospecting, the predictive figures should be cut at least in half.
- 2) Fossil localities in some formations are predicted to be associated with specific sedimentological contexts. Thus, fossil locales in the Uinta and Williams Fork Formations will generally be found at the bases of large channel sandstones or at the bases of channel bodies within

Table 6

Number of Localities Located by the Field Survey from each Formation within the Sampled Portion of the Study Area in each Category of Scientific Significance Evaluation *

	:	scienti	fic sign	nifican	ce	TOTAL
formation	1	2	3	4	5	
Uinta	4	9	17	25	4	59
Green River	1	12	13	14	3	43
Wasatch	4	12	14	12	3	45
Williams Fork	6	7 .	9	18	13	53
Iles	-	1	-	1	-	2
Sego	-		-	1	-	1
Mancos	-	4	7	4	-	15
TOTAL	15	45	60	75	23	218

^{*} See table 8 for explanation of categories of scientific significance evaluation.

Table 7

Predictive Figures of Number of Localities from each Formation (bedrock not necessarily exposed) within the Unsampled Portion of the Study Area in each Category of Scientific Significance Evaluation*

		scient	ific si	gnificar	ice	<u>TOT</u>	AL
formation		2	3	4	5		
Uinta	81**	183	345	507	81	1,19	97
Green River	34	402	443	483	102	1,46	54
Wasatch	48	143	167	143	36	53	37
Williams Fork	47	55	71	141	102	41	16
Iles	. 0	0	0	0	0		0
Sego	0	0	0	0	0		0 .
Mancos	0	0	0	. 0	0		0
TOTAL	210	783	1,026	1,274	321	3,61	14

^{*} See table 8 for explanation of categories of scientific significance evaluation.

^{**} For example, the predictive figure for localities of scientific significance value 1 in the Uinta Formation is derived by the following equation:

coral acteage	
of Uinta	number of
in study area	localities
total acreage	x of 1
of Uinta in	evaluation in
sampled area	Uinta in sampled
	2002

number of localities of l evaluation in Uinta in sampled area

OR: $\frac{429,750 \text{ acres}}{20,175 \text{ acres}} \times 4 - 4 = 83$

multistoried sandstone channel complexes. Localities in the Green River Formation are likely to be in either fine-grained sandstones (Douglas Creek Member) or thinly-laminated markstones (upper part of Parachute Creek Member). Localities in the Wasatch Formation prohably will occur in variegated sequences of clay and shale.

- 3) Fossil localities in the Wasatch Formation probably will be more plentiful toward the eastern side of the study area (Rifle vicinity) than on the western side (de Beque and Grand Valley vicinity).
- 4) Random factors (see discussion above) still render it possible that many more or fewer localities are present in the study area than is indicated by the predictive figures in table 7.

Scientific Significance

Information gathered by the Class I and Class II surveys of this study provides a comprehensive summary of the paleontologic resources of the study area. All paleontologic locales determined by the field survey have been evaluated with respect to their scientific significance (table 6, Appendix C). With this information it is possible to make specific recommendations for future paleontological work in the study area. It also is possible to recommend action to mitigate possible impacts on paleontologic resources in the area. To do this, we have evaluated the scientific significance of the paleontologic resources in each formation exposed in the study area. Then we have classified exposures of these formations according to the classification scheme for lands within the study area (table 2). This classification and our mitigation and management recommendations follow.

Class Ia Formations (and Localities)

Exposures of the Williams Fork Formation in the study area are classified Ia because the sampled outcrops of Williams Fork Formation yielded diagnostic, abundant and hitherto unknown paleontologic locales, many of which are judged to be highly significant (1) to significant (2). We recommend that the BLM engage a qualified paleontologist(s) as soon as possible to conduct an intensive inventory of all exposures of Williams Fork Formation and that all localities in the Williams Fork identified by us as highly significant (1) be salvaged prior to any land use activities that would impact these localities.

Table 8

Explanation of Numbers used to Indicate Evaluations of Scientific Significance

mber explanation 1* Highly significant localities that produce served, and/or diagnostic fossil specimens of fossil vertebrates and/or invertebrates in large quantities and/or are otherwise extremely significant because of their stratigraphic and/or geographic position 2 Significant localities that produce diagnostic specimens of fossil vertebrates and/or invertebrates in small quantities and/or are only moderately significant because of their stratigraphic and/or geographic position

- 3 Low significance localities that produce fossil vertebrates and/ or invertebrates that are only diagnostic at higher taxonomic levels (e.g., order, family) and/or are otherwise better known from other localities
- Insignificant localities that produce fossil vertebrates and/or invertebrates that are only diagnostic at the highest taxonomic levels (e.g., subclass, class) and/or are poorly preserved, not abundant and better known from other localities
- Not evaluated localities that only yield fossil plant material (evaluation of the scientific significance of fossil plants does not strictly fall within the scope of this survey, although fossil plant material, when located in the field, was recorded).

^{*} Even localities with highly significant paleontological resources that have been totally collected retain an evaluation of "1" because of the sedimentological and stratigraphic information still available at the collected locality.

In particular, localities ET 13-3 and 17-12 represent occur ences of fossils not previously recorded in the Piceance Creek Basin. Locality ET 13-3 indicates excellent potential for producing a diverse fauna of Late Cretaceous vertebrates (including small species) from the Williams Fork Formation. This type of locality is not now known on the western slope of Colorado. Locality 17-12 contains a partial skeleton of a dinosaur. This type of specimen is of extreme scientific importance and should be preserved. The fossil materials at these localities should be salvaged by a qualified paleontologist at the earliest possible date. These local ities should be protected from any adverse land use activities.

Class Ib Formations

Exposures of the Wasatch, Green River and Uinta Formations in the study area are classified as Class Ib because they have demonstrated high potential for producing scientifically significant paleontologic resources. We recommend that all localities in these formations we have identified as highly significant (1) be re-examined and, if deemed necessary by a qualified paleontologist, be salvaged prior to any land use activities that would impact these localities. We also recommend that the BLM conduct field inventory (similar to that conducted in the sampled portion of the study area) of unsampled exposures of the Wasatch, Green River and Uinta Formations in the study area prior to any land use that could adversely affect paleontological resources.

Class II Formations

Exposures of the Iles Formation and Mancos Shale in the study area are classified as Class II because they contain paleontological resources the significance of which is difficult to establish. We have no specific mitigation

and management recommendations concerning exposures of these formations except that we recommend that the BLM encourage any further paleontological study of the lles Formation and Mancos Shale in the study area.

Class III Formations

The Sego and Castlegate Sandstones have produced no significant paleontological resources in the study area and thus are classified as Class III. Since there seems to be little likelihood of finding paleontological resources of scientific significance in these formations, we believe no specific mitigation or management recommendations can be made for the Sego and Castlegate Sandstones.

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GLOSSARY

GLOSSARY

Arch Structurally, a linear uplift that is no longer than wide. Serves to separate areas geographically and structurally.

A structural bowl formed by either uplift on several sides of an area, or by subsidence of an area. Basin when ini-

tially formed tends to accumulate sediments.

Bed (bedding, A sedimentary layer, may be very thick (30 m or more), or very thin (less than 1 m). A unit of sediment that has a similar history of deposition.

Cenozoic Era The major time unit comprising the last 65 million years of Earth's time. It has two Periods, Tertiary and Quater-

nary.

A rock layer made up predominately of large (2 mm diameter Conglomerate or greater) particles.

Continental Referring to those environments which occur on a continent as opposed to marine. Examples are streams, lakes and sand dunes.

> The final (youngest) period of the Mesozoic Era. The Cretaceous Period spans the time from 140 ma to 65 ma. It is generally characterized as a time when a shallow sea covered much of central North America.

> A group of dominant reptiles which includes the modernday crocodile, alligator and gavial.

When beds occur at various orientations relative to each other. Indicative of a changing direction of the mode of deposition, i.e., changing water currents in a stream or changing wind direction.

A term referring to two of the groups of ruling reptiles, the Ornithischia and Saurischia. These two orders originated during the Triassic and were the dominant vertebrate type in the Jurassic and Cretaceous Periods. They became extinct at the end of the Cretaceous.

The second epoch of the Tertiary, spanning the time from 53.5 ma to 37 ma. A time when continental deposition occurred in many basins in the Rocky Mountain region.

The temporal subunit of a Period. It is defined by its contained fossils. The rocks deposited during an Epoch represent a Series.

One of the major units of geologic time. It is based on the fossils found in rocks of that age and has subordinate

Basin

bedded)

Cretaceous

Crocodilia Crosshedded

Dinosaur

Eocene

Epoch

Fra

units called Periods. The rocks deposited in the time represented by an Era are said to represent an Erathem.

Exposure A bare surface of outcrop, usually denuded of all soil and vegetation.

Fauna Referring to the group of animals that occurs in an environment. A fossil fauna is that group of animals for which identifiable fossilized remains have been recovered from a particular locality, formation or time span.

Fluvial Pertaining to river or stream environment; i.e., fluvial sediments.

Formation

A mapping term denoting a sedimentary rock unit that can be traced for a considerable distance. It usually her a distinctive lithology and is readily distinguishable from the units above and below it. It is not related to time units and the boundaries of a formation may cross time boundaries.

Group A sequence of two or more formations representing a major sedimentary cycle. The upper and lower boundaries of a group may represent major breaks in the rock record.

Lacustrine Referring to lake deposition.

Mamma 1

Mudstone

Lithology Of or pertaining to the particles constituting a rock or rocks. Typical lithologies are shale, sandstone, limestone, etc.

Ma (Mega annum) One million (1,000,000) years, equivalent to mybp, million years before present, but less cumbersome.

Referring to that group of animals which give birth to the young alive, suckle the young, have hair and are warmblooded. Man, dogs, horses, bison and bats are a few common types.

Massive A rock unit with no visible or obvious bedding.

Member A rock unit term, a subdivision of a formation and usually mappable on a local basis.

Mesozoic The second of the three eras with abundant fossil remains, bounded by the Paleozoic Era below and the Cenozoic Era above. It lasted from approximately 230 to 65 million years ago. It has three Periods (in ascending order): Triassic. Jurassic and Cretaceous.

A rock unit made up of mud-sized particles; differs from a shale by the lack of thin bedding or platy character.

Order

A level of taxonomy which groups those organisms which share a common ancestry and are easily separable from other orders based on major morphologic characters. Primates, Carnivora and Chiroptera (bats) are three examples of orders.

Outcrop

The interface of rock formation and the surface of the land.

Paleocene

The first (earliest) epoch of the Tertiary, spanning the time from 65 ma to 53.5 ma. This is the time when basins began to develop in the Rocky Mountain region and mammals became the dominant vertebrate type.

Period

A subunit of an Era, and, like the Era, is defined by the fossils contained in rocks of that time unit. Several Periods make up an Era. A Period also has subunits called Epochs. The rocks deposited in a given period represent a System.

Quaternary

The youngest Period of the Cenozoic Era. It dates from approximately 1.8 (or 1.2) ma to the present. It has two Epochs, the Pleistocene (up to 10,000 years before the present) and the Holocene (10,000 YBP to present).

Reptile

That group of animals which reproduces via an amniote egg, the young hatching as more or less miniature adults.

Sandstone

A rock composed of grains of sand-size (2 millimeters to 1/16 millimeter in diameter) cemented or uncemented by another substance. Sandstone is usually composed of quartz, but may also have other minerals and rock fragments as part of its composition.

Shale

A sedimentary rock usually composed of clay minerals (silicate minerals less than 1/256 millimeter in diameter). Common clay minerals are kablinite, illies and montrorillinite. Shales usually have a tendency to or less parallel to the bedding surface. In its tendency is called fissility.

Siltstone

A sedimentary rock similar to sandstone but composed of grains between 1/16th and 1/256th millimeter in size.

Taxon (plural taxa) A unit of the scientific classification of animals and plants. Depending on usage, it can be as detailed as a species or as general as a class. When used, all taxa referred to should be of equal rank.

Tertiary

The older of the two Periods of the Cenozoic Era. It dates from approximately 55 to approximately 1.8 (or 1.2) ma. It has five Epochs (in ascending order): Paleocene, Eocene, Olignopan, Muscene and Pliocene.

APPENDIX A

Areas Surveyed

Name of area North Bank of Ryan Gulch	
Legal description of area sections 8, 18 and N 1/2 (approximate) of 17 T25 D001
and section 13 T2S R99W) 01 17 123 K96N
The second secon	
Total acreage of area 2200	
Topographic map(c) area is as Walf Diday Calculation	
Topographic map(s) area is onWolf Ridge, Colorado and Yankee G	ulch, Colorado
Geologic map coverage of area Duncan (1976a, 1976f)	
Geologic formations exposed in area Green River, Uinta and Qal	(46 acres)
Exposed acreage of formations in area:	
UINTA FORMATION 1990	
GREEN RIVER FORMATION 164	
WASATCH FORMATION	
WILLIAMS FORK FORMATION	
ILES FORMATION	
SEGO SANDSTONE	
MARCOS SHALE	
N t	
Number of paleontological locales in area 1	
Scientific significance of locales:	
3	
4	

Name of area North Bank	Dry Fork of Piceance Creek		
Legal description of area	section 25; E 1/2 section 26	; NE 1/4 & N 1/2, SE 1	/4
section 35; NE 1/4 & NW 1	1/4 & N 1/2 SE 1/4 & N 1/2 SW 1	/4 section 36 T1N R97W	and
W 1/2 NW 1/4 & W 1/2 SW 1	1/4 section 30; W 1/2 NW 1/4 se	ction 31 TIN R96W	
Total acreage of area 19	920		
Topographic map(s) area is	on _ White River City, Colora	do	
Geologic map coverage of a	area _ Pipiringos and Johnson (1976)	
Geologic formations expose	ed in area <u>Green River, Uinta</u>	, Qal (60 acres)	
Exposed acreage of format	ions in area:		
. UINTA FORMATION	1480		
GREEN RIVER FORMATION	380		
WASATCH FORMATION			
WILLIAMS FORK FORMATION			
ILES FORMATION			
SEGO SANDSTUNE			
MANCOS SHALE			
ii	1	200-0	
Number of paleontological	locales in area ZU		
Scientific significance of	f locales:		
1			
2 ET 2-5, 2-11, 2-13, 2	2-14, 2-15, 2-16		
3 ET 2-7, 2-8, 2-9, 2-1	10, 2-12, 2-17		
4 ET 2-1, 2-2, 2-3, 2-4	4, 2-6, 2-18, 2-19, 2-20		
5			
	-102-		

Maile of area	
Legal description of area sections 17, 18, 19, 20 TIN R97W; sec	tions 29, 30, 31
32 T1N R97W; E 1/2, E 1/2 section 13, 24 (approximate), T1N R98	,
SE 1/4 (approximate) section 25 T1N R98W; E 1/2 & E 1/2 W 1/2 (a	
tion 36 T1N R98W; NE 1/4 section 6 & NN 1/4 section 5 T1S R97W	
Total acreage of area 6554	
Topographic map(s) area is on Rarcus Creek SE, Colorado and Squ	are S Ranch,
Colorado	
Geologic map coverage of areaDuncan (1976b) and Hail (1972)	
	1.24
	1 1
Exposed acreage of formations in area:	
UINTA FORMATION 5987	
GREEN RIVER FORMATION 160	
WASATCH FORMATION	
WILLIAMS FORK FORMATION	
ILES FORMATION	
SEGO SANDSTONE	
MANCOS SHALE	
Number of paleontological locales in area 33	
Scientific significance of locales:	
1ET 3-2, 3-5, 3-6, 3-13	
EV 3-14	
3 _ E1 3-3, 3-4, 3-16, 3-19, 3-20, 3-22, 3-25, 3-26, 3-30	
5 . Fl 3.1, 3-Z, 3 8, 3-9, 3 10, 3-11, 3-12, 3-15, 3-17, 3-18, 3	21, 3-24, 3-27,

Name of area Duck Creek a	and vicinity	and the second s
Legal description of area	sections 8, 17; S 1/2, S 1/2	ections 4, 5; SE 1/4 SE
1/4 section 6; NE 1/4 NE 1	/4 section 7; E 1/2 E 1/2 sect	ion 18; section 9 (except
S 1/2 NE 1/4); section 16	(except S 1/2 SE 1/4 & E 1/2 S	1/4 & SE 1/4 NE 1/4);
W 1/2 SW 1/4 & NW 1/4 SE	/4 section 10 T1S R98W	
Total acreage of area 270		
Topographic map(s) area is	on wolf klage, colorado	
	and the state of t	
Geologic map coverage of a	rea Duncan (1976a)	
Geologic formations expose	in area <u>Green River, Uinta,</u>	Qal (466 acres)
Exposed acreage of formation	ons in area:	
UINTA FORMATION	1960	
GREEN RIVER FORMATION	274	
WASATCH FORMATION		
WILLIAMS FORK FORMATION		
ILES FORMATION		
SEGO SANDSTONE		
MANCOS SHALE		
Number of paleontological	locales in area 4	
Scientific significance of	locales:	
1		
2 ET 4-2, 4-3		
3		
4 ET 4-1		
5 ET 4-4	-104-	
	-194-	

Name of area _ Wolf Ridge	
Legal description of area <u>section 1 (except SE 1/4 SE</u>	1/4); section 11 (except
S 1/2 SE 1/4); NW 1/4 & NW 1/4 SW 1/4 section 12 T2S R9	
Total acreage of area <u>1360</u>	
Topographic map(s) area is onWolf Ridge, Colorado	
Geologic map coverage of areaDuncan (1976a)	- 442
	The second second
xposed acreage of formations in area: UINTA FORMATION 1240	
GREEN RIVER FORMATION 74	
WASATCH FORMATION	
WILLIAMS FORK FORMATION	
MILETAND FORK FORTMITON	
TIES FORMATION	
ILES FORMATION	
SEGO SANDSTONE	
William and the second of the second order o	
SEGO SANDSTONE	
SEGO SANUSTONE MANCUS SHALE	
SEGO SANDSTONE MANCOS SHALE unber of paleontological locales in area 0 cientific significance of locales:	
SEGO SANDSTONE MANCUS SHALE unber of paleontological locales in area 0	
SEGO SANDSTONE MANCOS SHALE unber of paleontological locales in area 0 cientific significance of locales:	

Name of area Yellow Cree	k - Barcus Creek confluence	
Legal description of area	sections 25, 36; E 1/2 E 1/2	sections 26, 35 T2N R98U
Total acreage of area16	A STATE OF THE PARTY OF THE PAR	
Topographic map(s) area is	s on <u>Barcus Creek SE, Colorado</u>	
Geologic map coverage of a	area <u>Hail (1972)</u>	
Geologic formations expose	ed in area _ Green River, Uinta,	Qal (198 acres)
Exposed acreage of format	ions in area:	
. UINTA FORMATION	631	
GREEN RIVER FORMATION	771	
WASATCH FORMATION	1 110 1000 100	
WILLIAMS FORK FORMATION	1.	
ILES FORMATION		
SEGO SANDSTONE		
MANCUS SHALE		
Number of paleontological	locales in area 3	
Scientific significance o	f locales:	
4 ET 6-1, 6-3		
5		
	100	

Name of area <u>Barcus Cree</u>	ek tributaries	
Legal description of area	sections 4, 6, 7, 8, 17, 19 TIN R98W	and section 12
TIN R99W		
	the state of the state of	
Total acreage of area 41	107	
Topographic map(s) area is	s onBarcus Creek, Colorado	
		11.0
Coolouis man source of	W. 12. (2074.)	
secredic map coverage or a	area <u>Hail (1974a)</u>	
Geologic formations expose	ed in area <u>Green River, Uinta, Qal (76</u>	2 acres)
Exposed acreage of formati	ions in area:	
UINTA FORMATION	3002	
GREEN RIVER FORMATION	336	
GREEN RIVER FORMATION WASATCH FORMATION	336	
	336	
WASATCH FORMATION	336	
WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION	336	
WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE	336	
WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION	336	
WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE		
WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE MANCOS SHALE	locales in area 7	
WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE MANCOS SHALE Contentific significance of	locales in area 7	
WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE MANCOS SHALE Contentific significance of	locales in area <u>7</u>	
WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE MANCOS SHALE Winter of paleontological cientific significance of ET 7-5	locales in area <u>7</u>	

SHIVLY AREA 8

Name of area East Bank	Yellow Creek North	
	section 5; E 1/2 section 6; N	
Total acreage of area _ 1	280	
Topographic map(s) area i	s on Barcus Creek SE, Colorado	
Geologic map coverage of	area Hail (1972)	
Geologic formations expos	ed in area Green River, Uinta,	Qal (91 acres)
xposed acreage of format	ions in area:	
UINTA FORMATION	339	
GREEN RIVER FORMATION	850	
WASATCH FORMATION		
WILLIAMS FORK FORMATION		.3
ILES FORMATION		8 -
SEGO SANDSTONE		
MANCOS SHALE		
Number of paleontological	locales in area O	
Scientific significance o		
4		
5		
	-108-	

Name of area <u>Collins</u> Gul	lch	
Legal description of area	sections 29, 32 and NE 1/2 sectio	n 31 T2S R96W
Total acreage of area 14	130	
	onJessup Gulch, Colorado	
Geologic map coverage of a	irea <u>Duncan (1976d)</u>	
Geologic formations expose	ed in area <u>Green River, Uinta, Qal</u>	(104)
	o in area dreen kiver, ointa, gar	(194 acres)
Exposed acreage of formati	ons in area:	
UINTA FORMATION	1212	
GREEN RIVER FORMATION	24	
WASATCH FORMATION		
WILLIAMS FORK FORMATION	Commence of the Administration of the Commence	
ILES FORMATION		
SEGO SANDSTONE	Makes and the form the company and control of the Co. And Co. Section of the Co.	
MANCOS SHALE		
Number of paleontological 1	locales in area <u>1</u>	
Scientific significance of	locales:	
	the second secon	
3	man of the state o	
E1 9-1		

Name of area Hatch Gulc	h	
Legal description of area	section 1; N 1/2 section 12; E	3/4 section 2 T2S R973
section 7 T2S R96W		
Total acreage of area 2	000	
Topographic map(s) area i	s on _ Greasewood Gulch, Colorado	
	(1076.)	
Geologic map coverage of	area <u>Duncan (1976c)</u>	
Geologic formations expos	ed in area Green River, Uinta, I	Dal (241 acres)
,		
Exposed acreage of format	ions in area:	
UINTA FORMATION	1584	,
GREEN RIVER FORMATION	175	
WASATCH FORMATION		
WILLIAMS FORK FORMATION		
ILES FORMATION		
SEGO SANDSTONE		
MANCOS SHALE		
MANCOS SHALE		
Number of paleontological	locales in area 2	
Scientific significance o	f locales:	
1		
2 ET 10-1, 10-2		
5		
-,	-110-	1.7

Name of area Pantyhose Creek

Legal description of area E 1/2, SE 1/4 (approximat	e) & S 1/2 NE 1/4 (approxi-
mate) section 7; E 1/2 NE 1/4 (approximate) & NE 1/4	SE 1/4 (approximate) section
18; section 8 (except N 1/2 N 1/2 approximate); sect	ion 17 (except S 3/4 S 1/2);
NW 1/4 section 16 (approximate)	
Total acreage of area 1660	
Topographic map(s) area is on Philadelphia Creek, C	olorado and Water Canyon,
Colorado	
Carlanda and account of annual page	
Geologic map coverage of area <u>none</u>	
eologic formations exposed in area Williams Fork F	ormation, Qal (270 acres)
Exposed acreage of formations in area:	
UINTA FORMATION	
GREEN RIVER FORMATION	
WASATCH FORMATION	-
WILLIAMS FORK FORMATION 1390	
ILES FORMATION	**************************************
The state of the s	and the same of th
SEGO SANDSTONE	-
MANCOS SHALE	-
Number of paleontological locales in area 19	
Scientific significance of locales:	*
ET 11-4	
ET 11-1, 11-3, 11-9, 11-19	
3 E(11-5, 1)-7, 11-8, 11-12, 11-13	

N	ame of area _ Mouth of Ye	llow Creek	
. L	egal description of area	section 16; E 1/2 NE 1/4 (ap	oproximate) section 17; NW
-	1/4 NW 1/4 (approximate)	section 15; section 10 (except	E 1/2 SW 1/4 & W 1/4 SE
	1/4); NE 1/4 section 9 (a	pproximate); SE 1/4 & S 1.2 NE	1.4 (approximate) section
-	4; S 1/2 section 3 (appro	ximate) T2N R98W	
*		75	
10	otal acreage of area 20	/5	
T	opographic map(s) area is	on Rough Gulch, Colorado ar	nd Smizer Gulch, Colorado
-			
G	eologic map coverage of a	rea <u>Hail (1974b,c)</u>	
Ge	eologic formations expose	d in area ' Williams Fork, Was	satch, Green River, Uista,
	(902 acres)	process from the control of the cont	
E	kposed acreage of formati	ons in area:	:
	UINTA FORMATION	270	
	GREEN RIVER FORMATION	443	
	WASATCH FORMATION	435	1. **, 22
	WILLIAMS FORK FORMATION	25	
	ILES FORMATION		
	SEGO SANDSTONE		
	MANCOS SHALE		
	umber of paleontological	Annual Annual Control of Control	
S	cientific significance of	locales:	
1	ET 12-2		
2	ET 12-5, 12-8, 12-9,	12-13, 12-15, 12-17, 12-23	
3	ET 12-6, 12-7, 12-14,	12-16, 12-18, 12-19	
4	ET 12-1, 12-3, 12-4,	12-20, 12-21, 12-22	
5	ET 12-10, 12-11, 12-1	The same of the sa	
		-112-	

sme of area _ Pniladelphia Creek			
Legal description of area SE 1/4 section 4 (approximate); S 1/2	& NE	1/4	section
3 T2S R101W; SW 1/4 section 35 T1S R101W			
Total acreage of area 800			
Topographic map(s) area is on Philadelphia Creek, Colorado			
Geologic map coverage of area <u>none</u>			
Geologic formations exposed in areaWilliams Fork, Qal (120)			
Exposed acreage of formations in area:			
UINTA FORMATION			
GREEN RIVER FORMATION			
WASATCH FORMATION			
WILLIAMS FORK FORMATION 680			
ILES FORMATION			
SEGO SAHDSTONE			
MANCOS SHALE			
Number of paleontological locales in area _4			
Scientific significance of locales:			
1 ET 13-3			
			-
3			
4 _ F1 13-?			

Name of areaThirteenmile Creek	
Legal description of area NW-1/4 & N 1/2 SW 1/4 & W 1/2	NE 1/4 section 25 T2S
R95W	
Total acreage of area 320	
fopographic map(s) area is on No Name Ridge, Colorado	
Geologic map coverage of areanone	
2.1	,
Geologic formations exposed in area <u>Green River, Qal (80</u>	acres)
xposed acreage of formations in area:	
UINTA FORMATION	
GREEN RIVER FORMATION 240	1
WASATCH FORMATION	
WILLIAMS FORK FORMATION	1.0
ILES FURMATION	
SEGO SANDSTONE	
MANCOS SHALE	
THITOS STALL	
umber of paleontological locales in area 1	17 1 2 91
cientific significance of locales:	4 5
ET 14-1	

Name of area <u>Cathedral C</u>	reek - Bluffs	
Legal description of area	section 14 (except NE 1/2 NE 1/4);	section 23 (except
SW 1/4 & S 1/2 SE 1/4 - a	pproximate); section 24 (except NE 1,	/2) T3S R100W
Total acreage of area 130	00	1
Topographic map(s) area is	on Black Cabin Gulch, Colorado	
Goologic man coverage of a	Cashina (1050)	
Geologic map coverage of a	ea Casulou (1969)	
Geologic formations exposed	d in areaWilliams Fork, Wasatch, G	Green River, Oal
(385 acres)		
Exposed acreage of formation	ons in area:	
UINTA FORMATION		
GREEN RIVER FORMATION	675	
WASATCH FORMATION	220	
WILLIAMS FORK FORMATION	20	
ILES FORMATION		
SEGO SANDSTONE		
MANCOS SHALE		
MANCOS SHALE		
Number of paleontological l	ocales in area 21	
Scientific significance of	locales:	
ET 15-1, 15-14, 15-18,	15-19, 15-21	
The state of the s	5-8, 15-13, 15-15, 15-20, 15-22	
	5 6 15 10 15 11 15 19 15 16	The same of the sa

Name of area _ Gillam D	raw and vicinity
Legal description of ar	ea section 4; N 1/2 section 9, W 1/2 section 8, S 1/2
section 5 (approximate); N 1/2 section 8 (approximate); SE 1/4 section 6 (approx-
imate) TIN R101W	
Total acreage of area _	2132
Topographic map(s) area	is onGillam Draw, Colorado and Rangely, Colorado
Geologic map coverage o	of area <u>Cullins (1971) (none for Gillam Draw, Colorado)</u>
	·
Coologic formations eve	posed in area Mancos (including Castlegate Sandstone),
Sego, Qal (90 acres)	Noted III died
Exposed acreage of form	mations in area:
UINTA FORMATION	
GREEN RIVER FORMATION	
WASATCH FORMATION	
WILLIAMS FORK FORMAT	ION
ILES FURMATION	
SEGO SANDSTONE	71
MANCOS SHALE	1971 (includes Castlegate Sandstone)
Number of paleontologi	cal locales in area <u>16</u>
Scientific significanc	e of locales:
1	
2 ET 16-1, 16-4, 16	-7, 16-14
3 ET 16-2, 16-5, 16	-6, 16-8, 16-9, 16-12, 16-13
4 ET 16-3, 16-10, 1	6-11, 16-15, 16-16
5	
	-116-

Name of area Rocky Point - East Red Point Draws	
Legal description of area sections 25, 26; N 1/2 section 36; N	E 1/4 NE 1/4 Sec-
tion 35 (approximate) T2S R100W	
eron 35 (approximate) 125 Kzook	
32	
	10 may 1/4 m
Total acreage of area 1545	
Topographic map(s) area is on <u>White Coyote Draw, Colorado</u>	
and the second s	
Geologic map coverage of area <u>none</u>	
Exposed acreage of formations in area:	
UINTA FORMATION	
GREEN RIVER FORMATION	+
WASATCH FORMATION	
WILLIAMS FORK FORMATION 1390	
ILES FORMATION	(0)
SEGO SANDSTONE	
MANCOS SHALE	
Number of paleontological locales in area _18	
Scientific significance of locales:	
ET 17-12, 17-13	
_ET 17-5, 17-7, 17-16	
3 EI 17-?	
A ST 17 6 17 0 17 0 17 10 17 14 17 15 17 17 17 19	

5 - Ft 17-1, 17 3, 1/ 1, 17 11

R101W	ions 27, 28; SE 1/4		w 1/4 s	section 21 T1
Total acreage of area 1440				
Topographic map(s) area is on	Philadelphia Creek,	Colorado		
Geologic map coverage of area	none			
Geologic formations exposed in a	rea - Williams Fork,	- Qal (72 ac	res)	
Exposed acreage of formations in	area:			
UINTA FORMATION				
GREEN RIVER FORMATION	,	7		
WASATCH FORMATION		_		
monton pontini ron				
WILLIAMS FORK FORMATION 136	8	-		
	8			
WILLIAMS FORK FORMATION 136	8	_		
WILLIAMS FORK FORMATION 136	8	_		
WILLIAMS FORK FORMATION 136: ILES FORMATION SEGO SANDSTONE MANCOS SHALE				
WILLIAMS FORK FORMATION 136. ILES FORMATION SEGO SANDSTONE MANCOS SHALE Number of paleontological locale	s in area <u>13</u>			
WILLIAMS FORK FORMATION 136 ILES FORMATION SEGO SANDSTONE MANCOS SHALE Number of paleontological locale Scientific significance of locale	s in area <u>13</u>			
WILLIAMS FORK FORMATION 136 ILES FORMATION SEGO SANDSTONE MANCOS SHALE Number of paleontological locale Scientific significance of local. 1 ET 18-8, 18-12	s in area <u>13</u> es:			
WILLIAMS FORK FORMATION 136 ILES FORMATION SEGO SANDSTONE MANCOS SHALE Number of paleontological locale Scientific significance of locale 1 ET 18-8, 18-12	s in area <u>13</u> es:			
WILLIAMS FORK FORMATION 136 ILES FORMATION SEGO SANDSTONE MANCOS SHALE Number of paleontological locale Scientific significance of local 1 ET 18-8, 18-12 2 3 ET 18-4, 18-7, 18-13	s in area <u>13</u> es:			
WILLIAMS FORK FORMATION 136 ILES FORMATION SEGO SANDSTONE MANCOS SHALE Number of paleontological locale Scientific significance of locale 1 ET 18-8, 18-12	s in area <u>13</u> es:			

Name of areaThirty Two Mile Gulch		
Legal description of area <u>sections 1</u>		on 21; SW 1/2 SW
1/4 section 15 T5S R93W		
A CONTRACTOR		
	-	
Total acreage of area 1440	1	
Topographic map(s) area is on <u>Rifle</u> ,	Colorado	
Geologic map coverage o f area <u>none</u>		
	-	
Geologic formations exposed in area	Wasatch, Qal (72 acres)	
xposed acreage of formations in area:		
UINTA FORMATION	1	
GREEN RIVER FORMATION		
WASATCH FORMATION 1368	The American Control of the Am	
WILLIAMS FORK FORMATION	The state of the s	
ILES FORMATION	ş -	
SEGO SANDSTONE		
MANCOS SHALE '		
umber of paleontological locales in ar	ea <u>9</u>	
cientific significance of locales:		
ET 19-3, 19-6		
ET 19-2, 19-7, 19-9		
ET 19-1, 19-4, 19-8		
EY 19-5	The second secon	

Name of area Conn Creek		
Legal description of area	NW 1/2 section 19 (approximate); SE 1/2 section 18
(approximate); W 1/2 W 1/	'2 section 8 (approximate); W 1/2	NW 1/4 section 17 (ap
proximate) T7S R97W		
Total acreage of area 82	20	
Topographic map(s) area is	on Long Point, Colorado and R	ed Pinnacle, Colorado
Geologic map coverage of a	irea _ Johnson (1975) (no coverag	e of Red Pinnacle, Co-
Torado)		
Geologic formations expose	ed in area <u>Wasatch</u> , Green River	r Qal (180 acres)
Exposed acreage of formati	ions in area:	
· UINTA FORMATION		
GREEN RIVER FORMATION	175	
WASATCH FORMATION	465	
WILLIAMS FORK FORMATION	Management of the Control of the Con	
ILES FURMATION		
SEGO SANDSTONE		
MANCOS SHALE		
HAROUS STALE		
Number of paleontological	locales in area 2	
Scientific significance of	locales:	
1		
_		
4		
5		

-120-

Name of area New Highwa	y 70	
acgar acgariperon or area		
		: .
Total acreage of area		
Topographic map(s) area i	s on <u>Grand Valley</u> , Colorado an	d Red Pinnacle, Colorado
Seologic map coverage of	area Donnell and Yeend (1968a)	(no coverage of Red
Pinnacle, Colorado)		
C11- 6		0.1 (100
Geologic formations expos	ed in area Wasatch, Green River	r. Oal (180 acres)
Exposed acreage of format	ions in area:	
Exposed acreage of format UINTA FORMATION		
Exposed acreage of format	ions in area: 	
Exposed acreage of format UINTA FORMATION		
Exposed acreage of format UINTA FORMATION GREEN RIVER FORMATION		
Exposed acreage of format UINTA FORMATION GREEN RIVER FORMATION WASATCH FORMATION	220	
Exposed acreage of format UINTA FORMATION GREEN RIVER FORMATION WASATCH FORMATION WILLIAMS FORK FORMATION	220	
Exposed acreage of format UINTA FORMATION GREEN RIVER FORMATION WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION		
Exposed acreage of format UINTA FORMATION GREEN RIVER FORMATION WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE MANCOS SHALE	220	
Exposed acreage of format UINTA FORMATION GREEN RIVER FORMATION WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE MANCOS SHALE		
Exposed acreage of format UINTA FORMATION GREEN RIVER FORMATION WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE MANCOS SHALE	220 1400 locales in area 2	
Exposed acreage of format UINTA FORMATION GREEN RIVER FORMATION WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE MANCOS SHALE Number of paleontological	220 1400 locales in area 2	
Exposed acreage of format UINTA FORMATION GREEN RIVER FORMATION WASATCH FORMATION WILLIAMS FORK FORMATION ILES FORMATION SEGO SANDSTONE MANCOS SHALE Number of paleontological Scientific significance of	220 1400 locales in area 2 flocales:	

Name of area Hubbard Mesa	
Legal description of areaSE_1/4-section 30; section 35 (excep	t E 1/2 NE 1/4);
SW 1/4 section 36 (approximate); S 1/2 8 S 1/2 №E 1/4 section 2	0; SW 1/2 section
25 (approximate) T5S R93W; E 1/2 NE 1/4 section 6; N 1/2 section	n 5 (approximate);
NW 1/4 NW 1/4 section 4 (approximate) T6S R93W	-
Total acreage of area 1973	
Topographic map(s) area is on <u>Rifle</u> , Colorado	CREATION AND AND AND AND AND AND AND AND AND AN
Geologic map coverage of area <u>none</u>	
ocorogra may coverage of areanone	
	*
Geologic formations exposed in area <u>Wasatch</u> , Qal (980 acres)	~
Exposed acreage of formations in area:	The second secon
UINTA FORMATION	
GREEN RIVER FORMATION	
WASATCH FORMATION 993	
WILLIAMS FORK FORMATION	
ILES FORMATION	
SEGO SANDSTONE	
MANCOS SHALE	
Number of paleontological locales in area 7	
Scientific significance of locales:	
1	
2	
3 ET 22-5, 22-6, 22-7	
4 _ ET 22-1, 22-2, 22-3, 22-4	

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Name of areaDouglas Cre	ek North	
Legal description of area	NW 1/4 section 17; S 2/3 SW 1/4 se	ection 8; NE 1/4
section 18 (approximate);	S 1/2, SE 1/4 section 7 (approximat	e) TIN R101W
		1
		1
Total acreage of area 44	0	
Topographic map(s) area is	on Rangely, Colorado	
Geologic map coverage of a	rea Cullins (1971)	1
assertage of a		
Geologic formations expose	d in area <u>Sego, Iles, Williams For</u>	k, Qal (160 acres)
Exposed acreage of formati	ons in area:	
UINTA FORMATION		
GREEN RIVER FURMATION		
WASATCH FORMATION		
WILLIAMS FORK FORMATION	84	
ILES FURMATION	176	
SEGO SANDSTONE	20	
MANCOS SHALE		
Number of paleontological	Bir million and a facility of the control of the co	
Scientific significance of	locales:	
1		
ET 23-3, 23-4, 23-5		
3 _ E1 23-1	management of the second control of the seco	
4		

eek Road	A CONTRACT C
N 2/3 NE 1/4 section 12 (appro	ximate); E 1/2 section 1
2/3 S 1/2 section 6 T4S R94W; s	ection 36 T3S R95W
20	
A COMMAND ASSESSMENT OF THE PARTY OF THE PAR	nd Pio Blanco, Colorado
on mccartny durch, colorado a	nd RIO Bianco, Coloreso
rea O'Sullivan et al. (1981) (no coverage of Rio Blan-
d in area <u>Green River, Uinta</u> ,	Qal (220 acres)
ons in area:	
480	
820	
W 1 1 1 1 1 1 1	
locales in area 2	
locales:	
	2
	-
	20 on McCarthy Gulch, Colorado a rea O'Sullivan et al. (1981) (d in area Green River, Uinta, ons in area: 480 820

eme of area Clear Cre	ek - Long Point	
Legal description of are	a SW 1/4 section 11 (approximate) T7S	R984
Total acreage of area	140	
Topographic map(s) area	is on _ Long Point, Colorado	
Geologic map coverage of	area _ Johnson (1975)	
Geologic formations expo	sed in areaWasatch, Qal (10 acres)	
	. *	
Exposed acreage of format	tions in area:	
UINTA FORMATION		
GREEN RIVER FORMATION		7 4
WASATCH FORMATION	130	
WILLIAMS FORK FURMATION		
ILES FORMATION		
SEGO SANDSTONE		
MANCOS SHALE	The state of the s	
amber of paleontological	locales in area 1	
Scientific significance o	flocales:	
1 ET 25-1		
The section shall be seen and section and		
And the first transmitted to the second transmitted to the second		
1		

Total acreage of area100 Topographic map(s) area is onRifle, Colorado Geologic map coverage of areanone Geologic formations exposed in areaMasatch, Qal (10 a. Exposed acreage of formations in area: UINTA FORMATION	
Total acreage of area 100 Topographic map(s) area is on Rifle, Colorado Geologic map coverage of area none Geologic formations exposed in area Masatch, Qal (10 acreage of formations in area: UINTA FORMATION GREEN RIVER FORMATION	
Total acreage of area100 Topographic map(s) area is onRifle, Colorado Geologic map coverage of areanone Geologic formations exposed in areaWasatch, Qal (10 area) Exposed acreage of formations in area: UINTA FORMATION	
Total acreage of area 100 Topographic map(s) area is on Rifle, Colorado Geologic map coverage of area none Geologic formations exposed in area Masatch, Qal (10 acres) Exposed acreage of formations in area: UINTA FORMATION GREEN RIVER FORMATION	
Topographic map(s) area is on Rifle, Colorado Geologic map coverage of area none Geologic formations exposed in area Masatch, Qal (10 accepted acreage of formations in area: UINTA FURMATION GREEN RIVER FURMATION	
Geologic map coverage of area <u>none</u> Geologic formations exposed in area <u>Wasatch, Qal (10 ad</u> Exposed acreage of formations in area: UINTA FORMATION GREEN RIVER FORMATION	
Geologic map coverage of area <u>none</u> Geologic formations exposed in area <u>Wasatch, Qal (10 ad</u> Exposed acreage of formations in area: UINTA FURMATION GREEN RIVER FORMATION	
Geologic formations exposed in area <u>Masatch, Qal (10 ad</u> Exposed acreage of formations in area: UINTA FORMATION GREEN RIVER FORMATION	
Geologic formations exposed in area <u>Masatch, Qal (10 ad</u> Exposed acreage of formations in area: UINTA FORMATION GREEN RIVER FORMATION	
Geologic formations exposed in area <u>Masatch, Qal (10 ac</u> Exposed acreage of formations in area: UINTA FURMATION GREEN RIVER FURMATION	
Exposed acreage of formations in area: UINTA FURMATION GREEN RIVER FURMATION	
Exposed acreage of formations in area: UINTA FURMATION GREEN RIVER FURMATION	
UINTA FURMATION GREEN RIVER FURMATION	(res)
UINTA FURMATION GREEN RIVER FURMATION	
GREEN RIVER FURNATION	
	101
WASATCH FORMATION 90	
WILLIAMS FORK FORMATION	1
ILES FORMATION	
SEGO SANDSTONE	
Annual Control of Cont	
MANCOS SHALE	
Number of paleontological locales in area 2	
Scientific significance of locales:	
1	
2	
4	
-126-	

APPENDIX B

Fossil invertebrate taxa (mostly gastropods and bivalves) collected by the field survey

```
Phylum Mollusca
     Class Gastropoda
         Order mesogastropoda
             Family Pleuroceridae
                 Goniobasis tenera (Hall) 1845: ET 6-1, 7-3, 12-6, 12-14, 12-15, 15-3, 15-8, 15-13, 15-17, 15-18, 15-22, 21-3
             Family Hydrobiidae
                  Hydrobia sp.: ET 12-7, 15-23
             Family Valvatidae
                 Clenchiella planospiralis (Yen), 1946: ET 12-17
                 Valvata? sp.: El 15-22
             Family Viviparidae
                 Viviparus meeki Wenz 1930: ET 11-1, 15-21, 15-22
                 Viviparus sp.: ET 18-12, 15-8, 15-18, 15-20, 18-10
                 Lioplacodes multistriata (M. & H.) 1856 ET 12-17
         Order Basommatophora
             Family Physidae
                 Physa pleuromatis White, 1876 ET 15-17, 15-23
             Family Planorbidae
                 Biomphalaria pseudoammonius (Schlotheim) ET 3-7, 3-28
                 Biomphalaria sp. ET 15-23
                 Omalodiscus cf. O. cirrus (White), 1877 ET 15-14, 15-19
             Family Lymnaeidae
                 Pleurolimnaea cf. P. tenuicosta (M. & H.) 1856: ET 12-7
    Class Bivalia
        Order Unionoidea
             Family Unionidae
                 Plesiellitio priscus (M. & H.) 1856: ET 15-20, 15-23
                 P. cf. P. silberlingi: ET 12-17
P. sp. ET 12-15, 15-3
             Family Pisidiidae
                 Sphaerium sp. ET 15-8
        Order Pteroidea
             Family Inoceramidae
                 Inoceramus sp.: ET 16-7, 16-14, 16-15, 16-16
            Family Ostrea sp.
                 Ostrea sp.: ET 16-1, 16-7, 16-8
    Class Cephalopoda
        Order Ammonoidea
            Family Baculitidae
                 Baculites sp.: ET 16-4, 16-7, 16-12, 16-14
            Family Placenticeridae
                 Placenticeras sp. ET 16-7, 16-16
Phylum Arthropoda .
```

- 1

Ostracods, at various localities

APPENDIX C

Fossil localities within the study area determined by the field survey

The following locality sheets contain all available information on the 218 localities of fossil vertebrates and/or invertebrates (as well as some fossil plant localities) determined by the field survey completed for this report. See Table 8 for explanation of numbers used to indicate evaluations of scientific significance.

LOCALITY NUMBER: 781	132			
NAME TO B				
LOCATION:				
State: Colorado	County: Gar	field		
Township: 6S	Range: 93W			
NW 1/4 NE 1/4	SE 1/4, section 5			
1/4 1/4	1/4, section			
1952	, 7.5	min.	1 1	
	m E,			
LANDOWNER W.F. Cloug	h (in Rifle)			
DESCRIPTION				
Era Cenozoic	System Tertiary		Formation	Wasatch
	Unit			
Stratigraphic				-
Sediment	The state of the s			
Depositional environment				
Fossils Sampled		~ ~ ~ ~		
essils emaining		-		
Scientific significance and disposition of Paternal				

Maner . H	N-11-	-
	a Hollow	
	(S):	
LOCATION:		
	do County: Garfield	
	Range: 94W	
ctr 1/4 SE	1/4 SE 1/4, section 2	
1/4	1/4 1/4, section	
JSGS Quadrangle	Rifle	
1952	, 7.5 min.	
JTM	;m E,m N	
LANDOWNER Bure	eau of Land Management	
ACCESS		
DESCRIPTION		
Era Cenozoic	System Tertiary	Formation Wasatch
Member	Unit	
Stratigraphic position		
Sediment description		
Depositional		
ossils		
Fossils		

LOCALITY NUMBER: 7	8064				
NAME: Stock Pond					
LOCATION:					
State: Colorado	County: Ga	rfield			
	Range: 94%				
	SE 1/4, section 16				
	1/4, section				
	il Points				
	, 7.5				
	m E,				
	ough (in Rifle)				
					•
DESCRIPTION					
	System Tertiary		Formation	Mara	4-1
	Unit			WdSd	ten
Stratigraphic	VIII .				
Sediment					
Depositional					
ossils .					
ossils					
Scientific significan and disposition of					

LOCALITY NUMBER	: 78063			Charles Land Control (1984)	
NAME: Mubbard					
PREVIOUS NUMBER					
LOCATION:					
State: Color	ado	County:	Garfield		
Township: 6S		Range:	93W		
NW 1/4 SW					
1/4	1/4	1/4, section _			
USGS Quadrangle	Rifle				
1952	, 7.	5	min.		
UTM	;	m E,	n N		
LANDOWNER Bur	eau of Land	Management			
ACCESS					
DESCRIPTION					
Era <u>Cenozoic</u>		System <u>Tertiar</u>	у	Formation _Wa	satch
Member		Unit			
Stratigraphic position					
Sediment description					
Depositional environment					1
Fossils sampled					
Fossils remaining				-	
Scientific sign and disposition material					

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1		i	
LOCALITY NUMBER: 78062	2		
LOCATION:			
State: Colorado	County: _Garfie	ld	
	Range: 93W		
	1 1/4, section 35		
	1/4, section	_	
	271, 30001011		
	7.5 min		
	m E,m		
	nd Management		
	-		
ACCE 22		-	
DEGGGGGGG			
DESCRIPTION			
	System Tertiary		
Member	Unit		
Stratigraphic position			
Sediment '			
description			
	The state of the s		
Depositional environment			
Fossils Sampled			
fossils remaining			National Control of the Control
Scientific significance and disposition of Quiental			

LOCALITY NUMBER:	78061	
	ality	
):	
LOCATION:	And the second s	·
State: Colorad	O County: Garfield	
	Range: 93W	
	1/2 NE 1/4, section 7	
	1/41/4, section	
	Rifle	
	, 7.5 min.	
	_;m E,m N	
	Clough (in Rifle)	
ACCESS		2 2 1
DESCRIPTION		
Era Cenozoic	System Tertiary	Formation Wasatch
	Unit	
Stratigraphic		44
Sediment description		
Depositional environment		
Fossils		
ossils remaining		
Scientific signifi and disposition of material		

LUCALITI NUMBER: 780	30				
NAME: Kladder Locati	on D				
PREVIOUS NUMBER(S): _					
LOCATION:					
State: Colorado	Count	ty: _Garfield			
Township: 6S					
NW 1/4 1/4					
E 1/2 NE 1/4	1/4, section	on _11			
USGS Quadrangle <u>Rifle</u>					
1952					
UTM;					
LANDOWNER _W. F. Clou					
		_			•
ACCESS					
DESCRIPTION .					
Era Cenozoic	System _Ter	tiary	Formatio	n Was	atch
Member			. 1		
Stratigraphic Position					
Sediment description					
Depositional environment					
Fossils Sampled					
Fossils remaining					
Scientific significance and disposition of Material					

LOCALITY NUMBER: 78029		_	
NAME: Rapasardi			
LOCATION:			
State:Colorado	County: Garfield		
Township: 6S	Range: 95W		
SE 1/4 SE 1/4 SE	1/4, section _27		
1/41/4	1/4, section		
USGS Quadrangle Rulison			
1960 , 7	.5 min.		
UTM;			
LANDOWNER ERDA-Navy 011	Shale Reserve		
ACCESS			
DESCRIPTION			
Era Cenozoic	System Tertiary	Formation	Wasatch
Member.	Unit		
Stratigraphic position			
Sediment description			
Depositional environment			
Fossils sampled			1
Fossils remaining			.,
Scientific significance and disposition of material			

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LOCALITY NUMBER:		
NAME:		
PREVIOUS NUMBER(S):	98-C-47 (FMNH)	
LOCATION:		
State: Colorado	County: Garfiel	ld .
	Range: 94W	
	NE 1/4, section 14	
	N 1/4, section 11	
	. 7.5 min	
	m E, m	
DESCRIPTION	,	_
Era Cenozoic	System Tertiary	Formation Wasatch
Member Shire		
Stratigraphic position <u>approxima</u>	tely 610m below Green River	Formation
Sediment description		
		The state of the s
Depositional Prvironment		
ossils .	niscotherium, Hyracotherium,	
ossils Penaining		
Scientific significance and disposition of		
Referial France	locality	

LOCALITY NUMBER: 78028	
NAME: Roan Cliffs Gulch Locality	
PREVIOUS NUMBER(S):	
LOCATION:	· ·
State: Colurado County	: Garfield
Township: 6S Range:	
NW 1/4 SE 1/4 NE 1/4, section	
1/4 1/4 1/4, section	
USGS Quadrangle Rulison	
1960 , 7.5	
UTM;m E,	
LANDOWNER ERDA - Navy Oil Shale Reser	
ACCESS	
DESCRIPTION	
Era Cenozoic System Tert	iarv Formation Wasatch
Member Un	
Stratigraphic position	
Sediment description	
Depositional environment	
Fossils sampled	
Fossils remaining	
Scientific significance and disposition of material	

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LOCALITY NUMBER: 78027				
NAME: Lostcabinian Lame	nt Locality			
LOCATION:				
State: Colorado	County: _Garfield			
	Range: 95W			
	1/4, section _26			
	1/4, section			
USGS Quadrangle <u>Anvil Poi</u>				
1952 , 7		7		
UTM;				
LANDOWNER _ ERDA- Navy Oil				
	~ 2			
No.				
DESCRIPTION				
Era <u>Cenozoic</u>	System Tertiary	Formation	Wasatc	h
Member				
Stratigraphic position				
Sediment				
Depositional				
Fossils				
Passils laining				
Scientific significance				

LOCALITY NUMBER	: 78025								
NAME: Lizard	Level								
PREVIOUS NUMBER									
LOCATION:									
State: Color	ado		County:	Gar	field				
Township: 6S									
SW 1/4 NW	1/4 NW	1/4,	section	25					
1/4									
USGS Quadrangle	Anvil Poi	nt							
1952									
UTM	;	п	n E,		m N				
LANDOWNER ERD									
ACCESS									
DESCRIPTION									
Era Cenozoic		Syste	em _Tertia	ary			Formation	Wasaton	
Member			Unit	:					
Stratigraphic position									1
Sediment description									
Depositional environment					100				
Fossils sampled						-			
Fossils remaining									
Scientific signand disposition material	of								
				2					

LOCALITY NUMBER	₹: 78024					
NAME: Egg Loc	cality					
LOCATION:						
State: Color	ado	County:	Garfield			
Township: 6S		Range:	95W			
		1/4, section _				
		1/4, section				
		.5				
		m E,				
		1 Shale Reserve				
DESCRIPTION						
Era Cenozoic		System <u>Tertiar</u>		Fanna * 1 -		
		Unit			Wasatch	-
Stratigraphic		Unit				
Sediment						
Depositional						
Fossils Sampled						
Fossils						
Scientific signi	ificance					

LOCALITY NUMBER: 78023		
NAME: _Tapiroid Locality		
PREVIOUS NUMBER(S):		
LOCATION:		
State: Colorado	County: _Garfield	
Township: 6S	Range: 95W	
NW 1/4 NW 1/4 NE 1/4	1, section 25	
1/4 1/4 1/4	1, section	
USGS Quadrangle Anvil Points		
1952 , 7.5		
UTM;		
LANDOWNER _ ERDA - Navy Oil St		
	-	
ACCESS		
DESCRIPTION		
Era Cenozoic Sys	tem Tertiary	Formation Wasatch
Member		
Stratigraphic position		
Sediment description		
		*
Depositional environment		
Fossils		
Fossils remaining		
Scientific significance and disposition of material		
	-146	

LOCALITY NUMBER: 78022		
NAME: Rulison, Low		
PREVIOUS NUMBER(S):		
LOCATION:	-	
State: Colorado County: Garfield		
Township: 6S Range: 95W		
S 1/2 NE 1/4 NW 1/4, section 25		
1/41/4 , section		
USGS Quadrangle Rulison		
1960 , 7.5 min.		
UTM;m E,m N		
LANDOWNER ERDA - Navy Oil Shale Reserve		
ACCESS		
DESCRIPTION		
Era Cenozoic System Tortion		
Era Cenozoic System Tertiary Member Unit	Formation	Wasatch
Stratigraphic		
position		
Sediment description		
Depositional environment		
Fossils Sampled		
Fossils Temaining		·
Scientific significance and disposition of Naterial		

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LOCALITY NUMBER	: 78021		
NAME: Rulison	, High		
PREVIOUS NUMBER	(S):	·	
LUCATION:			
State: Color	ado County: Garfield		
Township: 6S	Range: 95W		
	1/4 NW 1/4, section 25	1 1	
1/4	1/4 1/4, section		
USGS Quadrangle	Rulison		
1960	, 7.5 min.		
UTM	;		
LANDOWNER ERD	A - Navy Oil Shale Reserve		
ACCESS		7.0	
DESCRIPTION			
Era Cenozoic	System Tertiary	Formation Wasatch	
Member	Unit		
Stratigraphic position			
Sediment	- MA M -		
Depositional environment			
Fossils			
Fossils remaining			
Scientific signand disposition material	of		
	-148-		-

LOCALITY NUMBER: 78019			
NAME: Lenin Level Loca	lity		
LOCATION:			
State: Colorado	County: Garfield		
	Range: 94W		
_SE1/4SW1/4	1/4, section 17		
	1/4, section 17		
	oints		
	7.5 min.		
	m E,m Ņ		
	nd Management		
DESCRIPTION		44	
Era <u>Cenozoic</u>	System Tertiary	Formation	Wasatch
Menber	Unit		, and ten
Stratigraphic	ontour and above		
Sediment			
description			
Depositional environment			
Fossils			
Fossils	-		
Scientific significance and disposition of material			

LOCALITY NUMBER:	78018		-	
NAME: Parahoe				
PREVIOUS NUMBER	(s):			
LOCATION:				
State: Colora	ado Co	ounty: Garfield		
Township: 6S	Ra	inge: 94W		
NW 1/4 NE	1/4 SW 1/4, sec	tion 17		
1/4	1/4 1/4, sec	tion		
USGS Quadrangle	Anvil Points			
1952	, 7.5	min.		
UTM		,m Ņ		
LANDOWNER ERD.	A- Navy Oil Shale Re	eserve		
		,		
ACCESS				
DESCRIPTION				
Era Cenozoic	System	Tertiary	Formation	Wasatch
Member		Unit		
Stratigraphic position				
Sediment				
Depositional environment				
Fossils sampled				4
Fossils	4			
Scientific sign and disposition material	ificance of			
		-150-		

	-	
County: Garfie	eld	
Range: 97W		
1/4, section17	-	
1/4, section		
nnacle; Long Point		
7.5 mi	n.	
m E,m	N	
and Management		
		-
_ System Tertiary	Formation	Mantak
Unit	TOTMACTON	Wasatch
		4
	County: Garfic Range: 97W 1/4, section 17 1/4, section nnacle; Long Point 7.5 mi m E, m and Management System Tertiary Unit	m E, m N

LOCALITY NUMBER: 78008		
NAME: Langstaff Gulch		
PREVIOUS NUMBER(S):		
LOCATION:		
State: Colorado	County: Garfield	
Township: 6S	Range: 94W	
SW 1/4 NE 1/4 NE	1/4, section _8	
NE 1/4 SE 1/4 NE	1/4, section 8	
USGS Quadrangle _Anvil Point	s	
1952 , 7.5	min.	
UTM;	m E,m N	
LANDOWNER ERDA		
	. '	
ACCESS		
DESCRIPTION		
Era Cenozoic	System Tertiary	Formation Wasatch
Member Upper	Unit	
Stratigraphic position		
Sediment description		
Depositional environment		-
Fossils sampled		
Fossils remaining		
Scientific significance and disposition of material		
	-152-	

LOCALITY NUMBER	78007		
NAME: Bone Kn	011		
PREVIOUS NUMBER	(S):		
LOCATION:		-	
State: Color	ado County: Garfield		
Township: 6S	Range: 94W		
NE 1/4 SW	1/4 SW 1/4, section 9		
	1/41/4, section		
USGS Quadrangle	Anvil Points		
1952	, 7.5 min.		
UTM	;		
	- Navy Oil Shale Reserve		
	·		
DESCRIPTION			
Era Cenozoic	System Testing	_	
Member	System Tertiary	Formatio	n Wasatch
Stratioraphic ·	Unit		
position			
Sediment			
Depositional			
environment			
Fossils			
Fossils remaining			
Scientific signifi and disposition of material	cance		

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LOCALITY NUMBER: 78006		
	-	
LOCATION:		
State: Colorado	County: Garfield	
Township: 6S	Range: 94W	-
SE 1/4 NE 1/4 NE	1/4, section17	
NW 1/4 NW 1/4	1/4, section 16	
USGS Quadrangle Anvil Po	pints	8.0
1952 ,	7.5 min.	
UTM;	m E,m N	
LANDOWNER Bureau of Lar	nd Management	
ACCESS		1
DESCRIPTION		
Era Cenozoic	System Tertiary	Formation Wasatch
Member	Unit	
Stratigraphic position		
Sediment		
	•	
Depositional environment		
Fossils sampled		
Fossils remaining		
Scientific significance and disposition of material		

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LOCALITY NUMBER: 78005	9
NAME: Mebster Mesa	Triangle control (afficiency and a second
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Garfield	
Township: 6S Range: 94W	
NE 1/4 SW 1/4 SE 1/4, section 16	
NW 1/4 SE 1/4 1/4, section 16	
USGS Quadrangle _Anvil Points	
1952 , 7.5 min.	
UTM;m E,m N	3
LANDOWNER Clough	
ACCESS	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Wasatch
Member Unit	
Stratigraphic position	
Sediment	
description	1 1
Depositional environment	
Fossils Sampled	
Fossils remaining	
Scientific significance and disposition of material	

LOCALITY NUMBER: 7800	4	
NAME: Sharrard Park,	west	
PREVIOUS NUMBER(S):	,	
LOCATION:		
State: Colorado	County: Garfield	-
Township: 6S	Range: 94W	
SW 1/4 SW 1/4 S	W 1/4, section 20	
NW 1/4 NW 1/4 N	W 1/4, section 29	
USGS Quadrangle Anvil	Points	
	7.5 min.	
	m E,m N	
	h (in Rifle)	
DESCRIPTION		
Fra Cenozoic	System Tertiary	Formation Wasatch
	Unit	
Stratigraphic		
Sediment		
description		
Depositional environment		
Fossils sampled		
Fossils remaining		
Scientific significance and disposition of material	à	

LOCALITY NUMBER	R: 78003	STILLOWN				
	er Slide					
PREVIOUS NUMBER	(S):					
LOCATION:	(-/.			•		
State: Color	ado	County	051			
Township: 6S		Page 2	Jariield			
ctr 1/4 NE	1/4 NW 1/4	sostian 20	÷ M			
1/4	1/4 1/4	section 20	_			
USGS Quadrangle	Anvil Points	36001011				
1952	. 7.5					
MTM	;	n F	min.			
LANDOWNER Bure	au of Land Manac	ement	m N			
ACCESS						
DESCRIPTION						
Era _Cenozoic	Systan	Tortion.				
Member		Tertiary			Wasatch	
Stratigraphic		Unit				
position						
Sediment description						
Depositional environment			•			
Fossils sampled						
Fossils remaining						
Scientific significand disposition of material	cance					-

LOCALITY NUMBER: 78002				
NAME: Sharrard Park, nort	h			
PREVIOUS NUMBER(S):				
LOCATION:				
State: Colorado	County: Garfield		-	
Township: 6S	Range: 94W			
NE 1/4 SE 1/4 1	/4, section 17			
1/41/4	1/4, section			
USGS Quadrangle Anvil Poin				
1952 , 7.	5 min.			
UTM;				
LANDOWNER Bureau of Land				
ACCESS				
	,			
DESCRIPTION				
Era Cenozoic	System Tertiary	Formation	Wasatch	
	Unit			
Stratigraphic position	,		2 2	- 1
Sediment description				
	* /			
Depositional environment				
Fossils sampled				
Fossils remaining				
Scientific significance and disposition of material		1, 1		

LOCALITY NUMBER:		
	UCM L. 79054	
LOCATION:		
State: Colorado	County: Garfield	
Township: 7S	Range: 96W	
	NW 1/4, section 33	
1/41/4	1/4, section	
USGS Quadrangle Gran	d Valley	
	, 7.5 min.	
	m E, m N	
DESCRIPTION		
Era Cenozoic	System Tertiary	Formation Wasatch
	Unit	
	low Green River Formation	
Sediment		
Depositional environment		
Fossils sampled <u>Hyopsodus</u>		
Fossils remaining		
Scientific significan and disposition of material		- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1

LOCALITY NUMBER:	
NAME: Wilson Locality	
PREVIOUS NUMBER(S): UCM L. 79050	
LOCATION:	
State: Colorado County: Garfield	4
Township: 7S Range: 95H	
SE 1/4 SW 1/4 NW 1/4, section 6	***
1/41/41/4, section	
USGS Quadrangle Grand Valley	
1962 , 7.5 min.	
UTM;m E,m N	
LANDOWNER	
ACCECC	
ACCESS	444 -
DECCONDITY	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Wasatch
Member Shire. Unit	
Stratigraphic position	
Sediment	
description medium-fine sand, thin bedded	
Depositional environment near shore lacustrine	1
Fossils	
sampled bird, egg shell	the East of
ossils remaining egg shell, probably more bird material	
cientific significance and disposition of	
naterial UCM; some material articulated	
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LOCALITY NUMBER	:						
NAME: Lundgre							
PREVIOUS NUMBER	(S): UCM L. 79						
LOCATION:							
State: Colora	ado	County:	Garfield				
	_ 1/4 _SE _ 1/4,						
1/4	1/4 1/4,	section					
	Grand Valley						
1962	, 7.5		min.				
UTM	;n	n E,	m N				
ACCESS							
DESCRIPTION							
Era <u>Cenozoic</u>	Syste	m Tertiary		Fo	rmation	Wasatch	
Member Shire							1
Stratigraphic position 23						34. 18th	. 1
Sediment description							
Depositional environment							
Fossil s Sampled <u>Didelpt</u>	hodus, Pelycodus	, Hyracother	ium	-1-			
Fossils remaining	1 1						
Scientific signit and disposition o material	of						

LOCALITY NUMBE	ER:			
NAME: Kelly	Gulch, west			
PREVIOUS NUMBE	R(S): UCM L. 7	79055		
LOCATION:				
State:Colo	rado	County:Garfield		
Township: 7S		Range: 96W		
1/4 _SE	1/4 _NW _ 1/4	, section 27		
1/4	1/4 1/4.	, section		
USGS Quadrangle	Grand Valley			
1962	, 7.5	min.		
UTM	_;	m E, m N		
LANDOWNER C.	Casteal			
ACCESS				
DESCRIPTION			4.	
Era Cenozoic	Systa	m Tertiary		
Member Shire	5,500	Unit	Formation	Wasatch
Stratloranhic				
position 320)m below Green R	iver Formation	1	
Sediment				
- il periodici	versus to the			
Depositional environment				
Fossils				
sampled Hyracot	herium, miacid			
Fossils remaining				,
Scientific signifi and disposition of	cance			
material	UCM			

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LOCALITY NUMBER	:				
NAME: ERDA					
PREVIOUS NUMBER	(S): <u>UCM</u>	L. 79030			
LOCATION:					
State: Color	ado	County:	Garfield		
Township: 6S		Range:	95W		ř.
1/4 SW	1/4 SE	1/4, section _	26		
1/4	_ 1/4	1/4, section _			
USGS Quadrangle	Rulison				
1960	, _7	.5	min.		
UTM	;	m E,	m N		
LANDOWNER		*			
ACCESS					
* 0 ***		eques.			
DESCRIPTION					
Era Cenozoic		System <u>Tertia</u>	-у	Formation	Wasatch
Member Shire		Unit			
Stratigraphic position 2	30 below Gr	een River Format	ion		
Sediment description				7 784	
Depositional environment					
Fossils sampled <u>Hyrac</u>	otherium, X	enicohippus, cre	eodont		
Fossils remaining					* *
Scientific sign and disposition material	of				

LOCALITY NUMBER:			
PREVIOUS NUMBER(S): UCM			
LUCATION:			
State: Colorado	County: Garfield		
	Range: 94W		7
	_ 1/4, section _ 30		
	1/4, section 30		
USGS Quadrangle Anvil Po	ints		
	7.5 min.	-	
UTM;	m E, . m N		
LANDOWNER			photograph
DESCRIPTION			
Era Cenozoic	System <u>Tertiary</u>	Formation	Wasatch
	Unit		
Stratigraphic position 450m below (12 11 1	. 20 20 17
Sediment description			+ 4 + 1 + 1
		•	
Depositional environment	- 2		
Fossils	Pelycodus, miacid		
Fossils remaining			*
Scientific significance and disposition of material UCM			

LOCALITY NUMBER:					
NAME: NOSR					
PREVIOUS NUMBER(S): UCM L. 79	052	3		
LOCATION:					
State: Colora	do	County: _(Garfield		
Township: 6S		Range: 9	5W		
1/4 NE					
1/4	1/4 1/4,	section			
USGS Quadrangle	Grand Valley				
1962					
UTM					
LANDOWNER					
			_		
DESCRIPTION					
Era Cenozoic	Syste	en Tertiary		Formation	Wasatch
Member Shire		0.10			
Stratigraphic position 26					1
Sediment.		-			
description					-
Depositional environment					
Fossils sampled Paramy	s, Hyracotherium	n			
Fossils remaining					,
Scientific signi	of				
material	UCM				

LOCALITY NUMBER:			
MARKE - 022			
PREVIOUS NUMBER(S): UCM L.	79051		
LOCATION:		-	
State:Colorado	County: Garfield		
Township: 6S	Range: 95W		
1/4 _SN _ 1/4 _SE _ 1/	4. section 31	_	
1/2 1/4 1/	4. section		
USGS Quadrangle Grand Valley			
1962 , 7.5	min		
UTM ,	m E. m N		
LANDOWNER			
ACCESS			
DESCRIPTION			
Era <u>Cenozoic</u> Sys	tem Tonting		
Member Shire	Tertiary	Formation	Wasatch
Stratigraphic		-	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
position255m below Green	River Formation		
Sediment description			
Depositional			
Anvironment.			
Fossils sampled Coryphodon			
Fossils remaining			
Scientific significance and disposition of material			

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LOCALITY NUMBER:		and the second s
NAME: Claw		
PREVIOUS NUMBER(S): UCM L	. 79056	
LOCATION:		•
State: Colorado	County: Garfield	
Township: 8S	Range i	
1/4 1/4 _SE	1/4, section 1	,
1/41/4	1/4, section	
USGS Quadrangle Red Pinnac	le	
, 7.	5 min.	
UTM;	m E,m N	
LANDOWNER		
ACCESS		
DESCRIPTION		
Era Cenozoic	System Tertiary F	ormation <u>Wasatch</u>
Member Shire	Unit	
Stratigraphic position 244m below Gr	een River Formation	32.4
Sediment		
description		
Depositional		
environment		
Fossils sampled stylinodont		
Fossils remaining	· · · · · · · · · · · · · · · · · · ·	
Scientific significance and disposition of material UCM		
	-168-	

LOCALITY NUMBE	R:		
NAME:			
PREVIOUS NUMBER	R(S): 61-41 (FMNH)		
LOCATION:			
State: Color	ado County: Garfield		
Township: 7S	Range: 96W		
1/4	1/4 NE 1/4, section 27		
1/4	1/4 1/4, section		
USGS Quadrangle	Grand Valley		
1962	, 7.5 min.		
UTM	,		
LANDOWNER			
ACCESS			
DESCRIPTION		G.	
Era Cenozoic	System Tank		
Member Shire	System Tertiary	Formation	Wasatch
Strationaphic	Unit		
position 305	m below Green River Formation		
Sediment.			
Depositional			
environment	- 11 m		
Fossils sampled Didymict	is		
Fossils remaining			
Scientific signifi and disposition of	Canco		
material	FMNH		
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LOCALITY NUMBER:					
NAME:				·	
PREVIOUS NUMBER(S): 51-41 (F)	NH)	-		
LOCATION:					
State: Colora	do	_ County:	Garfield		
Township: _7S_		Range:	96N		-4
1/4	1/4 SE 1/4	section 2	8		
1/4	1/4 1/4	, section			
USGS Quadrangle	Grand Valley				
1962	, 7.5		min.		
UTM	;	m E,	m N		
LANDOWNER					
ACCESS					
DESCRIPTION					
Era Cenozoic	Syst	em Tertiar	у	Formation	Wasatch
Member Shire	a manager and				
					7
Stratigraphic 36	Om below Green	River Forma	tion		1 2 1 24 4
Sediment description					
description					96
Depositional					2
environment					
Fossils sampled <u>Miacis</u>	s, Hyopsodus, Hy	/racotherium	1		
Fossils remaining					1 2 1 2
Scientific signi and disposition material	of				

LOCALITY NUMBER:		
PREVIOUS NUMBER(S): 6	6-41 (FMNH)	
LOCATION:		· · ·
State:Colorado	County: _Garfield	
Township: 6S	Range: 96W	
1/4 1/4 SE	1/4, section 28	-
1/4 1/4	1/4, section	
USGS Quadrangle Grand V	alley	
1962	7.5 min.	
UTM	m E,m N	
LANDOWNER	m N	
ACCESS		
DESCRIPTION	-	
DESCRIPTION	-	
DESCRIPTION Era <u>Cenozoic</u>	System Tertiary	Formation Wasatch
DESCRIPTION Era <u>Cenozoic</u> Member <u>Shire</u>	System Tertiary	Formation <u>Wasatch</u>
DESCRIPTION Era Cenozoic Member Shire	System <u>Tertiary</u> Unit	Formation <u>Wasatch</u>
DESCRIPTION Era <u>Cenozoic</u> Member <u>Shire</u> Stratigraphic position 103m below G	System <u>Tertiary</u> Unit ireen River Formation	
DESCRIPTION Era <u>Cenozoic</u> Member <u>Shire</u> Stratigraphic position 103m below G	System <u>Tertiary</u> Unit	
DESCRIPTION Era <u>Cenozoic</u> Member <u>Shire</u> Stratigraphic position 103m below G Sediment description	System <u>Tertiary</u> Unit ireen River Formation	
DESCRIPTION Era <u>Cenozoic</u> Member <u>Shire</u> Stratigraphic position 103m below G	System <u>Tertiary</u> Unit ireen River Formation	
DESCRIPTION Era _Cenozoic Member _Shire Stratigraphic position103m below G Sediment description Depositional	System <u>Tertiary</u> Unit ireen River Formation	
DESCRIPTION Era _Cenozoic Member _Shire Stratigraphic position	System Tertiary Unit Green River Formation	
DESCRIPTION Era _Cenozoic Member _Shire Stratigraphic position	System <u>Tertiary</u> Unit ireen River Formation	
DESCRIPTION Era _Cenozoic Member _Shire Stratigraphic position	System Tertiary Unit Green River Formation	

LOCALITY NUMBER:	
NAME:	
PREVIOUS NUMBER(S): 62-41 (FMNH)	
LOCATION:	
State: Colorado County: Ga	rfield
Township: 6S Range: 96W	
1/4 1/4 SE 1/4, section 28	
1/41/4 , section	
USGS Quadrangle Grand Valley	
1962 , 7.5	
UTM ; m E,	and the second s
LANDOWNER	
ACCESS	
DESCRIPTION	
	Formation Wasatch
and the first of t	Formation Wasatch
Member Shire Unit	
Stratigraphic position 72m below Green River Formation	
Sediment	a mild that we to the
description	200
Depositional environment	, , , , , , , , , , , , , , , , , , ,
Fossils sampled Hyopsodus	and a short
Fossils remaining	· · · · · · · · · · · · · · · · · · ·
Scientific significance and disposition of material FMNH	

LOCALITY NUMBER:				
NAME:		-		
PREVIOUS NUMBER(S): 125-41 (FMNH)		_		
LOCATION:				
State: Colorado County: Garfield				
Township: 6S Range: 95W		-		
1/21/4 NE 1/4, section 29		- Company		
1/4 1/4 1/4, section				
USGS Quadrangle Grand Valley				
1962 , 7.5 min.	(h			
UTM;mE,mN				
LANDOWNER Bureau of Land Management (Naval Oil				
Shale Reserve)				
ACCESS				
DESCRIPTION	7			
Era <u>Cenozoic</u> System <u>Tertiary</u>	_			
Member Shire Unit	Format	ion	Wasatch	
Stratigraphic position 122m below Green River Formation				
Sediment description				
A CONTRACTOR OF THE PARTY OF TH		-	-	
Depositional environment				
Fossils Sampled Hyopsodus, paramyid rodent,				-
Fossils remaining				
Scientific significance and disposition of material FHNH				
-173-				

FOCULTA NAWREE:		-
NAME:		
PREVIOUS NUMBER(S): 126-41 (FMNH)	-
LOCATION:		
State: Colorad	do County: Garfield	
	Range: 95W	
1/2	1/4 NE 1/4, section 29	
1/4	1/4 1/4, section	
USGS Quadrangle	Grand Valley	
1962	, 7.5 min.	
UTM	;m E,m N	
Shale Reserve)	au of Land Management (Naval Oil	
DESCRIPTION		Vt-h
Control Control Control	System Tertiary F	
Name of the Control o	Unit	
Stratigraphic position 11	5m below Green River Formation	
Sediment description	a section of the sect	
the first part carries		
Depositional environment		
Fossils sampled Paramy	ys	
Fossils remaining		
Scientific sign and disposition material	of	V 11m
	-174-	

LOCALITY NUMBER:	
NAME:	
PREVIOUS NUMBER(S): 93-41 (FMNH)	
LOCATION:	
State: Colorado County: Garfield	
Township: 6S Range: 95W	-
1/4 1/4 <u>SE</u> 1/4, section <u>29</u>	
1/4 1/4 1/4, section	
USGS Quadrangle Grand Valley	
UTM;m E, m N	
LANDOWNER Bureau of Land Management (Naval Oil	
Shale Reserve)	
ACCESS	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Wasatch
Member Shire Unit	
Stratigraphic position 225m below Green River Formation	
Sediment description	
Depositional environment	
Fossils sampled Hyracotherium; artiodactyl genus indeterminate	
Fossils remaining	
Scientific significance and disposition of material FMNH	

-175-

LOCALITY NUMBER:	Management of the Control of the Con					
NAME:			-			
PREVIOUS NUMBER(s): 90-	41 (FMNH)				
LOCATION:						
State: Colora	do	County:	Garfield			
Township: 6S		Range:	95W			
1/4	1/4 SE	1/4, section 2	29			
1/4	1/4	1/4, section				
USGS Quadrangle	Grand Va	lley				
1962	,	7.5	min.			
UTM						
LANDOWNER Bure						
Shale Reserve)						
ACCESS						
DESCRIPTION						
Era Cenozoic		System Terti	агу	Formation	Wasatch	
Member Shire				2.0	-	
Stratigraphic			-	Y		
position23	Om below	Green River Form	mation		27.27	74.
Sediment		* 100 (9)				***
		* 100 (9)			4.7	74.
Sediment description		* 100 (9)				1
Sediment description					3.7	1
Sediment description Depositional environment Fossils sampled Hyopso	idus				17	

-176

LOCALITY NUMBER:		
NAME:		
PREVIOUS NUMBER(S): 99-41 (FMNH)		
LOCATION:		
State: Colorado County: Garfield		
Township: 6S Range: 95W		
1/41/4 <u>SE</u> 1/4, section <u>29</u>		
1/41/41/4, section		
USGS Quadrangle _Grand Valley		
UTM; m E, m N		
LANDOWNER Bureau of Land Management (Naval Oil		
Shale Reserve)		
ACCESS		
DESCRIPTION		
Era <u>Cenozoic</u> System <u>Tertiary</u>	Form	ation Wasatch
Member Shire Unit	1011	wasaccii
Stratigraphic	-	
position 215m below Green River Formation		
description		
Depositional environment		
ossils ampled <u>Didymictis</u>		
ossil s emaining		
cientific significance nd disposition of material FMNH		
-177-		

LOCALITY NUMBER:				
				TO COMMON COMMON
): _91-41 (FMNH)			
LOCATION:				
State: Colorado	o County:	Garfield		
	Range:			
	1/4 <u>NW</u> 1/4, section			
1/4 1	1/4 <u>NE</u> 1/4, section	32		
USGS Quadrangle _0	Grand Valley			
	, _7.5		-	
	;m E,			
ACCESS				
	1 /4			
DESCRIPTION				
Era Cenozoic	System Terti	arv	Form	ation Wasatch
	Uni			
Stratigraphic ·	300m below Green River			
Sediment				
	and the second second			
Depositional	The second secon			
Fossils Sampled Hyopsodus	s, Hyracotherium, Pelyo	odus		
ossils		v	1	
Scientific signific and disposition of material				
		78-		

LOCALITY NUMBER:		
NAME:		
	9-41 (FMNH)	
LOCATION:		
State: Colorado	County: _Garfield	
Township: 6S	Range: 94W	
	1/4, section 26	
	1/4, section	
	oints; Rulison	
1952; 1960	7.5 min.	
	m E,m N	
LANDOWNER Bureau of La	nd Management (Naval Oil	
Shale Reserve)		
	· ·	
DESCRIPTION		
Era Cenozoic	System _Tertiary	Formation Wasatch
Member Shire		
Stratigraphic . position <u>140-145m</u> be	low Green River Formation	
Sediment description		** **
	er order (mage) a	
Depositional environment		1
Fossils sampled Hyopsodus, Hyra	cotherium, Pelycodus	
Fossils remaining		
Scientific significance and disposition of		
material FMNH		

LOCALITY NUMBER:	
NAME:	
PREVIOUS NUMBER(S): 155-41 (FMNH)	
LOCATION:	·
State: Colorado County: Garfield	
Township: 6S Range: 94W	
1/4 1/4 _NW _ 1/4, section _25	
1/4 1/4 1/4, section	
USGS Quadrangle Rulison	
UTM;m E,m N	
LANDOWNER Bureau of Land Management (Naval Oil	
Shale Reserve)	
ACCESS	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Wasatch
Member Shire Unit	
Stratigraphic position150m below Green River Formation	20 30
Sediment description	
 Depositional	
environment	
Fossils sampled <u>Paramys, Hyracotherium</u>	
Fossils remaining	1
Scientific significance and disposition of material FMNH	

LOCALITY NUMBER:		
NAME:		
PREVIOUS NUMBER(S): 149-41 (FMNH)		
LOCATION:		
State: Colorado County: Garfield		
Township: 6S Range: 94W		
1/4 1/4 NE 1/4, section 26		
1/41/41/4, section		
USGS Quadrangle Anvil Points		
1952 , 7.5 min.		
UTM;m E,m N		
LANDOWNER Bureau of Land Management (Naval Oil		
Shale Reserve)		
ACCESS north of US 6 and 24, access by foot or by		
dirt ranch road DESCRIPTION		
Era Cenozoic System Tertiary	Formation	Wasatch
Unit Unit		
Stratigraphic position 173-167m below Green River Formation		
Sediment.		
description		
· ·		
Depositional environment		
Fossils Sampled Meniscotherium, Hyopsodus, Hyracotherium		
Fossils remaining		157
Scientific significance and disposition of material FMNH		
-181-	-	

LOCALITY NUMBER:	
NAME: The Amphitheater	
PREVIOUS NUMBER(S): 109-41 (FINH)	
LOCATION:	
State: Colorado County: Garfield	
Township: 6S Range: 94W	
1/4 NW 1/4 SE 1/4, section 26	
1/4 1/4 1/4, section	
USGS Quadrangle Rulison	
1960 , 7.5 min.	
UTM;m E,m N	
LANDOWNER Bureau of Land Management (Naval Oil	4
Shale Reserve)	
ACCESS North of US 6 and 24	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Wasatch
Member Shire Unit	
Stratigraphic position 230m below Green River Formation	1 100 7 1 1
Sediment description	+Ag
After the San Control of the Control	
Depositional environment	
Fossils sampled Pseudotomus, Hyopsodus, Esthonyx, Coryphodo	n, Hyracotherium
Fossils remaining	2-1
Scientific significance and disposition of material FMNH	
102	

LOCALITY NUMBER:	
NAME:	
PREVIOUS NUMBER(S): 242-41	
LOCATION:	
State: Colorado County: Garfield	
Township: 6S Range: 94W	
1/41/4 _SE 1/4, section _17	
1/41/41/4, section	
USGS Quadrangle _Anvil Points	
1952 , 7.5 min.	
UTM ; mE, mN	
LANDOWNER W. F. Clough (in Rifle)	
ACCESS	
ACCESS	
DESCRIPTION	
Era Cenozoic . System Tertiary F	ormation Wasatch
Member Shire Unit	
Stratigraphic position 375-380m below Green River Formation	
Sediment	
description	
The same of the sa	
Depositional environment	The State of
ossils Sampled Kyracotherium, Pelycodus	
Ossils Cemaining	* / -
scientific significance and disposition of Daterial	

-183-

LOCALITY NUMBER:			-	
NAME: Galbreath Shelf			_	
PREVIOUS NUMBER(S): 37	72-41 (FMNH)		_	
LOCATION:				
State: Colorado	County: Garfiel	d		
	Range: 94W			
	E 1/4, section _17			
	1/4, section			
	Points			
	7.5 min			
	m E,m			
	(private - in Rifle)			
EARDONNER N. T. CTOOGH	(private in krite)	-		
ACCESS THE OF HE S	and 24 on dirt road to			
Langstaff Ranch				
DESCRIPTION				h
	System Tertiary			Vasaton
Member Shire	Unit			
Stratigraphic application 390m belo	w Green River Formation	1.	4	2 7 7
Sediment				
description	260.4			
A	and the contract of the contra			
Depositional environment				
environment	Paramys, Microsyops, Hyop		cotheriu	m
environment			cotheriu	m

LUCALITY NUMBER:		
NAME:		
PREVIOUS NUMBER(S): 115-C-47	
LUCATION:		
State:Colorac	do County: Garfield	
Township: 6S	Range: 94W	
1/4 1	/4 <u>SE</u> 1/4, section <u>18</u>	The second second
1/4 1	/4 1/4, section	
USGS Quadrangle A	nvil Points	
1952		
UTM	;m E,m N	
LANDOWNER		
ACCESS		5
DESCRIPTION		
Era Cenozoic	System Tertiary F	Ormation Wasatch
Member Shire	Unit	
Stratigraphic position		
Sediment description		
72 TO 100		
Depositional environment		
Fossils Sampled <u>Hyopsodus</u> ,	Esthonyx	
Fossils Temaining		
Scientific significan and disposition of material FA		
	-185-	

LOCALITY NUMBER:		
NAME: Meniscotherium Hol	low	
PREVIOUS NUMBER(S):		
LUCATION:		
State: Colorado	County:Garfield	
Township: 6S	Range: 94W	
1/4 1/4 _SE	1/4, section <u>17</u>	
1/4 1/4	1/4, section	
USGS Quadrangle Anvil Poi	ints	
1952 , 7	7.5 min.	-
UTM;	m E,m N	
LANDOWNER W. F. Clough ((in Rifle - private)	
		*
ACCESS north of US 6 and	d 24 on dirt road to	
Langstaff Ranch		
DESCRIPTION		100
Era Cenozoic	System Tertiary	Formation Wasatch
Member Shire	Unit	
Stratigraphic position 395-415m bel	low Green River Formation	
Sediment description		
		.,,
Depositional environment		
Fossils sampled Reithroparamys,	Esthonyx, Meniscotherium, Hyr	acotherium
Fossils remaining		* .
Scientific significance and disposition of material Type 10	ocality. FMNH	-
1390 10	-186-	W = 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 10

LOCALITY NUMBER:	-172 7 0107		
PREVIOUS NUMBER(S): 291	1-41 (FMNH)		
LOCATION:	(2 (2.1101))		
State: Colorado	County:Garfield		
Township: 6S	Range: 94W		
1/41/4 SE	1/4, section 17		
1/41/4	1/4, section		
USGS Quadrangle Anvil Po	ints		
1952	7.5 min.		
UTM;			
ACCESSnorth of US 6 and			
Lanystaff Ranch			
DESCRIPTION			
Era Cenozoic	System Tertiary		
Member Shire	Unit	Formation	Wasatch
Strationaphic	een River Formation	- 10	
Sediment			18.7.
Depositional environment			
Fossils Sampled Hyracotherium, Phe	enacodus		
ossils remaining	- 447		
Scientific significance and disposition of material FMNH		15, 54	
	-187-		

NAME: PREVIOUS NUMBER(S): 241-41 (FMNH)	
PREVIOUS NUMBER(S). 241-41 (EMNH)	
TRETTOO HONDER(S). ETT-TI (TIMI)	
LOCATION:	
State: Colorado County: Garfield	
Township: 6S Range: 94W	
1/41/4 _SE _ 1/4, section _17	
1/41/41/4, section	
USGS Quadrangle Anvil Points	
1952 , 7.5 min.	
UTM ; m E,m N	
LANDOWNER	
ACCESS	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Formation <u>Wasatch</u>	
Member Shire Unit	
Stratigraphic position 295 meters below Green River Formation	
Sediment description	
Depositional environment	
Fossils sampled Hyracotherium	
Fossils remaining	
Scientific significance and disposition of material FMNH	

LOCALITY NUMBER:		
NAME:		
PREVIOUS NUMBER(S):	401-41	The same of the sa
LUCATION:		
State: Colorado	County:Garfiel	ld -
Township: 6S	Range: 94W	
1/4 _NW _ 1/4	4 NW 1/4, section 27	The state of the s
	1/4, section	
	vil Points	
		18
uTM_	m F m N	
LANDOWNER		
ACCESS south of US	6 and 24	
DESCRIPTION	- X-	
Era Cenozoic	Sunda - T.	
Member Shire	System Tertiary	
Stratigraphic		
osition 515 met	ers below Green River Formation	10-1
ediment description		
		and the second s
epositional nvironment	199	
ossil s ampled <u>perissodact</u>	yl genus indeterminate	
ossils emaining unknown	1 -1 -	
cientific significand nd disposition of aterialFM	ce	

LOCALITY NUMBER:					
NAME:				-	
PREVIOUS NUMBER (S): _118-	C-47			
LOCATION:					
State: Color	ado	County:	Garfield		
Township: 6S		Range:	94W		
1/4	1/4 SW	1/4, section _1	17		
1/4	1/4	1/4, section _			
USGS Quadrangle	Anvil Poi	nts		> -	
1952	,	7.5	min.		
UTM				-	
LANDOWNER BLM	(ERDA) in	part; private in	n part		
(W. F. Clough in	Rifle)		1 1 1		
ACCESS					
DESCRIPTION			1		
Era <u>Cenozoi</u>	С	System Teri	tiary	Formation	Wasatch
Member Shire		Unit			***
Stratigraphic position					
Sediment		7 213 8 1		1	
Depositional environment				1 / 1// (1// (1//)	
Fossils sampled Hyraco	therium, H	yopsodus			
Fossils remaining					
Scientific signi and disposition material	of				

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LOCALITY NUMBER:	4.2	
NAME:		_
PREVIOUS NUMBER(S): 1		_
LOCATION:		-
State: Colorado	County: Garfield	-
	Range: 94W	
	1_1/4, section 29	-
	1/4, section 30	
USGS Quadrangle Anvil P		
	7.5 min.	
UTM;		
LANDOWNER		
	,	
ACCESS porth of US 6 as	24	
HOTER OF US O di	nd 24 west of Rifle	
DESCRIPTION		
	System Tertiary Format	ion <u>Wasatch</u>
Member Shire	Unit	
Stratigraphic position 230 meters	below Green River Formation	
Sediment		
description		
Depositional environment		
environment	lyopsodus, Meniscotherium, Palaeictops	- 104
Depositional environment Fossils sampled Hyracotherium, F Fossils remaining	lyopsodus, Meniscotherium, Palaeictops	

-191-

NAME:				
PREVIOUS NUMBER(S): 113-	C-47			
LOCATION:				
State: Colorado	County:	Garfield	9	- 1
Township: 6S	Range:	94 W		
1/4 1/4 NE				
1/41/4	1/4, section			
USGS Quadrangle Anvil Poi	nts			
1952				
UTri;				
LANDOWNER Bureau of Land				
Shale Reserve				
ACCESS				
DESCRIPTION				
WESONII IION				
Fra Canozoic	System Tort	ianu E	ormation	Magatich
Era Cenozoic				
Member Shire				
Member Shire Stratigraphic	Unit			
Member Shire Stratigraphic position 122 meters book 122 meter	Unit	Formation		
Member Shire Stratigraphic position 122 meters by Sediment	Unit	Formation		
Member Shire Stratigraphic position 122 meters be sediment description	Unit	Formation		
Member Shire Stratigraphic position 122 meters but the second se	Unit	Formation		
Member Shire Stratigraphic position 122 meters but the second se	Unit	Formation		
Member Shire	Unit	Formation		

NAME: Kladder Locality C	_
PREVIOUS NUMBER(S):	-
LOCATION:	± 0
State: Colorado County: Garfield	* =
Township: 6S Range: 94W	-
1/4 _SW _1/4 _NW _ 1/4, section _11	
1/41/41/4, section	
USGS Quadrangle Rifle	
1952 , 7.5 min.	
, , , , , , , , , , , , , , , , , , ,	
I ANDOUNED	
· ·	photograph
10000-	
ACCESS	
Fra <u>Cenozoic</u> System <u>Tertiary</u> Formati	on <u>Wasatch</u>
Member Shire Unit	
tratigraphic	
Stratigraphic	
Stratigraphic continue to the strategy of the	
Stratigraphic continue to the strategy of the	
Stratigraphic osition Sediment description epositional	
ediment escription epositional nvironment essils	
Stratigraphic Josition Jediment Jescription Jepositional Invironment Jossils Josephodon, Homogalax Jossils Josephodon, Homogalax Josephodon Georgeneers Administration of the second of the seco	21 27

LOCALITY NUMBER:				
NAME: Reservoir Hi	11			
PREVIOUS NUMBER(S):	34-C-47		normina.	
LOCATION:				
State: Colorado	County:	Garfield		
	Range: 9			
1/4 1/4	N 1/2, section 5			
1/4 1/4	4 <u>SE</u> 1/4, section <u>5</u>			
USGS Quadrangle Rit	fle			
1952		min.		
	m E,			
	M; part private (W. F. C			
in Rifle)				
ACCESS SH 13 in R	ifle, west on road to h	igh school,		
north on dirt road	at "T" intersection			
DESCRIPTION				
Era Cenozoic	System Tert	iary For	mation W	asatch
Member Shire	Unit			
Stratigraphic				
Sediment				
description				
Depositional environment				
Fossils	erium			
Fossils remaining				<i>y</i>
Scientific signifi and disposition of material	FMNH			
		104		

	STIL TOKIN	
LOCALITY NUMBER:		
NAME:		-
PREVIOUS NUMBER(S):		-
LOCATION:		-
State: Colorado	County:Garfield	
Township: 6S	Range: 93W	-
1/4 NE 1/4 N	NE 1/4, section 5	-
	XE 1/4, section 5	
1952		
LANDOWNER Bureau of I	and Management	
	one management	
ACCESS SH 13 in Rifle	to road to high school,	
north at "T" intersects		
DESCRIPTION	1011	
	S	
Member Shire	System Tertiary Format	ion <u>Wasatch</u>
Stratigraphic	Unit	
		and the state of
Sediment		
		**
Depositional		
environment		
Fossils - sampled Hyracotherium,	Esthonyx	
Fossils remaining		,
Scientific significance and disposition of material FMNH.		

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LOCALITY NUMBER:			
NAME: Kladder Locality A			
PREVIOUS NUMBER(S):			
LOCATION:			
State: Colorado	County:Garfield	d	
Township: 6S	Range: 93W		
1/4 NE 1/4 NE			
1/4 1/4	1/4, section		
USGS Quadrangle Rifle			
1952 ,	7.5 min.		
UTM;	m E,m N		
LANDOWNER Bureau of Land	Management		
ACCESS			
DESCRIPTION			
Era Cenozoic	System Tertiary	Formation	Wasatch
Member Shire	Unit		1 1
Stratigraphic			12 1 2 2
Sediment description			
Martin Commission of the State			
Depositional environment			
Fossils sampled Coryphodon, Hyra	cotherium, Haplomylus, Est	honyx	
Fossils remaining			
Scientific significance and disposition of material MWC			1,
- see - August	-196-		- 4-

LOCALITY NUMBER:		
	В	
-PREVIOUS NUMBER(S):		
LOCATION:		
State:Colorado	County:Garfield	
	Range: 93W	
SE 1/4 SE 1/4 SE	1/4, section 26	
1/4 1/4		
USGS Quadrangle Rifle		
1952 ,	7.5 min.	
UTM;	m E. m N	
LANDOWNER Bureau of Land		
ACCESS SH 13 north of Riv	fle to JUS Trail, west	
two miles, by foot to expos		42.00
DESCRIPTION		
Era Cenozoic	SystemTertiary	Formation
Member Shire	Unit	Wasatch Wasatch
Stratigraphic . position		
Sediment description		
Depositional environment	the state of the s	
Fossils sampled <u>Hyopsodus</u> , Corypho	odon, Hyracotherium, Pelycod	us, Esthonyx
Fossils remaining <u>unknown</u>		
Scientific significance and disposition of material	material collected by indiv donated to Western Colorado	idual, Museum

LOCALITY NUMBER:		
NAME:		
PREVIOUS NUMBER(S): 328-41 (FMNH)	
LOCATION:		
State: Colora	do County: Garfield	
Township: 6S	Range: 94W	
	1/4 SW 1/4, section 14	
1/4	1/4 1/4, section	
USGS Quadrangle	Rifle	
1952	,	
UTM	;m E,m N	
LANDOWNER	. 7	
* **		
ACCESS north of	US 6 and 24	
DESCRIPTION		
Era Cenozoio	System Tertiary	Formation Wasatch
ALCOHOLD A MARKET AND A	Unit	
Stratigraphic) meters below Green River Formation	
Sediment		
description	AND THE RESERVE AT 18 AND 18 AND 18 AND 18	
Depositional environment	<u> </u>	
Fossils sampled Pelycoo	dus, Paramys, Esthonyx, Hyopsodus, Hom	ogalax, Hyracotherium
Fossils remaining	The second of th	2.202. 17 **
Scientific signi	ficance of Field Museum of Natural History	11
mg vGT TGT		

LOCALITY NUMBER:		
NAME: Kladder Loc	ality Q	
PREVIOUS NUMBER(S):	,	+
LOCATION:		+.
State: Colorado	County: Garfield	
Township: 7S	Range: 97W	-
1/4 1/4	4 SE 1/4, section 28	-
1/4 1/4	SW 1/4, section 27	
USGS Quadrangle Red	Pinnacle	
1962	,7.5 min.	
UTM :		2
LANDOWNER	m E,m N	
		photograph
VCCCCC		14
ACCESS		
Era <u>Cenozoic</u>	SystemTertiaryFormat	ionWasatch
	Unit	
Stratigraphic position50-60 me	eters below Green River Formation	
ediment escription		
	and the second s	
epositional nvironment		
ossils impled Hyopsodus, Ph	nenacodus, Hyracotherium, Heptodon	
essils maining	, reprodon	
ientific significance d disposition of terial MWC		
mwc	-199-	

LOCALITY NUMBER:					
NAME:					
PREVIOUS NUMBER(S): 153-4	11 (FMNH)		_		
LOCATION:					
State: Colorado	County:	Garfield			
Township: 6S	Range:	95W			
1/4 SE 1/4 SW	1/4, section <u>2</u>	3			
1/4 1/4 _SE	1/4, section _2	3			
USGS Quadrangle Anvil Poir	nts				
1952 ,	7.5	min.			
UTM;	m E,	m N			
LANDOWNER Bureau of Land	Management (Nav	al Oil			
Shale Reserve)		-			
ACCESS					
DESCRIPTION					
Era Cenozoic	System Tert	iary	Formation	Wasatch	
Member Shire	Unit				
Stratigraphic position 40 meters be	low Green River	Formation		A. P. Roy	
Sediment description				19.7	
				+ 1-	
Depositional environment		- 4			1
Fossils sampled Hyopsodus, Pelyco	odus	t v ai	2.5		
Fossils remaining					
Scientific significance and disposition of material FMNH					

-200-

LOCALITY NUMB		SITE FORM		
NAME:	-		The state of the s	
PREVIOUS NUMBE		41 (FMNH)		
LOCATION:				
State:Col	orado	County: Ga	arfield	
lownship: 6S		Range: 95W		
*/ *	1/4 NE	1/4, section 13		
1/4	_ 1/4	1/4, section		
USGS Quadrangle				
IJTM		7.5	min.	
LANDOUNED -	;	m E,	m N	
Shalo Da	eau of Land M	Management (Naval Oil		
Shale Reserve)				
ACCESS				
DESCRIPTION				
Erd (enormi	c Sy	stemTertiary	Formation	Wasatch
Era <u>Cenozoi</u> Member <u>Shire</u>				12. 7.4
Stratigraphic		Unit		od startu
Stratigraphic position 60	meters below	Unit Green River Formati		
Stratigraphic position 60 Sediment description	meters below	Unit		
Stratigraphic position 60 Sediment description	meters below	Unit		
Stratigraphic position 60 Sediment description	meters below	Unit	on	
Stratigraphic position 60 Sediment description	meters below	Unit	on	
Stratigraphic position 60 Sediment description Depositional nuironment Ossils ampled Hyracoth	meters below	Unit	on	
Stratigraphic position 60 Sediment description	meters below	Unit	on	

NAME:	
PREVIOUS NUMBER(S): 203-41 (FMNH)	
LOCATION:	
State: Colorado County: Garfield	
Township: 6S Range: 95W	
1/41/4 _SE _1/4, section _13	
1/41/4 _SW _1/4, section _13	
USGS Quadrangle Anvil Points	
1952 , 7.5 min.	
UTM ; mE, mN	
LANDOWNER Bureau of Land Management (Naval Oil	
Shale Reserve)	
ACCESS	
DESCRIPTION Era <u>Cenozoic</u> System <u>Tertiary</u> F	ormation <u>Wasatch</u>
Member Shire Unit	
Stratigraphic position 45 meters below Green River Formation	
ossition 45 meters below Green River Formation	
Sediment description 45 meters below Green River Formation	- 4
Sediment description 45 meters below Green River Formation	
Sediment description Depositional environment Fossils	
Stratigraphic position 45 meters below Green River Formation Sediment description	

LOCALITY NUMBER:				
NAME:			-	
PREVIOUS NUMBER(S): 100-41 (FMNH)		-	
LOCATION:			-	
State:Colorado	County: Garfield			
Township: 6S				
1/4 1/4 _SW _ 1/4				
1/41/4 _SE _1/4,				
USGS Quadrangle Grand Valley				
1962 , 7.				
UTM;				
LANDOWNER				
ACCESS				
ACCESS				
DESCRIPTION				
Era <u>Cenozoic</u> Syst	on Testino	-		
Member Shire			on W	asatch
Stratigraphic	Unit			
position 30 meters below G	reen River Formation			\$1.97-15
Sediment description				
action in the contract of the				
Depositional				
environment		1		
ossils ampled <u>Esthonyx</u>	,			
ossils Pemaining		-		Time
Scientific significance and disposition of material FMNH			1-314	8

-203-

LOCALITY NUMBE	R:				
NAME:					
		11 (FMNH)			
LOCATION:					
State: Col	orado	County:	Garfield		1 4 2
Township: 6S		Range:	96W		
1/4	1/4 SW	1/4, section <u>2</u>	7		
1/4	1/4 SE	1/4, section _2	8		
USGS Quadrangl	e Grand Val	ley			
1962	,	7.5	min.		
		m E.,			
LANDOWNER			0.55		photograph
44					
ACCESS					
			=1.		
DESCRIPTION					
Era Cenoz	oic	System Tert	iary	Formation	Wasatch
Member Shire		Unit			15 -
Stratigraphic position	45 meters t	elow Green River	Formation	CAR SER !	
Sediment description _					
Depositional		-	10 - 1		
environment _					
Fossils sampled Pely	codus, Hyops	odus			
Fossils remaining					4.7
Scientific sig and dispositio material	n of			×	
Additional forms					

SITE FURM

LOCALITY NUMBER:	
NAME:	
PREVIOUS NUMBER(S): 177-41 (FMNH)	
LOCATION:	-
State: Colorado County: Garfield	in the second
Township: 6S Range: 95W	
1/4 _SW _ 1/4 _SE _ 1/4, section _23	
1/4 SE 1/4 SW 1/4, section 23	
USGS Quadrangle Anvil Points	
1952 , 7.5 min.	
UTM; m E, N	110000
LANDOWNER Bureau of Land Management (Naval Oil	
Ch-1- D - \	
ACCESS	
DESCRIPTION	
Era <u>Cenozoic</u> System Tertiary F	
Member Shire Unit	
position 55-65 meters below Green River Formation	27 4 - 1
Sediment	
description	
	The second section of the second section of the second section of the second section s
Depositional environment	
ossils .	nbdotherium
sampled Paramys, Hyopsodus, Esthonyx, Hyracotherium, Lan	
ossils remaining	

LOCALITY NUMBER:	
NAME:	
PREVIOUS NUMBER(S): 211-41 (FMNH)	
LOCATION:	
State: Colorado County: Garfi	eld
Township: 6S Range: 94W	
1/4 1/4 <u>SE</u> 1/4, section <u>5</u>	
1/4 1/4 NE 1/4, section 8	
USGS Quadrangle Anvil Points	
1952 , 7.5 min	
UTM	
LANDOWNER Bureau of Land Management (Naval Oil	
Shale Reserve)	
ACCESS	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Wasatch
Member Shire Unit	
Stratigraphic position 75 meters below Green River Formation	1 - 1 - 1
Sediment description	
Depositional environment	
Fossils sampled Hyracotherium, Lambdotherium	
Fossils remaining	
Scientific significance and disposition of materialFMNH	

NAME:	
PREVIOUS NUMBER(S): 249-41 (FMNH)	
LOCATION:	
State: Colorado County: Garfield	
Township: 6S Range: 94W	
1/41/4 _SE _ 1/4, section 5	-
1/41/4 NE 1/4, section 8	
USGS Quadrangle Anvil Points	
1952 , 7.5 min.	2 -
UTM; E, m N	
LANDOWNER Bureau of Land Management (Naval Oil	
Shale Reserve)	
ACCESS	
F1	
I,	100 7110
ra <u>Cenozoic</u> System <u>Tertiary</u>	Formation Wasatch
ra <u>Cenozoic</u> System <u>Tertiary</u>	
Fra Cenozoic System Tertiary Member Shire Unit	Formation <u>Wasatch</u>
Era <u>Cenozoic</u> System <u>Tertiary</u> Member <u>Shire</u> Unit Stratigraphic 90 meters below Green River Formation	
Tertiary Member Shire. Unit Stratigraphic 90 meters below Green River Formation ediment	
Tertiary Member Shire Unit Stratigraphic Position 90 meters below Green River Formation Rediment	
Termany Tender Cenozoic System Tertiary Tember Shire Unit Stratigraphic Ossition 90 meters below Green River Formation ediment escription epositional	
Tera Cenozoic System Tertiary Tember Shire Unit Ctratigraphic Position 90 meters below Green River Formation Position Exediment Rescription Positional	
Tertiary Member Shire Unit Stratigraphic Position 90 meters below Green River Formation Rediment Rescription Position	
Era Cenozoic System Tertiary Member Shire Unit Stratigraphic position 90 meters below Green River Formation dediment description epositional nvironment ossils ampled Paramys, Hyopsodus, creodont ossils	
Member Shire Unit Stratigraphic 90 meters below Green River Formation ediment lescription epositional	
Era Cenozoic System Tertiary Member Shire Unit Stratigraphic position 90 meters below Green River Formation dediment description epositional nvironment ossils ampled Paramys, Hyopsodus, creodont ossils	

SITE FURM

LOCALITY NUMBER:					
NAME:					
PREVIOUS NUMBER(
LOCATION:					
State:Color	ado	County:	Garfield		
Township: 6S					
1/4					
1/4	1/4 NE 1/	4, section _8	3		
USGS Quadrangle	Anvil Points				
1952				1.	
MTU				100	
LANDOWNER Bure				- 14	
Shale Reserve)					
ACCESS					
		1			
DESCRIPTION					
					Usestab
Era Cenozo				ormation _	Wasaccii
Member Shire		Unit			-
Stratigraphic position 10	05 meters belo	ow Green Rive	r Formation		
Sediment description					
-					
Depositional environment			a		177
Fossils sampled Hyrac				. 1 - 1	
Fossils remaining	The second of				
Scientific sign and disposition material	of				
mu cci iui	1 (10)		00		

LOCALITY NUMBER:	
NAME:	
PREVIOUS NUMBER(S): 65-41 (FMNH)	
LOCATION:	
State: Colorado County: Garfield	
Township: 6S Range: 96W	
1/41/4 _SE _ 1/4, section _28	
1/41/4 <u>SW</u> 1/4, section <u>27</u>	
USGS Quadrangle Grand Valley	
1962 , 7.5 min.	
UTM;	
LANDOWNER	4
ACCESS	
dam - Table -	
DESCRIPTION	4.314
Era <u>Cenozoic</u> System <u>Tertiary</u> Fo	
Member Shire Unit Unit	
position50 meters below Green River Formation	79.77
Sediment description	1.1
description	
. Depositional	
environment	
Fossils Sampled <u>Lambdotherium</u>	
Fossils remaining	
Scientific significance and disposition of material FMNH	

LOCALITY NUMBER:		
NAME:		
PREVIOUS NUMBER(S): 49-41 (FMNH)		
LOCATION:		
State: Colorado County: Garfield		
Township: 8S Range: 97W		
1/4 NW 1/4 NW 1/4, section 2	1 102	
1/4 _SE _ 1/4 _NE _ 1/4, section 3		
USGS Quadrangle Red Pinnacle		
1962 , 7.5 min.	-	
UTM;m E,m N	-	
LANDOWNER		
ACCESS		
	1.0	
DESCRIPTION		
Era Cenozoic System Tertiary F	ormation .	Wasatch
Member Shire Unit		
Stratigraphic position 45 meters below Green River Formation	4	3 2 2 7
Sediment description	1000	11-11-
Depositional environment		
Fossils sampled Hyopsodus, Palaeictops matthewi		
Fossils remaining		
Scientific significance and disposition of material FMNH	11112	

LOCALITY NUMBER:	
NAME:	
PREVIOUS NUMBER(S): 147-41 (FMNH)	
LUCATION:	
State:ColoradoCounty:Garfield	
Township: Range:	
1/41/4 NW 1/4, section 26	
1/41/41/4, section	
USGS Quadrangle Anvil Points	**
1952 , 7.5 min.	
UTM; mE, mN	
LANDOWNER Bureau of Land Management (Naval Oil	
Shale Reserve)	
ACCESS	
DESCRIPTION Fra <u>Cenozoic</u> System <u>Tertiary</u> Fo	rmation <u>Wasatch</u>
Member Shire Unit	740 1 401
Stratigraphic position 96 meters below Green River Formation	17,711916
Sediment description	and the state of t
	1
Depositional anvironment	
ossils ampled Lambdotherium, Bunophorus	
	1
ossils remaining icientific significance ind disposition of laterial FMNH	

LOCALITY NUMBER:		
NAME:		
PREVIOUS NUMBER(S): 164-41 (FMNH)		
LOCATION:		
State: Colorado County: Garfield		
Township: 6S Range: 95W		-
1/41/4 NE 1/4, section 26		
1/41/41/4, section		0.5
USGS Quadrangle Anvil Points		
1952 , 7.5 min.		
UTM;m E,m N		
LANDOWNER Bureau of Land Management (Naval Oil		
Shale Reserve)		
ACCESS		
-1		
DESCRIPTION		
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation	Wasatch
Member Shire Unit		3
Stratigraphic position 105 meters below Green River Formation		
Sediment description		
Depositional environment		
Fossils Sampled Hyopsodus, Hyracotherium		
Fossils remaining		
Scientific significance and disposition of material FMNH		
-212-		

APPENDIX D

Fossil localities within the study area determined prior to the field survey

The following locality sheets contain all available information on the localities of fossil vertebrates and/or invertebrates determined by other investigations prior to the field survey completed for this report.

LOCALITY NUMBER: ET 1-1	
ENGLIT MONBER. ET 1-1	100/1000
NAME:	7945 18
PREVIOUS NUMBER(S): _JUM 8215 (Field #)	
LOCATION:	TO WASHINGTON
State: Colorado County: Rio Blanco	
Township: 2S Range: 98W	
SE 1/4 SE 1/4 SW 1/4, section	5656
1/41/41/4, section	The Spring L
USGS Quadrangle Yankee Gulch, Colorado	
UTM 12 ; 719420 m E, 4416360 m N	
LANDOWNER Bureau of Land Management	
ACCESS _via road that runs NE up Ryan Gulch and	
then by foot NW	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Forma	tion Green River
Member Black Sulphur Gulch Unit	
Stratigraphic positionapproximately 20 feet below top of member	+4-2-211-14
Sediment	
description <u>light-colored</u> , weathered and platy shale	
·	
Depositional environment lacustrine	
Fossils sampled plant megafossils (leaves)	
Fossils remaining <u>numerous</u>	
Scientific significance and disposition of material 5	4

LOCALITY NUMBER: ET 2-1	
NAME:	AREA REAL
PREVIOUS NUMBER(S): JUM 8217 (Field #)	1171-191-1014-1111
LOCATION:	24.1/1/2-1
State: Colorado County: Rio Blanco)/ \// (3-3)
Township: 1N Range: 96W	
NE 1/4 NW 1/4 NW 1/4, section 30	SH 7/2/11/17/4/1 / 7/11/2
1/41/41/4, section	
USGS Quadrangle White River City, Colorado	
, 7.5	
UTM_12 ; _738000 m E, _4434620 m N	
LANDOWNER Bureau of Land Management	
ACCESS East on Dry Fork Road and then by foot to	
north	G)
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Green River
Member Yellow Creek Tongue Unit	Vertical Agents and the
Stratigraphic position west-facing slope approximately 20 feet fr	om top of ridge
Sediment description light grayish-green silty calcareous shale	bioturbated with worm burrow
Depositional environment lacustrine	
Fossils sampled abundant insect larvae and several adult insect	ts
Fossils remaining insect larvae	THE STATE OF THE S
Scientific significance and disposition of material 4	
-216-	

LOCALITY NUMBER: ET 2-2)/ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
NAME:	// (/ / / / / / / / / / / / / / / / /
PREVIOUS NUMBER(S): JUM 8218 (Field #)	717: 1436
LOCATION:	(Cam) PT
State: Colorado County: Rio Blanco	141.51
Township: 1N Range: 97W	3-50
NE 1/4 NE 1/4 SE 1/4, section 25	27 212
1/4 1/4 1/4, section	1. [] []
USGS Quadrangle White River City, Colorado	
, 7.5 min.	
UTM 12 ; 737500 m E, 4434000 m N	
LANDOWNER Bureau of Land Management	
The second secon	
ACCESS _East on Dry Fork Road and north on foot	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Format	ion Green River
Member Yellow Creek Tongue Unit (Yellow Creek appare	ntly manned as Hintal
Stratigraphic	
position At base of west face of gully for approximately! Sediment description light gray-green shale (silty) (calcareous?); biod	20 feet below Uinta
the second control of the second philosophics	
Depositional environment lacustrine	
Fossils . sampled insect larvae	
Fossils remaining insect larvae	
Scientific significance and disposition of material 4	

SITE FORM LOCALITY NUMBER: ET 2-3 NAME : PREVIOUS NUMBER(S): ET-2-A (Field #) LOCATION: State: Colorado County: Rio Blanco Township: 1N Range: 96W SE 1/4 NW 1/4 NW 1/4, section 30 ____ 1/4 ____ 1/4 ____ 1/4, section ____ USGS Quadrangle White River City, Colorado , 7.5 min. UTM 12 _____; 737840 m E, 4434580 m N LANDOWNER Bureau of Land Management ACCESS East on Dry Fork Road and north on foot DESCRIPTION Era <u>Cenozoic</u> System <u>Tertiary</u> Formation Green River Member Yellow Creek Tongue Unit Stratigraphic position 30 feet above arroyo bottom immediately below fine- to medium-grain well-indurated sand body that is 15 feet thick, on east facing slope; sand is only sand body exposed on slope and extends about .25 mile - site is 20 feet from northern Sediment end of sand description irregularly bedded and thinly-laminated shale Depositional environment lacustrine Fossils sampled insect and leaf fragments

plete specimens per man hour Scientific significance

and disposition of material

remaining several hours of splitting shale would prohably produce about three com-

LOCALITY NUMBER: ET 2-	4	11(. 5 . 11) " > 0
NAME:		21 24
PREVIOUS NUMBER(S):		2-8
LOCATION:		1/1/1/1/1/
State: Colorado	County: Rio Blanco	1/4/201
Township: 1N		- Can 1
	1/4, section 25	1244111 5
1/4 1/4	1/4, section	7) / ~ ~ / 6
USGS Quadrangle White Ri	ver City, Colorado	
,	7.5 min.	
	70 m E, 4434670 m N	
LANDOWNER Bureau of Lan	d Management	
ACCESS East on Dry Fork	Road and north on foot	
3		
DESCRIPTION		
Era Cenozoic	System <u>Tertiary</u> Fo	rmation Green River
	Unit	
Stratigraphic		
	base of gully, unmapped tongue o	f Green River Formation
Sediment description platy, gray-	green shale - irregular bedding	+ 555 , 15, 3
	18 (4) W 1	14 14 15
Depositional environment lacustrine	A	
Fossils sampled insect larvae ar	nd plant fragments	-1
Fossils remaining <u>probable - qu</u> a		
Scientific significance and disposition of material 4		
	210	

LOCALITY NUMBER: ET 2-5	1/1/1/5/11
NAME:	
PREVIOUS NUMBER(S): ET 2-TL (TRL) (Field #)	
LOCATION:	1.26.17
State: Colorado County: Rio B	stanco / // // 6-5
Township: 1N Range: 97W	T5 2 1 N . 7]
SW 1/4 SE 1/4 SE 1/4, section 25	777
1/4 1/4 1/4, section	
USGS Quadrangle White River City, Colorado	
, 7.5 min	
UTM 12 ; 737400 m E, 4433350 m	N
LANDOWNER Bureau of Land Management	
ACCESS East on Dry Fork Road, north on foot up ma	ain
gulch	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Uinta (3&4?)
MemberUnit	
Stratigraphic position Locality beneath a 2 foot-thick, well	-cemeneted sandstone ledge which
underlies a 15 foot-thick section of reddish-brown	
Sediment description Conglomerate with sandstone boulders a	
Depositional environment fluvial-marginal lacustrine	tint
Fossils sampled <u>turtle and crocodilian bone fragments and</u>	crocodilian teeth
Fossils remaining more of the same visible and certainly	
Scientific significance and disposition of material 2	
-220-	

LOCALITY NUMBER: _ET 2-6	
NAME:	0 2 1/2/2
PREVIOUS NUMBER(S): TRL-2-3 (Field #)	2-13 4 2-15
LOCATION:	2-12- 1 12-16
State: Colorado County: Rio Blanco	2-17. 1 1.2-7
Township: 1N Range: 97W	2-18 2-6
SE 1/4 SE 1/4 NE 1/4, section 26	2-10
1/41/41/4, section	16.2
USGS Quadrangle White River City, Colorado	
, 7.5 min.	
UTM 12 ; 73600 m E, 4433500 m N	
LANDOWNER Bureau of Land Management	
The second of th	
ACCESS from Piceance Creek road NE on foot	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Forma	tion Uinta
Member Uinta 3 and 4 (?) Unit	
Stratigraphic . positionUinta 3 and 4 (?)	The state of the s
Sediment description Specimens from float. Probably out of gray clays	stone exposure which
grades up into a medium-grained sandstone of buff color with a	an orange tint Expo-
Depositional sure a environment fluvial	bout five-feet-thick.
Fossils . Sampled unidentifiable bone fragments and a single fragment	of a mammalian tooth
Fossils remaining unknown; no other material found	S. S. Manimal I all COOLS
Scientific significance and disposition of	
Scientific significance	

LOCALITY NUMBER: ET 2-7	1 1 2 1
MAME:	-\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\
PREVIOUS NUMBER(S): _GWS-2 (Field #)	2-14
LOCATION:	2/2/5
State: Colorado County: Rio Blanco	2-12-16
Township: 1N Range: 97W	2-18 2-6
NW 1/4 SW 1/4 SW 1/4, section 25	2-11
1/41/41/4, section	2-10
USGS Quadrangle White River City, Colorado	
, 7.5 min.	
UTM 12 ; 736050 m E, 4433550 m N	
LANDOWNER Bureau of Land Management	
ACCESS NE on foot from Piceance Creek road	
DESCRIPTION	
Era <u>Cenozoic</u> System Tertiary	ormation Uinta
Member Uinta 3 and 4 (?) Unit	
Stratigraphic position approximately midway up bluff; Uinta 3 and	4 (consolidated?)
Sediment description <u>ledge of red-weathering, medium-grained, mo</u>	derately-sorted sandstone
with numerous clay rip-up clasts	Secret A
Depositional environment <u>fluvial-marginal lacustrine</u>	The second secon
Fossils Sampled <u>numerous turritellid</u> -like gastropods and plant	impressions
Fossils remaining several small, unidentifiable bone fragments	
Scientific significance and disposition of material 3	Tayota for the
222_	

LOCALITY NUMBER: ET 2-8			
NAME:		being a management	
PREVIOUS NUMBER(S): _JUM 82	10 (Field #)		161
LOCATION:		2-9-	7 2-8.
State:Colorado	County: Rio Blan	nco-Cor	2 1A 1/
Township: 1N	Range: 97W	2-16	117 6-7
NE 1/4 SE 1/4 NW 1	/4, section <u>25</u>	2 12/1	18 -1/
1/4 1/4 1	/4, section	- -	
USGS Quadrangle White River	City, Colorado		
	min.		
UTM 12 ; 736760	m E, 4434430 m N		
LANDOWNER Bureau of Land M	anagement		
ACCESS NE on foot from Pic	eance Creek road		
DESCRIPTION			
Era Cenozoic S	ystem Tertiary	Formatio	n Uinta
Member	Unit		
Stratigraphic position in west-facing	slope of gulch about 10	feet below	top of ridge
Sediment description conglomeratic se	andstone lens approximate	ely 5-inches	-thick containing
pebbles and clay rip-up clas	ts		
Depositional environment fluvial		3	3-1-8
Fossils sampled turtle shell fragm	ents		
Fossils remaining much vertebrate r	material, mostly turtle		
Scientific significance and disposition of material 3			
	-223-		

SITE FORM	23 1 // ?) }
LOCALITY NUMBER: ET 2-9	dish of the
NAME:	10-1
PREVIOUS NUMBER(S): _JUM 8220 (Field #)	Com
LOCATION:	73/2 N
State: Colorado County: Rio Blanco	50
Township: 1N Range: 97W	7 6.3
NE 1/4 SE 1/4 NE 1/4, section 26	- Contracting
1/4 1/4 1/4, section	, 2-14
USGS Quadrangle White River City, Colorado	
UTM 12 ; 735760 m E, 4434580 m N	
LANDOWNER Bureau of Land Management	
ACCESS NE on foot from Piceance Creek road DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> F	ormation Uinta
MemberUnit	· · · · · · · · · · · · · · · · · · ·
Stratigraphic positionon SE facing slope in sandstone above "Uint.	a paper shale"
Sediment description in massive, fine-grained, buff-colored sands	tone with lenses of indur-
ated dark brown sandstone	
Depositional environment fluvial	
Fossils Sampled proximal end of femur of a large mammal	
Fossils remaining unknown	.2
Scientific significance and disposition of material 3	91
-224-	

LOCALITY NUMBER: ET 2-10	4/34
NAME:	.2
PREVIOUS NUMBER(S): GWS-4 (Field #)	2-12
LOCATION:	2-18
State: Colorado County: Rio Bla	anco
Township: 1 N Range: 97 W	2-10
NW 1/4 NW 1/4 NE 1/4, section 35	56, 000
1/4 1/4 1/4, section	1
USGS Quadrangle White River City, Colorado	
, 7.5 min.	
UTM 12 ; 735210 m E, 4433300 m N	
LANDOWNER Bureau of Land Management	
ACCESS East on foot from Piceance Creek road	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Uinta
Member (Uinta 3 and 4 consolidated?) Unit	7 - 1
Stratigraphic position Rase of SW-facing vertical face near to	op of bluff
Sediment description light tan, fine-grained, well-sorted and	d massive sandstone
(few structures - some horizontal laminae, nodules;	very clean)
Depositional environment marginal lacustine (deltaic)	
Fossils sampled isolated mammalian glenoid fossa of scapula	a (?)
Fossils remaining none	
Scientific significance and disposition of material 3	
. 32E	

SITE FORM	2-14
LOCALITY NUMBER: ET 2-11	2-13 - 2-15
NAME:	2712
PREVIOUS NUMBER(S): _TRL-4 (Field #)	2-17.0 10-2-7
LOCATION:	2-18 2-6
State: Colorado County: Rio Blanco	2-10
Township: 1 N Range: 97 W	
NE 1/4 SE 1/4 SE 1/4, section 26	12
1/4 1/4 1/4, section	4
USGS Quadrangle White River City, Colorado	9.7
, 7.5 min.	
UTM 12 ; 735790 m E, 4433530 m N	
LANDOWNER Bureau of Land Management	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Uinta
Member 3 and 4 (?) Unit	
Stratigraphic	
positionabout 1/2-way up slope on SE facing exposur	re of massive sandstone
Sediment description dark-colored, well-cemented conglomerate with	th pebbles and
common bone scrap in a fine-grained sandstone	
Depositional Fluvial-marginal lacustine	
Fossils sampled unidentifiable bone scrap and fragments of cro	codilian teeth
Fossils remaining one large crocodilian tooth visible in matrix	x; also, more bone scrap
Scientific significance and disposition of material 2	
-226-	

SITE FORM LOCALITY NUMBER: ET 2-12 NAME: PREVIOUS NUMBER(S): JUM 8221 (Field #) LOCATION: State: Colorado County: Rio Blanco Township: 1 N Range: 97 W 2-10 NW 1/4 SE 1/4 SE 1/4, section 26 _____1/4 _____1/4 _____1/4, section ____ USGS Quadrangle White River City, Colorado , 7.5 _____ min. UTM 12 ; 735790 m E, 4433600 m N LANDOWNER Bureau of Land Management ACCESS on foot east from Piceance Creek road DESCRIPTION ' Era <u>Cenozoic</u> System <u>Tertiary</u> Formation Uinta Unit Stratigraphic position above Uinta "paper shale" description soft, friable, buff-colored sandstone Depositional environment fluvial Fossils sampled bone fragments

Scientific significance and disposition of material 3

remaining possible vertebra of a mammal

Fossils

-227-

LOCALITY NUMBER: ET 2-13	
NAME:	
PREVIOUS NUMBER(S): _ JUM 8222 (Field #)	2-14
LOCATION:	2-12-1/2
State: Colorado County: Rio Blanco	2-17-110
Township: 1 N Range: 97 W	2-18 2-6
NE 1/4 SE 1/4 SE 1/4, section 26	. 2-11
1/4 1/4 1/4, section	
USGS Quadrangle White River City, Colorado	
UTM 12 ; 735900 n E, 4433540 m N	
LANDOWNER Bureau of Land Management	
ACCESS on foot east from Piceance Creek road	
	21
DESCRIPTION	
Era Cenozoic System Tertiary	FormationUinta
MemberUnit	
Stratigraphic position just below "paper shale of Uinta"	#21 47 47 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Sediment description chocolate-brown, conglomeratic sandstone	
Nepositional environment fluvial	
Fossils sampled none	
Fossils remaining Turritella-like shells of gastropods	
Scientific significance and disposition of material 2	

-228-

2-9
2-14 2-13 2-15 2-12 2-15 2-17 10-2-1
2-18 2-6 2-11
Uinta
1 1 1

LOCALITY NUMBER: ET 2-14				. 0
NAME:				
PREVIOUS NUMBER(S): JUM 822:	3 (Field #)		/	2-14
LOCATION:				,2-13-12-
State: Colorado	County: Rio B1	anco	. 2	712
Township: 1 N			2-19	2-6
NE 1/4 SE 1/4 SE 1/4	, section 26		2 10	2-11
1/4 1/4 1/4				
USGS Quadrangle White River C		× 1		
, 7.5	min.			
UTM 12 ; 735950	_m E, _4433600 _m N			
LANDOWNER Bureau of Land Man	agement			
ACCESS E on foot from Picean	ce Creek road			
DESCRIPTION				
Era Cenozoic Sys	tem Tertiary	_ Format	ion Ui	nta
Member				- 50 17
Stratigraphic position just below "paper	r shales of Uinta"	to .		1 111
Sediment description soft, brown and ma	assive sandstone			* 1 * 1
4			-	
Depositional environment fluvial			- 37	
Fossils sampled turtle shell fragment	s		-	
Fossils remaining turtle shell fragme	nts and bone			., 1
Scientific significance and disposition of material 2				1.1.
2	-229-			

LOCALITY NUMBER: ET 2-15	
NAME:	
PREVIOUS NUMBER(S): _ JUM 8224 (Field #)	2-14
LOCATION:	.2-1342-15
State: Colorado County: Rio Blanco	2712
Township: 1 N Range: 97 W	2-18 2-6
NE 1/4 SE 1/4 SE 1/4, section 26	2-11
1/41/41/4, section	
USGS Quadrangle White River City, Colorado	
, 7.5min.	
UTM_12 ; 735960 m E, 4433650 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from Piceance Creek road	
DESCRIPTION	
	ormation <u>Uinta</u>
Member Unit	
Stratigraphic position just below paper shales in sandstone	9-4-1-4-
Sediment description crossbedded sandstone; (there is a conglomen	ate with pebbles and bone)
fragments	
Depositional environment fluvial	
Fossils sampled turtle shell	
Fossils remaining turtle shell and bone fragments	2
Scientific significance and disposition of material 2	
-230	

LOCALITY NUMBER: E	T 2-16	t t i will
NAME .		2-14
	E2-2B (Field #)	一一 (2-13分割
LOCATION:		2712 1 2
State:Colorado	County: Rio Blanc	2-17-11-2
T	Range: 97 W	2-18 2-6
	SW 1/4, section 25	2-16
1/4 1/4	1/4, section	-17 CAN
USGS Quadrangle White	e River City, Colorado	
	, 7.5 min.	
	736010 m E, 4433610 m N	
	Land Management	
-		
ACCESS E on foot fro	m Piceance Creek road	
DESCRIPTION		`
Era` Cenozoic	System Tertiary	_
Member	Unit	Formation <u>Uinta</u>
Stratigraphic ·		
positionjust belo	ow paper shale and just above well	-indurated conglomerate;
15 feet above arroyo bo	ottom	The state of the state of
Sediment description desk brown		19 15 120
well-indurated conglore	sandstone weathering on gentle s	
Depositional	erate .	The state of the state of
environment marginal	lacustrine	
Fossils sampled fish, mammal,		*
Fossils	mammal, and turtle	
Scientific significance and disposition of		
material 2		
	221	

LOCALITY NUMBER: ET 2-17	
NAME:	2-14
PREVIOUS NUMBER(S):	2-13 2
LOCATION:	2712
State: Colorado County: Rio	Blanco
Township: 1 N Range: 97 W	2-11
NW 1/4 SE 1/4 SE 1/4, section 26	2-10
1/41/41/4, section	
USGS Quadrangle White River City, Colorado	
	in.
UTM 12 ; 735780 m E, 4433480 r	m N
LANDOWNER Bureau of Land Management	
ACCESS take Dry Fork road to pipeline road cuto	ff,
go N past small lake and through gate, climb fire	st_
vally past gate	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Uinta
Member Unit	
Stratigraphic position below "Uinta paper shale", less that	an 1 meter below ET 2-11
Sediment description <u>highly-weathered</u> , friable buff silt	y sand below highly cemented sand-
stone conglomerate ledge	
Depositional environment marginal lacustrine to deltaic	1 10 1
Fossils sampled (?) crocodilian scapula	
Fossils remaining none	1/3
Scientific significance and disposition of material 3	
-232-	and a second of

NAME: PREVIOUS NUMBER(S): LOCATION: State: Colorado County: Rio Blanco Township: 1 N Range: 97 W SE 1/4 SW 1/4 SE 1/4, section 26 1/4 1/4 1/4, section USGS Quadrangle White River City, Colorado 7.5 min. UTM 12; 735580 m E, 4433400 m N LANDOWNER Bureau of Land Management ACCESS same as ET 2-17 DESCRIPTION Era Cenozoic System Tertiary Formation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils Sampled insect larvae	11:00
PREVIOUS NUMBER(S): LOCATION: State: Colorado County: Rio Blanco Township: 1 N Range: 97 W SE 1/4 SN 1/4 SE 1/4, section 26 1/4 1/4 1/4, section USGS Quadrangle White River City, Colorado 7.5 min. UTM 12; 735580 m E, 4433400 m N LANDOWNER Bureau of Land Management ACCESS same as ET 2-17 DESCRIPTION Era Cenozoic System Tertiary Formation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin	1000
LOCATION: State: Colorado County: Rio Blanco Township: 1 N Range: 97 W SE 1/4 SW 1/4 SE 1/4, section 26 1/4 1/4 1/4, section USGS Quadrangle White River City, Colorado 7.5 min. UTM 12; 735580 m E, 4433400 m N LANDOWNER Bureau of Land Management ACCESS same as ET 2-17 DESCRIPTION Era Cenozoic System Tertiary Formation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	2-1343
Township: 1 N Range: 97 W SE 1/4 SM 1/4 SE 1/4, section 26 1/4 1/4 1/4, section USGS Quadrangle White River City, Colorado 7.5 min. UTM 12; 735580 m E, 4433400 m N LANDOWNER Bureau of Land Management ACCESS same as ET 2-17 DESCRIPTION Era Cenozoic System Tertiary Fornation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	2-12-11
Township: 1 N Range: 97 W SE 1/4 SM 1/4 SE 1/4, section 26 1/4 1/4 1/4, section USGS Quadrangle White River City, Colorado 7.5 min. UTM 12; 735580 m E, 4433400 m N LANDOWNER Bureau of Land Management ACCESS same as ET 2-17 DESCRIPTION Era Cenozoic System Tertiary Fornation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	3247
SE 1/4 SW 1/4 SE 1/4, section 26 1/4 1/4 1/4, section USGS Quadrangle White River City, Colorado 7.5 min. UTM 12; 735580 m E, 4433400 m N LANDOWNER Bureau of Land Management ACCESS same as ET 2-17 DESCRIPTION Era Cenozoic System Tertiary Formation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	2-18 2-
USGS Quadrangle White River City, Colorado	2-10
USGS Quadrangle White River City, Colorado	()
UTM 12 ; 735580 m E, 4433400 m N LANDOWNER Bureau of Land Management ACCESS same as ET 2-17 DESCRIPTION Era Cenozoic System Tertiary Formation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	
LANDOWNER Bureau of Land Management ACCESS same as ET 2-17 DESCRIPTION Era Cenozoic System Tertiary Formation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	
ACCESS same as ET 2-17 DESCRIPTION Era Cenozoic System Tertiary Formation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	
ACCESS same as ET 2-17 DESCRIPTION Era Cenozoic System Tertiary Formation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	
DESCRIPTION Era Cenozoic System Tertiary Formation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	
DESCRIPTION Era Cenozoic System Tertiary Formation Member Unit Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	
MemberUnit Stratigraphic positionin "Uinta paper shale" Sediment descriptionlight-gray paper shale with organic material in lamin Depositional	
MemberUnit Stratigraphic positionin "Uinta paper shale" Sediment descriptionlight-gray paper shale with organic material in lamin Depositional	04-4-
Stratigraphic position in "Uinta paper shale" Sediment description light-gray paper shale with organic material in lamin Depositional environment lacustrine Fossils sampled insect larvae	UTITE
Sediment description light-gray paper shale with organic material in lamin Depositional anvironment lacustrine Fossils sampled insect larvae	
Depositional environment lacustrine Fossils sampled insect larvae	
environment <u>lacustrine</u> Fossils Sampled insect larvae	ation interstice
environment <u>lacustrine</u> Fossils Sampled insect larvae	W V I SELECTION
sampled insect larvae	
ossils	
remainingmore of the same	
scientific significance and disposition of material 4	

SITE FORM	2-16
LOCALITY NUMBER: ET 2-19	109/102-7/
NAME:	2-1115
PREVIOUS NUMBER(S): _JUM 8227 (Field #)	6490
LOCATION:	-3 5/3/19
State: Colorado County: Rio Blanco	2-20
Township: 1 N Range: 97 W	711/1/
NW 1/4 SW 1/4 NW 1/4, section 36	1 V
1/41/41/4, section	
USGS Quadrangle White River City, Colorado	
, 7.5 min.	
UTM 12 ; 736180 m E, 4432820 m N	
LANDOWNER Bureau of Land Management	at ag
Bureau of Early Management	
ACCECC 5 N 5	
ACCESS on foot N from road up Dry Fork of	*
Piceance Creek	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Uinta
Member Unit	
Stratigraphic opsition above Dry Fork Shale	
Sediment	1
description medium-grained, buff to orange, massive san	dstone that forms ledges
Depositional environment fluvial	
Fossils Sampled turtle bone	
ossils remaining none	
Scientific significance	AND A COURT PART
and disposition of material 4	17 A 1 A 1
-234-	

SITE FORM	X1.62-16 - 5-19
LOCALITY NUMBER: ET 2-20	9/1/2-7/
NAME:	12-6
PREVIOUS NUMBER(S): _JUM 8228 (Field #)	
LOCATION:	T - 7 (-2-19)
State: Colorado County: Rio Blanco	2-20
Township: 1 N Range: 97 W	T 5, V/ 10/ 35/
NW 1/4 SW 1/4 NW 1/4, section 36	
1/41/41/4, section	
USGS Quadrangle White River City, Colorado	100
, 7.5 min.	
UTM 12 ; 736100 m E, 4432650 m N	
LANDOWNER Bureau of Land Management	
ACCESS on foot N from road up Dry Fork of	
Piceance Creek	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> For	rmation Uinta
Member Unit	
Stratigraphic position above Dry Fork shale	48 4 2 2 2 2 3
Sediment Sediment	
description buff to orange colored conglomeratic (pebbles,	clay-clasts)
sandstone that forms ledges .	
Depositional environment fluvial	7 7 7
Fossils sampled <u>turtle shell fragments; silicified fossil wood wit</u>	h distinctive growth rings
Fossils remaining wood and probably more bone fragments	
Scientific significance and disposition of material 4	
-235-	-

- SILE FURM	7 10-13-3-5/10-3-5-5
LOCALITY NUMBER: ET 3-1	
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 1N Range: 97W	
NW 1/4 NW 1/4 NW 1/4, section 19	STANKE STA
1/4 1/4 1/4, section	\$ (WIN \$ 1211
USGS Quadrangle Barcus Creek SE, Colorado ,	
UTi4 12 ; 728000 m E, 4436020 m N	
LANDOWNER Bureau of Land Management	
ACCESS N on foot from dirt road up tributary of	
Yellow Creek opposite Pinto Gulch	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> F	ormationUinta
Member Evacuation Creek Unit 4 (?)	
Stratigraphic positionlower third of Tgem	t of difference
Sediment	
description dark brown sandstone nodule	19.4
Depositional	
environment <u>fluvial</u>	, , , , , , , , , , , , , , , , , , , ,
Fossils Sampled <u>one turtle shell fragment</u>	
Fossils remaining <u>specimen not collected</u>	
Scientific significance	
. 4	
-236-	

LOCALITY NUMBER: ET 3-2	
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	STICE S
State: Colorado County: Rio Blanco	
Township: _1N Range: 97W	
SE 1/4 NW 1/4 NW 1/4, section 19	**到从罗庆OY
1/4 1/4 1/4, section	
USGS Quadrangle Barcus Creek SE	
Colorado , 7.5 min.	
UTM 12 ; 728200 m E, 4435970 m N	
LANDOWNER Bureau of Land Management	
ACCESS at north side of dirt road up tributary	
_of Yellow Creek opposite Pinto Gulch	
DESCRIPTION	
Era Cenozoic System Tertiary	FormationUinta
Member Evacuation Creek Unit 4 (?)	10 1 · 4 1 1 1 1 1 1 1 1
Stratigraphic . positionlower third of Tgem	
Sediment description intraformational pebble conglomerate	17.00
Depositional environment fluvial	
Fossils sampled none	
Fossils remaining turtle propodial and shell fragments	
Scientific significance and disposition of	
material 1	
-237-	

LOCALITY NUMBER: ET 3-3	
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	
State:ColoradoCounty:Rio Blanco	
Township: 1 N Range: 97 W	
NE 1/4 NE 1/4 NW 1/4, section 19	
1/41/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	
UTM_12 ; 728650 m E, 4436100 m N	
LANDOWNER Bureau of Land Management	
,	
ACCESS N on foot from dirt road up tributary of	
Yellow Creek opposite Pinto Gulch	
DESCRIPTION	
EraCenozoic SystemTertiary	ormation Uinta
Member Fyacuation Creek Unit 4 (2)	1, 25x - 215 x
Stratigraphic position approximately 140 feet below Tgem	attoriging the
Sediment description <u>tan and coarse sandstone</u>	
	4
Depositional environment fluvial	
Fossils sampled two crocodilian scute fragments	4 4 4
Fossils remaining none	0 × 1 ± 1 5
Scientific significance and disposition of material 3	9,11
-238-	

LOCALITY NUMBER: ET 3-4	
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 1 N Range: 97 W	
SW 1/4 NE 1/4 NE 1/4, section 19	1.4.10.319
1/4 1/4 1/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
UTM 12 ; 729200 m E, 4435800 m N	
LANDOWNER Bureau of Land Management	
ACCESS SE on foot form dirt road up tributary of	
Yellow Creek opposite Pinto Gulch	
DESCRIPTION	
Era Cenozoic System Tertiary Form	ation Uinta
Member Evacuation Creek Unit 4 (?)	
Stratigraphic position top of brown sandstone, 3 meters below "Thirte	en Mile Creek Member of
Green River Formation"	
Sediment description brown, medium to coarse sandstone (fragments occ	ur throughout sand-
stone sequence)	1
Depositional environment fluvial	
Fossils sampledturtle_bone_fragments and one_gastropod	
Fossils remaining some turtle bone fragments	1
Scientific significance and disposition of material 3	
-239-	

LOCALITY NUMBER: ET 3-5	10112
NAME:	1 3 5 7
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 1 N Range: 97 W	
NE 1/4 SW 1/4 NW 1/4, section 20	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1/41/41/4, section	A.M. W.
USGS Quadrangle Barcus Creek SE, Colorado	10.00 PM
, 7.5 min.	A-1101-W- 1 A-1100-T-1
UTM 12 ; 729900 m E, 4435700 m N	
LANDOWNER Bureau of Land Management	
ACCESS W on foot from dirt road in section 20	
T1N R97W	
DESCRIPTION	1 7
Era Cenozoic System Tertiary	Formation Green River
Member Thirteen Mile Creek Unit	
Stratigraphic position upper third of Thirteen Mile Creek Tongue,	10 meters below stromatolit
layer	Train sent to Sing or Si
Sediment description white-gray sandstone	50 Sec. 2
	and the second s
Depositional environment fluvial	1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Fossils sampled turtle shell fragments	
Fossils remaining remainder of turtle carapace	O style to the second
Scientific significance and disposition of material 1	
-240-	

LOCALITY NUMBER: ET 3-6		
. NAME:		
LOCATION:		
State: Colorado	County: _ Rio Blanco	
Township: 1 N	Range: 97 W	
SE 1/4 SE 1/4 NW	1/4, section 18	
SW 1/4 SE 1/4 NV	1/4, section 18	22557 3140
USGS Quadrangle Barcus Cr	reek SE, Colorado	8
	.5 min.	
UTM 12 ; 72860		
LANDOWNER Bureau of Land	Management	
ACCESS S on foot from un	mapped road on ridge in	
Section 18 TIN R97W		10 10 11 17
DESCRIPTION		
Era Cenozoic	System Tertiary Fo	ormation Uinta
Member Evacuation Creek		1 10/2 1 11
Stratigraphic position 20 meters be	low Tgeu	
Sediment description brown to tan,	medium sandstone with pebble co	nglomerate
Depositional environment fluvial	en e	
Fossils sampled possible crocodi	lian basicranium, turtle shell (trionychid), bone frag-
ments and crocodilian toot	h -	• .
Fossils remaining nearly complet	e turtle and many bone fragments	
Scientific significance and disposition of material 1		
	241	

LOCALITY NUMBER: ET 3-7	
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 1 N Range: 97 W	
NE 1/4 NW 1/4 SE 1/4, section 18	S. S. AVJ. A. C.
1/4 1/4 1/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	
UTM_12 ; 729020 m E, 4436900 m N	
LANDOWNER Bureau of Land Management	
ACCESS S on foot from unmapped road on ridge in	
Section 18 TIN R97W	
DESCRIPTION	
Era Cenozoic System Tertiary	FormationUinta
Member Evacuation Creek Unit "upper"	
Stratigraphic position15m below Tgeu	
Sediment description bedded, medium-grained, well-sorted, gray-	white to brown sandstone
Depositional environment fluvial	
Fossils sampled <u>one gastropod</u> .	827
Fossils remaining none	***
Scientific significance and disposition of material 4	
-242-	

LOCALITY NUMBER: ET 3-8	
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Bland	
Township: 1 N Range: 98 W	
NE 1/4 NE 1/4 NE 1/4, section 13	Nashbaga
1/41/41/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	
UTM 12 ; 727950 m E, 4437620 m N	
LANDOWNER Bureau of Land Management	
ACCESS on foot E from road up Yellow Creek	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Eastern William
Member Unitupper"	rormation Uinta
Stratigraphic	
position 45m below Tgeu	a constant
Sediment description yellowish to brown, fine- to medium-graine	
pebble conglomerate	ed Sandstone with some
Depositional	
environment fluvial	1 1 1 1 1 1 1
Fossils sampled none	10.00
Fossils remaining bone fragments	19.49
Scientific significance and disposition of material 4	1 1 2
-243-	

LOCALITY NUMBER: ET 3-9	ESSE SABATANTANA
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 1 N Range: 98 W	
NE 1/4 NE 1/4 NE 1/4, section 13	- 1000年上、 2000年
1/4 1/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	
UTM 12 ; 727800 m E, 4437700 m N	
LANDOWNER Bureau of Land Management	
- cana ranagement	
ACCESS on foot E from road up Yellow Creek	
aw soci E from road up fellow Creek	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Form	
Member Unit	mation <u>Uinta</u>
Stratiuraphic	2 2 2 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
position 25 meters above Tgel; appproximately the same	level as ET 3-8
Sediment	
description medium-grained gray to tan sandstone just above	pebble conglomerate
Depositional	an marking them
environment fluvial	
ossils campled possible crocodilian vertebra	
ossils emaining bone fragments	A second
cientific significance nd disposition of aterial 4	
-244-	

LOCALITY NUMBER: ET 3-10	一个 地位的经济经验
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 1 N Range: 98 W	7. 人人工 "不会会是是"
NW 1/4 NE 1/4 NE 1/4, section 13	
1/4 1/4 1/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	
UTM 12 ; 727600 m E, 4437800 m N	
LANDOWNER Bureau of Land Management	
No a contract to the contract of	
ACCESS on foot E from road up Yellow Creek	
the other in a finding of the second	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Form	ation Uinta
Member Unit	
Stratigraphic position just aboe Tgel	
Sediment description tan sandstone just above pebble conglomerate	
The state of the s	
Depositional environment fluvial	
Fossils Sampled <u>none</u>	
Fossils remaining reptile bone fragments and petrified wood	
Scientific significance and disposition of material 4	
-245-	,

LOCALITY NUMBER: ET 3-11	
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Blanco	SALVE ST
Township: 1N Range: 98W	
NE 1/4 SE 1/4 NE 1/4, section 24	- 5. A. S. O. S.
1/41/41/4, section	⇒CTVスツッン(1.2/4)
USGS Quadrangle Barcus Creek SE, Colorado	
UTM 12 ; 727750 m E, 4435700 m N	
LANDOINER Bureau of Land Management	
ACCESS _east on foot from road up Yellow Creek	
DESCRIPTION	
Era Cenozoic System Tertiary Fo Member	rmation <u>Uinta</u>
Member UnitUnit	
position 10 meters above Tgel	
Sediment description dark-red pebble conglomerate	
Depositional environment fluvial	
Fossils Sampled none	
Fossils remaining miscellaneous reptile bone fragments and petrif	ied wood
Scientific significance and disposition of material 4	
-246-	

	SITE FORM		M THE SHIN
LOCALITY NUMBER: ET 3-1	2		TEN SALL
PREVIOUS NUMBER(S):			
LOCATION:			
State: Colorado	County: Rio	Blanco.	
Township: 1N	Range: 98W		
NE 1/4 SE 1/4 SE	1/4, section _24		でいる。
1/41/4	1/4, section		
ISGS Quadrangle Barcus Cr	reek SE, Colorado	_	
, <u></u> ,	.5 mi	n.	
TM 12 ; 72780	0 m E, 4434800 m	N	
ANDOWNER Bureau of Land	Management	_	
CCESS east on foot from	road up Yellow Creek		
•			
ESCRIPTION			
ra Cenozoic	SystemTertiary	Format	ion Uinta
embe r			
tratigraphic			
osition 10-15 meters	above Tgel		•
ediment escription <u>dark-gray, fi</u>	ne-grained sandstone tha	at weathers re	ed .
The state of the s	1 10 10 10 10 10 10 10 10 10 10 10 10 10		
epositional nvironment fluvial			
ossils ampled <u>none</u>			
ossil s emaining <u>reptile bone f</u>	ragment		
cientific significance nd disposition of aterial 4			
	247		

SITE FURM	" 1111 Carried For 1
LOCALITY NUMBER: ET 3-13	1975 C.C.
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Blanc	
Township: 1N Range: 98W	7 6 18
SE 1/4 NE 1/4 NE 1/4, section 25	235 C
1/4 1/4, section	
USGS Quadrangle Barcus Creek SE	
Colorado , 7.5 min.	
UTM 12 ; 727820 m E, 4434300 m N	
LANDOWNER Bureau of Land Management	
ACCESS east on foot from road up Yellow Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Uinta
Member Unit	
Stratigraphic	1 11
position 10-15 meters above Tgel; 3 meters above	massive sand
Sediment description dark-brown pebble conglomerate	And the second
dark of one people congresser acc	
Depositional	
environment fluvial	
Fossils Sampled none	
Fossils	tuntle shell frammer and
remaining crocodilian tooth, juvenile crocodilian jan	miscellaneous bone fragments
Scientific significance and disposition of	
material 1	

LOCALITY NUMBER: ET 3-14	Ser Con
NAME:	150 137
PREVIOUS NUMBER(S):	1 1 1 1 1 N
LOCATION:	- fulso. 3
State: Colorado County: Rio Blanco	1500
Township: 1N Range: 97W	
SW 1/4 SE 1/4 SE 1/4, section 20	
1/41/41/4, section	W. C. S. S. S.
USGS Quadrangle Barcus Creek SE, Colorado	
UTM 12 ; 730900 m E, 4434650 m N	
LANDOWNER Bureau of Land Management	
ACCESS east on foot from road in section 20 T1N	
R9711	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Form	ation Hinta
MemberUnit	
Stratigraphic position 10 meters below Tgeu	Art. at
Sediment description massive, gray-white sandstone above blocky silt	
sequence is 5-meters-thick)	
epositional nvironment <u>fluvial</u>	
ossils ampled none	
ossils emaining <u>turtle shell fragments</u>	
Scientific significance and disposition of material 2	
CAO	

LOCALITY NUMBER: ET 3-15	
NAME:	STORE STORE
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Bland	
Township: 1N Range: 98W	
NE 1/4 NE 1/4 NE 1/4, section 25	3. Jan 1965
1/4 1/4 1/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	
UTM 12 ; 727900 m E, 4434500 m N	
LANDOWNER Bureau of Land Management	
ACCESS east on foot from road up Yellow Creek	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Uinta
MemberUnit	
Stratigraphic position20 meters above Tgel	5 3 (2)
Sediment description <u>tan sandstone bench</u>	A Prince of the second
Depositional environment fluvial	14
Fossils Sampled <u>one fish spine</u>	
Fossils remaining none	2
Scientific significance and disposition of material 4	
-250-	

LOCALITY NUMBER: ET 3-16		美国基金
PREVIOUS NUMBER(S):		
LOCATION:		
State: Colorado	_ County: Rio Blanco	377505
Township: 1N		
SE 1/4 SE 1/4 SE 1/4		
1/4 1/4 1/4		san on (
USGS Quadrangle Barcus Creek S		
UTM 12 ; 727650		
LANDOWNER Bureau of Land Mana		
ACCESS _east on foot from road	up Yellow Creek	
DESCRIPTION		
Era <u>Cenozoic</u> Syst	em Tertiary	Formation III
Member Evacuation Creek	Unit "middle"	rormation Unita
Stratigraphic		
position in massive sandsto	one, immediately above bl	ocky shale
Sediment description massive buff sandst	one	and the second
Depositional		,
environment fluvial		Tall Tall
Fossils sampled tooth enamel fragment,	crocodile scute	
Fossils		
Scientific significance and disposition of material3		
	-251	

	SITE FORM	
LOCALITY NUMBER: ET 3-17		
NAME:		
PREVIOUS NUMBER(S):		
LOCATION:		
State: Colorado	County: Rio Bla	nco Z
Township: 1N		1 2 2 3 2 7 7 5 60
SW 1/4 NE 1/4 SE		112
1/4 1/4		
USGS Quadrangle Rarcus Cre		
	5 min.	
UTM_12; _727630		1 1 2 2 2 2
LANDOWNER Bureau of Land	Management	
ACCESS east on foot from	road up Yellow Creek	
DESCRIPTION		
Era Cenozoic	System Tertiary	FormationUinta/Green Rive
Member Evacuation Creek	Unit "lower"	
Stratigraphic position 5 meters belo	w massive sandstone	10 10 10 10 10
Sediment description <u>light-gray</u> sha	le, very weathered	3.00
All the second s		Albert over the second of the
Depositional environment fluvial		
Fossils sampled <u>insects</u>		
Fossils remaining insects (larvae)	
Scientific significance and disposition of material 4		
	050	

LOCALITY NUMBER: ET 3-18	
NAME:	
PREVIOUS NUMBER(S): SMW TEMP #1 (Field #)	
LOCATION:	(F) (F) (F)
State: Colorado County: Rio Blanco	
Township: 1N Range: 97W	TYKI
NW 1/4 NW 1/4 SW 1/4, section 30	- Ja
SW 1/4 NW 1/4 SW 1/4, section 30	
USGS Quadrangle Barcus Creek SE, Colorado	
UTM_12 ; 728100 m E, 4433600 m N	
LANDOWNER Bureau of Land Management	
ACCESS _east on foot from road up Yellow Creek	
DESCRIPTION	
Era <u>Cenozbic</u> System <u>Tertiary</u> Fo	ormation Hinto
Member Evacuation Creek Unit "middle"	- Office
Stratigraphic :	
positionapproximately 80 feet above base of exposure	
Sediment description <u>light-gray paper shale</u>	
1.5no 5roy paper share	
Depositional	
environment lacustrine	
Fossils Sampled insect larvae	
Fossils remaining insect larvae and some non-larval forms (?)	· progress
Scientific significance and disposition of	
material 4	
-253-	

LOCALITY NUMBER: ET 3-19	
NAME:	
PREVIOUS NUMBER(S): TRL-5 (Field #)	
LOCATION:	
State: Colorado County: Ri	io Blanco
Township: 1S Range: 97W	
NW 1/4 SW 1/4 NE 1/4, section 6	
1/41/41/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5	min.
UTM 12 ; 728500 m E, 4430970	m N
LANDOWNER Bureau of Land Management	
and the second s	
ACCESS NE on foot from road up tributary of \	Yel-
low Creek in sec. 6 T1S R97W	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Uinta
Member Evacuation Creek Unit "mid	ddle"
Stratigraphic	Control of the second second
positionbelow slightly darker massive sar	massive sandstone
Sediment description buff-colored, medium-grained sands	stone containing clay rip-up clasts
	The second section of the second section is a second section of the second section section is a second section of the second section s
Depositional environment marginal lacustrine	
Fossils sampled none	
Fossils remaining one large complex bone still in ro	ock
Scientific significance and disposition of material 3	
-254-	•

LOCALITY NUMBER: ET 3-2	0	
		Till
PREVIOUS NUMBER(S): _ GWS-		TO 15 0/00
LOCATION:		
State: Colorado	County: Rio Blanco	
	Range: 97W	
	1/4, section _6	12 12 3 27/1
	1/4, section	
USGS Quadrangle Barcus Cr		
	.5 min.	
UTM 12 ; 72858		
LANDOWNER Bureau of Land	Management	
ACCESS on foot NE from r	oad up tributary of Yel-	
low Creek in sec. 6 T1S R	97W	
DESCRIPTION		
Era Cenozoic	System Tertiary For	mation Uinta
	Unit "middle"	
Stratigraphic position <u>Uinta sandst</u>	one of Evacuation Creek Member	1
Sediment		
description light tan, me	dium-grained sandstone with rip-u	p clast conglomerate
Depositional		
Fossils	ustrine	
sampled none		1,00
Fossils remaining large, flat, is	solated and unidentifiable bone	-1.81
Scientific significance and disposition of		
material 3		
	-255-	

LOCALITY NUMBER: ET 3-21	
NAME:	-1256
PREVIOUS NUMBER(S): JUM 8225 (Field #)	35000
LOCATION:	
State: Colorado County: Rio Blanco	7///sissanger
Township: 1S Range: 97W	
NW 1/4 SW 1/4 NE 1/4, section 6	
1/41/41/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5min.	
UTM 12 ; 728690 m E, 4430900 m N	
LANDOWNER Bureau of Land Management	
ACCESS on foot NE from road up tributary of Yel-	
low Creek in sec. 6 T1S R97W	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation <u>Uinta</u>
Member Evacuation Creek Unit "middle"	7 7 19 7 7 7 7
	locally
Stratigraphic positionbelow sandstone ledge capping the bluff	locarry
Sediment description gray non-fissile silty shale	
and decided and a second secon	
Depositional environment marginal lacustrine	
Fossils sampled insect larvae and angiosperm leaves	
Fossils remaining larvae and plants	5.13 C 10 A
Scientific significance and disposition of material 4	
-256-	1

LOCALITY NUMBER: ET 3-22	
NAME:	1 6 G 3 8
PREVIOUS NUMBER(S): _ET3-SMW1 (Field #)	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 1S Range: 97W	
SW 1/4 NW 1/4 NW 1/4, section 5	WELLEN STOPPE
1/4 1/4 1/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	
UTM 12 ; 729280 m E, 4431100 m N	
LANDOWNER Bureau of Land Management	
ACCESS on foot NE from road up tributary of Yel-	
low Creek in sec. 6 T1S R97W	
DESCRIPTION	
Era Cenozoic System Tertiary Form	ationUinta
Member Evacuation Creek Unit "middle"	-
Stratigraphic positionjust_below_paper_shales	
Sediment description soft, silty reddish-tan sandstone; bone found in	n demented sandstone;
easily weathers and bone easily removable	
Depositional environment fluvial - lake margin	
Fossils sampled turtle bone	1444
Fossils remaining same	
Scientific significance and disposition of material 3	11.18.2
-257_	

LOCALITY NUMBER: ET 3-23	
NAME:	- Comment of the second
PREVIOUS NUMBER(S): ET3-SMW2 (Field #)	500
LOCATION:	- Wash
State: Colorado County: Rio Blanco	7 6000
Township: 1S Range: 97W	
SW 1/4 NW 1/4 NW 1/4, section 5	
1/41/41/4, section	12 21 27 16 5
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	- Medical Control of
UTM 12 ; 729380 m E, 4431120 m N	
LANDOWNER Bureau of Land Management	
ACCESS on foot NE from road up tributary of Yel-	
low Creek in sec. 6 T1S R97W	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Uinta
Member Evacuation Creek Unit "middle"	
Stratigraphic position in sandstone circa 3 meters below level c	1.1 (1.1 d)
Sediment description tan to slightly reddish-tan silty sandstor	
Depositional environment fluvial	- 20 - 20
Fossils sampled leaves; Plantus of P. reynoldsii and other sp	necies
Fossils	
remaining more of the same	- A - A - A - A - A - A - A - A - A - A
Scientific significance and disposition of material 5	
-258-	

TF	FORM	

LOCALITY NUMBER: ET 3-25		
NAME:		3-24
PREVIOUS NUMBER(S): GWS-	6 (ET-3) (Field #)	
LOCATION:		
State:Colorado	County: Rio Blanco	50 5 6500, ~
Township: 1S		
SW 1/4 SE 1/4 NE		丁製学者で
1/4 1/4	1/4, section	
USGS Quadrangle Square S		
	.5 min.	
UTM_12 ; 729000		
LANDOWNER Bureau of Land	Management	
ACCESS on foot E from roa	ad up tributary of Yel-	
low Creek in sec. 6 T1S R		
DESCRIPTION		
Era <u>Cenozoic</u>	System Tertiary Form	ation Uinta
Member 4		
Stratigraphic	ast slope of ridge	
Sediment description resistant, gra	y, red-weathering conglomerate	
Depositional environment marginal lacu	strine	
Fossils sampled none		
Fossils remaining numerous bone f	ragments including a crocodilian	scute; a turtlellid-like
Scientific significance and disposition of material 3		gastropod
*Based on proportional subd	ivision. Section is undersized.	
	-259-	

LOCALITY NUMBER: ET 3-26	
NAME:	
PREVIOUS NUMBER(S): GWS-7 (Field #)	7-101/4
LOCATION:	
State: Colorado County: Rio Bland	
Township: 1 S Range: 97 W	
SW 1/4 SE 1/4 NE 1/4, section 6*	
1/4 1/4 1/4, section	
USGS Quadrangle Square S Ranch, Colorado	
UTM 12 ; 728900 m E, 4430850 m N	
LANDOWNER Bureau of Land Management	
ACCESS on foot E from road up tributary of Yel-	
low Creek in sec. 6 T1S R97W	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Uinta
Member 4 Unit	across delinguate and the state of the state
Stratigraphic position near top of SE face of ridge	
Sediment	
description same lithology as ET 3-25; probably the s	same horizon
Depositional environment marginal lacustrine	and the second of the second
Fossils sampled none	
Fossils remaining wood fragments, large crocodilian scute an	d numerous bone fragments
Scientific significance and disposition of material 3	
*Based on proportional subdivision. Section is unders	ized.
-260-	

LOCALITY NUMBER: ET 3-27	0)
NAME:	
PREVIOUS NUMBER(S):	1:-
LOCATION:	
State: Colorado County: Rio	Blanco 30 2 7
Township: 1 N Range: 98 W	
NW 1/4 SE 1/4 NE 1/4, section 36*	D 0 000
1/4 1/4 1/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min	n.
UTM 12 ; 727530 m E, 4432400 m	N .
LANDOWNER Bureau of Land Management	
ACCESS east on foot from road up Yellow Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Uinta
Member Evacuation Creek Unit "middle	e"
Stratigraphic position in shale near top of ridge	
Sediment description <u>light-gray</u> paper shale	
Depositional environment lacustrine	erge and mark to a second or a
Fossils sampled insect larvae	
Fossils remaining same	
Scientific significance and disposition of material 4	
*Based on proportional subdivision. Section is ur	ndersized.

-261-

LOCALITY NUMBER: ET 3-28		15.75.
		2/4/2
PREVIOUS NUMBER(S):		- FINAN
LOCATION:		
State: Colorado	County: Rio Blanco	3.72 3.28
Township: 1 N		
SW 1/4 SE 1/4 NW		
1/4 1/4		30233300
USGS Quadrangle Barcus Cree		
UTM 12 ; 728450		
LANDOWNER Bureau of Land N		
- 1 - 2		
ACCESS west on foot from r	road in sec. 32 T1N R97W	
-1-1	· · · · · · · · · · · · · · · · · · ·	
DESCRIPTION		
Era Cenozoic S	ystem Tertiary	Formation Uinta
Member Evacuation Creek	Unit "middle"	
Stratigraphic		21 - 22 - 21
position 2 meters above Sediment	contact with massive buff s	and
description <u>light gray shal</u>	e/mudstone	
Depositional environment fluvial		
Fossils sampled gastropod impressi	on	
Fossils remaining abundant insect	larvae	
Scientific significance and disposition of material 4		- AT 1 - AT 1
Le Company		

^{*}Based on proportional subdivision. Section is undersized.

LOCALITY NUMBER: ET 3-29		MARTH
NAME:		
PREVIOUS NUMBER(S):		
LOCATION:		T = 5-28-3-29
State: Colorado	County: Rio Blanco	
Township: 1 N		
SW 1/4 SE 1/4 NW 1/4, s	section 31*	TYE SAIN
1/4 1/4 1/4,		~ 3// 2/ 1/30/
USGS Quadrangle Barcus Creek SE.		
, 7.5	min.	
UTM 12 ; 728450 m		
LANDOWNER Bureau of Land Manage	ement	
ACCESS west on foot from road i	n sec. 32 T1N R97W	
The second secon		
DESCRIPTION		
Era <u>Cenozoic</u> System	Tertiary Form	ation Uinta
Member Evacuation Creek		
Stratigraphic position 5 meters below cont		
Sediment description massive buff/tan san	dstone	40.
Depositional environment fluvial	*	1 - 1 - 1 - 1 - 1
Fossils sampled none		
Fossils remaining turtle bone fragments	, pertified wood, and plant	fragments
Scientific significance and disposition of material 4		
*Rased on proportional subdivision	n. Section is undersized.	

-- 263-

LOCALITY NUMBER: ET 3-30	
NAME:	76%
PREVIOUS NUMBER(S): ET 3-SMW 3 (Field #)	53/6/12 5
LOCATION:	
State: Colorado County: Rio Blanco	5(85)
Township: 1 N Range: 97 W	17.25.7 (AMC)
NW 1/4 NE 1/4 SE 1/4, section 32*	RELIM
SW 1/4 NE 1/4 SE 1/4, section 32*	STANDAM BY
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	
UTM 12 ; 730820 m E, 4432200 m N	
LANDOWNER Bureau of Land Management	
ACCESS east on foot from road in sec. 32 T1N R974	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Uinta
Member Evacuation Creek Unit "middle"	15 10 16 10 1
Stratigraphic position on ridge crest	
Sediment description buff and massive sandstone	
Depositional environment fluvial	
Fossils sampled gastropod and turtle bune	
Fossils remaining bone fragments, petrified wood and plant fra	gments abound
Scientific significance and disposition of material 3	

^{*}Rased on proportional subdivision. Section is undersized. -264-

LOCALITY NUMBER: ET 3-31		洲原	ا في كر ال
NAME:		35	r R
PREVIOUS NUMBER(s): ET 3-SMW 4 (Field #)		5-32	2013
LOCATION:	-	100	3-30
State: Colorado County: Rio Bla	nco	ark	
Township: 1 N Range: 97 W		3/11/52	3.77/1/11
NE 1/4 NE 1/4 SE 1/4, section 32*		33%	WE PAN
1/4 1/4 1/4, section		W	
USGS Quadrangle Barcus Creek SE, Colorado			
UTM 12 ; 730950 m E, 4432270 m N			
LANDOWNER Bureau of Land Management			
ACCESS _east on foot from road in sec. 32 T1N R97W			
DESCRIPTION			
Era <u>Cenozoic</u> System Tertiary	Formation	n Uinta	
Member Evacuation Creek Unit "middle"			
Stratigraphic position below prominent shale underlying bone le	evel of ET 3	3-30	
Sediment description buff and massive sandstone			
Depositional environment marginal lacustrine		1 080 1 90	1
Fossils sampled <u>turtle shell fragments</u>			
Fossils remaining none			7 - 5 -
Scientific significance and disposition of material 4	,		* 1.7
			-

⁻²⁶⁵⁻

^{*}Based on proportional subdivision. Section is undersized.

SITE FORM	ST. 02110
LOCALITY NUMBER: ET 3-32	
NAME:	97-17
PREVIOUS NUMBER(S): ET 3-SMW 5 (Field #)	一 死公公外。
LOCATION:	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
State: Colorado County: Rio Blanco	
Township: 1 N Range: 97 W	
SE 1/4 SE 1/4 SE 1/4, section 29	
1/4 1/4 1/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
UTM 12 ; 73180 m E, 4433350 m N	
LANDOWNER Bureau of Land Management	
ACCESS east on foot from road in sec. 29 T1N R97W	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> F	ormation <u>Uinta</u>
Member Evacuation Creek Unit "middle"	1
Stratigraphic position below white-gray paper shale and above brow	n paper shale
Sediment	· paper sware
description buff sandstone, just above a fairly coarse-g	rained dark gray micaceous
sandstone	
Depositional environment mariginal lacustrine to streambank	
Fossils sampled turtle bone	
Possils remaining none	
Scientific significance and disposition of material 4	
266	

LOCALITY NUMBER: ET 3-33		11.27	111111111111111111111111111111111111111
MANE		ST	W. Va
PREVIOUS NUMBER(S): ET 3		11/2	Jan Sile
LOCATION:	Sim o (Freta #)	2//-	JAN 0.33
	County: Rio Blan		
	Range: 97 W	7. 5	13/
NE 1/4 NW 1/4 NE			78/a
1/4 1/4		1.14	1 ~ 17 /(A); A
USGS Quadrangle Barcus Cr			
, <u>7</u> UTM 12 ; 73070	0 m E, 4433070 m N		
LANDOWNER Bureau of Land			
100555			
ACCESS _east on foot from	road in sec. 32 IIN R9/1		
DESCRIPTION			*
DESCRIPTION Era <u>Cenozoic</u>	System Tertiary	Formation	Uinta
DESCRIPTION	System Tertiary	Formation	Uinta
DESCRIPTION Era Cenozoic Memher Evacuation Creek Stratigraphic	System <u>Tertiary</u> Unit <u>"middle"</u>		Uinta
DESCRIPTION Era <u>Cenozoic</u> Member <u>Evacuation Creek</u> Stratigraphic position <u>at base of h</u> Sediment	System <u>Tertiary</u> Unit <u>"middle"</u>		***
DESCRIPTION Era <u>Cenozoic</u> Member <u>Evacuation Creek</u> Stratigraphic position <u>at base of h</u> Sediment	System <u>Tertiary</u> Unit <u>"middle"</u>		***
DESCRIPTION Era Cenozoic Member Evacuation Creek Stratigraphic position at base of h Sediment description buff sandston	System <u>Tertiary</u> Unit <u>"middle"</u>	e-grained dark g	ray and
DESCRIPTION Era Cenozoic Member Evacuation Creek Stratigraphic position at base of h Sediment description buff sandston micaceous sandstone; simi	System <u>Tertiary</u> Unit <u>"middle"</u> ill e just above a fairly coars	e-grained dark g ne is laminated	ray and
DESCRIPTION Era Cenozoic Member Evacuation Creek Stratigraphic position at base of h Sediment description buff sandston- micaceous sandstone; simi clasts (conglomerate) Depositional	System Tertiary Unit "middle" ill e just above a fairly coars lar to ET 3-32, but sandsto	e-grained dark g ne is laminated	ray and
DESCRIPTION Era Cenozoic Member Evacuation Creek Stratigraphic position at base of h Sediment description buff sandston micaceous sandstone; simi clasts (conglomerate) Depositional environment streambank to	System Tertiary Unit "middle" ill e just above a fairly coars lar to ET 3-32, but sandsto	e-grained dark g ne is laminated	ray and
DESCRIPTION Era Cenozoic Member Evacuation Creek Stratigraphic position at base of h Sediment description buff sandston- micaceous sandstone; simi clasts (conglomerate) Depositional	System Tertiary Unit "middle" ill e just above a fairly coars lar to ET 3-32, but sandsto	e-grained dark g ne is laminated	ray and
DESCRIPTION Era Cenozoic Member Evacuation Creek Stratigraphic position at base of h Sediment description buff sandston micaceous sandstone; simi clasts (conglomerate) Depositional environment streambank to the streambank t	System Tertiary Unit "middle" ill e just above a fairly coars lar to ET 3-32, but sandsto o marginal lacustrine	e-grained dark g ne is laminated	ray and
DESCRIPTION Era Cenozoic Member Evacuation Creek Stratigraphic position at base of h Sediment description buff sandstone micaceous sandstone; simi clasts (conglomerate) Depositional environment streambank to sampled turtle bone Fossils	System Tertiary Unit "middle" ill e just above a fairly coars lar to ET 3-32, but sandsto o marginal lacustrine	e-grained dark g ne is laminated	ray and

LOCALITY NUMBER: ET 4-1	WY (MY) 14-3 =
NAME:	C. 19-2:
PREVIOUS NUMBER(S):JUM 8230 (Field #)	6000 WAA-18/
LOCATION:	Creek
State: Colorado County: Rio Blanco	~6300)
Township: 1S Range: 98W	I I I I V
SW 1/4 NW 1/4 NE 1/4, section 9	
1/41/41/4, section	
USGS Quadrangle Wolf Ridge, Colorado	
UTM 12 ; 722720 m E, 4428950 m N	
LANDOWNER Bureau of Land Management	
ACCESS on foot north from road up Duck Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	ormation Uinta
Member 4 Unit	
Stratigraphic	12 12 - 12 - 12 - 12 - 12 - 12 - 12
position Approximately 25 feet above creek bottom, in Mile Creek Member of the Green River Formati	Uinta 4 helow Thirteen
Sediment description In buff- to orange-colored conglomeratic sam	dstone with large clay clas-
Depositional environment fluvial	1.0
Fossils sampled none	4
Fossils remaining vertebra, probably dorsal, or crocodilian	14 pt
Scientific significance	
and disposition of material 4	
-268-	

1000-05-15

LOCALITY NUMBER: ET 4-2		((17/1/2)) 1/6 14-3
NAME:		V 5 34-2:
	82-01 (Field #)	2/A-16/
LOCATION:		Crosses Crosses
State: Colorado	County: Rio Blanco	~6300) · ^
Township: 1S	Range: 98W	V
NW 1/4 NE 1/4 NE		1. 200
1/4 1/4		
USGS Quadrangle Wolf Ridg		
	.5 min.	**
UTM 12 ; 72270		Anna Contractor
LANDOWNER Bureau of Land		73
EMISSINER SUITERS OF EURO	nanagement.	
ACCESS on foot north fro	m nord up Duels Coools	
NOCESS ON TOOL HOLEN TTO	in road up mack creek	
DESCRIPTION	-4	
,		
A company of the comp	System Tertiary	-ormation <u>Uinta</u>
Member 4	Unit	
Stratigraphic position Uinta 4, 100	feet from creek bottom	
Sediment	The second second second	- V. W.
description <u>buff-colored</u> ,	medium-grained, pebble conglor	merate (1-foot-thick); the
remainder of this unit is	well-sorted, medium, buff sand	d
Depositional environment fluvial		
Fossils		
	, fish spines and turtle shell	fragments
Fossils remaining various long be	ones and bone fragments	
Scientific significance		
and disposition of		
material Z	-269-	

LOCALITY NUMBER: ET 4-3	7 24-2:
NAME:	
PREVIOUS NUMBER(S): GWS (ET) - 8 (Field #)	***************************************
LOCATION:	~6300 ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~
State: Colorado County: Rio Blanc	0
Township: 1S Range: 98W	
SW 1/4 SE 1/4 SE 1/4, section 4	120 Men 18
1/4 1/4 1/4, section	
USGS Quadrangle Wolf Ridge, Colorado	
, 7.5 min.	San Array or or or
UTM_12 ; 722900 m E, 4429400 m N	
LANDOWNER Bureau of Land Management	
ACCESS on foot north from road up Duck Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	FormationUinta
Member 4 Unit	
Stratigraphic position scattered throughout local section (lowe	r than ET 4-2)
Sediment description layers of well-indurated, tan pebble cong	lomerate (subrounded quartz-
arenite grains) and clean, well-sorted, medium- to la	rge-grained quartzarenite
Depositional environment freshwater deltaic to marginal lacustring	2
Fossils sampled fish vertebrae	
Fossils remaining fish vertebra, small reptile bones and turn	telled gastropods
Scientific significance and disposition of material 2	
-270-	

LOCALITY NUMBER: ET 4-4	
NAME:	14-4200
PREVIOUS NUMBER(S):JUM 8231 (Field #)	1002
LOCATION:	17/
State: Colorado County: Rio Blanco	
Township: 1S Range: 98W	Liver of
SE 1/4 NW 1/4 NE 1/4, section 17	
1/4 1/4 1/4, section	
USGS Quadrangle Wolf Ridge, Colorado	
, 7.5 min.	
UTM 12 ; 721100 m E, 4427300 m N	
LANDOWNER Bureau of Land Management	
ACCESS on foot west from road up Yellow Creek	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> For	rmation Uinta
Member 5 Unit	
Stratigraphic position about 20 feet above prominent shale tongue	
Sediment	19 20 17
description massive buff- to orange-colored sandstone	
	- 2
Depositional environment fluvial	
Fossils sampled _petrified wood	
Fossils remaining large sections of wood, some 3 feet in length a	and 12 inches in diameter
Scientific significance and disposition of material 5	
271_	

LOCALITY NUMBER: ET 6-1	
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	The Contraction
State: Colorado County: Rio Blanco	100
Township: 2 N Range: 98 W	
SW 1/4 NW 1/4 SW 1/4, section 36	FR VE
SE 1/4 NW 1/4 SW 1/4, section 36	
USGS Quadrangle Barcus Creek SE	
Colorado , 7.5 min.	
UTM_12 ; 726050 m E, 4441500 m N	
LANDOWNER Bureau of Land Management	
ACCESSnorth on foot from road up Yellow Creek	
	1 4 4
DESCRIPTION	
Era Cenozoic System Tertiary F	ormation Green River
Member Evacuation Creek Unit B	The state of the s
Stratigraphic	a to a Porture
position directly below buff sandstone at top of gul	ly .
Sediment description light-gray and calcareous conglomerate, app	proximately 1-2 feet thick
well-cemented and with a fine-grained matrix	· married and a same as
Depositional	
environment fluvial-lacustrine	
Fossils sampled gastropod	
Fossils remaining <u>gastropods</u>	
Scientific significance and disposition of material 4	
272-	

LOCALITY NUMBER: ET 6-2	
NAME:	
PREVIOUS NUMBER(S): TER82-2 (Field #)	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: T2N Range: R98W	
SW 1/4 NE 1/4 NW 1/4, section 25	**************************************
1/41/41/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
UTM 12 ; 726320 m E, 4444050 m N	
LANDOWNER Bureau of Land Management	1-4
ACCESS NE on foot from road up Yellow Creek	
ri en la companya de	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Fo	rmation Green River
Member Evacuation Creek Unit A	
Stratigraphic position 40 feet above Mahogany Bench	
Sediment description <u>buff-colored, medium-grained pebble conglomer</u>	ate pocketed within
a buff-colored, medium-grained sandstone (finer-grained a	nd light sediments below)
Depositional environment <u>fluvial-lacustrine</u>	
Fossils Sampled <u>none</u>	
Fossils remaining turtle scapula (?) and varius bone fragments	
Scientific significance and disposition of material 2	
-273-	

	SITE FORM	DENCE TO THE PARTY OF THE PARTY
LOCALITY NUMBER: ET 6-3		
NAME:		
PREVIOUS NUMBER(S): EBO-	1 (Field #)	
LOCATION:		
State: Colorado	County: Rio Blanc	
Township: 2 N	Range: 98 W	
NE 1/4 SW 1/4 SW	1/4, section <u>25</u>	74199
1/4 1/4	1/4, section	
USGS Quadrangle Barcus Cr	eek SE, Colorado	
	.5 min.	
UTM 12 ; 72587	0 m E, 444350 m N	
LANDOWNER Bureau of Land	Management	
ACCESS east on foot from	road up Yellow Creek	
DESCRIPTION		
Era Cenozoic	System Tertiary	Formation Green River
Member Evacuation Creek	Unit B	
Stratigraphic	- 1211-24- 1-11 44	C of intentonguing Danashuto
		S of intertonguing Parachute
	within sequence of interbed	ded coarse and time samus
Sediment description medium to co	arse-grained and pinkish-tar	sandstone
		*.
Depositional environment fluvial		
Fossils sampled turtle shell fra	gment	
Fossils remaining none		
Scientific significance and disposition of material 4		
	-274-	

2112 10/11	
LOCALITY NUMBER: ET 7-1	SAME COMES THE
NAME:	
PREVIOUS NUMBER(S): SMW 7-1 (Field #)	
LOCATION:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
State: Colorado County: Rio Blanco	
Township: 1 N Range: 98 W	
NW 1/4 NW 1/4 NE 1/4, section 4	
SE 1/4 NE 1/4 NW 1/4, section 4	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	
, 722000 III E , 4440810 III N	
LANDOWNER Bureau of Land Management	
ACCESS NW on foot from road up Barcus	
DESCRIPTION	
Era Cenozoic System Tertiary Format	ion Green River
Member Yellow Creek Tongue Unit	
Stratigraphic position base of fossiliferous unit is at or within 3 meters.	
Creek Tongue	13 Of base of fellow
Sediment	
description light-gray dolomitic marlstone and silty marlstone	
Daniel de la constant	
Depositional environment _lacustine	
Fossils sampled at least three species of gastropods and unidentifiab	le polocypode
Fossils remaining same as above; wood and other plant fragments	e perecypous .
Scientific significance and disposition of material 2	
27.5	

ŠITE FURM

LOCALITY NUMBER: ET 7-2	
NAME:	
PREVIOUS NUMBER(S): SMW 7-2 (Field #)	JULIA CONT
LOCATION:	
State: Colorado County: Rio Blanc	
Township: 1 N Range: 98 W	EST 15 / P
SE 1/4 NE 1/4 NW 1/4, section 4	
1/4 1/4 1/4, section	1 1º4094 / MCLN1/72-19
USGS Quadrangle Barcus Creek SE, Colorado	
UTM_12 ; 721800 m E, 4440600 m N	
LANDOWNER Bureau of Land Management	
ACCESS NW on foot from road up Barcus	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Green River
Member Yellow Creek Tongue Unit	
Stratigraphic position seen in float approximately 3 meters above	ve marlstone ledge (see ET 7-1
could not find lamina(e) of origin	
Sediment description <u>light brownish-gray siltstone or silty</u> sha	a)e
	The first section of the section of
Depositional environment lacustrine	The state of the s
Fossils sampled insect larvae	
Fossils remaining none	7 a a 5
Scientific significance and disposition of material 4	
-276-	

LOCALITY NUMBER: ET 7-3	
NAME:	
PREVIOUS NUMBER(S):	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 1 N Range: 98 W	
NW 1/4 SW 1/4 NW 1/4, section 4	一种对于
1/41/41/4, section	
USGS Quadrangle Barcus Creek SE, Colorado	
, 7.5 min.	
UTM_12 ; 721100 m E, 4440500 m N	
LANDOWNER Bureau of Land Management	
ACCESS NW on foot from road up Barcus	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation William
*Member 1 · Unit	
Stratigraphic	
position about 20 meters below Yellow Creek Tongue	of Green River Formation in
lowest sandstone bench exposed	
Sediment description massive gray sandstone and conglomerate the	at weathers red
Nepositional environment fluvial	
Fossils sampled gastropods	
Fossils remaining gastropods	2 200
Scientific significance and disposition of material 3	
-277-	

LOCALITY NUMBER: ET 7-4 (a,b,c,d)	The state of the s
NAME:	
PREVIOUS NUMBER(S): SMW 7-3a,b,c,d (Field #)	
LOCATION:	
State: Colorado County: Rio Blanc	
Township: 1 N Range: 98 W	
E 1/2 SE 1/4 NE 1/4, section 4	
N 1/2 NE 1/4 SE 1/4, section 4	
USGS Quadrangle Barcus Creek SE, Colorado	
UTM 12 ; 722600 m E, 4440300 m N	
LANDOWNER Bureau of Land Management	
ACCESS SE on foot from road up Barcus Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Green River
Member Yellow Creek Tongue Unit	31 HA - 1
Stratigraphic position in snail-pelecypod-bearing unit (see ET 7	y-1)
Sediment description light-gray silty marlstone and possibly do	lomitic marlstone
Depositional environment lacustrine	
Fossils sampled indeterminate massive bone (at 4a), turtle (3) limb bone and (?) titan-
othere masals (at 4b), turtle shell fragments (at 4c),	scapula or femur (at 4d)
Fossils remaining small turtle shell fragment, miscellaneous	bone fragments
Scientific significance and disposition of material 2	1.5
-278-	

LOCA	ALITY NUMBER: ET 7-5				
NAME	E:	Ī	در	MA TOO	200
PRE	VIOUS NUMBER(S): EBO-2 (Field #)	T		鸟沙	25/
	ATION:		3	飘彩	
Stat	te:ColoradoCounty: Rio Blanco		N.	7 4 1	17
Town	nship: 1 N Range: 98 W	Ī	200	و المحدد	
					TEL T
	S Quadrangle Barcus Creek SE, Colorado				
	, 7.5 min.				
	12 ; 718970 m E, 4439350 m N				
	DOWNER Bureau of Land Management				
	SS N on foot from road up Barcus				
	CRIPTION				
Era	Cenozoic System Tertiary Forma	tion	115 r	nt a	
	ver Unit "lower"	CION		ica .	
	itigraphic :	+		7	
	tion uppermost part of lower Uinta, about 10-15 feet b	elow	contac	t with	Green
Rive	r Formation	_		- 24	-
desc	ment ription <u>thick (15-20 feet) cross-bedded medium- to coars</u>	e-gr	ined s	andston	e
(SOT	weathers tan and orange-red; contains fine cross-bedding t-sediment deformation); pebbles, mudclasts, and rare bon	e fra	agments	along	
lami	nae; some interbedded white to tan shaley siltstone; unev g horizontally-bedded (10-12 inch beds) of white/tan silt	en/so	OUR CO	intact o	ver- ndstor
Deno	sitional ronment fluvial	-	THE STREET, S	2000	
Foss			n horns	, canin	es
Foss rema	ils ining none			e,	
and	ntific significance disposition of rial 1				
	270	+			

LOCALITY NUMBER: ET 7-6		
NAME:		533
PREVIOUS NUMBER(S): GWS-ETA (Field #)		
LOCATION:		
State: Colorado County: Rio Blanco		
Township: 1 N Range: 98 W		2
SW 1/4 SW 1/4 SW 1/4, section 6		5273
1/4 1/4 1/4, section		
USGS Quadrangle Barcus Creek SE, Colorado		
, 7.5 min.		
UTM 12 ; 718000 m E, 4439500 m N		
LANDOWNER Bureau of Land Management		
ACCESS N on foot from road up Barcus Creek		
A. A		
DESCRIPTION		
Era Cenozoic System Tertiary	Formation	Uinta
Member 1 Unit		
Stratigraphic position lower Uinta, midway up slope		1=
Sediment description structureless sandstone that is a medium-g	rained, wel	1-sorted
quartzarenite and beige in color		,
Depositional environment marginal lacustrine		
Fossils sampled none		
Fossils remaining large isolated unidentifiable bone fragment	in rock	at . I .
Scientific significance and disposition of material 4		
-280-		

LOCALITY NUMBER	: <u>ET 7-7</u>			13	17 182019
NAME.				- W	(55)
	(S): GWS-ETA1				緬(
LOCATION:				. 18	
State: Color	rado	County:	Rio Blanco		SON WILL
<u>NE</u> 1/4 <u>NE</u>					9) A
1/4	1/4 1/4,	section		745	
USGS Quadrangle	Barcus Creek SE	, Colorado			
	, 7.5				
UTM 12					
LANDOWNER Bure					
		,			
ACCESS Non for	ot from road up	Barcus Creek			
DESCRIPTION		1			
Era Cenozoio	Syste	m Tertian	v Fo	rmation	C D:
Member Yellow C	reek Tonque	Unit		-	Green Kiver
Strationaphic					
position <u>deb</u>	ris fall from Ye	ellow Creek T	ongue		real plants and a
Sediment description well	-laminated link	ot colored sh	-1-1-11		
6.2	remnacca, rigi	it-colored sh	are/stritstone		
Depositional	and the second second				
environment lac	ustrine				
Fossils sampled <u>insect</u>	pupae				
Fossils remaining same					
Scientific significand disposition of material	F		1.7		

LOCALITY NUMBER: ET 9-1	
NAME:	
PREVIOUS NUMBER(S): _JGW 9-1 (Field #)	
LOCATION:	
State: Colorado County:	Rio Blanco
Township: 2 S Range: 96	W
NW 1/4 NE 1/4 SE 1/4, section 32	The control of the co
1/4 1/4 1/4, section	311615
USGS Quadrangle <u>Jessup Gulch</u> , Colorado	The state of the s
, 7.5	_ min.
UTM 12 ; 740700 m E, 4412520	m N
LANDOWNER Bureau of Land Management	
ACCESS N on foot from Piceance Creek Road	
DESCRIPTION	
Era <u>Cenuzoic</u> System <u>Tertiar</u>	y Formation Uinta
Member 6 Unit	
Stratigraphic	
position within mudclast conglomerate approx	imately 1/4-way up from basal contact
Sediment description mudclast conglomerate with sands	tone matrix
a desergencia con a securitaria de la composição de la co	and the second of the second o
Depositional environment fluvial	To got the same the
Fossils sampled none	
Fossils remaining isolated bone fragment	
Scientific significance and disposition of material 4	
	202

LOCALITY NUMBER: ET 10-1	
NAME:	
PREVIOUS NUMBER(S): GWS-ETB (Field #)	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 2 S Range: 97 W	
SW 1/4 NW 1/4 NE 1/4, section 12	
1/41/41/4, section	16000
USGS Quadrangle Greasewood Gulch, Colorado	
, 7.5 min.	
UTM 12 ; 737200 m E, 4419650 m N	
LANDOWNER Bureau of Land Management	
ACCESS N on foot from road in sec. 12 T2S R97W	
The second secon	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Form	ation Hinta
Member Unit "upper"	- CINCU
Stratigraphic position lowest vertical exposure midway up wall	11 Tay 1 Tay 1 Tay
Sediment description <u>base of clean massive sand in rip-up conglomerat</u>	e above scour contact
with mudstone	
Depositional environment marginal lacustrine (high energy episode)	
Fossils sampled large mammalian metapodial element (uintathere luna	
Fossils remaining none	. **
Scientific significance and disposition of material 2	
202	

	R: ET 10-2				2/11/2		
NAME:							THE B
PREVIOUS NUMBE	R(S): _SL 2	(Field #)				WILL.	分量
LOCATION:					- 1		
State: Col	orado	County	: Rio	Blanco	3/	a W	
Township: 2	S	Range:	97 W				
1/4 SE	1/4 _NE 1	1/4, section	2		W.	淵源	
1/4	1/4 1	/4, section					
USGS Quadrangl	e Greasewood	Gulch, Colo	rado				
	, 7.5	5	mi	in.			
UTM_12	; 736100	m E, 44	21000 n	n N			
LANDOWNER Bu	reau of Land M	lana gement					
100500	C C	in see 12	TOC DOTH				
ACCESS N on	TOOL Trom road	. III Sec. 12	125 K9/W			1	
	TOOL TROM POAC	1 III Sec. 12	125 K9/W				
DESCRIPTION					ormatio	n Gre	en Riv
nESCRIPTION Era <u>Cenoz</u>	oic S		ertiary		ormatio	n <u>Gre</u>	een Riv
DESCRIPTION Era Cenozy Member Stratigraphic	oic S	ystem <u>T</u>	ertiary t	F			
ACCESS N on DESCRIPTION Era Cenozy Member Stratigraphic position 1 Sediment description gi	oic S	ystem <u>To</u> Unit	ertiary t lacustrine	fongue			
THE CENTER OF THE PROPERTY OF	oic S	ystem <u>To</u> Unit	ertiary t lacustrine	fongue			
DESCRIPTION Era Cenoze Member Stratigraphic position Sediment description gr	mapped on "TU4	ystem <u>To</u> Unit	ertiary t lacustrine	fongue			
THE CENTER OF THE PROPERTY OF	mapped on "TU4 ray and buff s	ystem <u>To</u> Unii " but in a i	ertiary t lacustrine	f tongue			
DESCRIPTION Era Cenoz. Member Stratigraphic position is sediment description graphic personal environment. Fossils turt!	napped on "TU4 Tay and buff s Lacustrine	ystem <u>To</u> Unii " but in a i	ertiary t lacustrine	f tongue			
MESCRIPTION Era Cenoze Member Stratigraphic position reposition given the description given given the description given the given given given given given given given given g	mapped on "TU4 ray and buff s lacustrine le- trionychid me	ystem <u>To</u> Unii " but in a i	ertiary t lacustrine	f tongue			

LOCALITY NUMBER: ET 11-1			
NAME:	į.		H-23 43
PREVIOUS NUMBER(S): JMP-		7	11-4: 15
LOCATION:			5) 1/20 1/2
State: Colorado	County: Rio Blanc	.0	11-9 WIN
	Range: 101 W		
NW 1/4 NE 1/4 NW		Belly C	フレーアンとう
1/4 1/4			
USGS Quadrangle Water Can			
, 7	.5min.		
UTM 12 ; 69132			
LANDOWNER Bureau of land	Management		
ACCESS NE on foot from w	ell pad in the SV 1/4		
NW 1/4 Sec. 17 T1S R101W			
DESCRIPTION			
Era Mesozoic	SystemCretaceous	Formation	Williams Fork
Member			0.0
Stratigraphic position about 40 feet	below capping sandstone		
Sediment description brown, medium-	grained, marly sandstone wit	th very abun	dant invertebrate
fossils throughout			
Depositional environment fluvio-deltai	С		
Fossils sampled bone scraps, gast	ropods and bivalves		E 1
Fossils remaining abundant invert	ebrates and bone fragments		
Scientific significance and disposition of material 2			10

LOCALITY NUMBER: ET 11-2	_ 1/2 3.115
NAME:	H-5
PREVIOUS NUMBER(S): -TRL-13 (Field #)	/ H-2
LOCATION:	11-42
State: Colorado County: Rio Blanco	
Township: 1 S Range: 101 W	(11-9 %
NE 1/4 NW 1/4 NW 1/4, section 17	16/18
1/4 1/4 1/4, section	
USGS Quadrangle Water Canyon, Colorado	
, 7.5 min.	
UTM 12 ; 691130 m E, 4426460 m N	
LANDOWNER Bureau of Land Management	
ACCESS NE on foot from well pad in the SW 1/4	
NW 1/4 Sec. 17 T1S R101W	
DESCRIPTION	
Era Mesozoic System Cretaceous For	rmation Williams Fork
MemberUnit	
Stratigraphic positionat base of cap sandstone (nothing found in pl	ace, all float)
Sediment description probably from medium-grained and massive sands	*
description probably from meaning-grained and massive sands	
Depositional environment fluvial-deltaic	
Fossils Sampled bone fragments	
Fossils remaining none	16
Scientific significance and disposition of material 4	
-286-	

SITE	FORM		1. 1 41 14 111 1
LOCALITY NUMBER: ET 11-3		3	1. THE
NAME:			
PREVIOUS NUMBER(S): TRI-14 (Field #)		-	H-2333
LOCATION:			4. 157
State: Colorado Count	y: Rio Blar	100	、人、
Township: 1 S Range	: 101 W	- (1	19 19 62
NW 1/4 NE 1/4 NW 1/4, sectio	n 17	(The William
1/4 1/4 1/4, sectio			
USGS Quadrangle Water Canyon, Colorad			3.
, 7.5			
UTM 12 ; 691300 m E, 4			
LANDOWNER Bureau of Land Management			
ACCESS NE on foot from well pad in the	ne SW 1/4		
NW 1/4 Sec. 17 T1S R101W			
DESCRIPTION			
Era Mesozoic System C	retaceous	Formation	Williams Fork
Member Uni	t .		THE STATE OF THE S
Stratigraphic position 1 meter above base of cap	-sandstone clif	f	
Sediment			12
description medium-grained, cross-bedd	ed sandstone; b	uff in color	
Depositional environment fluvio-deltaic			
Fossils sampled bone fragments			
Fossils remaining many bones visible in matrix			
Scientific significance and disposition of material 2			
	-287		

LOCALITY NUMBER: ET 11-4	1270
NAME:	
- PREVIOUS NUMBER(S): _GWS-ETC (Field #)	11-5
LOCATION:	11-4
State: Colorado County: Rio Blanc	· - / 1 1 1
Township: 1 S Range: 101 W	- (in-9)
SW 1/4 NW 1/4 NW 1/4, section 17	
1/4 1/4 1/4, section	
USGS Quadrangle Water Canyon, Colorado	
, 7.5 min.	
UTM 12 ; 690950 m E, 4426300 m N	
LANDOWNER Bureau of Land Management	
ACCESS N on foot from well pad in the SW 1/4	
NW 1/4 Sec. 17 T1S R101W	3, 11
DESCRIPTION	100
Era Mesozoic System Cretaceous	Formation Williams Fork
Member Unit	
Stratigraphic position on valley wall facing S near ridge top	
Sediment description pebble/bone conglomerate within tan, well-	sorted medium- to fine-
grained quartzose sandstone with multiple small-scale	crossbed sets
Depositional environment fluvio-deltaic	41.
Fossils sampled carnosaur tooth, dinosaur bone, crocodilian t	opth (Brachychampsa?)
Fossils remaining <u>turtle shell, many dinosaur bones, crocodil</u>	ian and carnosaur teeth,
fish scale and fossil wood	
Scientific significance and disposition of material 1	
-288-	

LOCALITY NUMBER: ET 11-	5	194 年1
NAME:	The state of the s	
PREVIOUS NUMBER(S): _ GWS	-FTD (Field #)	11-5
LOCATION:		1172
State: Colorado	County: Rio Blanco	
Township: 1 S	Range: 101 W	
NE 1/4 NW 1/4 NW	1/4, section 17	
1/4 1/4	1/4, section	The state of the s
USGS Quadrangle Water Can	yon, Colorado	
	.5 min.	
UTM 12 ; 69119	0 m E, 4426450 m N	
LANDOWNER Bureau of Land		
ACCESS NE on foot from we	ell pad in the SW 1/4	
NW 1/4 Sec. 17 T1S R101W		
DESCRIPTION		
Era Mesozoic	System <u>Cretaceous</u> Form	
Member	Unit	Williams Fork
Strationanhic	ajor exposed sandstone ledges	
Sediment	us (?) shale/mudstone	
The state of the s	was a real points the second executive but	A court the lessen of the court of
Depositional environment fluvio-deltaic		
Fossils sampled none		
Fossils remaining <u>large</u> , in situ,	isolated dinosaur bone	
cientific significance and disposition of material 3		
	00-	

LOCALITY NUM	BER: ET 11-6			and the second second	2.
NAME:					
PREVIOUS NUM	BER(S): JM 823				1 12 1
LOCATION:					- 1111
State: C	olorado	County:	Rio Blanco		
Township:	1 S	Range:	101 W		5 19 19 19
SW 1/4	SE 1/4_NW 1	/4, section _1	.7		三种
1/4	1/4 1	/4, section _			
USGS Quadran	gle Water Canyo	n, Colorado			
	, 7.5		min.		
UTM_12	; 691370	m E, 44258	320 m N		
LANDOWNER	Bureau of Land M	anagement			
		-			
ACCESS E	on foot from wel	1 pad in the S	SV 1/4		
NW 1/4 Sec.	17 T1S R101W				
DESCRIPTION					
Era Mes	ozoic S	ystem Cret	aceous	Formation	Williams Fork
Member		Unit			
Stratigraphic position	Approximately	12 feet above	base of drains	age .	
Sediment description	unevenly-bedded	, dark-gray sh	nale (lenticula	ar in seque	ence of alter-
nating sand	stone and shales)			
Depositional environment	fluvio-deltaic				*
Fossils Sampled <u>lea</u>	af impressions,	probably Araud	arites, palm,	and dicots	
Fossils remaining	same (shale need	s to be split	intensively)		, ,
Scientific s and disposit	ion of				
material	5		200		
			-290-		

SITE FORM	化八十万
LOCALITY NUMBER: ET 11-7 NAME:	7 11/12
PREVIOUS NUMBER(S): _JUM_8234 (Field #)	/ H-23 2 3 7
State: Colorado County: Río Blanco	V4.
Township: 1 S Range: 101 W SW 1/4 NE 1/4 NM 1/4, section 17	11-9
USGS Quadrangle Water Canyon, Colorado	
, 7.5 min.	
UTM 12 ; 691400 m E, 4426430 m N LANDOWNER Bureau of Land Management	
ACCESS NE on foot from well pad in the SW 1/4	
NW 1/4 Sec. 17 T1S R101W	
DESCRIPTION	
Era Mesozoic System <u>Cretaceous</u> Formation Member Unit	Nilliams Fork
Stratigraphic position 10 feet below sandstone cap-rock	
Sediment description light-gray shale about 7-feet-thick with some orange	weathering stains
Depositional environment fluvio-deltaic	-
Fossils Sampled bone fragments (probably turtle)	
Fossils remaining none	
Scientific significance and disposition of material 3	

SITE H	ORM .	S. 11 15 '8
LOCALITY NUMBER: ET 11-8		- SAE(A
NAME:		
PREVIOUS NUMBER(S): JI-11-2 (Field #)	223
LOCATION:		一 一 一
State: Colorado Count	y: Rio Blanco	
Township: 1 S Range	: 101 W	
SW 1/4 NW 1/4 NE 1/4, section	n 17	
SE 1/4 NW 1/4 NE 1/4, section	n 17	
USGS Quadrangle Water Canyon, Colorado	0	
, 7.5	min.	
UTM_12 ; 691850 m E, 4		
LANDOWNER Bureau of Land Management		
ACCESS NE on foot from well pad in t	he SW 1/4	
NW 1/4 Sec. 17 T1S R101W		
DESCRIPTION		
Era Mesozoic System	Cretaceous	Formation Williams Fork
Member Un	it	
Strationaphic		
position weathered area between to	wo lowest massive	sands
Sediment description <u>area of weathered sandsto</u>	ne and shale (spec	imens found as float; bone
producing layer extends for about 300	meters between ca	enyons)
Depositional environment fluvio-deltaic		
Fossils sampled <u>bone</u> fragments and fossil wo	od	
Fossils remaining none		
Scientific significance and disposition of material 3		
	-292-	

LOCALITY NUMBER: ET 11-9	
NAME:	
PREVIOUS NUMBER(S): SMW 11-1 and 11-2 (Field #)	11/2
LOCATION:	11-4.
State:ColoradoCounty: Rio Blanco	1 -5 103
Township: 1 S Range: 101 W	11-9
SE 1/4 SE 1/4 NE 1/4, section 18	7/
NE 1/4 NE 1/4 SE 1/4, section 18	See visit of the section of the
USGS Quadrangle Water Canyon, Colorado	
, 7.5 min.	
UTM 12 ; 690750 m E, 4425870 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from highway 139 at State Bridge	
DESCRIPTION	
Era <u>Mesozoic</u> System <u>Cretaceous</u> Formation	W4114 5
Member Unit	WIIIIams Fork
Stratigraphic position immediately below massive white siltstone	
Sediment description weathered white silt covered with blue, black, prang	e. red iron-
stained tabular to cubic, sharp-edged pebbles, generally no more	than 1 cm in
greatest diameter	endir 1 Ca III
Depositional environment fluvio-deltaic	
Fossils sampled turtle scrap and dinosaur bone	
Fossils remaining dinosaur bone	
Scientific significance and disposition of material 2	
-293-	

LOCALITY NUMBER:	ET 11-10	1 171 m
NAME:		11389
	(S): JnM-11-2 (Field #)	11/10 6
LOCATION:		E 112137
State: Color	rado County: Rio Blanco	1 767 657
Township: 1 S	Range: 101 W	John HI H
SW 1/4 SW	1/4 NE 1/4, section 7	1 2 14
1/4	1/4 1/4, section	
USGS Quadrangle	Water Canyon, Colorado	
	, <u>7.5</u> min.	
UTM_12	; 690250 m E, 4427650 m N	
LANDOWNER Bure	eau of Land Management	
ACCESS E on fo	oot from highway 139	,
-		
DESCRIPTION		
Era Mesozoi	ic System Cretaceous	Formation Williams Fork
Member	Unit	
Stratigraphic position at	bout 1.5 meters above siltstone in massi	ve tan sandstone
Sediment		
description mas	ssive tan sandstone	
Depositional fl	luvio-deltaic	-
Fossils	100-0010010	
Fossils remaining lens	s of petrified wood with exposed log	
Scientific sign and disposition material	of	
mu cci i ai	504	

LOCALITY NUMBER: ET 11-11	
NAME:	1 1 1 1 1 1
PREVIOUS NUMBER(S): JDM-11-1 (Field #)	E ASSE
LOCATION:	1 1878
State: Colorado County: Rio Blanco	
Тоwnship: 1 S Range: 101 Ч	11500年。
SE 1/4 NW 1/4 SE 1/4, section 7	
1/4 1/4 1/4, section	
USGS Quadrangle Water Canyon, Colorado	
Colorado , 7.5 min.	
UTM 12 ; 690590 m E, 4427050 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from highway 139	
DESCRIPTION	
Era <u>Mesozoic</u> System <u>Cretaceous</u> Fo	mmation Williams Fork
MemberUnit	
Stratigraphic position base of massive tan sandstone at contact wit	
meters above base of drainage	
Sediment description light-gray siltstone below massive tan sandst	
Depositional environment fluvio-deltaic	
Fossils sampled none	
Fossils remaining petrified wood (log)	
Scientific significance and disposition of material 5	

LOCALITY NUMBER: ET 11-12	- SAMOUN
NAME:	
PREVIOUS NUMBER(S): MCM-11-1 A and B (Field #)	STATE OF
LOCATION:	不製·原/
State: Colorado County: Rio Slanco	
Township: 1 S Range: 101 W	L 14-5
NW 1/4 NW 1/4 SE 1/4, section 8	·2]温温产品
1/4 1/4 1/4, section	
USGS Quadrangle Water Canyon, Colorado	
, 7.5 min.	
UTM 12 ; 691820 m E, 4427200 m N	
LANDOWNER Bureau of Land Management	
ACCESS NE on foot from well pad in the SW 1/4	
NW 1/4 Sec. 17 T1S R101W	
DESCRIPTION	
Era Mesozoic System Cretaceous Form	ation Williams Fork
Member Unit	
Stratigraphic position about 2 meters above base of gully	
Sediment description weathered light gray siltstone, about 1-meter-t	hick, between massive
tan sandstone benches	
Depositional environment lacustrine	
Fossils sampleddinosaur_bone_fragments	
Fossils remaining dinosaur bone fragments	
Scientific significance and disposition of	
material 3	
206	

LOCALITY NUMBER	: ET 11-13	1 1000
NAME:		.48.00
PREVIOUS NUMBER	(S): MCM-11-2 (Field #)	11137 113
LOCATION:		
State: Color	rado County: Rio Blanco	1 Half, 11-94
Township: 1 S	Range: 101 W	
	1/4 NE 1/4, section 7	Ţ
	1/4 1/4, section	Gas
USGS Quadrangle	Water Canyon, Colorado	
	, 7.5 min.	
	; 690480 m E, 4427470 m N	
LANDOWNER Bure	au of Land Management	
Era Mesozoi	c System Cretaceous	Formation Williams For
Stratigraphic	meters above gully floor, about 15 meter	
Sediment description <u>mass</u>	sive, tan sandstone (weathered)	
Depositional environment flu	vio-deltaic	
ossils		
sampled <u>turtle</u>		
sampled turtle Fossils Femaining none		
ossils	fragments Ticance	

LOCALITY NUMBER: ET 11-14	
NAME:	1018/15
PREVIOUS NUMBER(S): JUM 8239 (Field #)	
LOCATION:	HARTEN
State: Colorado County: Rio Blanc	10 10 3.
Township: 1 S Range: 101 W	- : 115
NU 1/4 SW 1/4 SW 1/4, section 8	11-23
1/4 1/4 1/4, section	
USGS Quadrangle Water Canyon, Colorado	
, 7.5min.	
UTM 12 ; 690990 m E, 4426900 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from minhway 139	
DESCRIPTION	
Era Mesozoic System Cretaceous	Formation Williams Fork
Member Unit	
Stratigraphic position on low hill in main gulch	
Sediment description float (origin uncertain)	
Depositional environment fluvio-deltaic	
Fossils Sampled dinosaur bone, turtle shell fragment	
Fossils remaining dinosaur bone	
Scientific significance and disposition of material 4	
-298-	

LOCALITY NUMBER	R: ET 11-15	The state of
NAME:		35-7-18 V
PREVIOUS NUMBER	R(S): JUM 8240 (Field #)	Will to
LOCATION:		4%
State:Colo	orado County: Rio Blanco	关。乃是
Township: 1 S	S Range: 101 W	11-5-433
NE 1/4 SW	1/4 SW 1/4, section 8	
1/4	1/41/4, section	
USGS Quadrangle	e Water Canyon, Colorado	
	, 7.5 min.	
UTM 12	; 691130 m E, 4427000 m N	
LANDOWNER BUT	reau of Land Management	
QESCRIPTION	oic Systen Cretaceous Format	ion <u>Williams For</u>
Member	Unit	
Stratigraphic position a	at base of slope about 3 feet above base of drain	nage
	loat (probably derived from gray mudstone)	
Depositional	fluvio-deltaic	
Fossils	saur bone	
Fossils remaining dir	nosaur bone	
Scientific sign and disposition material	n of	
	-200-	The second secon

SITE FOWA

LOCALITY NUMBER: ET 11-16	The state of
NAME:	
PREVIOUS NUMBER(S): _JUM 8241 (Field #)	
LOCATION:	
State: Colorado County: Rio Bl	anco (FI)
Township: 1 S Range: 101 W	10000000000000000000000000000000000000
NE 1/4, NW 1/4 SW 1/4, section 8	+11 11 11 11 11
1/4 1/4 1/4, section	
USGS Quadrangle Water Canyon, Colorado	
, 7.5 min.	
UTM_12 ; 691160 m E, 4427370 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from highway 139	
DESCRIPTION	
Era <u>Mesozoic</u> System Cretaceous	Formation Williams Fork
MemberUnit	
Stratigraphic position 70 feet below top of ridge	
Sediment description well-indurated sandstone (float block)	
Depositional environment fluvio-deltaic	
Fossils sampled none	
Fossils remaining palm leaf without hastula	
Scientific significance and disposition of material 5	
300	

LOCALITY NUMBER: ET 11-17	Tall 1
NAME:	一品种温度
PREVIOUS NUMBER(S): JMW 12 (Field #)	十分到的
LOCATION:	1-5
State: Colorado County: Rio Blanco	7 H723
Township: 1 S Range: 101 W	十九二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二十二
SE 1/4 SW 1/4 SW 1/4, section 8	1:10 11/2
1/41/41/4, section	TES VILLES
USGS Quadrangle Mater Canyon, Colorado	
, 7.5 min.	
UTM 12 ; 691220 m E, 4426800 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from highway 139	
DESCRIPTION	
Era <u>Mesozoic</u> System <u>Cretaceous</u> Forma	ition William 5
Member Unit	WIIIIams Fork
Stratigraphic position below second prominent sandstone ridge	
Sediment	
description blue-gray weathered mudstone	
Donasia	
Depositional environment fluvio-deltaic	
Fossils Sampled bone fragments	
Fossils remaining <u>bone fragments</u>	2.
Scientific significance and disposition of material 4	
201	

SITE LORM

LOCALITY NUMBER:		
NAME:	17.2	
PREVIOUS NUMBER	(S): JMW 13 (Field #)	P. F.
LOCATION:	· Control	3
State: Color	rado County: Rio Blanco	
Township: 1 S	Range: 101 W	为
SE 1/4 SW	1/4 NE 1/4, section 7	元, 生
1/4		
USGS Quadrangle	Mater Canyon, Colorado	
	, 7.5 min.	
UTM_12	; 690370 m E, 4427520 m N	
LANDOWNER Bure	eau of Land Management	
ACCESS E on fo	oot from highway 139	
	100	
DESCRIPTION		
Era Mesozoi	ic System Cretaceous Formation William	s Fork
Member	Unit	
Stratigraphic		
•	n south-facing slope of second prominent ridge	
Sediment description gra	ay and sandy mudstone (weathered)	
Depositional environment fl	luvio-deltaic	
Fossils sampled bone f	fragments	
Fossils remaining <u>none</u>	e	
Scientific signi and disposition material	of	
	202	

LOCALITY NUMBER: ET 11-19	-32,-27/1=3/18/
NAMF.	{ 2/25
PREVIOUS NUMBER(S): JMW 14 (Field #)	141145
LOCATION:	Maes
State: Colorado · County: Rio Rlanco	NS TOTAL
Township: 1 S Range: 101 W	
SE 1/4 SW 1/4 NE 1/4, section 7	
1/41/4 , section	-1-777, 734
USGS Quadrangle Water Canyon, Colorado	
, 7.5 min.	
UTM 12 ; 690520 m E, 4427520 m N	
LANDOWNER Bureau of Land Management	
and generit	
ACCESS E on foot from highway 139	
DESCRIPTION	
Era Mesozoic Systam Cart	
Era <u>Mesozoic</u> System <u>Cretaceous</u> For Member <u>Unit</u>	mation <u>Williams Fork</u>
ourdingraphic	
position under sandstone bench 20 feet west of gully h	ead .
Sediment	
description very sandy and weathered shale; tan and gray ar to medium tan-gray sandstone	nd interbedded with fine
Pepositional	
nvironment fluvio-deltaic	
ossils ampled large dinosaur bone	
ossils emaining dinosaur bone fragments	
entific significance	
sterial 2	

STIE FORM

LOCALITY NUMBER: ET 12-1	-1/55
NAME:	
PREVIOUS NUMBER(S): TRL-17 (Field #)	12-10-12-7-12-12
LOCATION:	3-12-12-1
State: Colorado County: Rio Blanco	2-3 2-4
Township: 2 N Range: 98 W	
NW 1/4 SE 1/4 SE 1/4, section 4	12-23 12-5
1/41/41/4, section	
USGS Quadrangle Rough Gulch, Colorado	
, 7.5 min.	
UTM_12 ; 722400 m E, 4449300 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from road up Yellow Creek	
DESCRIPTION	
Era Cenozoic System Tertiary Fo	ormation <u>Wasatch</u>
MemberUnit	
Stratigraphic (0.6 to take a mall mall mall mall mall mall mall m	
position about 60 feet above small valley floor	
Sediment description silty sandstone and conglomerate that weather	rs red to brown
Depositional environment fluvial	
Fossils sampled fish scales and crocodilian, turtle and mammal	one fragments
Fossils remaining <u>none</u>	
Scientific significance and disposition of material 4	
304-	

LOCALITY NUMBER: ET 12-2	SITE FORM		10/12/4 /2/12
NAME:			12 6 2 1 2 A.
PREVIOUS NUMBER(S): TRL-18			12-3
LOCATION:	the species of the sp		2-16
State:Colorado	County: Ri	o Blanco	23 2 6 12 5
Township: 2 N			12-15
NE 1/4 NE 1/4 NE 1/4			to the second second
1/4 1/4 1/4			
USGS Quadrangle Rough Gulch,			
, 7.5			
UTM 12 ; 722680			
LANDOWNER Bureau of Land Man	agement		
	,		
ACCESS E on foot from road u	p Yellow Creek		
DESCRIPTION			
Era <u>Cenozoic</u> Sys	temTertiary	Formatio	n Wasatch
Member .			
Stratigraphic position underlies yellow			derlies .5-meter-
sandstone ledge			thick
Sediment description gray mudstone			
Depositional environment fluvial			
Fossils sampled bone fragments, fish			mmalian molars
Fossils remaining <u>none</u>			, T.
Scientific significance and disposition of material 1			
	-305-		

				V	16-17-19
LOCALITY NUMBER:				2	
NAME:				- 6	310 312 2011
PREVIOUS NUMBER (S): JGW 12-1	(Field #)	and the second second second		1.21
LOCATION:				. 3	1805 6-1-12-A
State:Color	ado	County:	Rio Blanco		12-13-12-
Township: 2 N		Range:	N 88		12-8
SW 1/4 SE	1/4 SE 1/4,	section 4			2312 8 15 3
1/4	1/4 1/4,	section			745 -1
USGS Quadrangle	Rough Gulch, C	olorado			
	, 7.5		min.		
UTM 12					
LANDOWNER Bure					
		,			
ACCESS E on fo	ot from road up	Yellow Cre	ek		
DESCRIPTION					
Era Cenozoi					
Member 1		Unit			
Stratigraphic position fo	ound in ant hill				
,	Jana III and MIXI				
Sediment description unl	cnown				
Depositional					
environment ar	nt hill				
Fossils sampled gar so	cale and lizard	scute(?)		,	
Fossils remaining <u>non</u>	9				
Scientific sign					
and disposition naterial	of 4				
			-306-		

STIE FORM

	ET 12-4
NAME:	912-72-12
PREVIOUS NUMBER (S): JGM 12-2 (Field #)
LOCATION:	12-3 2-4
State: Color	ado County: Rio Blanco 212-16.12-2
Township: 2 N	Range: 98 W 23 6 12-5
	1/4 SE 1/4, section 4 12-6-12-9
	1/4 1/4, section
	Rough Gulch, Colorado
	, 7.5 min.
	; 722600 m E, 4449200 m N
	au of Land Management
DESCRIPTION Era <u>Cenozoio</u>	System Tertiary Formation Wasatch
	Unit
Stratigraphic position about	50 feet above base of hill, towards base of large sandstone cliff
Sediment	e penare congrumerace
	, coarse-grained and well-cemented sandstone
Nepositional environment <u>flu</u>	vial
Fossils sampled <u>none</u>	
Fossils remaining bone,	gar scale

LOCALITY NUMBER: ET 12-5	- 5482 15.
NAME:	12.3
PREVIOUS NUMBER(S): JGM 12-3 (Field #)	12-15:12
LOCATION:	2523 - 12.5
State: Colorado County: Rio Blanc	0 2 7 8 129
Township: 2 N Range: 98 W	12-15.
SE 1/4 NE 1/4 NE 1/4, section 9	
1/4 1/4 1/4, section	
USGS Quadrangle Rough Gulch, Colorado	
, 7.5 min.	
UTM_12 ; 722600 m E, 4448850 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from road up Yellow Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Wasatch
Member 1 Unit	
Stratigraphic position in float and in situ above; below within	second sandstone outcrop
Sediment description variegated weathered mudstone, interbedde	d with coarse-grained
and well-cemented sandstone	
Depositional environment fluvial	
Fossils sampled crocodilian teeth, crocodilian bone and turt	le
Fossils remaining additional bone	
Scientific significance	
and disposition of material 2	
-308-	

SITE FORM	29065 500
LOCALITY NUMBER: ET 12-6	2-11-5 /2-17
NAME:	2 12 1
PREVIOUS NUMBER(S): JGM 12-4 (Field #)	12-16-12-2
LOCATION:	12-23 -63 12-5
State: Colorado County: Rio Blanco	12-612-9
Township: 2 N Range: 98 W	12-15°
SW 1/4 NE 1/4 NE 1/4, section 9	Belleting property of the
1/4 1/4 1/4, section	
USGS Quadrangle Rough Gulch, Colorado	
, 7.5 min.	
UTM 12 ; 722480 m E, 4448700 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from road up Yellow	
DESCRIPTION	
Era <u>Cenozoic</u> System Tertiary Form	ation Wasatch
Member <u>1 (?)</u> Unit .	Ne Saccii
Stratigraphic	
positionat top of sandstone outcrop	
Sediment description gray sandstone	
Depositional environment fluvial	
Fossils Sampled gastropods	
Fossils remaining gastropods	
Scientific significance and disposition of material 3	
- 200	

LOCALITY NUMBER: ET 12-7	
NAME:	12-11-20-2-12-1
PREVIOUS NUMBER(S): EBO 3/GWS ETE (Field #)	12-3
LOCATION:	12-16
State: Colorado County: Rio Blanco	12-23-212-5
Township: 2 N Range: 98 W	
SW 1/4 NE 1/4 SE 1/4, section 4	12 10
SE 1/4 NW 1/4 SE 1/4, section 4	
USGS Quadrangle Rough Gulch, Colorado	
UTM 12 ; 722200 m E, 4449500 m N	
LANDOWNER Bureau of Land Management	
ACCESS SW on foot from jeep trail off Highway	
64	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Fort Union
Member "upper" Unit	
Stratigraphic position about 30 feet into stratigraphic section.	about 15 feet above flag-
stone-forming sandstone	
Sediment description times gray) mudstone; overlies black carbonaceous shall sandy silts; at least 2 other shell-bearing horizons of section	lev mudstone, overlain by tak
Depositional environment fluvial	
Fossils sampled variety of mollusks including pelecypods and	gastropods
Fossils remaining gastropods, pelecypods	
Scientific significance and disposition of	
material 3	
- 51U-	

	FORM	12-11-12-12-12-12-17
LOCALITY NUMBER: ET 12-8		- 12 6 6 - 12 A
NAME:		12-3 12-4
PREVIOUS NUMBER(S): GMS-ET-F (Field	(#)	12-16
LOCATION:		12-23 - 12-5
State: Colorado Coun	tu. 0/- 01	
Township: 2 N Rang	cy. Kio Blance	14-15
NE 1/4 NE 1/4 NE 1/4, section	e: 95 W	
1/4 1/4 1/4 Section	on <u>9</u>	12
USGS Quadrangle Rough College 2	on	
USGS Quadrangle Rough Gulch, Colorado		
, 7.5	min.	
UTM 12 ; 722680 m E, 4	448900 m N	
LANDOWNER Bureau of Land Management		
ACCESS W on foot from jeep trail off	Highway	
64	-	
DESCRIPTION		
Era <u>Cenozoic</u> System	Tertiary	Formation Wasatch
MemberUni	it	THE SECOND
Stratigraphic position middle of exposed section		
Sediment description variegated mudstone (red-g	ray-brown)	
Depositional environment fluvial (floodplain overb		
Fossils sampled <u>trionychid turtle</u> , eusuchian (its and francent of man
malian tooth enamel		Trognent of man-
Fossils remaining more of same		,
Scientific significance		
	-311	

LOCALITY NUMBER: ET 12-9	12-3
NAME:	12 16: 6: 6: 6: 6: 6: 6: 6: 6: 6: 6: 6: 6: 6
PREVIOUS NUMBER(S): TRL-19 (Field #)	12-23 2 2 5
LOCATION:	1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1
State: Colorado County: Rio Blanco	ر کا کا کے ا
Township: 2 N Range: 98 W	
SE 1/4 NE 1/4 NE 1/4, section 9	
1/4 1/4 1/4, section	
USGS Quadrangle Rough Gulch, Colorado	
, 7.5 min.	
UТИ 12 ; 722480 m E, 448780 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from road up Yellow Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Wasatch
Member Unit	
Stratigraphic positionin variegated (gray-yellow-red-brown) nud	stone underlying .5-meter-
thick sandstone ledge	
Sediment description variegated mudstone (gray-yellow-red-brown)
Nepositional environment fluvial (floodplain overbank)	
Fossils sampled turtle and crocodilian bone fragments, crocod	ilian tooth, enamel fragment
of mammal (Coryphodon)	
Fossils remaining <u>numerous hone fragments</u>	
Scientific significance and disposition of material 2	
-312-	

LOCALITY NUMBER: ET 12-10	179000
NAME:	1337
PREVIOUS NUMBER(S):JMW 1 (Field #)	清
LOCATION:	12-11-12-17
State: Colorado County: Rio Blanco	1-12-A
Township: 2 N Range: 98 W	12-3 5-7
SW 1/4 NW 1/4 SE 1/4, section 4	12-8
1/41/41/4, section	(1645) \\\(\delta\)
USGS Quadrangle Rough Gulch, Colorado	
, 7.5 min.	
UTM_12 ; 722010 m E, 4449600 m N	
LANDOWNER Bureau of Land Management	
ACCESS S on foot from jeep trail off Highway	
64	
DESCRIPTION	
Era Cenozoic System Tertiary Forma	tion _Wasatch
Member <u>"lower"</u> Unit	
Stratigraphic	
position 1/3-way up from valley floor at prominent outcr	ops
Sediment description gray, medium-grained, quartzose sandstone with t	orown weathered stain
Depositional environment fluvial	
Fossils sampled fossil leaves	
Fossils remaining more leaves	
Scientific significance and disposition of material 5	
313	

LOCALITY NUMBER: ET 12-11	1/2019
NAME:	
PREVIOUS NUMBER(S): JMW 2 (Field #)	
LOCATION:	12 12 12 12
State: Colorado County: Rio Blanc	· 12 18 0 0 - 12 18
Township: 2N Range: 98W	12-3
SW 1/4 NW 1/4 SE 1/4, section 4	2-16-12-5
1/4 1/4 1/4, section	圓[2=23] 12-5
USGS Quadrangle Rough Gulch, Colorado	
, 7.5 min.	
UTM 12 ; 722030 m E, 4449500 m N	
LANDOWNER Bureau of Land Management	
ACCESS S on foot from jeep trail off Highway	
64	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Wasatch
Member"lower" Unit	
Stratigraphic position same level as ET 12-10	
Sediment description gray, medium-grained quartzose sandstone	that is weathered brown
Depositional environment fluvial	
Fossils sampled fossil leaves	
Fossils remaining more leaves	,
Scientific significance and disposition of material 5	
-314-	

LOCALITY NUMBER: ET 12-12	(= 12 h
NAME:	
PREVIOUS NUMBER(S):JMW_3 (Field #)	2-16:12-8
LOCATION:	12-5
State: Colorado County: Ri	io Blanco Ho 160 2 12-13
Township: 2N Range: 98W	
NW 1/4 SE 1/4 SE 1/4, section 4	\$5000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000 \$1000
1/4 1/4 1/4, section	~ W M
USGS Quadrangle Rough Gulch, Colorado	
, 7.5	
UTM 12 ; 722210 m E, 4449300	
LANDOWNER Bureau of Land Management	
ACCESS S on foot from jeep trail off highway	
64	
DESCRIPTION	To Control de Approprié
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Wasatch
Member "lower" Unit	
Stratigraphic position near base of outcrop	
Sediment description grayish-tan fine-grained to medium-	grained sandstone; fossil wood occur
as float on weathered slope	
Depositional environment fluvial	
Fossils Sampled fossil wood	
Fossils remaining fossil wood	
Scientific significance and disposition of material 5	
-315-	

LOCALITY NUMBER: ET 12-13	12-16:12:2
NAME:	12-5
PREVIOUS NUMBER(S): SMW 12-1 (Field #)	
LOCATION:	12-13
State: Colorado County:	Rio Blanco
Township: 2N Range:	98W
NW 1/4 SE 1/4 NW 1/4, section	10
1/4 1/4 1/4, section _	
USGS Quadrangle Rough Gulch, Colorado	
	min.
UTM 12 ; 723070 m E, 4448	560 m N
LANDOWNER Bureau of Land Management	
ACCESS S on foot from jeep trail off hi	
DESCRIPTION -	S. S
Era <u>Cenozoic</u> System <u>Ter</u>	
Member 1 Unit	
Stratigraphic position at or very near (within 10	m of) the Twl-Tw contact
Sediment description silt-supported mollusc shell	-fragment cocquina
Depositional environment fluvial	
Fossils sampled crocodilian vertebra, gar scale	es, fish vertebra, crocodilian scute, bival
Fossils remaining same	
Scientific significance and disposition of material 2	
	316-

LOCALITY NUMBER:	ET 12-14			1 11
				10.
	S): SMW 12-1 (Field			
LOCATION:				***
State: Color	edo Coun	ty: Rio Blan	100	
	Range			
	1/4 <u>NE</u> 1/4, section			The second
1/4	1/4 1/4, section	on		10
USGS Quadrangle	Smizer Gulch, Colorad	do		~
	, 7.5	min.		
UTM 12	; 723700 m E, 4	4448500 m N		
LANDOWNER Bure	u of Land Management			
ACCESS W of je	ep trail off			
ACCESS W of je			Formation	Wasatch
ACCESS W of je DESCRIPTION Era Cenozoi	ep trail off	Tertiary		
ACCESS W of je DESCRIPTION Era Cenozoi Member 1 Stratigraphic	ep trail off	Tertiary iit		
ACCESS W of je DESCRIPTION Era Cenozoi Member 1 Stratigraphic position at	ep trail off System Un Or very near (within	Tertiary it	he_Twl-Tw cor	tact
ACCESS W of je DESCRIPTION Era Cenozoi Member 1 Stratigraphic position at	ep trail off System Un	Tertiary it	he_Twl-Tw cor	tact
ACCESS W of je DESCRIPTION Era Cenozoi Member 1 Stratigraphic position at Sediment description yel	ep trail off System Un Or very near (within	Tertiary hit	he Twl-Tw cor	tact
ACCESS W of je DESCRIPTION Era Cenozoi Member 1 Stratigraphic position at description yel Depositional environment file	ep trail off System Un Or very near (within	Tertiary hit	he Twl-Tw cor	tact
ACCESS W of je DESCRIPTION Era Cenozoi Member 1 Stratigraphic position at Sediment description yel Depositional flu	ep trail off System Un Or very near (within	Tertiary iit 10 meters of) t	he Twl-Tw cor	ntact
ACCESS W of je DESCRIPTION Era Cenozoi Member 1 Stratigraphic position at Sediment description yel Depositional flu	ep trail off System Un or very near (within ow silty sandstone vial llid-like gastropods	Tertiary iit 10 meters of) t	he Twl-Tw cor	ntact
ACCESS W of je DESCRIPTION Era Cenozoi Member 1 Stratigraphic position at at sediment description yel Depositional environment flutes a complete the complet	ep trail off System Un or very near (within ow silty sandstone vial llid-like gastropods	Tertiary it 10 meters of) t	he Twl-Tw cor	ntact

valve sc ha

		SITE FURM	1		1393811	
LOCALITY NUMB	ER: <u>ET 12-15</u>				TO TO	
NAME:		Commence Manager Control			12-11-2	
PREVIOUS NUMB		(Field #)			110.2	10
LOCATION:					12:10	
State: Co	lorado	County:	Rio Blanc	0	12:23 - 01	12
Township: 2	N	Range:	98W		15-15	
		1/4, section _			12-	15
1/4	1/4	1/4, section _				-
USGS Quadrang	le Rough Gulc	h, Colorado				
		5	min.			
UTM 12	; 722700	m E, 4448	480 nt N			
LANDOWNER B	ureau of Land	Management				
-						
ACCESS S on	foot from jee	p trail off of	Highway			
64						
DESCRIPTION						
Era Ceno	zoic	System Ter	tiary	Formatio	on Wasatch	
Member		Unit				-
Stratigraphic position		ate contact of	Tw with Twl		4	
Sediment description	4-foot-thick c	alcareous sand	stone/sandy l	imestone w	vith much shell	an(
fossil mater	ial; weathers	tan and dark b	lue; within t	hick seque	ence of interhed	dec
Nepositional environment	fluvial (floo	dplain overban	k)			
Fossils						_

Fossils gastropods
Fossils remaining more of the same

Scientific significance and disposition of material 2

*flagstone-weathering sandstones and sandy silts above distinctive gray tuff; sevel shell/bone horizons within exposures of locality, including one with distinctive includes destrongly.

LCON TOWN	SITE FORM	(c.)	3/
LOCALITY NUMBER: ET 12-16			12-4
NAME:	STORTER CO.	12-11	
PREVIOUS NUMBER(S): TRL-20	(Field #)		115
LOCATION:		77	12-16
State: Colorado			- 20.00
Township: 2N	Range: 98W		12-E) a
NE 1/4 NE 1/4 NE 1/4	4, section 9	an in	12-18
1/4 1/4 1/4	4, section		
USGS Quadrangle Rough Gulch,	Colorado		
	min.		
UTM 12 ; 72268U	m E, 4448980 m N		
LANDOWNER Bureau of Land Man	nagement		
ACCESS S on foot from jeep t	rail off of Highway		
64			
DESCRIPTION			
Era Cenozoic Sys	tem Tertiary	Formation Wasa	tch
Member			
Stratigraphic position <u>underlies 2 mete</u>			
Sediment description gray and yellow v	ariegated mudstone		
Depositional environment fluvial (floodpla	ain overbank)		
Fossils Sampled _fish_centrum and pelo	ecypod fragments		
ossils emaining none			
Scientific significance and disposition of material3			
	23.0		

LOCALITY NUMBER: ET 12-17	
NAME:	12 9 12 3 12 11
PREVIOUS NUMBER(S): TRL-16 (Field #)	12-12-12
LOCATION:	. 12-3
State: Colorado County: Rio Blanco	7 12-16:12 3
Township: 2N Range: 98W	12-23 12-5
NW 1/4 SE 1/4 SE 1/4, section 4	12-15
1/4 1/4 1/4, section	
USGS Quadrangle Rough Gulch, Colorado	,
, 7.5 min.	
UTM 12 ; 722330 m E, 4449300 m N	
LANDOWNER Bureau of Land Management	
ACCESS SW on foot from jeep trail off Highway	
64	
DESCRIPTION .	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation <u>Wasatch</u>
MemberUnit	
Stratigraphic position directly overlies a 1-meter-thick sandston	e ledge
Sediment description siltstone with gastropods and pelecypods	
description stressome with gestropous and perceptous	
Depositional environment fluvial	
Fossils Sampled gastropods and pelecypods	
Fossils remaining more of same	
Scientific significance and disposition of material 2	
200	

SITE FLOW

LUCALLTY NUMBER: ET 12-18	10/72/34 15/5-5:
NAME:	12-20
PREVIOUS NUMBER(S): TRL-21 (Field #)	12-19
LOCATION:	12-18
State: Colorado County: Rio Bla	nco
Township: 2N Range: 98W	Server C
SE 1/4 SE 1/4 NE 1/4, section 17	nco
1/4 1/4 1/4, section	
USGS Quadrangle Rough Gulch, Colorado	1
Colorado , 7.5 min.	
UTH 12 ; 720980 m E, 4446780 m N	
LANDOWNER Bureau of Land Management	
DESCRIPTION Era <u>Cenozoic</u> System Tertiary	Formation Uinta
Member Unit	
Stratigraphic position overlies clay rip-up clast conglomerate cross-bedded massi description medium-grained sandstone and conglomerate	ve sandstone (3-meters-thick)
stone lens	
Depositional environment fluvial	
Fossils sampled <u>crocodilian tooth</u> and high-spired gastropod	s
Fossils remaining gastropods and bone fragments	
Scientific significance and disposition of material 3	

LOCALITY NUMBER: ET 12-19	- 5 A 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
RAME:	
PREVIOUS NUMBER(S): JUM 8238 (Field #)	11/2/20
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 2N Range: 98W	- Sur Colo
NW 1/4 SW 1/4 NW 1/4, section 16	7 8000
1/4 1/4 1/4, section	
USGS Quadrangle Rough Gulch, Colorado	
UTM 12 ; 721100 m E, 4446780 m N	
LANDOWNER Bureau of Land Management	
ACCESS N on foot from road up Greasewood Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Uinta
MemberUnit	
Stratigraphic position about 20 feet above tongue of Green River	Formation
Sediment description ressive, cliff-forming, medium-grained sand	dstone with lenses of con-
glomerate	
Depositional environment fluvial - marginal lacustrine	
Fossils sampled gar scales, high-spired gastropod	
Fossils remaining bone fragments, gar scales, leaf fragments	(Platanus sp.)
Scientific significance and disposition of material 3	
- 222	

LOCALITY NUMBER: ET 12-20			77.15.5
NAME:			- 100
PREVIOUS NUMBER(S): GWS-ET-6	(Field #)		- 10 12-19
LOCATION:		-	A BE VI
State: Colorado	County: R	io Blanco	
Township: 1N	Range: 98W	TO TITOTICO	- aredun
NW 1/4 SW 1/4 NW 1/4,	section 16		· 5 7 Por
1/4 1/4 1/4,	section		
USGS Quadrangle Rough Gulch, C	olorado		
, 7.5		min.	
UTM 12 ; 721120 ;	n E, 4446880	m N	
LANDOWNER Bureau of Land Manag	gement		
ACCESS N on foot from road up	Greasewood Creek	<	
DECOMPANY			
DESCRIPTION		2,	
Era <u>Cenozoic</u> System	m <u>Tertiary</u>	Formati	on Green River
nemoet.	Unit		-
Stratigraphic position low on slope			
Sediment			
description shale, well-	laminated, rich	in organics and	d kerogen
Depositional			
environment lacustrine			
Fossils . Sampled <u>1 leaf, numerous small</u> :			
Fossils remaining numerous insect larvae			
Scientific significance and disposition of asterial 4			-
		-	

	SI:E FORM	200123 1:
LOCALITY NUMBER: ET 12-21		3-12
NAME:		
PREVIOUS NUMBER(S): GWS-ET-		: 12-21
LOCATION:		Creek
State: Colorado	County: Rio Blanco	Syring
Township: 2N	Range: 98W	1000
NE 1/4 NW 1/4 NE 1/		A Carlo
1/41/41/		
USGS Quadrangle Rough Gulch,		. 19
UTM 12 ; 722200		
LANDOWNER Bureau of Land Ma		
ACCESS N on foot from road	up Greasewood Creek	
the second section of		
DESCRIPTION	and the second s	
Era Cenozoic Sy	stem Tertiary F	ormation Green River
Member	Unit	
Stratigraphic position low on slope		
Sediment description paper shale, mar		
Depositional environment lacustrine		
Fossils sampled 1 peculiar insect 1	arva or pupa	
Fossils remaining poorly preserved	insect larvae	
Scientific significance and disposition of material 4		
	224	

LOCALITY NUMBER: ET 12-22	
NAME:	
PREVIOUS NUMBER(S): EBO-5 (Field #)	
LOCATION:	- 18 22 22
State: Colorado County: Rio Blanco	1000
Township: 2N Range: 98W	12-19
NE 1/4 NW 1/4 NW 1/4, section 16	
1/41/41/4, section	
USGS Quadrangle Rough Gulch, Colorado	
UTM 12 ; 721280 m E, 4447200 m N	
LANDOWNER Bureau of Land Management	
ACCESS N on foot from road up Greasewood Creek DESCRIPTION	
Era <u>Cenozpic</u> System <u>Tertiary</u> Fo	rmation Green River
Member Unit	
Stratigraphic position Green River Shale about 30 feet below Uinta r	assive cliff formier
Sediment description gray shale	sandstone
Depositional environment lacustrine	
Fossils sampled <u>shale pieces containing fossil fruit, gastropod,</u>	
Fossils remaining more of same	
Scientific significance and disposition of material 4	

LOCALITY NUMBER: ET 12-23	THE PAST P
NAME:	WE SERVE
PREVIOUS NUMBER(S): JMW 4, 5, & 6 (Field #'s)	\$ 12-3/2
LOCATION:	12 16°
State: Colorado County: Rio Blanco	11000000000000000000000000000000000000
Township: 2N Range: 98W	
SW 1/4 NE 1/4 NE 1/4, section 9	1 . 3 %
1/4 1/4 1/4, section	-34 h
USGS Quadrangle Rough Gulch, Colorado	
, 7.5 min.	
UTM 12 ; 722400 m E, 4448780 m N	
LANDOWNER Bureau of Land Management	
ACCESS NE on foot from road up Yellow Creek	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Fo	rmation <u>Wasatch</u>
Member Unit	
Stratigraphic positionlower part of Wasatch (lacustrine facies)	
Sediment description weathered gray to maroon silty sandstone	
	1
Depositional environment lacustrine	
Fossils Sampled <u>partial mammalian femur, turtle shell and verteb</u>	rae, bone fragments, Cory
Fossils remaining none (?)	tooth
Scientific significance and disposition of material 2	
226	

LOCALITY NUMBER: ET 12-20	1	22 C 22 C 2 C 1 X 1 X 2 X 2
NAME:		11/25 12 - 11 / 12 1 - 1 C.F
PREVIOUS NUMBER(S): JMW 8		
LOCATION:		
State: Colorado	County: Rio Bla	nco 3 35 5 10 5
Township: 2N	Range: 98W	
SW 1/4 NW 1/4 NW		137 " et// ()
1/4 1/4		
USGS Quadrangle Rough Gulc	h, Colorado	
	5min.	
UTM 12 ; 721080		
LANDOWNER Bureau of Land	Management	
ACCESS N on foot from roa		
Era Cenozoic		
Member	Unit	
Stratigraphic position 200 feet below	v hill crest	
Sediment description <u>light</u> greenish	-gray to grayish-tan inter	bedded sandy shale, fine-grainer
sandstone and medium- to co	parse-grained arkosic sand	stone
Depositional environment marginal lacus	strine	
Fossils Sampled <u>leaves</u> , fair to ex	cellent preservation, woo	dy material
Fossils remaining more of same		
Scientific significance and disposition of material 5		
	-327-	

SITE FORM	製物を対すって
LOCALITY NUMBER: ET 13-1	1 18 18 1/2
NAME:	
PREVIOUS NUMBER(S): TER 22-4 (Field #)	1378
LOCATION:	· Was a file of the sale
State: Colorado County: Rio Bla	nco i-4
Township: 2S Pange: 101W	- 3
NE 1/4 SE 1/4 NE 1/4, section 3	1 S S S S S S S S S S S S S S S S S S S
1/41/41/4, section	
USGS Quadrangle Philadelphia Creek, Colorado	
, 7.5 min.	
UTM 12 ; 695900 m E, 4419740 m N	
LANDOWNER Bureau of Land Management	
ACCESS NW on foot from road up Philadelphia Creek	
DESCRIPTION	
Era Mesozoic System Cretaceous	Formation Williams Fork
MemberUnit	
Stratigraphic position just below sandstone at ridge crest	
Sediment	
searment description light green and carbonaceous claystone	
Depositional environment fluvio-deltaic	-
Fossils Sampled none	
Fassils remaining two fossil logs	
Scientific significance and disposition of material 5	
-328-	

SITE FORM LOCALITY NUMBER: ET 13-2	
NAME:	12 13 14 15
PREVIOUS NUMBER(S): JUM 8236 (Field #) LOCATION: State: Colorado	
State: Colorado County: Rio Blanco	
Township: 2S Range: 101W	
NE 1/4 SE 1/4 NE 1/4, section 3	211 11 201
1/4 1/4 1/4, section	
USGS Quadrangle Philadelphia Creek, Colorado	
7.5 min.	
UTM 12 ; 695970 m E, 4419720 m N	
LANDOWNER Bureau of Land Management ACCESS NW on foot from road up Philadelphia Creek	
DESCRIPTION	
Era <u>Mesozoic</u> System <u>Cretaceous</u> Formation	Nilliams Fork
MemberUnit	
Stratigraphic position about 40 feet below massive sandstone capping top of	fridge
Sediment description float (uncertain)	
Depositional environment fluvio-deltaic	
Fossils Sampled one bivalve found as float	
Fossils remaining none seen	
Scientific significance and disposition of material 4	

LUCALITY NUMBE	R: ET 13-3	14 184
NAME:		- 1
PREVIOUS NUMBE	R(S): SGL-3 (Field #)	
LOCATION:		The state of the s
State: Col	pradoCounty: Rio Blanco	
Township: 2S	Range: 101W	
NE 1/4 SE	1/4_NE1/4, section_3	198C.11
1/4	1/41/4, section	19/m 10/2
USGS Quadrangle	Philadelphia Creek, Colorado	
	, 7.5 min.	
UTM 12	; 695880 m E, 4419660 m N	
LANDOWNER Bur	eau of Land Management	
ACCESS S on fo	oot from unmapped road on ridge crest	
in sec. 3 T2S R	R101W	
DESCRIPTION		
Era Mesozoi	c System Cretaceous Fo	
Member	Unit	
Stratigraphic position at	base of sandstone capping ridge (see fig.	
Sediment		
oescription bone	e and shell conglomerate with sandstone mat	rix (brick-red to brown)
Depositional		
environment flu	vio-deltaic	
ossils sampled numerou	s vertebrates and invertebrates	
ossils	of the same	4
Scientific signif	icance	
laterial	1	
	220	

LOCALITY NUMBER: ET 13-4	
NAME:	The second
PREVIOUS NUMBER(S): GW9-ET-I (Field #)	
LOCATION:	
State: Colorado County: Rio B	lance W
Township: 2S Range: 101W	3
SE 1/4 NE 1/4 SW 1/4, section 3	THE CONTRACT
1/4 1/4, section	
USGS Quadrangle Philadelphia Creek, Colorado	
, 7.5 min.	•
UTM 12 ; 695100 m E, 4419000 m N	
LANDOWNER Bureau of Land Management	
ACCESS N on foot from road up Philadelphia Creek DESCRIPTION Era Mesozoic System Cretaceous	
Member Unit	Formation Williams Fork
Stratigraphic position lowest bench in section	
Sediment description massive, tan-weathering, well-indurated stone	, well-sorted fine-grained sand
Depositional environment fluvio-deltaic	
Fossils sampled dicotyledonous leaf	
Fossils remaining a dozen or more of the same	
Scientific significance and disposition of material 5	Pierre
-331 -	

SITE FROM

LOCALITY NUMBER: ET 14-1	
NAME:	
PREVIOUS NUMBER(S): TRL-15 (Field #)	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 2S Range: 95W	13/16/35
NE 1/4 NE 1/4 SW 1/4, section 26	
1/41/41/4, section	
USGS Quadrangle No Name Ridge, Colorado	
UTM 12 ; 754580 m E, 4414680 m N	
LANDOWNER Bureau of Land Management	
ACCESS on road-cut where road climbs out of gulch	
just east of Rough Gulch	
DESCRIPTION	
Era Cenozoic System Tertiary Form	ation Green River
Member Parachute Creek Unit	
Stratigraphic positionabout 1/2-way up slope	
Sediment description gray weathering shale	
Depositional environment lacustrine	
Fossils sampled leaves, insect larvae and two seeds	
Fossils remaining more of the same	,
Scientific significance and disposition of material 2	
-332-	AND THE RESIDENCE OF THE PARTY

LOCALITY NUMBER: ET 15-1	3
NAME:	
PREVIOUS NUMBER(S): TER82-05 (Field #)	
LOCATION:	
State: Colorado County: Rio Blanc	SAMES IN
Township: 35 Range: 100:	
SW 1/4 NW 1/4 SW 1/4, section 24	
1/4 1/4 1/4, section	15.5
USGS Quadrangle Black Cabin Gulch, Colorado	30/20
, 7.5 min.	
UTM 12 ; 707760 m E, 4404780 m N	
LANDOWNER Bureau of Land Management	
Stratigraphic	ormation Green River
position low in section; shale and marls Sediment	
description laminated shale with convoluted bedding and :	iome this mass:
	massive beds
Depositional environment marginal lacustrine	
Fossils Fossils gar scales, turtle and crocodilian bone, bivalve gastropods (planispiral and turritellid-li remaining more of the same	with original shell,
cientific significance and disposition of	
aterial 2	
-333-	_

LOCALITY	SMBER: ET 15-2	
NAME:		
PREVIOUS N	UMBER(S): _GWS-ET-O (Field #)	
LOCATION:		
State:	Colorado County: Rio Blan	co 15-51
	3S Range: 100W	
SW 1/4	NW 1/4 SW 1/4, section 24	
	1/41/4, section	5 4 (2)
	ingle Black Cabin Gulch, Colorado	
	, 7.5min.	
UTM 12	; 707820 _m E, 4404780 _m N	
LANDOWNER	Bureau of Land Management	
ACCESS N	on foot from road up Cathedral Creek	
DESCRIPTION		
Era Cer	nozoic System Tertiary	Formation Green River
Member Dou	iolas Creek unit	
Stratigraphi position.	ic low in section, shales and marls	
Sediment		
description	laminated shale with convoluted bedding a	nd some thin massive beds
Depositional environment	marginal lacustrine	
Fossils	mmal rib	
Fossils	gastropods and bivalves	
Scientific s	ion of	
material	3	

			Citt con.			. 1	
LOCALIT	Y NUMBER: ET	15_3	SITE FORM			#35/5%	
NAME:	-	23-3	-				
PREVIOUS	NUMBED (c)						
LOCATION	NUMBER(S):	MCM-15-1	(Field #)				1
							15
Townshin	Colorado 3S	Andrew Control of the	County:	Rio Bl	inco		13
	The state of the s		Panca.				
and the same of th	-3L 1/4 S	E 1/4.	ection on			5-15-51	
	1/4	1/4 c	actio-			2	
40001	angle Black C	abin Gulc	h, Colorado	1	-		-
Statement of the Control of the Cont	,	7.5		_			
and the same of th	; /07	580 m p	4404600				
LANDOWNER	Bureau of Lar	nd Managem	,	m N			
DESCRIPTION			-				
DESCRIPTION Era Cen Member Dou	nozoic glas Creek	System	Tertiary Unit			on <u>Green Riv</u>	
DESCRIPTION Era Cen Member Dou	nozoic glas Creek	System	Tertiary Unit				
DESCRIPTION Era Cen Member Dou Stratigraphin position	nozoic glas Creek c basal Douglas	System .	Tertiary Unit Dimediately	above mag	Sive tan		
DESCRIPTION Era Cen Member Dou Stratigraphin position	nozoic glas Creek c basal Douglas	System .	Tertiary Unit Dimediately	above mag	Sive tan		
DESCRIPTION Era Cen Member Dou Stratigraphi position Sediment description abundant)	nozoic glas Creek c basal Douglas	System .	Tertiary Unit Dimediately	above mag	Sive tan		
DESCRIPTION Era Cen Member Dou Stratigraphin position Sediment description abundant)	glas Creek c basal Douglas	System .	Tertiary Unit Dimediately	above mag	Sive tan		
DESCRIPTION Era Cer Member Dou Stratigraphinosition Sediment description abundant) Depositional environment	glas Creek c basal Douglas gray, fine-gra	System .	Tertiary Unit numediately	above mai	d with mo	sandstone (Was	
DESCRIPTION Era Cen Member Dou Stratigraphi position Sediment description abundant) Depositional environment Fossils	glas Creek c besal Douglas gray, fine-gra lacustrine usk, gastropod	System s Creek, i ined sand:	Tertiary Unit Immediately stone (cont	above mai	d with mo	sandstone (Was	
DESCRIPTION Era Cen Member Dou Stratigraphi position Sediment description abundant) Depositional environment Fossils	glas Creek c basal Douglas gray, fine-gra lacustrine usk, gastropod	System s Creek, i ined sand:	Tertiary Unit Immediately stone (cont	above mai	d with mo	sandstone (Was	

SITE FLAM

LOCALITY NUMBER: ET 15-4	PESAMOS
NAME:	2000
PREVIOUS NUMBER(S): GWS-ET-N (Field #)	146 m
LOCATION:	1 1 100
State: Colorado County: Rio Blanco	
Township: 3S Range: 100W	15-51
NW 1/4 SW 1/4 SW 1/4, section 24	
1/4 1/4 1/4, section	2000 100 100 100 100 100 100 100 100 100
USGS Quadrangle Black Cabin Gulch, Colorado	
, 7.5 nin.	
UTM 12 ; 707820 m E, 4404460 m N	
LANDOWNER Bureau of Land Management	
ACCESS N on foot from road up Cathedral Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Wasatch
Member Unit	
Stratigraphic position low in section (sandstone)	
Sediment description green-gray, poorly lithified sandstone (me	dium- to coarse-grained ar
moderately sorted)	
Depositional environment fluvio-lacustrine	
Fossils sampled trionychid-turtle shell fragment	
Fossils remaining none	
Scientific significance and disposition of	
material 4	
-336-	

LOCALITY NUMBER: E	STIE FORM		
State: Colorado Township: 3S SW 1/4 SW 1/4 1/4 1/4 1/4 USGS Quadrangle Black	County: Rio B Range: 100W SW 1/4, section 24 1/4, section Cabin Gulch, Colorado , 7.5 min. D7820 m E, 4404380 m N and Management		15-51
ACCESS N on foot from	n road up Cathedral Creek Systen Tertiary Unit	Formation	Wasatch
description shell hash w	ith matrix of fine tan sandsto	ine	
Depositional environment lacustrine Fossils sampled shell hash conglo	Dmerate		
ific significance sposition of			
	-337-	1111	

LOCALITY NUMBER: ET 15-6	Charles 6
NAME:	
PREVIOUS NUMBER(S): GWS-ET-L (Field #)	
LOCATION:	F.E.
State: Colorado County: Rio Blanco	
Township: 3S Range: 100W	
SE 1/4 NE 1/4 NW 1/4, section 23	
1/41/41/4, section	** · · ·
USGS Quadrangle Black Cabin Gulch, Colorado	
, 7.5 min.	
UTM 12 ; 705820 m E, 4405580 m N	
LANDONNER Bureau of Land Management	
ACCESS N on foot from road up Cathedral Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Green River
Member Douglas Creek Unit	
Stratigraphic position middle of section	
Sediment description sandy conglomerate lens within shale	
Depositional environment freshwater deltaic	
Fossils sampled gastropod conglomerate	
Fossils remaining same	
Scientific significance and disposition of material 3	
-338-	

SILE FURIN	
LOCALITY HURBER: ET 15-7	
NAME:	
PREVIOUS NUMBER(S): GMS-ET-K (Field #)	
LOCATION:	
State: Colorado County: Rio Blanco	Ž
Township: 3s Range: 1004	
NN 1/4 SE 1/4 NN 1/4, section 23	
1/41/41/4, section	12
USGS Quadrangle Black Cabin Gulch, Colorado	-
Colorado 7.5	
Colorado , 7.5 min.	
UTM 12 ; 706580 m E, 4405360 m N	
LANDOWNER Bureau of Land Management	
DESCRIPTION Era <u>Cenozoic</u> System <u>Tertiary</u> Formation Wasatch	
Member Unit Wasatch	-
Stratigraphic position midway up bluff	
description green, medium-grained sandstone with concretions	
Depositional environment fluvial	
Fossils Sampled mold and distal end of femur (mammalian?)	
Cossils emaining none	-
cientific significance nd disposition of aterial 4	
-330_	

LOCALITY NUMBER: ET 15-8			6.36
NAME:			
PREVIOUS NUMBER(S): JUM 82			
LOCATION:			
State: Colorado	County: Rio Blan	nco	
Township: 35	Range: 100W		
NW 1/4 SE 1/4 NE 1	/4, section <u>23</u>		5.
1/4 1/4 1	/4, section		715-5
USGS Quadrangle Black Cabin	Gulch, Colorado		
	min.		
UTM 12 ; 707380	m E, 4405420 m N		
LANDOWNER Bureau of Land M	anagement		
ACCESS N on foot from roa	d up Cathedral Creek		
DESCRIPTION			
Era Cenozoic S	ystem Tertiary	Form	ation Green River
Member Douglas Creek	Unit		
Stratigraphic . position about 5 feet a	bove bottom of gulch		1,017,210
Sediment description gray limy sand	stone	/kl	100 100 100
	and the second second section of the second section of the second section sect		
Depositional environment lacustrine	and the same of th		
Fossils sampled bivalves and gastr	opods with some original	shell m	aterial
Fossils remaining some			2.37
Scientific significance and disposition of material 3			
	-340-		

	SITE FORM	W/V	The same
LOCALITY NUMBER: ET 15-	9		A STATE OF THE STA
NAME:	2	JAK.A.	
PREVIOUS NUMBER(S): TERE	32-06 (Field #)	州5 烷	
LOCATION:		PONT.	15 13. 715
State: Colorado	County: Rio Bl	anco	组合是
Township: 3S	Range: 100W	1	Carry L
_SW 1/4 NE 1/4 SE	1/4, section 24	逐)"	
1/4 1/4	1/4, section	19///2	
USGS Quadrangle Black Cab			
, 7			
UTM 12 ; 70836			
LANDOWNER Bureau of Land	Management		
No.			
ACCESS N on foot from ro	oad up Cathedral Creek		
DESCRIPTION			
Era Cenuzoic	System <u>Tertiary</u>	Formation Gr	een Piver
Member Douglas Creek	Unit		cen kivei
Stratigraphic position low in section		w 12 - 1 - 7 - 111	13.44
Sediment			
description laminated shale	with convoluted bedding	and some thin mass	ive beds
Donasisis			
Depositional environment lacustrine			
Fossils sampled gar scale			1.5
Fossils remaining <u>none</u>			1.0
Scientific significance and disposition of material 4		. * 1 * .	
	-241		

LOCALITY NUMBER: ET 15-10	_ 1839V/C
NAME:	
PREVIOUS NUMBER(S): TRL-22 (Field #)	
LOCATION:	(C) \$ 115, 21 (C)
State: Colorado County: Rio Blanco	
Township: 3S Range: 100W	
NW 1/4 NE 1/4 SW 1/4, section 24	_ 15-5
1/4 1/4 1/4, section	
USGS Quadrangle Black Cabin Gulch, Colorado	
Colorado , 7.5 min.	10 0
UTM 12 ; 708220 m E, 4404820 m N	
LANDOWNER Bureau of Land Management	1 0 0
ACCESS N on foot from road up Cathedral Creek DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> For	mation Green River
Member Douglas Creek Unit	dieen kiver
e skir i remensione sin en jugar en je kan de grade en je kan de grade en je kan de grade en jeden en jeden en	
Stratigraphic position 50 feet below top of Douglas Creek member	A STATE OF THE
Sediment description bluish-gray limestone	
description biblish-gray timestone	
Depositional environment lacustrine	1000
Fossils sampled _three shell fragments and a block of matrix with	pelecypods
Fossils remaining more of same	96
Scientific significance and disposition of material 4	
_34?-	

	SILE FORM		
LOCALITY NUMBER: ET	15-11	/	
PREVIOUS NUMBER(S):	TRL-22-A (Field #)		
LOCATION:			TE SEE SEE
State: Colorado	County:Rio Bl	6	\$ 1514 J53
Township: 3S	Range: 100W	anco	15-5 17-5 11
NE 1/4 SW 1/4 S	SW 1/4, section 24	7	Tio.
1/4 1/4	1/4, section		多。
USGS Quadrangle Black	Cabin Gulch, Colorado	'-'	
	7.5		
UTM 12 . 7/11	7.5 min.		
LANDOWNER BURGAL -5	31110 m E, 4404540 m N		
Doread of La	and Management		
2500			
N on foot from	road up Cathedral Creek		
0.5	,		
DESCRIPTION			
Era Cenozoic	System Tertiary	F	
Member Douglas Creek	Unit .	rormation _	Green River
tratigraphic usition <u>not</u> certain			1.13.44
ediment			
escription oil-shale		1.19	
200-1-1			
Positional Evironment lacustrine			
ssile			
Tpled two gar scales an	nd a fish plate		
naining none		7	
ific significance disposition of erial 4			

LOCALITY NUMBER: ET 15-12	
NAME:	
PREVIOUS NUMBER(S): TRL-23 (Field #)	
LOCATION:	Control of the second
State: Colorado County: Rio Blanco	
Township: 3S Range: 100W	
NE 1/4 SE 1/4 SW 1/4, section 24	
1/4 1/4 1/4, section	
USGS Quadrangle Black Cabin Gulch, Colorado	
, 7.5 min.	
UTM 12 ; 708440 m E, 4404600 m N	
LANDOWNER Bureau of Land Management	2.1
Example 1 Early Haragement	
ACCESS N on foot from road up Cathedral Creek	
Access W on look from road up Cathedral creek	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Green River
Member Douglas Creek Unit	
Stratigraphic position middle of Douglas Creek member	
Sediment	
description marly shale; secondarily gypsiferous	The second secon
Depositional	
environment marginal lacustrine	
Fossils sampled 1 bone fragment	11147
Fossils remaining much fragmentary shell material	
Scientific significance	11, 211 114
and disposition of material 4	
-344-	

	STIE LIKE			
LOCALITY NUMBER: ET 15-1	13		13 SV/// V	141
NAME:				Di
PREVIOUS NUMBER(S): TRL-	24 /54-21 #3			
LOCATION:	c4 (Field #)	2		1
State: Coloned		Ĭ	N. C. W.	110
State: Colorado	County: Rio E	Blanco	3-15-4 -15	13 /
Township: 3S	Range: 100W	15	5-5	100
1/4 311	1/4, section 24		Entrance and Labora	11
1/4 1/4	1/4, section	-	· · · · · ·	Ch
USGS Quadrangle Black Cabin	n Gulch, Colorado			
, 7.5	5 min.	-		
UTM 12 ; 708360	m E. 4404580			
LANDOWNER Bureau of Land M	anagement	1		
CESS Non fort				
CESS Non foot from road	d up Cathedral Creek			
	d up Cathedral Creek			
DESCRIPTION				
DESCRIPTION Era Cenozoic Sy	rstem Tertiary	Formation		
DESCRIPTION Era Cenozoic Sy	rstem Tertiary	_ Formation	Green River	_
DESCRIPTION Era <u>Cenozoic</u> Sy dember <u>Douglas Creek</u>	rsten <u>Tertiary</u> Unit	Formation	Green River	_
DESCRIPTION Era <u>Cenozoic</u> Sy dember <u>Douglas Creek</u> stratigraphic ositiun lower 1/3 of Dou	rsten <u>Tertiary</u> Unit	_ Formation	Green River	-
DESCRIPTION Era <u>Cenozoic</u> Sy dember <u>Douglas Creek</u> ctratigraphic solition <u>lower 1/3 of Dou</u>	vsten <u>Tertiary</u> Unit uglas Creek Member		Green River	
DESCRIPTION Era <u>Cenozoic</u> Sy dember <u>Douglas Creek</u> ctratigraphic solition <u>lower 1/3 of Dou</u>	vsten <u>Tertiary</u> Unit uglas Creek Member		Green River	
DESCRIPTION FraCenozoic	vsten <u>Tertiary</u> Unit uglas Creek Member		Green River	_
DESCRIPTION Era	vsten <u>Tertiary</u> Unit uglas Creek Member		Green River	
DESCRIPTION FraCenozoic	Unit Unit Uglas Creek Member Ullusk-shell conglomerat		Green River	
DESCRIPTION Era	Unit Unit Uglas Creek Member Ullusk-shell conglomerat		Green River	
DESCRIPTION Era Cenozoic Sy Member Douglas Creek Stratigraphic cositiun lower 1/3 of Douglas Creek distratigraphic cositiun lower 1/3 of Douglas Creek Exposition lower 1/3 of Douglas Creek Exposition lower 1/3 of Douglas Creek Expositional lower 1/3 of Douglas Creek Expositional lower	Unit Unit Uglas Creek Member Ullusk-shell conglomerat			
DESCRIPTION Era Cenozoic Sy Member Douglas Creek Stratigraphic Positium lower 1/3 of Dou ediment escription well-oxidized mo epositional positional p	Unit Unit Uglas Creek Member Ullusk-shell conglomerat		Green River	
DESCRIPTION Era Cenozoic Sy Member Douglas Creek Stratigraphic rosition lower 1/3 of Douglas Creek diment escription well-oxidized mo epositional acustrine positional lacustrine sepositional lacustrine sepositional lacustrine sepositional lacustrine sepositional lacustrine sepositional lacustrine	Unit Unit Uglas Creek Member Ullusk-shell conglomerat			

LOCALITY NUMBER: ET 15-1	4	
NAME:		
PREVIOUS NUMBER(S): TRL-	25 (Field #)	37V 15-1
LOCATION:		19154
State: Colorado	County: Rio Blanco	15-5
Township: 3S	Range: 100W	
NW 1/4 SE 1/4 SW	1/4, section <u>24</u>	Kr. Killir
1/41/4	1/4, section	
USGS Quadrangle Black Cab	in Gulch, Colorado	
	.5 min.	
UTM 12 ; 70834	O m E, 4404460 m N	
LANDOWNER Bureau of Land	Management	
ACCESS N on foot from r	oad up Cathedral Creek	
DESCRIPTION		
Era Cenozoic	System Tertiary F	ormation Green River
Member Douglas Creek	Unit	
Stratigraphic		2-1-12
positionnear base of	Nouglas Creek Member	The second secon
Sediment description nearly black	and limey mudstone that weather	s gray
a see the second second		
Depositional		81300
environment lacustrine		20 20 20 20 20 20 20
Fossils sampled gastropods and p	elecynods	
Fossils		
remaining more of same		CONTRACTOR OF STREET
Scientific significance and disposition of		
material 2		

LOCALITY NUMBER:	ET 15-20	5.556660147
NAME:		Salvaran A
PREVIOUS NUMBER (S): TRL-29 (Field #)	加度是近久
LOCATION:		
State: Color	ado County: Rio Blanco	
Township: 3\$	Range: 100W	
_NE 1/4 _SE	1/4 NW 1/4, section 14	1975/05/21
1/4	1/4 1/4, section	
USGS Quadrangle	Black Cabin Gulch, Colorado	
	, 7.5 min.	
UTM 12	; 706500 m E, 4407040 m N	
LANDOWNER Bure	au of Land Minagement	
ACCESS N on f	oot from road up Cathedral Creek	
DESCRIPTION		
Era Cenozoi	c System Tertiary F	ormation Green River
Member Douglas	Creek Unit	y 1 (2) 11
Stratigraphic 10	meters (?) above base of Douglas Creek M	_ 5 A
	meters (!) above base of boughas creek r	ember
Sediment description wel	l-oxidized mollusk-shell conglomerate	
Depositional environment la	custrine	
Fossils sampled gastro	pods and pelecypods	L BESTWEEN S
Fossils remaining more	of same	
Scientific signi and disposition material	of	
ma seriar .	252	

	STIE FORM	
LOCALITY NUMBER: FT	15_21	是意識於果
NAME:	T 15-21	
HAITE:		
PREVIOUS NUMBER(S):	FRO 0 /F: 1/ 1	
LOCATION:	LDO-9 (Field #)	15/1905-1-1
		1/2001
State: Colorado	County: Rio Blanco	233535
Township. 20	County: Rio Blanco	
10MISHTP: 35	Range: 100W	Table 1
SE 1/4 NW 1/4	SW 1/4, section 14	Y MICES
1//	1/4, section 14	NO TRIBLE
1/4 1/4	1/4, section	
USGS Quadrangle Black	Cabin Gulch, Colorado	1
	, 7.5 min.	
UTM 12 ; 70	065070 m E, 4406460 m N	
LANDOWNER Bureau of L	-, -, -, -, -, -, -, -, -, -, -, -, -, -	
pareau of L	and Management	
ACCESS N as fort 6		
TON TOOT Tron	m road up Cathedral Creek	
N on root from	m road up Cathedral Creek	
	m road up Cathedral Creek	
DESCRIPTION	m road up Cathedral Creek	
DESCRIPTION		
DESCRIPTION Era <u>Cenozoic</u>	System Tertiary	Green River
DESCRIPTION Era <u>Cenozoic</u>	System Tertiary	Green River
DESCRIPTION Era Cenozoic Member Douglas Creek	System <u>Tertiary</u> Formation Unit	Green River
DESCRIPTION Era Cenozoic Member Douglas Creek	System <u>Tertiary</u> Formation Unit	Green River
DESCRIPTION Era <u>Cenozoic</u> Member <u>Douglas Creek</u> Stratigraphic osition about mid-s	System <u>Tertiary</u> Formation Unit Section of Douglas Creek exposures	a dell'inter
DESCRIPTION Era <u>Cenozoic</u> Member <u>Douglas Creek</u> Stratigraphic osition about mid-s	System <u>Tertiary</u> Formation Unit Section of Douglas Creek exposures	a dell'inter
DESCRIPTION Era <u>Cenuzoic</u> Member <u>Douglas Creek</u> Stratigraphic about mid-sediment escription 3-inch-thick	System <u>Tertiary</u> Formation Unit Section of Douglas Creek exposures	a dell'inter
DESCRIPTION Era <u>Cenozoic</u> Member <u>Douglas Creek</u> Stratigraphic osition about mid-s	System <u>Tertiary</u> Formation Unit	a dell'inter
DESCRIPTION Era Cenozoic Member Douglas Creek Stratigraphic position about mid-sediment escription 3-inch-thick brown shaley mudstone	System <u>Tertiary</u> Formation Unit section of Douglas Creek exposures tan-gray calcareous mudstone conglomerat	a dell'inter
DESCRIPTION Era <u>Cenuzoic</u> Member <u>Douglas Creek</u> Stratigraphic about mid-sediment escription 3-inch-thick	System <u>Tertiary</u> Formation Unit section of Douglas Creek exposures tan-gray calcareous mudstone conglomerat	a dell'inter
DESCRIPTION Era Cenozoic Member Douglas Creek Stratigraphic position about mid-s ediment escription 3-inch-thick brown shaley mudstone epositional nvironment lacustrine	SystemTertiaryFormation Unit section of Douglas Creek exposures c tan-gray calcareous mudstone conglomerat	e within chocolate
DESCRIPTION Era Cenozoic Member Douglas Creek Stratigraphic position about mid-s ediment escription 3-inch-thick brown shaley mudstone epositional nvironment lacustrine	SystemTertiaryFormation Unit section of Douglas Creek exposures c tan-gray calcareous mudstone conglomerat	e within chocolate
DESCRIPTION Era Cenozoic Member Douglas Creek Stratigraphic position about mid-s ediment escription 3-inch-thick brown shaley mudstone epositional nvironment lacustrine	System Tertiary Formation Unit section of Nouglas Creek exposures tan-gray calcareous mudstone conglomerat	e within chocolate
DESCRIPTION Era Cenozoic Member Douglas Creek Stratigraphic position about mid-s ediment escription 3-inch-thick brown shaley mudstone epositional nvironment lacustrine positional nvironment lacustrine positional	System Tertiary Formation Unit section of Nouglas Creek exposures tan-gray calcareous mudstone conglomerat	e within chocolate
DESCRIPTION Era Cenozoic Member Douglas Creek Stratigraphic ossition about mid-s dediment escription 3-inch-thick brown shaley mudstone expositional invironment lacustrine ossils impled shell and small strains more of same	System Tertiary Formation Unit section of Nouglas Creek exposures tan-gray calcareous mudstone conglomerat	e within chocolate
DESCRIPTION Era Cenozoic Member Douglas Creek Stratigraphic about mid-sediment escription 3-inch-thick brown shaley mudstone epositional virionment lacustrine about mid-sediment escriptional virionment lacustrine shall and small shall and small essils maining more of same	System Tertiary Formation Unit section of Nouglas Creek exposures tan-gray calcareous mudstone conglomerat	e within chocolate
DESCRIPTION Era Cenozoic Member Douglas Creek Stratigraphic rosition about mid-s dediment escription 3-inch-thick brown shaley mudstone epositional nvironment lacustrine possils mpled shell and small sssils maining more of same tific significance disposition of	System Tertiary Formation Unit section of Nouglas Creek exposures tan-gray calcareous mudstone conglomerat	e within chocolate
DESCRIPTION Era Cenozoic Member Douglas Creek Stratigraphic about mid-sediment escription 3-inch-thick brown shaley mudstone epositional virionment lacustrine about mid-sediment escriptional virionment lacustrine shall and small shall and small essils maining more of same	System Tertiary Formation Unit section of Nouglas Creek exposures tan-gray calcareous mudstone conglomerat	e within chocolate

LOCALITY NUMBER: ET 15-22	
NAME:	
PREVIOUS-NUMBER(S): EBO 10 (Field #)	
LOCATION:	
State: Colorado County: Rio Blanco	
Township: 3S Range: 100W	
SW 1/4 SW 1/4 NW 1/4, section 14	
1/4 1/4 1/4, section	1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
USGS Quadrangle Black Cabin Gulch, Colorado	
, 7.5 min.	
UTM_12 ; 706140 m E, 4406800 m N	
LANDOWNER Bureau of Land Management	
ACCESS N on foot from road up Cathedral Creek	
	-
DESCRIPTION	
Era Cenozoic System Tertiary Fo	rmation <u>Green River</u>
Member Douglas Creek Unit	
Stratigraphic position mid-section of Douglas Creek	1. 2Un
Sediment	
description 3-inch-thick red and blue mollusc-bearing cal	careous horizon
Depositional environment lake margin	100 m 1 1 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1
Fossils Sampled large bivalves	
Fossils remaining more of same	2 2 2 3 1 3 7
Scientific significance and disposition of material 3	1111 111
-354-	

OCALITY NUMBER: ET 16-1	
OME:	1
PREVIOUS NUMBER(S): TER 82-10 (Field #)	1 7000
LOCATION:	100-1
State: Colorado County: Rio Blanco	16-4
Township: 1N Range: 101W	- 16-16-16-
NE 1/4 SE 1/4 SW 1/4, section 4	3
1/41/41/4, section	\$0000 TO TO THE RESIDENCE OF THE PARTY OF TH
USGS Quadrangle Gillam Draw, Colorado	
, 7.5 min.	
UTM 12 ; 692960 m E, 4438960 m N	
LANDOWNER Bureau of Land Management	
ESS SE on foot from road to drill hole in Sec.	
4 TIN R101W	
DESCRIPTION	
Era Mesozoic System Cretaceous Formation	Mancos
Member Buck Tongue Unit	
Stratigraphic positionjust above Castlegate Sandstone	
Sediment description light brown to gray mudstone with a sandstone bench 10	meters below
	The state of the s
Depositional environment shallow marine	1 4 7 1
ossils ampled shark teeth, oyster fragments (sampled from ant hills)	
(Sampled from ant hills)	
ossils oyster fragments oyster fragments	

LOCALITY NUMBER: ET 16-2	- 10/10
NAME:	- 10 C 10 S
PREVIOUS NUMBER(S): GWS-ET-Q (Field #)	16-2
LOCATION:	16-13
State: Colorado County: Rio Blanco	1
Township: 1N Range: 1014	16-3
SE 1/4 SW 1/4 NW 1/4, section 3	
1/41/41/4, section	
USGS Quadrangle Gillam Draw, Colorado	
UTM 12 ; 694220 m E, 4439620 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from road to drill hole in Sec. 4 TIN R101W	
DESCRIPTION	
Era Mesozoic System Cretaceous Form	mation Manage
Member main body Unit	Hancos
Stratigraphic	
position below Castlegate Sandstone	
Sediment description gray, calcareous, sandy shale	
1 2 2 2	1
Depositional environment shallow marine	10 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Fossils sampled oyster (Ostrea?) and Inoceramus fragments	- 1 - 1 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2
Fossils remaining none .	
Scientific significance and disposition of material 3	
-356-	

SITE FORM 10CALITY NUMBER: ET 16-3 AME: PREVIOUS NUMBER(S): GMS-ET-R (Field #) LOCATION: State: Colorado County: Rio Blanco Township: IN Range: 101M NE 1/4 NW 1/4 SM 1/4, section 3 1/4 1/4 1/4, section USGS Quadrangle Gillam Draw, Colorado 7.5 min. UTM 12; 604260 m E, 4439040 m N LANDONNER Bureau of Land Management ESS SE on foot from road to drill hole in Sec. TIN R101M DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Sediment description at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line Tossils sampled none Tossils in-filled vertical burrows (not Ophomorpha) It file significance It file significance				
PREVIOUS NUMBER(S): GMS-ET-R (Field #) LOCATION: State: Colorado	SI	TE FORM		· 16-5741-
PREVIOUS NUMBER(S): GMS-ET-R (Field #) LOCATION: State: Colorado	DCALITY NUMBER: ET 16-3		16212 1	1'9/5-1 d.
DESCRIPTION Esta Mesozoic System Description Stratigraphic position at base of unit Statians (S): GMS-ET-R (Field #) LOCATION: State: Colorado County: Rio Blanco Township: 1N Range: 101M NE 1/4 NW 1/4 SW 1/4, section 3 1/41/4, section JI/41/4, section USGS Quadrangle Gillam Draw, Colorado, 7.5min. UTM 12; 604260 m E, 4439040 m N LANDOHNER Bureau of Land Management ESS SE on foot from road to drill hole in Sec. TIN R101W DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line Cossils ampled none Ossils in-filled vertical burrows (not Ophomorpha) Liffic significance			10 10	0=016-8
LOCATION: State: Colorado County: Rio Blanco Township: 1N Range: 101W NE 1/4 NW 1/4 SW 1/4, section 3	PREVIOUS NUMBER(S): GWS-ET-R (Fig	eld #1	-	3 5
Township: 1N Range: 101W NE 1/4 NW 1/4 SW 1/4, section 3 1/4 1/4 1/4, section USGS Quadrangle Gillam Draw, Colorado 7.5 min. UTM 12 ; 604260 m E, 4439040 m N LANDONNER Bureau of Land Management ESS SE on foot from road to drill hole in Sec. TIN R101W DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line fossils sampled none Ossils majoring in-filled vertical burrows (not Ophomorpha)			, ,	16-3
Township: 1N Range: 101W NE 1/4 NW 1/4 SW 1/4, section 3 1/4 1/4 1/4, section USGS Quadrangle Gillam Draw, Colorado 7.5 min. UTM 12 ; 604260 m E, 4439040 m N LANDONNER Bureau of Land Management ESS SE on foot from road to drill hole in Sec. TIN R101W DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line fossils sampled none Ossils majoring in-filled vertical burrows (not Ophomorpha)	State:Colorado Co	untv. Dio Di-		
NE 1/4 NW 1/4 SW 1/4, section 3 1/4 1/4 1/4, section USGS Quadrangle Gillam Draw, Colorado 7.5 min. UTM 12; 604260 m E, 4439040 m N LANDOHNER Bureau of Land Management ESS SE on foot from road to drill hole in Sec. TIN R101W DESCRIPTION Era Mesozoic System Cretaceous Formation Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line fossils ampled none Ossils maning in-filled vertical burrows (not Ophomorpha)	Township: 1N Ra	nge: 1014	nco	= 1 1/1/2
1/4 1/4, section USGS Quadrangle Gillam Draw, Colorado , 7.5 min. UTM 12 ; 604260 m E, 4439040 m N LANDONNER Bureau of Land Management ESS SE on foot from road to drill hole in Sec. TIN R101W DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line fossils sampled none Ossils sampled none Ossils sampled none Ossili castlegate Sandstone	NE 1/4 NW 1/4 SW 1/4 sec	tion 2		
USGS Quadrangle Gillam Draw, Colorado, 7.5min. UTM_12; 604260 E,4439040 M N LANDOHNERBureau of Land Management ESS	1/4 1/4 1/4 sec	tion		一手的一個
, 7.5 min. UTM_12 ; 604260 m E, 4439040 m N LANDONNER Bureau of Land Management ESS SE on foot from road to drill hole in Sec. TIN R101W DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional environment regressive marine strand-line Tossils impled none Ossils in-filled vertical burrows (not Ophomorpha)	USGS Quadrangle Gillam Draw Color	ado.		
UTM 12 ; 604260 m E, 4439040 m N LANDOUNER Bureau of Land Management ESS SE on foot from road to drill hole in Sec. 4 TIN R101W DESCRIPTION Era Mesozoic System Cretaceous Formation Sandstone Member Unit Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line fossils sampled none Ossils massing in-filled vertical burrows (not Ophomorpha)				
ESS SE on foot from road to drill hole in Sec. TIN R101W DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line cossils sampled none Ossils in-filled vertical burrows (not Ophomorpha)	UTM 12 : 604260 m.F.	M1n.		
ESS SE on foot from road to drill hole in Sec. TIN R101W DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Sandstone Member Unit Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line fossils manual information one Ossils manual infilled vertical burrows (not Ophomorpha) Stiffic stanification.	LANDOHNER Bureau of Land Management	4439040 m N		
DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Sandstone Member Unit Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional environment regressive marine strand-line cossils campled none Description in-filled vertical burrows (not Ophomorpha)	- Janeau of Land Managemen			
TIN R101W DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Sandstone Member Unit Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line Tossils sampled none Tossils sealing in-filled vertical burrows (not Ophomorpha)	FSS SF on foot from			
DESCRIPTION Era Mesozoic System Cretaceous Formation Castlegate Member Unit Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional invironment regressive marine strand-line Tossils sampled none Ossils sampled none Ossils in-filled vertical burrows (not Ophomorpha)		II hole in Sec.		
Era Mesozoic System Cretaceous Formation Castlegate Member Unit Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional environment regressive marine strand-line Tossils sampled none Ossils sampled none Ossils sampled in-filled vertical burrows (not Ophomorpha)	1			
Member Unit Sandstone Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional environment regressive marine strand-line Tossils to the first standstone transplant of the				
Stratigraphic position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional environment regressive marine strand-line Cossils ampled none Ossils sealining in-filled vertical burrows (not Ophomorpha)	System	Cretaceous	Formation'	Castlegate
position at base of unit Sediment description massive, coarsely-bedded sandstone Depositional regressive marine strand-line Tossils ampled none Tossils in-filled vertical burrows (not Ophomorpha)		Jnit		Sandstone
Depositional regressive marine strand-line Ossils ampled none Ossils in-filled vertical burrows (not Ophomorpha)	Stratigraphic position <u>at base of unit</u>	and the second		
Depositional regressive marine strand-line Tossils rempled none Tossils rempled none Tossils rempled none Tossils rempled none	Sediment			2.4
Cossils Cos	massive, coarsely-bedded	sandstone	7	
Cossils Cos	lonorities.			
ossils ampled none ossils empining in-filled vertical burrows (not Ophomorpha)	environment <u>regressive</u> marine stran	d-line		
tific significance	ossils			
tific significance	Ossils emaining in-filled vertical burrows	S (not Onhomoret-)		,*
aterial 4	ntific significance	учес орношограа)		

LOCALITY NUMBER: ET 16-4		_ /	1
NAME:		0:11	1
PREVIOUS NUMBER(S): GWS-ET-S (Field #)		am	16-10
LOCATION:			16-4
State: Colorado County: Ric	Blanco	-11	10.30 16
Township: 1N Range: 101W		- 16-10	16-16-
SW 1/4 SW 1/4 SE 1/4, section 4		16,710	ď
1/41/41/4, section		Market seeingth	MONTH THE THE
USGS Quadrangle Gillam Draw, Colorado			
. , 7.5	nin.		
UTM 12 ; 693080 m E, 4438700	m N		
LANDOWNER Bureau of Land Management			
ACCESS SE on foot from oil well in Sec. 4 TIN			
R101W			
DESCRIPTION			
Era Mesozoic System Cretaceous	Forma	tion M	ancos
Member Buck Tongue Unit			1 %
Stratigraphic position lower part of Buck Tongue	:= :	1.0	***********
Sediment description blocky-mudstone (concretionary layer	er)		the trail
Depositional environment shallow marine		# F - * -	-1.03
Fossils sampled Inoceramus steinkerns, Baculites sp.	April 10		5. 2045
Fossils remaining same			10 1
Scientific significance and disposition of material 2			
-358-			

LOCALITY NUMBER: ET 16-5	The state of the s
ME:	The second secon
PREVIOUS NUMBER(S): JGE-8203 (Field #)	
LOCATION:	16-5
State: Colorado County: Rio Blanco	
Township: 1N Range: 101w	
NE 1/4 NE 1/4 SE 1/4, section 5	- I6-II
1/41/41/4, section1/4	-15
USGS Quadrangle Gillam Draw, Colorado	a a anament of 7 plan
, 7.5 min.	
UТИ 12 ; 692180 m E, 4439340 m N	
LANDOWNER Bureau of Land Management	
CESS W on foot from road up Gillam Draw	
DESCRIPTION	
Era Mesozoic System Cretaceous Formation	Mancos
Member main body Unit	mancos
Stratigraphic position undetermined (specimen found on talus slope)	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Sediment description brown, moderately-indurated sandstone	
the proof to the second	ord of all ing awareness _collin
Depositional environment <u>shallow marine</u>	
Fossils	
Sampled _fish scale	

LOCALITY NUMBER: ET 16-6	1 24
NAME:	1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
PREVIOUS NUMBER(S): JGE-8204 (Field #)	75-10-6
LOCATION:	
	:16-9
State: Colorado County: Rio Blanco	16-16-14
Township: 1N Range: 101W	- 1
NE 1/4 SE 1/4 SW 1/4, section 4	a l'a vin
1/4 _SW _1/4 _SE _ 1/4; section _4	Martin Control of the
USGS Quadrangle Gillam Draw, Colorado	
, 7.5 min.	
UTM 12 ; 693200 m E, 4438880 m N	
LANDOWNER Bureau of Land Management	
ACCESS S on foot from road to drill hole in Sec.	
4 TIN RIOIW	
DESCRIPTION	
. Era <u>Mesozoic</u> System Cretaceous F	ormation Mancos
Member Buck Tongue Unit	ormacion
	A
Stratigraphic position above second resistant sandstone of the Buc	k Tongue about 50 meters
Sediment	above valley floor
description tan-gray shale	
Depositional environment near-shore marine	
Fossils sampled _oysters	
Fossils remaining oysters	
Scientific significance and disposition of material 3	
-360-	

LOCALITY NUMBER: ET 16-7	2.1.1
AMF.	16-18 11 1
PREVIOUS NUMBER(S): _JMJ 19 (Field #)	-16-2
LOCATION:	2016
State: Colorado County: Rio Blanco	Low Mell
Township: 1N Range: 101W	16-3 5
SW 1/4 SE 1/4 NW 1/4, section 3	
1/41/41/4, section	2. 1 V. 11/1/
USGS Quadrangle Gillam Draw, Colorado	
, 7.5 min.	
UTM 12 ; 694320 m E, 4439640 m N	
LANDOWNER Bureau of Land Management	
CESS E on foot from drill hole in Sec. 4 T1N	
-K101W	
DESCRIPTION	
Era Mesozoic System Cretaceous Formation	Mancos
MemberUnit	mancos
Stratigraphic position above first ridge on slope	10.1
Sediment description weathered gray silty-sand	
Account of the second of the s	
Depositional Environment near-shore marine	
ossils ampled <u>large bivalves, nautiloids, ammonites, smaller pelecypods</u>	
ossils more ammonites and other invertebrates	
ntific significance and disposition of aterial 2	
0.63	

LOCALITY NUMBER: ET 16-8	10 15 15
NAME:	- 16-2
PREVIOUS NUMBER(S): JAW 18 (Field #)	131
LOCATION:	- 11° 1G 8
State: Colorado County: Rio Blanco	16-3
and the same of th	- 3/7530
Township: 1N Range: 101W	· Park Sharman and Sharman
NE 1/4 NW 1/4 SW 1/4, section 3	
1/4 1/4 1/4, section	
USGS Quadrangle Gillam Draw, Colorado	
, 7.5 min.	
UTM 12 ; 694200 m E, 4439280 m N	
LANDOWNER Bureau of Land Management	
ACCESS SE on foot from drill hole in Sec. 4 TIN	
R101W	
DESCRIPTION	
Era Mesozoic System Cretaceous For	rmation Mancos
Member Unit	Thursday.
and the same of th	
Stratigraphic position 60 feet below first sandstone ledge	S
Sediment	
description weathered gray silty sandstone	
· · · · · · · · · · · · · · · · · · ·	
Depositional environmentnear-shore marine	
Fossils Sampled large bivalve and shell fragments	To the district
Fossils Femaining none	110
Scientific significance	
and disposition of material 3	1000
-362-	

LOCALITY NUMBER: ET	T 16-9			Sins
NAME:	The state of the s		76-10	16-6
PREVIOUS NUMBER(S):	JMW 20 (Field #)		16-4	10
LOCATION:	A Company of the Comp		. 6	14
State: Colorado	County: Rio Bla	anco	_16=16+1-3	
	Range: 101W			
	NE 1/4, section 9		Rose of State and American	Santing Calmana and a
	1/4, section	-	9	ري الاي
	am Draw, Colorado			
	, 7.5 min.			
	693280 m E, 4438580 m N			
LANDOWNER Bureau of				
ACCESS SE on foot fr	rom oil well in Sec. 4 T1N			
R101W				
DESCRIPTION				
Era Mesozoic	System Cretaceous	Formati	on Mancos	
Mambaa	Unit		7/4/1003	
Stratigraphic position 30 feet	up slope	11,419		
Sediment description weathered	gray and silty sandstone			
The state of the s	was a second and the			
				-
Depositional environment near-shor	re marine		- 21	
environment <u>near-shor</u>	re marine pelecypod fragments	-6		-
Depositional environment near-shor cossils campled ammonite and cossils remaining more of sam	pelecypod fragments			

- SITE FORM

LOCALITY MINRED.	ET 16-10			1575
NAME:	21 10-10	and the second second		
	S): JUM 8249 (Fie	1.1.4.1		الحرلي
LOCATION:	3). 0011 0243 (110	- Tu = /		∴ 16·11
		24- 21-	136	15
	ado Co		nco	16-10
	Rá			Drift Hole's
	1/4 <u>NE</u> 1/4, sec		8	5. 1
1/4	1/4 1/4, sec	tion		
USGS Quadrangle	Gillam Draw, Color	obs		
	, 7.5	min.		
UTM_12	_; _692180 _m E,	4438200 m N	,	
LANDOWNER Bure	au of Land Manageme	nt		
ACCESS W on fo	ot from road up Gil	lam Draw		
DESCRIPTION				
Era Mesozoi	c System	Cretaceous	Formation	Mancos
	ngue			La Maria de Maria
Stratigraphic	in I small a disco	-		
positionap	proximately 25 feet	above Castlegate	Sandstone	
Sediment	C. S. Paliparation			
	at, probably devive	d from gray shale		
	at, probably devive	d from gray shale		7. 7.
description flo		d from gray shale		
description <u>flo</u>	allow marine	d from gray shale		
Depositional sh Fossils sampled oyster	allow marine fragment	d from gray shale		
Depositional environment sh	allow marine fragment	d from gray shale		
Depositional sh Fossils sampled oyster	allow marine fragment ficance			

SITE FORM			6.5
LOCALITY NUMBER: ET 16-11			0/3
NAME:		1	
PREVIOUS NUMBER(S): SL 6 (Field #)	-	_	مرني
LOCATION:		-	16-11
State: Colorado County: Rio Blanco		16 15	-
Township: 1 N Range: 101 W		, Secon	16,-1
NW 1/4 NE 1/4 NE 1/4, section 8		i Diii	Hore's Biomorphics
1/4 1/4 1/4, section			
USGS Quadrangle Gillam Draw, Colorado			
, 7.5 min.			
UTM 12 ; 692100 m E, 4438420 m N			
LANDOWNER RUDGE OF Land M.			
LANDOWNER Bureau of Land Management			
ACCESS W on foot from road up Gillam Draw			
ACCESS W on foot from road up Gillam Draw DESCRIPTION	Formation	Man	· ·
ACCESS W on foot from road up Gillam Draw DESCRIPTION Era Mesozoic System Cretaceous	Formation	Man	cos
ACCESS W on foot from road up Gillam Draw DESCRIPTION	Formation	Man Man	COS
ACCESS W on foot from road up Gillam Draw DESCRIPTION Era Mesozoic System Cretaceous Member Buck Tongue Unit Stratigraphic	1/3	Man	COS
ACCESS W on foot from road up Gillam Draw DESCRIPTION Era Mesozoic System Cretaceous Member Buck Tongue Unit Stratigraphic position upper part of Buck Tongue Sediment	1/3	Man Man	cos
ACCESS W on foot from road up Gillam Draw DESCRIPTION Era Mesozoic System Cretaceous Member Buck Tongue Unit Stratigraphic position upper part of Buck Tongue Sediment	1/3	Man Man	cos
ACCESS Won foot from road up Gillam Draw DESCRIPTION Era Mesozoic System Cretaceous Member Buck Tongue Unit Stratigraphic position upper part of Buck Tongue Sediment description brown, ledge-forming sandstone near top of in	1/3	Man	COS
ACCESS Won foot from road up Gillam Draw DESCRIPTION Era Mesozoic System Cretaceous Member Buck Tongue Unit Stratigraphic position upper part of Buck Tongue Sediment description brown, ledge-forming sandstone near top of incompositional environment nearshore marine Fossils	1/3	Man Man	cos

SIFE FORM

10011774 1111000	
LOCALITY NUMBER: ET 16-12	
NAME:	16-12
- PREVIOUS NUMBER(S): EBO 15 (Field #)	-16-2
LOCATION:	16-13/
State: Colorado County: Rio Blanco	7. 1- 16-8
Township: 1 N Range: 101 W	1 164
NW 1/4 SW 1/4 NW 1/4, section 3	CU/D
NE 1/4 SW 1/4 NW 1/4, section 3	
USGS Quadrangle Gillam Draw, Colorado	
, 7.5 min.	
UTM 12 ; 694100 m E, 4439800 m N	
LANDOWNER Bureau of Land Management	- 1
ACCESS E on foot from drill hole in Sec. 4 TlN	
R101W	
DESCRIPTION	
Era <u>Mesozoic</u> System Cretaceous	Formation Mancos
Member Main body Unit	
Stratigraphic	
positionabout 200 feet below Castlegate Sandstone	
Sediment description tan-gray silty clays with orange (black unw	eathered) concretionary
material	
Depositional	
environment marine	
Fossils sampled Baculites	4
Fossils	
remaining same	12"
Scientific significance and disposition of	
material 3	

	SITE FORM	di	意入图一
LOCALITY NUMBER: ET 16-	13		Day over
NAME:	The second secon	2868	Paratie F.
PREVIOUS NUMBER(S): EBO	16 (Field #)		
LUCATION:	-	***	5886
State: Colorado	County: Rio Blan	95	5/4
	Range: 101 W	0.00	SAI
SW 1/4 SW 1/4 NW		100	79
NW 1/4 NW 1/4 SW			
USGS Quadrangle Gillam Dr			
	.5 min.		
	0 m E, 4439400 m N		
LANDOWNER Bureau of Land	management		
ACCESS E on foot from dr	ill hole in Sec. 4 TlN		
R101W			
DESCRIPTION			
Era Mesozpic	System <u>Cretaceous</u>	Formation Ma	ncos
Member main body	Unit		
Stratigraphic	et below Castlegate Sandsto	3	
Sediment	er below castlegate Sanosto	ne	
	etionary mudstone within ta	n-gray silty clays	
All the second section is a second section of the second section of the second section is a second section of the second section is a second section of the second section section section is a second section of the second section s	**** ** *** *** *** *** *** *** *** **	wellowing the least	
Depositional			
environment marine			
Fossils sampled plant material, s	small bivalve, fish spines	et a la est	
Fossils	1 (A)		
remaining <u>none</u>	· ·		
Scientific significance and disposition of			
material 3			
	-367-	4.0	

LOCALITY NUMBER: ET 16-14	7640
MAME:	1.00
PREVIOUS NUMBER(S): EBO 17 (field #)	6-9
LOCATION:	10.16, 119-14
State: Colorado County: Rio Blanco	7
Township: 1 N Range: 101 W	In the state of the state of
NE 1/4 NW 1/4 NE 1/4, section 9	11 6 12 K
1/41/41/4, section	
USGS Quadrangle Gillam Draw, Colorado	
, 7.5 min.	
UTM 12 ; 693300 m E, 4438500 m N	
LANDOWNER Bureau of Land Management	*
ACCESS SE on foot from oil well in Sec. 4 TIN	
R101W	
DESCRIPTION	
Era Mesozoic System Cretaceous F	ormation Mancos
MemberUnit	2 - 2
Stratigraphic positionabout 100 feet below Buck Tongue	e e compressor
Sediment description gray mudstone concretionary layer (weathers	orange) within brown silty
clays - forms continuous layer for at least 40 feet	
Depositional environment marine	17 24
Fossils Sampled <u>inoceramids</u> , Baculites	\$ 1 - 3 - 5
Fossils remaining none	100
Scientific significance and disposition of material 2	
200	

SITE FURM

2116 1000	1 10 10
OCALITY NUMBER: ET 16-15	
AME:	
PREVIOUS NUMBER(S): TRL 31 (Field #)	
LOCATION:	6.5-3
State: Colorado County: Rio Blanco	16-10
Township: 1 N Range: 101 W	Dint -
SW 1/4 NE 1/4 NE 1/4, section 8	=5,
1/41/41/4, section	15 03
USGS Quadrangle Gillam Draw, Colorado	
, 7.5 min.	
UTM 12 ; 692020 m E, 4438380 m N	
LANDOWNER Bureau of Land Management	
ESS W on foot from road up Gillam Draw	
DESCRIPTION	
Era Mesozoic System Cretaceous Formation	Mancos
Member Buck Tongue Unit	Hancos
Stratigraphic position low in Buck Tongue	
Sediment	
description medium-grained and massive sandstone ledge about 2 meto	rs thick
epositional nvironment shallow marine	
ossils ampled <u>one pelecypod m</u> old	
ossils ining pelecypod molds and casts and one gastrupod cast	
ntific significance disposition of aterial 4	
369-	

V. SITE FORM

LOCALITY NUMBER: ET 16-16	3
NAME:	
PREVIOUS NUMBER(S): TRL 30 (Field #)	- New York
LOCATION:	2 2 1 6
State: Colorado County: Rio Blan	16:10:
Township: 1 N Range: 101 W	The Holes of
NW 1/4 NE 1/4 NW 1/4, section 9	
1/4 1/4 1/4, section	
USGS Quadrangle Gillam Draw, Colorado	
Colorado , 7.5 min.	
UTM 12 ; 692860 m E, 4438420 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from road up Gillam Draw	
DESCRIPTION	
Era Mesozoic System Cretaceous	Formation Mancos
Member Buck Tongue Unit	
Stratigraphic position 3 meters above valley floor and 3 meter	s below light brown, blocky,
concretionary mudstone cropping out on ridges	
Sediment description unknown (probably the light brown, block	y, concretionary mudstone)
Depositional environment marine	
Fossils sampled large pelecypods and one coiled ammonoid fr	ragment
Fossils remaining none	
Scientific significance and disposition of material 4	
-370-	

OCALITY NUMBER:	ET 17-1		3 15 17 60% Six 3
		Y	17 1 32
	5): JGE 8201 (Field #)		S 17-12-
LOCATION:		4	17.8°
State: Colora	do County:	Rio Blanco	A 17 8
	Range: 1	. 1 1	
SE 1/4 SE	1/4 SW 1/4, section 26		
	1/4 1/4, section		公司學為3
	White Coyote Draw, Colorado		
	, 7.5	min.	
	_; _696740 _m E, _4412240		
LANDOWNER Bureau	u of Land Management		
CCESS E on foot	t from road up Rocky Point	Draw	
DESCRIPTION			
Era Mesozoic	System Cretac	eous Formation	Williams Fork
	Unit		- HITTEMS TOTA
Strationaphic	t thick sandstone on SW-fa		
Sediment description tan,	massive, and friable sands	tone	
Depositional environment fluv	io-deltaic		
Fossils	s of a tree trunk		1
Fossils	f the tree trunk		3
scientific signific and disposition of material			

SITE FORM	ON DIMETER
LOCALITY NUMBER: ET 17-2	The Marie
NAME:	
PREVIOUS NUMBER(S): TER 82-09 (Field #)	一角的一个
LOCATION:	
State: Colorado County: Rio Blanco	3
Township: 2 S Range: 101 W	Te le
NW 1/4 NE 1/4 NE 1/4, section 35	25
1/4 1/4 , section	
USGS Quadrangle White Coyote Draw, Colorado	
, 7.5 min.	
UTM_12 ; 697340 m E, 4412080 m N	
LANDOWNER Bureau of Land Management	
ACCESS NE on foot from road up East Douglas Creek	
DESCRIPTION	
Era Mesozoic System Cretaceous Fo	rmation Williams Fork
Member Unit	
Stratigraphic	
position high on ridge	****
Sediment description uncertain (in float)	
Depositional environment fluvio-deltaic	
Fossils sampleddinosaur_bone and gastropods	
Fossils remaining gastropods	
Scientific significance and disposition of material 3	
-372-	AND

	SITE CANA	
LOCALITY NUMBER: ET 1	SITE FORM	13757 1932
NAME:	.1-3	- Jaco 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Marie Control of the	The second secon	
PREVIOUS NUMBER(S): J	UM 8243 (Field #)	
State: Colorado	County: Rio Bla	anco
lownship: 2 S	Range: 101 W	1
SE 1/4 SE 1/4 SE	1/4, section 26	
1/41/4	1/4, section	C. J. W.
USGS Quadrangle White Co	oyote Draw, Colorado	********
,	7.5 min.	
UTM 12 ; 6976	500 m E, 4412340 m N	
LANDOWNER Bureau of Lan	Id Management	
	a nanagement	
ACCESS F on foot foot		
ACCESS E on foot from r	oad up Rocky Point Draw	1.0
DESCRIPTION		
Era <u>Mesozoic</u>	System Cretaceous	FormationWilliams Fork
Member	Unit	
Strationaphie		
Sediment	ry derived from sandstone ju	ust above top of red sandstone)
description buff, well-inc	durated fine-grained sandsto	*
	3 33,103 00	me
Depositional environment fluvio-deltai	C	
Fossils sampled none		
Fossils remaining palm frond		
entific significance disposition of material5		
	272	

LOCALITY N	UHBER: ET 17-4			and the second s		Žih.
NAME:					7-15	1
PREVIOUS N	UMBER(S): JUM 82	44 Field #)			2	07
LOCATION:					2	
State:	Colorado	County:	Rio Blanco		175	1
Township:	2 S	Range:	101 W		C. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	1
_SW 1/4	_SW 1/4 SE 1	/4, section _2	6		1000	131
1/4	1/4 1	/4, section				· j- ·
USGS Quadr	angle White Coyot	e Draw, Colora	do			
	, 7.5		min.			
UTM 12	; 697060	n E, 44122	40 m N			8.1
LANDOWNER	Bureau of Land M	lanagement				
ACCESS E	on foot from road	up Rocky Poin	t Draw			
DESCRIPTIO	N .					
Era M	esozoic S	ystem <u>Cret</u>	aceous	Formation	William	s Fork
Member		Unit				
Stratigrap position	hic highest lignit	ic shale on th	e slope			
Sediment descriptio	n gray carbonaceo	us shale				
Deposition environmen	al t <u>fluvio-deltaic</u>				and most applicately	- 11
Fossils sampled	possible flower or	fruit capsule	S			
Fossils remaining	plant fragments	24 Tem				
Scientific and dispos material						
		-3	374-			

	SITE FORM			J. Comment
OCALITY NUMBER: ET 17-5				Carlo Se
		· · · · · · · · · · · · · · · · · · ·		2.360
REVIOUS NUMBER(S): JUM	3245 (Field #)		Sa.	
LOCATION:			, e.s.	3 7 7 7 26
State: Colorado	County:	Rio Blanco	(17-18-98
Township: 2 S	Range: 1	01 W		3 17-12-
SW 1/4 SE 1/4 NW	1/4, section <u>26</u>			7677-8%
1/4 1/4	1/4, section			
SGS Quadrangle White Coyo	ote Draw, Colorad	0		
, 7.	. 5	min.		
yTM 12 ; 696480				
LANDOWNER Bureau of Land	Management			
X Y				
ACCESS W on foot from roa	ad up Rocky Point	Draw		
DESCRIPTION .				
Era Mesozoic	System Crota	COOUE	Cormation	Williams Fork
			FOI III d L TOII	WITH I I I I I I I I I I I I I I I I I I
1ember	Unit _			
Stratigraphic position <u>about 200 fee</u> t	below top of ri	dge	The second of	i Marcia i
Sediment				
description gray fine-grai	ned sandstone th	at weathers	orange	
The second to be about the second	1			
Depositional fluvio-deltai	С			
ossils Sampled probable dinosaur	scapula and pied	ce of rib	4.	
ossils Temaining fossil wood				1 2 7 12
tific significance				

LOCALITY NUMBER: ET 17-6		1000	
NAME:		_ 360	
PREVIOUS NUMBER(S): MCM 1-1 (Field #)			237
LOCATION:		7.11	2217
State: Colorado County: Rio Bl	enco	12	
Township: 2 S Range: 101 W		18	1
SE 1/4 NE 1/4 NE 1/4, section 35		15	A. T.
1/4 1/4 1/4, section			
USGS Quadrangle White Coyote Draw, Colorado			
, 7.5 min.			
UTM 12 ; 697450 m E, 4411800 m N			
LANDOWNER Bureau of Land Management			
ACCESS N on foot from road up East Douglas Creek			
DESCRIPTION			
Era <u>Hesozoic</u> System <u>Cretaceous</u>	Form	ation Wil	liams Fork
MemberUnit			1
Stratigraphic position about 15 meters above base of valley,	directly	above red f	ine-grained
sandstone			
Sediment description red mudclast in massive buff sandstone		Smelt "	3 182 - 1
			£11
Depositional environment fluvio-deltaic			6
Fossils sampled none		.20	100 F
Fossils remaining fragment of dinosaur limb (?) bone		per and a	
Scientific significance and disposition of material 4			
-376-			

LOCALITY NUMBER: ET 17-7	Brend Ord
NAME:	
PREVIOUS NUMBER(S):JDM-17-1 (Field #)	
LOCATION:	TANK.
State: Colorado County: Rio Blanco	是V为层
Township: 2 S Range: 101 W	37.7
SE 1/4 SE 1/4 SE 1/4, section 26	THE PROPERTY OF
1/41/41/4, section	0 12.6
USGS Quadrangle White Coyote Draw, Colorado	
, 7.5 min.	
UTM 12 ; 697600 m E, 4412300 m N	
LANDOWNER Bureau of Land Management	
CCESS _E on foot from road up Rocky Point Draw	
DESCRIPTION	
Era Mesozoic System C	
Era <u>Mesozoic</u> System <u>Cretaceous</u> Formation Member Unit	Williams Fork
Stratigraphic position about 10 meters below top of ridge at base of 2-mete	7
Sediment description base of tan sandstone (cross-bedded) at contact with	
stone about 1.5-2-meters-thick with tan sandstone underneath	Tight gray mud-
epositional	
ossils ampled fragmentary dinosaur bone (?) in float and dinosaur bone	
ossils Paining petrified wood	
Tentific significance and disposition of terial 2	
377	

SITE FURM

STIE FORM LOCALITY NUMBER: ET 17-8	_ 100 25
NAME:	1 180 3
PREVIOUS NUMBER(S): JDM-17-2 (Field #)	17-15-
LOCATION:	17.8 T. 8
State: Colorado County: Rio Blanco	- KY 1788
Township: 2 S Range: 101 W	
NE 1/4 SE 1/4 SW 1/4, section 26	The deal
1/41/41/4, section	
USGS Quadrangle White Coyote Draw, Colorado	
, 7.5 min.	
UTM 12 ; 696740 m E, 4412300 m N	
LANDOWNER Bureau of Land Management	
DESCRIPTION System Cretaceous Form	mation Williams Fork
Member Unit	2 32 22
Stratigraphic position about 30 meters above arroyo base	1 - 1160 - 1
Sediment description <u>light gray mudstone</u>	
Depositional environment fluvio-deltaic	to the fermion design when the
Fossils Sampled <u>single bone fragment (dinosaur?) in float</u>	
Fossils remaining none	
Scientific significance and disposition of material 4	
270	

LOCALITY NUMBER	1	
LOCALITY NUMBER: ET 17-9		A LOST A
PREVIOUS NUMBER(S): JDM-17-3 (Field #)		4/15/19
LOCATION:		
State: Colorado County:	Rio Blanco	Y 13-17 18-
Township: 2 S Range:	101 W	3 .17:12
1/4 1/4 1/4, section 20	6	1 15 15 8 2
Usus Quadrangle White Coyote Draw, Colorad	do	
, 7.5 UTM 12 ; 696240 m E, 441326	min.	
LANDOWNER Bureau of Land Management	<u>0 m N</u>	
CCESS E on foot from road up Rocky Point DESCRIPTION	: Draw	
Era Mesozoic System Cretace	eous Formation	Williams Fork
Member Unit		
position about 30 meters above arroyo bo Sediment	ttom	
description light gray mudstone		
Depositional environment of		
environment fluvio-deltaic Fossils		
Sampled single dinosaur bone fragment (in fl. Fossils	oat)	
tific significance		
and disposition of aterial 4		
-379-		

LOCALITY NUMBER:	ET 17-10	
		17.5
	: JMW 15 (Field #)	3000
LOCATION:		265
State: Colorad	o County: Rio Blanco	18
Township: 2 S	Range: 101 W	17:12
	/4 SE 1/4, section 26	7-8 E.C.
1/4 1	/41/4, section	Management
USGS Quadrangle W	hite Coyote Draw, Colorado	
	, 7.5 min.	1
UTM_12	; 696820 m E, 4412820 m N	
LANDOWNER Bureau	of Land Management	
ACCESS NW on foo	t from road up Rocky Point Draw	
	*. ·	
DESCRIPTION		
Era Mesozoic	System Cretaceous F	ormation Williams Fork
Member		
Stratigraphic position low	on slope	en to Sme, with a finite
Sediment		The second of
description gray-	weathered sandy siltstone	
Depositional environment fluv	io-deltaic	1 11 11
Fossils sampled bone fra	gnents (dinosaur)	£/16/1 **
Fossils remaining bone f	ragments	
Scientific signifi and disposition of material		
	-380-	

LOCALITY NUMBER: ET 17-11	TO A STATE OF THE
AME:	2017-13 1530
PREVIOUS NUMBER(S): JUM 8246 (Field #)	
LOCATION:	333
State: Colorado County: Rio Blanc	0
Township: 2 S Range: 101 W	
SW 1/4 SE 1/4 NE 1/4, section 26	
1/41/41/4, section	
USGS Quadrangle White Coyote Draw, Colorado	
, 7.5 min.	
UTM 12 ; 697280 m E, 4413060 m N	
LANDOWNER Bureau of Land Management	
CCESS NW on foot from road up Rocky Point Draw	
May the state of t	
DESCRIPTION	
Era Mesozoic System Cretaceous	Formation Williams Fork
Member Unit	
Stratigraphic positionat base of massive cliff-forming sandsto	ne
Sediment description will-indurated buff-colored fine-grained	
will-indusated barr-corolled line-grained	sandstone
Depositional	
environment fluvio-deltaic	
Fossils sampled one piece of fossil log	
Fossils remaining most of the fossil log	94 1 1 1 1 1 1 1
cientific significance and disposition of material 5	
381	

LOCALITY NUMBER: ET 17-12	2 18,0
NAME:	
PREVIOUS NUMBER(S): JUM 8247 (Field #)	i de vicel con
LOCATION:	3
State: Colorado County: F	Rio Blanco
Township: 2 S Range: 101	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
SE 1/4 NE 1/4 SW 1/4, section 26	
1/41/41/4, section	- 11 da. la ca
USGS Quadrangle White Coyote Draw, Colorado	
, 7.5	_min.
UTM_12 ; 696240 m E, 4412640	m N
LANDOWNER Bureau of Land Management	
ACCESS NW on foot from road up Rocky Point D	Draw
DESCRIPTION	
Era Mesozoic System Cretaced	ous Formation Williams Fork
Member Unit	· · · · · · · · · · · · · · · · ·
Stratigraphic position about 30 feet above main drainage	ge
Sediment description buff-colored fine-grained sandsto	one
2 3 - 1 6 3 1 2	
Depositional environment fluvio-deltaic	
Fossils sampled several foot and leg bones of a dinc	osaur (hadrosaur)
Fossils remaining most of the dinosaur	
Scientific significance and disposition of material 1	
-382-	

LOCALITY NUMBER:	ET 17-13			Library Library
AME:				C335 1200
- PREVIOUS-NUMBER(S): EBO 12 (Fie			
LOCATION:				17-13
State: Color	ado	County: Ric	o Blanco	10 - 30 m
Township: 2 S		Range: 101 W		25 17 10 20
	1/4 NE 1/4, s			
1/4	1/4 1/4, s	ection		17-19 /
USGS Quadrangle	White Coyote Dra	w, Colorado		
	7.5		nin.	
UTM 12	_; <u>696980</u> m l	4413220	_m N	
LANDOWNER Bure	au of Land Manager	nent		
ACCESS NW on f	oot from road up F	locky Point Dra	ıw	
ESCRIPTION				
Era Mesozoio	System	Cretaceous	Formation	Williams Fork
				-
Stratigraphic position ver	ry high in William	s Fork Formati	on; upper 1/3 of	formation
Sediment			nicroconglomerate	()
lensing within s	eries of sandston	e beds below m	assive sandstone	
Depositional environment flu	vio-deltaic		we of my to be a dis-	
Fossils sampled teeth,	limbs/vertabrae,	scutes - turtl	e, gar, crocodilia	an, hadrosaur,
	material, shell h			
Fossils remaining very	productive - lens	continues for	at least 30 feet	
ientific signif and disposition o material	icance		1	
6.		-383-		

	SITE FORM	1772 W
LOCALITY NUMBER	: ET 17-14	
NAME:		- Yang
PREVIOUS NUMBER	(S): EBO 11 (Field #)	78.13.33
LOCATION:		. Magain
State: Color	rado County: Rio Blanc	0 3 5 17
Township: 2 S	Range: 101 W	- AN Witte
NE 1/4 NW	1/4 SW 1/4, section 26	
1/4	1/41/4, section	1 (5500
USGS Quadrangle	White Coyote Draw, Colorado	
	, 7.5 min.	
UTM 12	; 696240 m E, 4412800 m N	
LANDOWNER Bure	eau of Land Management	
ACCESS NW on f	foot from road up Rocky Point Draw	
DESCRIPTION		
Era Mesozpi	c System Cretaceous	Formation Williams Fork
Member		
Stratigraphic position lo	wer part of Williams Fork Formation loc	cally
Sediment description mas	sive tan-orange sandstone	
Depositional environment fl	uvio-deltaic	In Contract
Fossils sampled none		
Fossils remaining _wood	fragments, logs (some about 20 inches	across), and large dinosaur
bone (poorly pre	served)	n
Scientific signiand disposition material	ficance of 4	
	-384-	

	SITE FORM	3/	2018/	7 19
LUCALITY NUMBER: ET 17-1	5	7		
:		UV	3-1	· · · · · · · · · · · · · · · · · · ·
FREVIOUS NUMBER(S): EBO	13 (Field #)	57	La Silve Lee	
LOCATION:			35	
State: Colorado	County: Rio B1	anco	ARTE	
Township: 2S		7	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
NE 1/4 NE 1/4 NW		75		TEN 3
1/4 1/4	1/4, section			/.
USGS Quadrangle White Coy	ote Draw, Colorado			
, 7	.5min.			
UTM 12 ; 696720	D m E, 4413680 m N			
LANDOWNER Bureau of Land	Management			
ACCESS NH on foot from ro	ad up Rocky Point Draw			
DESCRIPTION .				
Era Mesozoic	System <u>Cretaceous</u>	_ Formation _	Wiliams Fork	
Member	Unit			
Stratigraphic position <u>about 100 fee</u>	t below fossil-bearing pe	bble conglomerat	e of locality 1	7-13
Sediment description <u>l-foot-thick r</u>				
calcareous sandstone with				
Depositional environment <u>fluvial delta</u>				
ossils ampled shell-bearing sand	istones			
ossils more of same				
tific significance				
T	-0.5			

LOCALITY NUMBER: ET 17-16		1
HAME:		RAIN T
PREVIOUS NUMBER(S): _JGE-8207 (Field #)		
LOCATION:	2312	45
State: Colorado County: Rio Blanco		
Township: 2S Range: 101W	7.76	7
SW 1/4 NE 1/4 SE 1/4, section 25	17.11	
1/41/4 , section		
USGS Quadrangle White Coyote Draw, Colorado	1	
, 7.5 min.		
UTM 12 ; 698940 m E, 4412680 m N		
LANDOWNER Bureau of Land Management		
ACCESS NE on foot from unmapped road up East Red		
Point Nraw		
DESCRIPTION		
Era Mesozoic System Cretaceous I	Formation Will	iams Fork
Member Unit		
Stratigraphic position mesa-capping sandstone	5 10	
Sediment	r = 1	
description organic rich sandy-shale capped by thick san	ndstone and overl	ying gray
carbonaceous shale		
Depositional environment fluvio-deltaic		
Fossils sampled turtle, dinosaur, indeterminate tooth and wood		
Fossils remaining _more of same		
Scientific significance and disposition of material 2		
-386-		

NAME: PREVIOUS NUMBER(S): JGE-8208 (Field #) LUCATION: State: Colorado County: Rio Blanco Township: 2S Range: 101W NE 1/4 NE 1/4 SE 1/4, section 25	LOCALITY NUMBER: ET 17-17	
LOCATION: State: Colorado County: Rio Blanco Township: 2S Range: 101W NE 1/4 NE 1/4 SE 1/4, section 25	NAME:	- 7 7 mm
State: Colorado County: Rio Blanco Township: 2S Range: 101W NE 1/4 NE 1/4 SE 1/4, section 25 1/4 1/4 1/4, section USGS Quadrangle White Coyote Draw, Colorado 7.5 min. UTM 12 ; 699140 m E, 4412820 m N LANDOWNER Bureau of Land Management ACCESS NE on foot from unmapped road up East Red Point Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position unknown (float) Sediment description unknown (float) Depositional fluvio-deltaic Cossils ampled pelecypod steinkern in float Ossils maining none cientific significance and disposition of dis	PREVIOUS NUMBER(S): JGE-8208 (Field #)	
NE 1/4 NE 1/4 SE 1/4, section 25 1/4		- Allegia
NE 1/4 NE 1/4 SE 1/4, section 25 1/4	State: Colorado County: Rio Blanco	1 1/1/200
The 1/4 NE 1/4 SE 1/4, section 25	Township: 25 Range: 101W	-
USGS Quadrangle White Coyote Draw, Colorado , 7.5 min. UTM 12 ; 699140 m E, 4412820 m N LANDOWNER Bureau of Land Management ACCESS NE on foot from unmapped road up East Red Point Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position unknown (float) Sediment description unknown (float) Sediment fluvio-deltaic Cossils ampled pelecypod steinkern in float ossils emaining none cientific significance and dissosition of	NE 1/4 NE 1/4 SE 1/4, section 25	- 心でうじゅか
J. Sediment description unknown (float) Sediment description desc	1/41/41/4, section	17-18-18
	uses guadrangle White Covote Draw Colorada	
LANDOWNER Bureau of Land Management ACCESS NE on foot from unmapped road up East Red Point Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position unknown (float) Sediment description unknown (float) Depositional fluvio-deltaic Tossils ampled pelecypod steinkern in float ossils emaining none cientific significance and dissosition of	, 7.5 min	
LANDOWNER Bureau of Land Management ACCESS NE on foot from unmapped road up East Red Point Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position unknown (float) Sediment description unknown (float) Depositional environment fluvio-deltaic Cossils ampled pelecypod steinkern in float ossils emaining none cientific significance and dismission of	UTM 12 ; 699140 m E, 4412820 m N	
ACCESS NE on foot from unmapped road up East Red Point Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position unknown (float) Sediment description unknown (float) Depositional fluvio-deltaic Tossils ampled pelecypod steinkern in float ossils emaining none cientific significance and dissociation of	LANDOWNER Bureau of Land Management	
Point Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position unknown (float) Sediment description unknown (float) Depositional invironment fluvio-deltaic Cossils ampled pelecypod steinkern in float OSSIIs emaining none cientific significance and dissociation of		
Point Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position unknown (float) Sediment description unknown (float) Depositional invironment fluvio-deltaic Cossils ampled pelecypod steinkern in float OSSIIs emaining none cientific significance and dissociation of	ACCESS NE on foot from unmapped road up Fast Rod	
DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position unknown (float) Sediment description unknown (float) Depositional environment fluvio-deltaic Cossils ampled pelecypod steinkern in float OSSIIs emaining none cientific significance and dissociation of	Point Draw	
Stratigraphic position unknown (float) Sediment description unknown (float) Depositional environment fluvio-deltaic Cossils ampled pelecypod steinkern in float OSSILS emaining none cientific significance and disposition of		
Stratigraphic position unknown (float) Sediment description unknown (float) Depositional environment fluvio-deltaic Cossils ampled pelecypod steinkern in float OSSILS emaining none cientific significance and disposition of	Era Mesozoic System Cretaceous	
Stratigraphic position unknown (float) Sediment description unknown (float) Depositional nivironment fluvio-deltaic fluvio-d	Member Unit	ion Williams Fork
Sediment description unknown (float) Depositional environment fluvio-deltaic Cossils ampled pelecypod steinkern in float cossils emaining none cientific significance	Strationaphic .	
Depositional notionment fluvio-deltaic Sossils ampled pelecypod steinkern in float Sossils emaining none cientific significance	Sediment.	
invironment fluvio-deltaic Ossils ampled pelecypod steinkern in float Ossils emaining none cientific significance	uescription unknown (float)	
invironment fluvio-deltaic Ossils ampled pelecypod steinkern in float Ossils emaining none cientific significance		
ossils emaining none cientific significance did dismostion of	repositional nvironment fluvio-deltaic	
ossils emaining none cientific significance nd dismosition of	ossils ampled _pelecypod steinkern in float	
NO disposition of	ossils	
	10 disposition of	

LOCALITY NUMBER:	ET 17-18	
RAME:	Manufacture and American States of the State	94169
	S): JMW 21 (Field #)	139
LOCATION:		
State: Color	ado County: Rio Bla	inco
Township: 2S	Range: 101W	
SE1/4 NW	1/4 SE 1/4, section 25	4 2110
1/4	1/41/4, section	
USGS Quadrangle	White Coyote Draw, Colorado	
	, 7.5 min.	
UTM 12	; 698720 m E, 4412680 m N	
LANDOWNER Bure	au of Land Management	
Member	c System <u>Cretaceous</u> Unit	
Stratigraphic position th	nird sandstone ledge about 40 feet b	elow highest ledge
Sediment description wea	thered and reddish-tan fine-grained	sanstone and siltstone
Depositional environment fl	uvio-deltaic	
Fossils sampled woody	material impression and shell fragm	ents
Fossils remaining more	of same	
Scientific signi and disposition material	of 4	
	-388-	

LOCALITY NUMBER: ET 18	-1	
NAME:	į .	
PREVIOUS NUMBER(S): JU		
LOCATION:		
State: Colorado	County: Rio Blanc	0 19 9 9
Township: 1S	Range: 101W	The days
SE 1/4 SE 1/4 SW	1/4, section 21	
1/41/4	1/4, section	J 202002502502
USGS Quadrangle Philade	lphia Creek, Colorado	
	7.5 min.	
UTM 12 ; 693	480 m E, 4423460 m N	
LANDOWNER Bureau of La	nd Management	
ACCESS W on foot from	unmapped road to well pad	
in the SW 1/4 SE 1/4 Se	c. 21 T1S R101W	
DESCRIPTION		
Era Mesozpic	System Cretaceous	Formation Williams Fork
Member	Unit	
Stratigraphic .	f ridge	- 7
Sediment description dark gray s	hale with limonite stains that	is 6-7-feet-thick and
laterally extensive		
Depositional environment fluvio-del	taic	
Fossils sampled plant impressi	ons (Araucarites)	
Fossils remaining more of same		
Scientific significance and disposition of material 5		
	-389-	

	SITE FORM		VE WINGS
LOCALITY NUMBER: ET 18-2			
NAME:			British M
PREVIOUS NUMBER(S): MCM 1	8-1 a, b, c and .	JDM-1 (Field #)	The sale
LOCATION:			229
State: Colorado	County:	Rio Blanco	
Township: 1S	Range: 10	DIW	- 13 - 1 - 31.
SE 1/4 SW 1/4 NW	1/4, section 28		1231-1838
NW 1/4 NW 1/4 SW	1/4, section 28		
USGS Quadrangle Philadelph	ia Creek, Colorac	io	
, 7.	5	min.	
UTM 12 ; 693040			
LANDOWNER Bureau of Land I	Management		
ACCESS _E on foot from hig	hway 139	-	
DESCRIPTION .		Professional and an artist and an artist and an artist and artist art	
Era Mesozoic	System Cretac	eous Form	ation Williams Fork
Member	Unit		
Stratigraphic positionabout 13 meter			andstone bench; about ltstone, and in float
Sediment description red mudclast co			
lens about 10-20-cm-thick			
Depositional environment fluvio-deltaid	:		The second secon
Fossils sampled dinosaur bone frag	gments and petrif	fied wood	
Fossils remaining dinosaur bone fr	ragments and petr	ified wood	,
Scientific significance and disposition of material 4			
	201		

	21.1	E FORM		DOTA IN STATE	Mariana.
LOCALITY NUMBER:	ET 18-3				A SAN
DAME:					八樓
PREVIOUS NUMBER(S): GWS-ET-P (Fie			1/85A	101
LOCATION:				11/52/2	
State: Color	ado Co	unty: Rio Blan	СО		
Township: 1S	. Ra	nge: 101W			1
	1/4 NW 1/4, sec			Will Control	
1/4	1/4 1/4, sec	tion		17.38-2	
USGS Quadrangle	Philadelphia Creek	, Colorado			
	7.5	min.			
UTM_12	; 693200 m E,	4422700 m N			
LANDOWNER Burea	u of Land Managemer	nt			
7		· ·			
CCESS E on foc	ot from highway 139				
DESCRIPTION					
Era Mesozoio	: System	Cretaceous	Formation	Williams	Fork
Stratigraphic position bot	tom of valley	ALCOHOL 9			, 1
Sediment description cont	orted, wavy-laminat	od and fine arain	d candetone		,
cont	or ced, wavy-rammae	ed and Tine-grains	d sandstone		
Depositional environment flu	vio-deltaic				
Fossils sampled none					-
	fragments (turtle?)		1		·
lentific signif and disposition o material	Ť				
***		_391_			

SITE FORM	16-12 1
LOCALITY NUMBER: ET 18-4	
NAME:	
PREVIOUS NUMBER(S): EBO 14 (Field #)	
LOCATION:	1001
State: Colorado County: Rio Blanco	The second
Township: 1S Range: 101W	127
SE 1/4 NW 1/4 SW 1/4, section 28	-11
1/41/4 , section	
USGS Quadrangle Philadelphia Creek, Colorado	
, 7.5 min.	
UTM 12 ; 693140 m E, 4422320 m N	
LANDOWNER Bureau of Land Management	
ACCESS E on foot from highway 139	
DESCRIPTION	
Era Mesozpic System Cretaceous	Formation Williams Fork
Member Unit	
Stratigraphic	alas Dass assa
positionabout mid-section of Williams Fork in Doug	gras Pass area
Sediment description tan sandstone-microconglomerate scour with	in top of lower, large
sequence (10-15 benches) of multi-storied sands	
Depositional environment fluvio-deltaic	
Fossils sampled turtle (portion of shell)	
Fossils remaining more of same	
Scientific significance and disposition of material 3	
_392-	

LOCALITY NUMBER: _ET 18-5	5		· Was to
NAME:			10 8 4
PREVIOUS NUMBER(S): JMW	The second secon		
LOCATION:	The second secon	31	允是一个
State: Colorado	County: Rio Bla	nco . I	元 不 原题
Township: 15			
SW 1/4 SW 1/4 SW		14	
1/41/4		الا الا	· ille
USGS Quadrangle Philadelp!	nia Creek, Colorado		
. , 7.			
) m E, 421860 m N		
LANDOWNER Bureau of Land			
ACCESS E on foot from hig	hway 139		
DESCRIPTION	The second section of the sect		
Era Mesozoic	System <u>Cretaceous</u>	Formation	Williams Cook
Member	Unit		WITH THE FORK
Stratigraphic cosition below second s		1 1 1 1	
Sediment	- y - 1/2		
description fine- to medium	n-grained tan sandstone int	terbedded with	grayish siltsto
epositional			
nvironment fluvio-deltaic			
ossils ampled bone impression an	d bone fragments		
ossils emaining bone fragments			
cientific significance nd disposition of aterial 4			
	-393-		

STIL FORM

LOCALITY NUMBER:	ET 18 6	
		10 15 5 18 18 18 18 18 18 18 18 18 18 18 18 18
	(S): _COWS-ET-T (Field #)	學》原26話
LOCATION:		27
State: Color	ado County: Rio Blanco	1 1 /L - 36
Township: 1S	Range: 101W	Draw
NW 1/4 SE	1/4 NE 1/4, section 27	
1/4	1/41/4, section	
USGS Quadrangle	Philadelphia Creek, Colorado	
	, 7.5 min.	
	; 695620 m E, 4422940 m N	•
LANDOWNER Bure	au of Land Management	
1		
ACCESS NW on f	oot from road up State Bridge Draw	
DESCRIPTION		
Era Mesozoi	c System Cretaceous Fo	ormation Williams Fork
Member		
Stratigraphic position ve	ry high in section	
Sediment	determine the said and said an	
description sam	dstone: tan and medium-grained	
Depositional		W W
environment fl	uvio-delatic	
Fossils sampled none		
Fossils remaining dino	saur bone fragments	
Scientific signi and disposition material	of	
-	-394-	

SITÉ FORM

NAME: PREVIOUS NUMBER(S): GWS-ET-U (Field #) LOCATION: State: Colorado County: Rio Blanco Township: 1S Range: 1014 NE 1/4 SW 1/4 NE 1/4, section 27 1/4 1/4 1/4, section USGS Quadrangle Philadelphia Creek, Colorado 7.5 min. UTM 12 ; 695560 m E, 4422900 m N LANDOWNER Bureau of Land Management ACCESS NN on foot from road up State Bridge Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional environment fluvio-deltaic Cossils Sampled none Cientific significance	LOCALITY NUMBER: ET 18-7	一种原则是
PREVIOUS NUMBER(S): GWS-ET-U (Field #) LOCATION: State: Colorado County: Rio Blanco Township: 1S Range: 1014 ME 1/4 SW 1/4 NE 1/4, section 27		
LOCATION: State: Colorado County: Rio Blanco Township: 1S Range: 1014 NE 1/4 SW 1/4 NE 1/4, section 27 1/4 1/4 1/4, section USGS Quadrangle Philadelphia Creek, Colorado , 7.5 min. UTM 12 ; 695560 m E, 4422900 m N LANDOWNER Bureau of Land Management ACCESS NN on foot from road up State Bridge Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional environment fluvio-deltaic Fossils sampled none Cossils remaining bone bed: turtle and dinosaur cientific significance and disposition of the control o	PREVIOUS NUMBER(S): GWS-ET-U (Field #)	\$ 1 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1
Township: 1S Range: 101W ME 1/4 SW 1/4 NE 1/4, section 27 1/4 1/4 1/4 1/4, section USGS Quadrangle Philadelphia Creek, Colorado 7.5 min. UTM 12; 695560 m E, 4422900 m N LANDOWNER Bureau of Land Management ACCESS NW on foot from road up State Bridge Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional environment fluvio-deltaic Fossils sampled none Cientific significance in figure for the first significance in the figure of the first significance in the		1 0 miles
Township: 1S Range: 101W ME 1/4 SW 1/4 NE 1/4, section 27 1/4 1/4 1/4 1/4, section USGS Quadrangle Philadelphia Creek, Colorado 7.5 min. UTM 12; 695560 m E, 4422900 m N LANDOWNER Bureau of Land Management ACCESS NW on foot from road up State Bridge Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional environment fluvio-deltaic Fossils sampled none Cientific significance in figure for the first significance in the figure of the first significance in the	State: Colorado County: Rio Blanco	The Chie
NE 1/4 SN 1/4 NE 1/4, section 27	Township: 1S Range: 101W	Draw. Valg
USGS Quadrangle Philadelphia Creek, Colorado		
USGS Quadrangle Philadelphia Creek, Colorado	1/41/41/4, section	
UTM_12 ; 695560 m E, 4422900 m N LANDOWNER Bureau of Land Management ACCESS NN on foot from road up State Bridge Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional environment fluvio-deltaic Fossils sampled none cossils turtle and dinosaur cientific significance in the sample of the sample o		
ACCESS NN on foot from road up State Bridge Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional environment fluvio-deltaic Fossils sampled none cossils remaining bone bed: turtle and dinosaur cientific significance end disposition of		
ACCESS NN on foot from road up State Bridge Draw DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional environment fluvio-deltaic Fossils sampled none cossils remaining bone bed: turtle and dinosaur cientific significance and disposition of		
DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional fluvio-deltaic Fossils sampled none Cossils remaining bone bed: turtle and dinosaur cientific significance and disposition of		
DESCRIPTION Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional fluvio-deltaic Fossils sampled none Cossils remaining bone bed: turtle and dinosaur cientific significance and disposition of	ACCESS NW on foot from road up State Bridge Draw	
Era Mesozoic System Cretaceous Formation Williams Fork Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional fluvio-deltaic Fossils sampled none Cossils bone bed: turtle and dinosaur cientific significance in the control of the control		
Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional fluvio-deltaic Fossils sampled none Fossils controlled turtle and dinosaur cientific significance and disposition of	DESCRIPTION	
Member Unit Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional fluvio-deltaic Fossils sampled none Fossils temaining bone bed: turtle and dinosaur cientific significance and disposition of	Era Mesozoic System Cretaceous F.	ormation William 5
Stratigraphic position very high in section Sediment description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional environment fluvio-deltaic Fossils sampled none formulations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional fluvio-deltaic Fossils formulation formulations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Constitution of fluvio-deltaic f	Member Unit	WITHTAMS FORK
description sandstone with wavy laminations and ferruginous concretions only a few inches thick; below a massive sandstone and a bedded siltstone Depositional environment fluvio-deltaic Fossils sampled none cossils remaining bone bed: turtle and dinosaur cientific significance and dinosaur cientific significance	Stratigraphic	1.00
few inches thick; below a massive sandstone and a bedded siltstone Depositional environment fluvio-deltaic Fossils enabled none Fossils enabled bone bed: turtle and dinosaur Cientific significance and dinosaur cientific significance	Sediment	
Depositional environment fluvio-deltaic Fossils Fossi	for interest this control with wavy laminations and ferruging	us concretions only a
environment fluvio-deltaic Fossils Tossils Temaining bone bed: turtle and dinosaur Cientific significance and disposition of	new inches thick; below a massive sandstone and a bedded	siltstone
Sampled none Tossils Temaining bone bed: turtle and dinosaur Cientific significance	environment fluvio-deltaic	
remaining bone bed: turtle and dinosaur cientific significance		
cientific significance	ossils remaining bone bed: turtle and dinosaur	
	cientific significance	

LOCALITY NUMBER:	: LT 18-8	L. Links
		域的意义的
	(S): TER 82-11 (Field #)	
LOCATION:		16
State: Color	ado County: Rio Blanco	1 1
Township: 1S	Range: 101W	Draw V
NE 1/4 NW	1/4 NE 1/4, section 27	THE STATE OF THE S
1/4	1/4 1/4, section	
USGS Quadrangle	Philadelphia Creek, Colorado	
	, 7.5 min.	
UTM_12	; 695150 m E, 4423400 m N	
LANDOWNER Bure	au of Land Management	
ACCESS S on fo	ot from unmapped road on ridge top	
in Secs. 22 and	27 T1S R101W .	
DESCRIPTION		
Era Mesozoi	c System Cretaceous F	ormation Williams Fork
	Unit .	
Stratigraphic	ou bish is the Williams Foot (second book	
	ry high in the Williams Fork (second bend	in from top of riage)
Sediment description buf	f medium-grained sandstone	
- 7		
Depositional environment fl	uvio-deltaic	
Fossils sampled none		
Fossils remaining dino	saur bone, dinosaur claw, small vertebrat	e bone, Myledaphus teeth, rib, numerous other bones
Scientific signi and disposition material	ficance	rib, numerous other bones
-	206-	

SITE FURM

LOCALITY NUMBER: _ET	18-9	7/15-18-14
NAME:	A 4 (10 (10 (10 (10 (10 (10 (10 (10 (10 (10	3 4 8 5 7
PREVIOUS NUMBER(S):	JUM 8250 (Field #)	12/8 7 18 10
LOCATION:		The state of the s
State: Colorado	County: Rio Blanco	N. A. A. C.
Township: 1S	Range: 101W	The state of the s
	NE 1/4, section 27	E & (60)
	1/4, section	
	delphia Creek, Colorado	
	, 7.5 min.	
	95880 m E, 4422940 m N	
LANDOWNER Bureau of	Land Management	
DESCRIPTION Era Mesozoic	System Cretaceous Fo	ormation Williams Fork
Member	Unit	MITTERS FOR
Stratigraphic positionabout 30		
Sediment description orange ver	y fine-grained sandstone	
Depositional environment fluvio-de	latic	
Fossils sampled none		
Fossils remaining <u>plant</u> stems		
cientific significance and disposition of material 5	•	
	-397-	

LOCALITY NUMBER:	ET 18-10	11000000000000000000000000000000000000
NAME:		- 10 March 1980
PREVIOUS . NUMBER ((S): JUM 8251 (Field #)	William .
LOCATION:		1. 2 (M. 2.2)183
State:Color	ado County: Rio Blanco	1
Township: 1S	Range:)01W	DIEM. TO SEE
NW 1/4 SE	1/4 NE 1/4, section 27	THE RESERVE TO SERVE THE PARTY OF THE PARTY
1/4	1/41/4, section	
USGS Quadrangle	Philadelphia Creek, Colorado	
	, 7.5 min.	
UTM 12	; 695800 m E, 4422860 m N	
LANDOWNER Bure	au of Land Management '	
ACCESS W on f	oot from road up State Bridge Draw	
DESCRIPTION		
Era Mesozoi	c System Cretaceous	Formation Williams Fork
Member	Unit	
Stratigraphic	st below prominent sandstone ledge and a	
	st below prominent sandstone ledge and a	(about 7-feet-thick)
Sediment description gra	y, very fine-grained sandstone; well-ind	urated and weathering
orange		
Depositional environment fl	uvio-deltaic	
Fossils sampled gastro	pods with original shell material	
Fossils remaining gast	ropods	
Scientific signi and disposition material	of	
marcilai.	3 - 200	

LOCALITY NUMBER: ET 18-11	
NAME:	
PREVIOUS NUMBER(S): JUM 8252 (Field #)	
LOCATION:	Bar 1/2
State: Colorado County: Rio B	Nanco America
Township: 15 Range: 101W	
NE 1/4 SE 1/4 SE 1/4, section 28	
1/4 1/4 1/4, section	
USGS Quadrangle Philadelphia Creek, Colorado	
UTM 12 ; 694360 m E, 4422100 m M	
LANDOWNER Bureau of Land Management	
	-
ACCESS N on foot from road up State Bridge Draw	
DESCRIPTION	•
Era <u>Mesozoic</u> System <u>Cretaceous</u>	F
Member Unit	. Formation Williams Fork
Stratigraphic position above prominent white sandstone ledge	
sediment anoth description clinker	ner prominent sandstone ledge
epositional nvironment fluvio-deltaic	
ossils ampled several leaf impressions (Debeya and Ficus	?)
ossils emaining none	
cientific significance nd disposition of aterial 5	
-399-	

LOCALITY NUMBER:	ET 18-12	
NAME:		
PREVIOUS NUMBER (S): TER82-12 (Field #)	
LOCATION:		
State: Color	rado County: Rio E	Tanco A A
Township: 2S	Range: 101W	JOTEW V
NW 1/4 SW	1/4 NE 1/4, section 27	
1/4	1/41/4, section	
USGS Quadrangle	Philadelphia Creek, Colorado	
	, 7.5 mir	
	; 695360 m E, 4422940 m	
LANDOWNER Bure	au of Land Management	-
ACCESS NW on f	oot from road up State Bridge Draw	-
	c System Cretaceous	
Member	Unit	
Stratigraphic position mi	ddle to hich in the Williams Fork	(ridge top)
Sediment description flo	eat (weathered light-brown siltstor	e with numerous concretionary
fragments)		
Depositional environment fl	uvio-deltaic	
Fossils sampled turtle	shell and bone; dinosaur teeth; o	rocodilian; gar scale; tooth frag- ments
Fossils remaining same		INCHES.
Scientific signi and disposition material	of 1	1. 1
	-400-	

OCALITY NUMBER: ET 18-13	
JAE:	215 13 K1850
PREVIOUS NUMBER(S): MCM 18-2 (Field #)	(3) 小说是
LOCATION:	
State: Colorado County: Rio Blanco	1. 1
Township: 1S Range: 101W	
NW 1/4 SW 1/4 NE 1/4, section 27	言黨條例
1/41/41/4, section	
USGS Quadrangle Philadelphia Creek, Colorado	
UTM_12 ; 695260 m E, 4422980 m N	
LANDOWNER Bureau of Land Management	
DESCRIPTION Era Mesozoic System Cretaceous Formation	Williams Fork
Member Unit	WITH TAIRS FORK
Stratigraphic position about 15 meters above base of gully; bed appears to tinuously at same level throughout east part of studdescription gray limestone - weathers orange, with abundant carbo	y area
plant fragments, mollusks and gastropod fragments	
Depositional environment fluvio-deltaic (pond)	
Fossils sampled fragments of gastropods, mollusks and plant material	
Fossils semaining more of same	

LOCALITY NUMBER:	ET 19-1		11/1/2 20
310107	Viscoli and the second second		19.4 4
	S): GWS-ET-V (Field #)		10-1
LOCATION:			300
State: Color	ado County:	Garfield	-152
Township: 5S	Range: 93	W	1
NE 1/4 NE	1/4 NW 1/4, section 22		
1/4	1/41/4, section		Enicia
USGS Quadrangle	Rifle, Colorado		
	, 7.5	min.	
UTM 13	; <u>258100</u> m E, <u>4387760</u>	m_N	
LANDOWNER Bure	au of Land Management		
	c System Tertia		rmation <u>Wasatch</u>
Member	Unit	· · · · · · · · · · · · · · · · · · ·	
Stratigraphic position mo	uth of valley, low in local	section	
Sediment	wn, silty mudstone		
Depositional environment flo	uvial		
Fossils	jaw fragments (perissodactyl		
Fossils remaining none		1	*
Scientific signi and disposition material	of		ga office to a
		402-	

CALITY NUMBER: ET 19-2	30-2 / M.
OME:	2
PREVIOUS NUMBER(S): TRL-32 (Field #)	10-0-0
LOCATION:	103
State: Colorado County: Garfield	1 355
Township: 5S Range: 93W	7
NE 1/4 SE 1/4 SE 1/4, section 16	100
1/4 1/4, section	2010
USGS Quadrangle Rifle, Colorado	
, 7.5 min.	
UTM 13 ; 257360 m E, 4388120 m N	
LANDOWNER Bureau of Land Management	
CESS NE on foot from unmapped road in Sec. 16	
75S R93W	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u> Formation	Wasatch
MemberUnit	
Stratigraphic position5 meters above dipping sandstone exposed up the main	slope to north
Sediment description gray-yellow-brown variegated mudstone overlying purple	-yellow-gray-
white variegated mudstone	
Depositional environment fluvial (overbank)	
Fossils sampled Coryphodon teeth and fragments, jaw (Coryphodon) fragment	
Fossils none none	fragment s
edientific significance and disposition of material 2	
-403-	

LOCALITY NUMBER: ET 19-3	200~	1 30
MAME:	7.2	16
PREVIOUS NUMBER(S): TRL-34 (Field #)	10000	
LOCATION:	13030	3
State: Colorado County: Ga	rfield	함. 건 19-1
Township: 5S Range: 93W		1
SW 1/4 SW 1/4 SW 1/4, section 15		The second
1/41/41/4, section		15/30
USGS Quadrangle Rifle, Colorado		
, 7.5	min.	
UTM 13 ; 257650 m E, 4388000	m N	
LANDOWNER Bureau of Land Management	tour minimum de	
ACCESS NE on foot from unmapped road in Sec.	15	
T5S R93W		
DESCRIPTION		
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Wasat	ch
Member Unit		
Stratigraphic		
position overlies yellow-purple-brown vari floor of the draw	egated mudstone which slope	s to the
Sediment		
description light-brown mudstone		
description light-brown mudstone		
Depositional environment fluvial (overbank)		
Depositional environment fluvial (overbank)		
Depositional environment fluvial (overbank) Fossils sampled Coryphodon tooth fragments, bone scra	p and two jaw fragments wit	h teeth
Depositional environment fluvial (overbank)	p and two jaw fragments wit	
Depositional environment fluvial (overbank) Fossils sampled Coryphodon tooth fragments, bone scra	p and two jaw fragments wit	h teeth

SITE FORM	1/20
LOCALITY NUMBER: ET 19-4	2
NAME:	- 35 82
PREVIOUS NUMBER(S): TRL-35 (Field #)	- 327 P.S.
LOCATION:	J. 18
State: Colorado County: Garfield	(13-4
Township: 5S Range: 93W	6000
NW 1/4 NE 1/4 NW 1/4, section 22	13/13/5
1/41/41/4, section	Se Market
USGS Quadrangle Rifle, Colorado	
, 7.5 min.	
UTII 13 ; 257980 m E, 4387780 m N	
LANDOWNER Bureau of Land Management	
ACCESS NE on foot from unmapped road in Sec. 22	
T5S R93W	
DESCRIPTION	
Era Cenozoic System Tostion.	4
Era Cenozoic System Tertiary Form Member Unit	ation Wasatch
Stratigraphic	
position 2 meters above east-running arroyo; 4 meters b	elow sandstone ledge
Sediment	
description light brown mudstone	
Depositional	
environment fluvial (overbank)	
Fossils sampled one jaw fragment with lower second and third molar:	
Fossils remaining none	
Scientific significance and disposition of material 3	
-405-	

TOCALITY NUMBER:	ET 19-5	The second part of the second	1055
NAME:			9 -0010
PREVIOUS NUMBER ((S): EBO 18 (Field #)	and the same of th	13300
LOCATION:			1 50
State: Color	edo County:	Garfield	1 3%
Township: 5S	Range:	93W	7
NW 1/4 NW	1/4 NW 1/4, section	16	3/
1/4	1/4 1/4, section _		31-
USGS Quadrangle	Rifle, Colorado		
	, 7.5	min.	
UTM_13	; 256000 m E, 4389	300 m N	
LANDOWNER Bure	au of Land Management		
ACCESS NE on f	oot from unmapped road in	Sec. 16	
DESCRIPTION			
Era Cenozoi	c System Ter	tiary Fo	rmation Wasatch
	Unit		
Stratigraphic	ddle-high in local section		
Sediment description <u>cro</u>	ss-bedded conglomeratic s	andstone - within	sequence of red-white-
purple-tan sand	y clays	•	
Depositional environment flu	uvial		
Fossils sampled <u>turtle</u>	scrap, wood fragments		
Fossils remaining none			
Scientific significand disposition of material	of		
		106	

LUCALITY NUMBER: ET 19-6		90	. 9
NAME:		19-5	1
PREVJOUS NUMBER(S): EBO 19 (Field #)		1946	13/
LOCATION:		3 /	25
State: Colorado County: Garfield		17:3	1
Township: 5S Range: 93W		1650	M. W.
SE 1/4 NW 1/4 NW 1/4, section 16			Cha !
1/41/41/4, section		1/4	23
USGS Quadrangle _Rifle, Colorado			
, 7.5 min.			
UTM_13 ; 256080 m E, 4389260 m N			
LANDOWNER Bureau of Land Management			
CESS NE on foot from unmapped road in Sec. 16			
T5S R93W			
DESCRIPTION			
Era Cenozoic System Tertiary	Formati		
Member Unit	roimation	Wasatch	-
Stratigraphic position mid-section locally			
Sediment description <u>thin, pebbly sand</u> lens within white and pi	nk sandy cl	ays	
Depusitional environment fluvial			
ossils ampled _turtle, Coryphodon limb and jaw fragments and	byracoth	(2)	-
ossils	.gracotner	r (:) Jaw fra	gment
entific significance nd disposition of aterial 1			

-407-

LOCALITY NUMBER: ET 19-7	- 13
NAME:	S. S. Salar
PREVIOUS NUMBER(S): EBO 20 (Field #)	
LOCATION:	The coop !
State: Colorado County: Garfield	This wife
Township: 5S Range: 92W	
SE 1/4 NW 1/4 SE 1/4, section 16	1 18205
1/41/41/4, section	
USGS Quadrangle Rifle, Colorado	
, 7.5 min.	
UTM 13 ; 256940 m E, 4388350 m N	
LANDOWNER Bureau of Land Management	
ACCESS NE on foot from unmapped road in Sec. 16	
T5S R93W	
DESCRIPTION	
Era Cenozoic System Tertiary Format	ion Wasatch
Member Unit	
Stratigraphic position mid-section locally	1,31
Sediment description sandstone conglomerate lens within mid-section se	t of 3 white-pink/
maroon-tan sandy clays overlain by tan sandstones	
Depositional environment fluvial	
Fossils sampled Coryphodon bones, teeth (fragmented)	
Fossils remaining same	
Scientific significance and disposition of material 2	

SITE-FORM

LOCALITY NUMBER: ET 19-8	3	
		-
PREVIOUS NUMBER(S): _EBO		
LOCATION:	And the second s	35 July 30
State: Colorado	County: Garfield	The state of the s
Township: 5S	Range: 93N	
SE 1/4 NE 1/4 SE		- 1002 m
1/41/4) P. Adrá.,
USGS Quadrangle _Rifle, C		
	.5 min.	
UTM 13 ; 25730		
LANDOWNER Bureau of Land	Management	
ACCESS NE on foot from u	nmapped road in Sec. 16	
T5S R93W		
DESCRIPTION		
Era Cenozoic	System Tertiary	Formation Wasatch
	Unit	
Stratigraphic	ion locally	
Sediment description about 10 feet	below massive sandstone layer	- within gray-tan sandy clay
Depositional environment fluvial		
Fossils sampled large marimal bone	e fragments	
Fossils remaining same		
Scientific significance and disposition of material 3		
	-409-	

LUCALITY NUMBER:	ET 19-9	5-1
NAME:		1800
PREVIOUS NUMBER ((S): GWS-ET-X (Field #)	19:5° N
LOCATION:		12 2 18 19 16
State: Color	rado County: Garfield	53 1
Township: 58	Range: 93W	- 1
	1/4 NW 1/4, section 16	The state of the s
1/4	1/41/4, section	
USG S Quadrangle	Rifle, Colorado	
	, 7.5 min.	
UTH_13	; 255960 m E, 4389260 m N	
LANDOWNER Bure	au of Land Management	

ACCESS NE on f	oot from unmapped road in Sec. 16	
T5S R93V		
DESCRIPTION		
Era Cenozoi	c System Tertiary - F	ormation Wasatch
Member	Unit	
Stratigraphic position ba	se of hill	
Sediment		
description pur	ple, silty mudstone	
Depositional environment fl	uvial	
Fossils sampled <u>Coryph</u>	odon bone scrap and tooth enamel	
Fossils remaining same		
Scientific signi and disposition material	of	
mu sel Iul	410	

10CALITY NUMBER: ET 20-1	11 - 2 848 5
Die:	
PREVIOUS NUMBER(S): Jum 8253 (Field #)	\$ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\
LOCATION:	
State: Colorado County: Garfield	و المراجع الم
Township: 7S Range: 97W	
NE 1/4 SW 1/4 NW 1/4, section 8	
1/41/41/4, section	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
USGS Quadrangle Red Pinnacle, Colorado	
, 7.5 min.	
UTИ 12 ; 736460 m E, 4371500 m N	
LANDOWNER Bureau of Land Management	
ESS W on foot from road up Conn Creek	
DESCRIPTION	
Era Cenozoic System Tertiary	Formation Green River
Member Anvil Points Unit	
Stratigraphic position about 20 feet above Wasatch Formation	
Sediment	
description <u>lighy-gray</u> fissile shale	
	-
Depositional environment _lacustrine	
Fossils sampled insert scrap, eggs (?) and wing	
Fossils	
entific significance and disposition of	
material 3	

		42215
	SITE FORM	
LOCALITY NUMBER: EI	20-2	- 3 / 7 / 7
		1998 米沙里
PREVIOUS NUMBER(S):	JUM 8254 (Field #)	186
LOCATION:		
State: Colorado	County: Garfield	
Township: 7S	Range: 97W	
	NN 1/4, section 17	17 17
1/41/4	1/4, section	JAX SEE
	Pinnacle, Colorado	
	_, _7.5 min.	
UTM_12;	736820 m E, 4370440 m N	
LANDOUNER Bureau of	Land Management	
ACCESS W on foot f	rom road up Conn Creek	
DESCRIPTION		1 ×
Era <u>Cenozoic</u>	System Tertiary F	ormation Green River
	eek Unit	
Stratigraphic	U feet above Anvil Points Member of	
Sediment description fissile,	light-gray paper shale	
Depositional environment lacustr	ine	
Fossils sampledinsect frage	ments and a fish tooth	
Fossils remaining insect fra	agments	
Scientific significant and disposition of material 3	ce	
	410	

	SITE FORM		GENET MARK
OCALITY NUMBER: ET			
NAME:			
PREVIOUS NUMBER(S):	MCH 21-1 (Field #)	- 1	
LOCATION:	the state of the s	ì, ≅	Fig. Mark
State: Colorado	County: Garfi	eld S	E 6 7 2
	Range: 964	-	B ME.
	SE 1/4, section _29		
	1/4, section		1. E. / 5
	innacle, Colorado		
	7.5 min		
	7540 m E, 4365660 m 1		
	and Management		
		-	
CCESS N on foot from	new interstate road in Sec.	-	
32 T7S R96W	The state of the s	<u>.</u>	
DESCRIPTION		-	
Era Cenozoic	System Tertiary	Formation	Wasatch
	Unit		wasatti
Stratigraphic	onic	7 1 - 1	
	meters below Parachute Cree	ek Member of Gr	een River Formation
Sediment description gray fine.	-grained sandstone that weat		
3743, 11110	-grained sandstone that weat	ners rea	
Depositional environment fluvial (channel)		
Fossils sampled <u>fragment of cr</u>	ocodilian tooth	× × .	
Fossils maining <u>shark teeth</u>	and crocodilian teeth		
Scientific significance and disposition of material 2			
	-413-		

	STIL FORM		1632	1.17
LOCALITY NUMBER:	ET 21-2		125 -	21-25-1
			152	La proj
	S): GWS-ET-Z (Field #)		47	Stan 1
LOCATION:			. }	**
State: Color	ado County:	Sarfield		15- 1
Township: 7S	Range: 96W		-6-7-	
NE 1/4 NW	1/4 NW 1/4, section 32			-//
1/4	1/4 1/4, section			
USGS Quadrangle	Red Pinnacle, Colorado			
	, 7.5			
	; 746520 m E, 4364820			
LANDOWNER Bure	au of Land Management			
	The second secon	The second second		
ACCESS NW on f	oot from road in Sec. 32 T7S F	1961/		
	i.			
DESCRIPTION	The second secon			
Era Cenozoi	c System Tertiary	Form	nation Was	atch
	Unit			
Stratigraphic	out 20 feet below Anvil Points		en River Form	nation
Sediment description <u>red</u>	siltstone			
Depositional environment fl	uvial			
Fossils sampled high s	nired gastropods and trail cas	ts		
Fossils remaining more	of same and turtle scrap	,		
Scientific signiand disposition material	of			
	-414			

LOCALITY NUMBER: ET 22-1	and the same of th	2 35.7
NAME:		75/3/2
FREVIOUS NUMBER(S): JMW 1		D_1 1
10CATION:		
State: Colorado	County: Garfield	
Township: 5S	Range: 93W	1100
SE 1/4 SE 1/4 SE	1/4, section <u>26</u>	
1/4 1/4	1/4, section	- 7,22-0 1 1
USGS Quadrangle Rifle, Co	obenofo	
, 7	.5 min.	
UTM 13 ; 260560	D m E, 4384420 m N	
LANDOWNER Bureau of Land	Management	
DESCRIPTION		
	System Tertiary	
Member	Unit	
Stratigraphic position half-way down	n slope	
Sediment description light brown to	o yellow mudstone	
Depositional environment fluvial		
Fossils sampled turtle shell fra	gment	
Fossils remaining same		
Scientific significance and disposition of material 4		
	-415-	

LOCALITY NUMBER: ET 22-2	
NAME:	3 57
PREVIOUS NUMBER(S): -JUM 8255 (Field #) LOCATION:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
State: Colorado County:	Garfield
Township: 6S Range:	93W 93W
SE 1/4 NW 1/4 NW 1/4, section 5	The Mark Inc.
1/4 1/4 1/4, section	
USGS Quadrangle Rifle, Colorado	
, 7.5	min.
UTM 13 ; 259160 m E, 43824	20 m N
LANDOWNER Bureau of Land Management	
ACCESS _NE on foot from road up Hubbard G	ulch
DESCRIPTION	
Era Cenozoic System Tert	iary Formation Wasatch
Member Unit	
Stratigraphic position about 70 feet below mesa top	
Sediment . description float (probably derived from	variegated red and gray mudstone)
Depositional environment fluvial	
Fossils Sampled crocodilian tooth, turtle bone,	other bone fragments
Fossils remaining none	
Scientific significance and disposition of material 4	
	-416-

NEGT 3112

LOCALITY NUMBER: ET	22-3	
NAME:		The same
PREVIOUS NUMBER(S):	TER 82-18 (Field #)	300
LOCATION:		30 11/1/
State: Colorado	County: Garfield	Gulch
Township: 6S	Range: 93W	[D] [
	NW 1/4, section 5	2m
1/41/4	1/4, section	89.7
	le, Colorado	
	, 7.5 min.	
UTM 13 ; 2	259140 m E, 4382060 m N	
LANDOWNER Bureau of	Land Management	
		1
ACCESS NE on foot fr	rom road up Hubbard Gulch	
DESCRIPTION		
Era Cenozòic	System Tertiary Fo	rmation _ Wasatch
	Unit	
Stratigraphic .	utcrop (base of draw)	
Sediment.	uterop (base of draw)	
	float in variegated purple and brown	mudstone with a 1-foot-
thick burrowed (biotu	rhated) brown sandstone bench	
Depositional environment fluvial		
Fossils sampled gar scale	- ""	
Fossils remaining none		
Scientific significance and disposition of material 4	е	
	437	

	CALITY NUMBER:	ET 22-4		- 34000
NA	ME:			
		S): -JUM 8255 (Field #)	The same of the sa	77286
LO	CATION:			5-22-4
St	ate: Color	ado County:	Garfield	
To	wnship: 5\$	Range:	93W	4-
S	E 1/4 SW	1/4 NE 1/4, section 3	35	Les
	1/4	1/4 1/4, section	-	
US	GS Quadrangle	Rifle, Colorado		
		, 7.5	min.	
UT	M_13	; 260200 m E, 4383	540 m N	
LA	NDOWNER Bure	eau of Land Management	AND THE RESERVE OF THE PARTY OF	
AC	CCESS SE on f	foot from road in sec. 26	T5S R93W	
		,		
	SCRIPTION			
Εr	ra <u>Cenozoi</u>	ic System <u>Ter</u>	tiary	Formation Wasatch
Me	ember	Unit		
St	tratigraphic osition 15	5 feet below mesa top		
٠.	dimont.	oat (probably derived from		roon and gray mudstone
	peneath sandsto	one capping mesa)		
De e i	epositional nvironment <u>f</u>	luvial		-
	ossils ampled <u>Cory</u> p	hodon tooth fragments		
	ossils emaining <u>non</u>	е		
а	cientific sign nd disposition aterial	of		
101			-418-	

	SITE FORM	1 11 11 1
LOCALITY NUMBER: ET Z2-	-5	
NAME:		
FREVIOUS NUMBER(S): TRL	-41 (Field #)	
LOCATION:		33 May 32
State: Colorado	County: Garfield	The state of the s
Township: 5S		人员
* .	1/4, section 34	Sept.
1/4 1/4	1/4, section	
USGS Quadrangle Rifle,		
, ,	7.5 min.	
	60 m E, 4382920 m N	
	d Management	
ACCESS NE on foot from	road up Hubbard Gulch	
	our op noodard daren	
DESCRIPTION	Mariento de principa de Constantina de Carlos	
Fra Cenozoic	System Tertiary	Formation Waretak
	Unit	
Stratigraphic	Unit	
position 2 meters ber	neath .5-meter-thick sandsto	ne ledge
Sediment		
description yellow and br	rown variegated mudstone	
Depositional environment fluvial		
Fossil s sampled <u>gar scales</u> , a bi	valve, wood	
Fossils remaining _more of same		
Scientific significance and disposition of material 3		
	-419-	

' SILE FORM

LOCALITY WURSER	: ET 22-6	- V - V - SV	-J:
		11.7	111
	(S): TRL-40 (Field #)		-
LOCATION:			12:16
State: Colo	rado County:	Garfield o	:22
Township: 5S	Range: 93	3W 3 3 3 40 5	tree from
SE 1/4 SW	1/4 NE 1/4, section 35	The state of the s	
1/4	1/41/4, section		
USGS Quadrangle	Rifle, Colorado	Marie Control of the	
	, 7.5	min.	
UTM_13	; 260080 m E, 4383700) m N	
LANDOWNER Bur	eau of Land Management		
	,		
DESCRIPTION Era Cenozo	ic System Tertia	ary Formation Wasatch	
	Unit		
Stratigraphic			
positional	bout 120 feet below cap sands	tone	
Sediment description pur	rple and gray silty mudstone		
Depositional environment fl	luvial		
Fossils sampled turtle	scrap, Coryphodon premolar	and canine	
Fossils remaining <u>turt</u>	tle bone fragments		
Scientific signi and disposition			
material			

LOCALITY NUMBER: _ET 22	7	3" 11
PREVIOUS NUMBER(S): SL	9 (Field #)	100
LOCATION:		
State:Colorado	County: Garfie	10 2296
	Range: 931/	300
NE 1/4 NW 1/4 SE	1/4, section 26	
	1/4, section	W X X 2 1
	Colorado	
	7.5 min.	
	40 in E, 4385000 in N	
LANDOWNER Bureau of Lan	d Management .	
ACCESS SE on foot from	road in Sec. 26 T5S R93W	
DESCRIPTION		
Era Cenozoic	System Tertiary	Formation Wasatch
Member	Unit	
Stratigraphic		
Sediment	of slope of red-purple mott	led mudstone
description red mudstone		
Depositional environment fluvial		
Fossils sampled Hyracotherium jav	d fragment	
Fossils remaining bone fragments		
Scientific significance and disposition of material 3		

-421-

JIE FURM

8 2 2 11 11 11 11 11	
LOCALITY NUMBER: ET 23-1	V.
NAME:	W.
PREVIOUS NUMBER(S): JMW 28 (Field #)	
LOCATION:	N. N.
State: Colorado County: Rio Blanco	
Township: 4S Range: 94W	
NE 1/4 NW 1/4 SE 1/4, section 6	
1/4 1/4, section	
USGS Quadrangle Rio Blanco, Colorado	
, 7.5 min.	
UTin 13 ; 244580 m E, 4401880 m N	
LANDOWNER Bureau of Land Management	
ACCESS on road-cut of Piceance Creek Road	
DESCRIPTION	
Era Cenozoic System Tertiary Formation Green River	_
Member Parachute Creek Unit	_
Stratigraphic position helow mahogany bench	
Sediment	
description greenish-gray shale	
Depositional environment lacustrine	
Fossils sampled fossil leaves	_
Fossils remaining leaves	_
Scientific significance	
and disposition of material 3	
-422-	

LOCALITY NUMBER: ET 23-2	or secund to 1
NAME:	
PREVIOUS NUMBER(S): JMW 27 (Field #)	
LOCATION:	
State: Colorado County: Rio Blanco	ر المهالية
Township: 35 Range: 95W	
SE 1/4 SW 1/4 NW 1/4, section 36	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
1/41/41/4, section	
USGS Quadrangle McCarthy Gulch, Colorado	
, 7.5 min.	
UTM 12 ; 756240 m E, 4403840 m N	
LANDOWNER Bureau of Land Management	
ACCESS _on road-cut of Piceance Creek Road	
DESCRIPTION	
Era <u>Cenozoic</u> System Tertiary F	ormation Green River
Member Parachute Creek Unit	
Stratigraphic position upper part of Parachute Creek Member	
Sediment	
description gray shale	
Depositional environment lacustrine	
Fossils sampled fossil leaves	
Fossils remaining leaves	
Scientific significance and disposition of material 5	

SITE CALL

			STEVEN MILLS IN
LOCALITY RUSSER: ET 23-			1111
NAME:			表别说 。
PREVIOUS NUMBER(S): GWS	ET AA (Field #)		
LOCATION:			33
State: Colorado	County: Rio	Blanco	
Township: 4S	Range: 94W		No Salar
NW 1/4 NE 1/4 SE	1/4, section 6		
1/41/4	1/4, section		SITT URIVEDAN
USGS Quadrangle Rio Blan	co, Colorado		
	.5 m	in.	
UTM 13 ; 24484	O m E, 4401866	m N	
LAND.) WNER Bureau of Land	Management		
ACCESS on road-cut of Pi	ceance Creek Road		
DESCRIPTION			
Era Cenozoic	System Tortiary	Formation	Green Diver
Member Parachute Creek			dieen kiver
Stratigraphic Stratigraphic	Olive Manog	any sencii	
position lower few fe	et of Mahogany Rench		
Sediment			
description gray and calc	areous paper shale		
Depositional environment lacustrine			
Fossils sampled adult insects			
Fossils remaining same	44.		
Scientific significance and disposition of material 2			
	-424-		

LOCALITY NUMBER: LT 23-4		
NAME.		
PREVIOUS NUMBER(S): TRL-42 (Fi	eld #)	
LOCATION:		
State: Colorado	County: Rio Blanco	
Township: 4S	Range: 94W	Na Salara
NE 1/4 NE 1/4 SE 1/4,		
1/4 1/4 1/4,	section	
USGS Quadrangle Rio Blanco, Co	lorado	
, 7.5	min.	
UTM 13 ; 244960 m	E, 4401800 m N	
LANDOWNER Bureau of Land Manag	enent	
ACCESS on road-cut of Piceance	Creek Road	
DESCRIPTION		
Era <u>Cenozoic</u> System	n <u>Tertiary</u> F	ormation <u>Green River</u>
Member Parachute Creek	Unit	
Stratigraphic positionabout 10 feet above	e road	
Sediment		-
description gray-weathered and w	well-bedded shale	
Depositional environment lacustrine		
Fossils sampled 3 adult insects		
Fossils remaining none?		
Scientific significance and disposition of		
material 2	_125_	

STIE INTH

LOCALITY NUMBER: ET 23-5		
NAME:		The Contract of the Contract o
PREVIOUS NUMBER(S): EBO 22	(Field #)	25 23-4
LOCATION:		
State: Colorado	County: Rio Blanco	
Township: 4S	Range: 94W	
NE 1/4 NE 1/4 SE 1/	/4, section 6	
1/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/41/4	/4, section	.g. ///////////////////////////////////
USGS Quadrangle Rio Blanco.	, Colorado	
, 7.5	min.	
UTH 13 ; 244940	m E, 4401880 m N	
LANDOWNER Bureau of Land Ma	anagement .	
ACCESS on road-cut of Picea	ance Creek Road	
DESCRIPTION		
Era Cenozoic Sy	ystem Tertiary	Formation Green River
Member Parachute Creek	Unit	
Stratigraphic position within mahogany	/ 7000	
Sediment Sediment	ZONC	
description gray-tan shales		
Depositional environment lacustrine		
Fossils sampled winged insects (mos	squito-like) and spider	
Fossils remaining same		
Scientific significance and disposition of		
material 2	406	
	-426-	

SITE	ruen Africa >
LOCALITY NUMBER: FF 23-6	
MAME:	
PREVIOUS NUMBER(S): JUM 8257 (Fiel	1 #)
LOCATION:	沙洲流线。
State: Colorado Cou	nty: Rio Blanco
Township: 4S Ran	ge: 95V
NE 1/4 NW 1/4 NE 1/4, sect	ion 12
1/4 1/4 1/4, sect	ton
USGS Quadrangle McCarthy Gulch, Co	lorado
, 7.5	min.
UTM 12 · ; 756920 in E,	4401200 m N
LANDOUNER Bureau of Land Managemen	t
ACCESS on road-cut of Piceance Cree	ek Road
DESCRIPTION	
Era Cenozoic System	Tertiary Formation Green River
Member Parachute Creek	Jnit
Stratigraphic position upper part of Parachute	2 Creek Member
Sediment description light gray shale	
Activated for use a substitute of the substitute	
Depositional environment lacustrine	
Fossils sampled ferns, dicot leaves, Equisor	etun
Fossils remaining more of same	
Scientific significance and disposition of material 5	
	-427-

LOCALITY NUMBER: ET 24-1	
NAME:	18/2/10/20
PREVIOUS NUMBER(S): TRL-43 (Field #)	
LOCATION:	VIJ T
State: Colorado County: Rio Blanco	
Township: 1N Range: 101W	
SW 1/4 SW 1/4 SW 1/4, section 8	TAN CASE
1/4 1/4 1/4, section	the same of the same same state and the same same same same same same same sam
USGS Quadrangle Rangely, Colorado	
, 7.5 min.	
UTM 12 ; 691100 m E, 4437000 m N	
LANDOWNER Bureau of Land Management	
ACCESS _E on foot from highway 139	
DESCRIPTION	
Era Mesozoic System Cretaceous Fo	ormation Iles
Member Unit	
Stratigraphic	
positionthird major sandstone ledge below top of Ile	s Formation
Sediment description pebble-clay-plant conglomerate that has a fir	no to modium orained
sandstone matrix and some bone	ie- co meatom-grained
Depositional environment fluvio-deltaic	
Fossils sampled wood fragments, bone fragments and one gar scale	2
Fossils remaining more of same	
Scientific significance	
and disposition of material 4	1
-428-	

LOCALITY NUMBER: ET 24-2			-
NAME:	1		1 25 6 10 24
PREVIOUS NUMBER(S): EBO			
LOCATION:			VIN TON
State: Colorado	County: F	io Blanco	
Township: 1N			S 5 5 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
NW 1/4 SW 1/4 SW			
1/4 1/4			
USGS Quadrangle Rangely,			
Colorado , 7			
UTM 12 : 69110			
LANDOWNER Rureau of Land	Management		
ACCESS E on foot from h			
DESCRIPTION Era Mesozoic	Contace Contace	oue For	mation Iles
Era Mesozoic Member	System		
Member	Unit		
Stratigraphic position at least 12	O feet above white	ego Sandstone	- within third series o
orange sand	Stolles over 13 mg ch	., 5	
Sediment description base of tan-	orange sandstone wit	hin a 6-inch-t	hick concretionary
zone at base			
Depositional environment fluvio-delt	aic		
Fossils sampled poorly preserve	ed large bones (dino	saur?), some si	naller bone
Fossils remaining other bone, w			
Scientific significance and disposition of			
material 2		129-	

LOCALITY NUMBER:	ET 25-1
NAME:	
PREVIOUS NUMBER(S): SL 11 (Field #)
LOCATION:	RURE!
State: Color	ado County: Garfield once
Township: 7S SE,	Range: 98W
	1/4 SW 1/4, section 11
NE 1/4 SW	1/4 SW 1/4, section 11
USGS Quadrangle	Long Point, Colorado
UTM_12	; 732000 m E, 4371000 m N
LANDOWNER Bure	au of Land Management
ACCESS NE on f	oot from road up Roan Creek
DESCRIPTION	
Era <u>Cenozoi</u>	System Tertiary Formation Wasatch
Member <u>middle</u>	Unit
Stratigraphic	
position <u>lo</u>	wer part of middle member
Sediment description gre	en to brown sandy siltstone and silty marlstone
Depositional	A SECURITION OF THE SECURITION
environment la	custrine
Fossils sampled bird l	ong bone and eggshell fragments
Fossils remaining more	of same
Scientific signi	
and disposition material	
Andrew Control	-430-

LOCALITY NUMBER: ET 26-1	
NAME:	
PREVIOUS NUMBER(S): TER-82-14 (Field #)	
LOCATION:	26-0
State: Colorado County: Garfield	
Township: 5S Range: 93W	26-1
NE 1/4 SW 1/4 SW 1/4, section 28	
1/4 1/4 1/4, section	
USGS Quadrangle Rifle, Colorado	19
, 7.5min.	
UTM 13 ; 256010 m E, 4384980 m N	
LANDOWNER Bureau of Land Management	
ACCESS S on foot from JQS trail	
DESCRIPTION	
Era <u>Cenozoic</u> System <u>Tertiary</u>	Formation Wasatch
Member Unit	A.
Stratigraphic	
position upper part of Wasatch	
Sediment description sandstone bench	
Depositional environment fluvial	
Fossils sampled tooth fragment (hypoconulid); gar scales and	i bone fragments
Fossils remaining bone fragments	
Scientific significance	
and disposition of material 3	
-431-	

	SITE FORM	
LOCALITY NUMBER: ET 26-2		
NAME:		
PREVIOUS NUMBER(S): JUM 8	256 (Field #)	26-2
LOCATION:	,	
State:Colorado	County: Garfield	26-1
Township: 5S	Range: 93W	
NE 1/4 SW 1/4 SW	1/4, section 28	
1/4 1/4		WEST WEST
USGS Quadrangle Rifle, Co		
, 7.		
UTM 13 ; 256000		
LANDOWNER Bureau of Land		
ACCESS S on foot from JQS	trail	
<u> </u>		
DESCRIPTION	1	
	System Tertiary	Formation Wasatch
Member		TOT MECTON WESSELL
Stratigraphic	0111	
position about 40 feet	above road	
Sediment		
description <u>variegated red</u>	and white siltstone	
Depositional environment fluvial		
Fossils sampled hyracothere premo	lar, bone fragments and gar	scale
Fossils remaining none		
Scientific significance and disposition of material 3		
	-432-	

APPENDIX E

Advertisement in <u>Society of Vertebrate Paleontology</u> News <u>Bulletin</u> (number 124, February 1982, page 27) by James Mellett and <u>Spencer Lucas</u> requesting information on fossil vertebrates in the Piceance Creek Basin

(facsimile of original advertisement)

Jim Mellet, currently enjoying his sabbatical leave from NYU, delivered a paper at the II Symposium on Mesozoic Terrestrial Ecosystems in Jadwisin, Poland, and spent some time looking at Cretaceous mammals at the Paleozoological Institute in Warsaw. He also lectured (auf Neutsch!) at Martin-Luther University in Halle and saw Bernard Krebs' spectacular Portugese Jurassic mammal collection at the Free University in Berlin. This summer he will be doing a paleontological resource inventory for the BLM in the Book Cliffs and Grand Hogback areas in Colorado. He, Spencer Lucas, and Allen Kihm would appreciate hearing from anyone with information on vertebrate fossil localities in these areas.